Tourism and recreation industries in the Baltic Sea area - How are they affected by the marine environmental state?

An interview study

12 August 2008

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Preface

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Summary

The tourism and recreation industries in the Baltic Sea area are likely to be dependent of the state of the marine environment. This report presents the results from an interview study conducted in the spring of 2008 with 87 representatives from different parts of these industries (mainly beach tourism, recreational fishing, boating, cruises and real estate agents) in all the Baltic Sea countries. The study constitutes subproject 8 in *Economic Marine Information*, a Swedish government assignment for the Swedish Environmental Protection Agency. The main objective has been to obtain industry experts' views on (1) if, and in that case, how the specific industry has been affected (or not affected) by marine environmental problems or improvements during the last three decades, and (2) how sensitive the specific industry is to potential changes in the marine environment in the future.

The interview study has been carried out in collaboration with partners based in each of the nine Baltic Sea countries. Each partner has written a country report about the interviews. The most important results in these country reports have been collected into a short synthesis text, which also includes some general conclusions. This report contains this text, followed by the country reports as annexes.

This is not a survey study in terms of the method for selecting interviewees. However, all interviews rely on the same basic questionnaire, a fact which allows for different comparisons and conclusions.

One main conclusion from the interviews is that according to the interviewees, the tourism industries in the Baltic Sea countries are more or less unaffected by current marine environmental problems. The most important nuisance seems to be blue green algae blooms, an effect of eutrophication which reduces aesthetic and recreational values in beach and coastal areas across the Baltic Sea area. However, these algae blooms have not had any significant impact on bookings or profits in the industries so far. There are though strong indications, not least from Sweden, Finland and Denmark, that an increased frequency or duration of these blooms might cause very serious harm to the tourism industries, especially in the beach tourism sectors. In general, these three countries together with Germany show a higher dependence on the environmental state than Estonia, Latvia, Lithuania, Poland and Russia, and the industry sectors most sensitive to different environmental issues seem to be beach tourism and recreational fishing.

Three main explanations have been brought forward in the country reports to why the interviewees have responded that the environment is so far not a key factor for the businesses.

(1) That the interviewees are uninformed about the causes and consequences of, for example, eutrophication. According to some interviewees, algae blooms are seen as a "natural" phenomenon, and are not viewed as an environmental problem.

- (2) That there is significant under capacity in the industry, which means that the demand is larger than the supply. This has the consequence that even if some people choose to go somewhere else for their vacation, the bookings are still full. This might mean that the consumers, not the producers, are the ones who bear the burden of environmental problems.
- (3) That the Baltic Sea environment is enough "ok" to not affect vacation choices to any large degree.

No matter which of the reasons is true, the results from the interviews are important for policy making in the future, not the least to get a feeling for what the public opinion in different countries might look like.

Except from the eutrophication issue, increased oil spill accidents make up a frightening scenario according to the responses. A major oil spill accident seems to be a complete disaster to tourism in the affected area.

Regarding recreational fishery, the voices are raised uniformly that there has been a dramatic decrease in the cod stock in the Baltic Sea, and that the industrial trawl-fisheries are mainly responsible for this. There have been many suggestions in the interviews to stop trawling for cod, since there are massive existence values in not extinguishing the stocks, and also since the economic value of having recreational fishermen catching cod instead of industrial fishery would be much greater. And also, quick actions would allow for more industrial cod fishery later on, which would be a gain to society.

Another fish-related issue is small scale coastal commercial fishery. Many of the interviewees argue that activity in old fishery villages is crucial to tourism in the areas, and the ecological impact of this kind of fishery compared to, for example, trawling is negligible.

1. Introduction

The tourism and recreation industries in the Baltic Sea area are likely to be dependent of the state of the marine environment. This report presents the results from an interview study conducted in the spring of 2008 with representatives from different parts of these industries in all the Baltic Sea countries. The study constitutes subproject 8 in *Economic Marine Information*, a Swedish government assignment for the Swedish Environmental Protection Agency. The main objective has been to obtain industry experts' views on how their specific industries are affected or not affected by different past, present and/or future environmental problems, such as algae blooms, oil spill accidents, hazardous substances, litter and marine debris, climate change and so on.

The interview study has been carried out in collaboration with partners based in each of the nine Baltic Sea countries. Each partner has written a country report about the interviews. The most important results in these country reports have been collected into a short synthesis text, which also includes some general conclusions. This report contains this text, followed by the country reports as annexes.

The study team consisted of the following partners:

Denmark: National Environmental Research Institute, University of Aarhus

Estonia: Stockholm Environment Institute Tallinn Centre / Estonian Institute of Sustainable Development

Finland: Finnish Forest Research Institute / MTT Agrifood Research Finland

Germany: DUENE, Institute for Sustainable Development of Landscapes of the Earth e.V.

Latvia: Baltic International Centre for Economic Policy Studies

Lithuania: Center for Environmental Policy

Poland: Warsaw Ecological Economics Center, Warsaw University Russia: Centre for Economic and Financial Research at New Economic School

Sweden: Enveco Environmental Economics Consultancy Ltd (also coordinator of the study).

In total, 87 interviews were performed in April, May and June 2008. They were telephone interviews in a few cases; otherwise they have been performed face-to-face. The interviewees were selected as to cover the following sectors of the tourism and recreation industries:

- Beach tourism including camping and rental of summer houses
- Recreational fishing
- Boating
- Cruises
- (and in some cases, also parts of the real estate market have been covered)

This is not a survey study in terms of the method for selecting interviewees. However, all interviews rely on the same basic questionnaire, a fact which allows for different comparisons and conclusions. Two main purposes of the questions have been to find out (1) if, and in that case, how the specific industry has been affected by marine environmental problems or improvements during the last three decades, and (2) how sensitive the specific industry is to potential changes in the marine environment in the future.

In table 1 below, the number of interviews conducted in each country and industry sector is presented.

Table 1. The number of interviews conducted in each country and industry sector.

	DK	EE	FL	DE	LV	LT	PL	RU	SE	TOTAL
Beach tourism	4	3	2	2	3	7	7	2	3	33
Recreational fishing	2	3	1	2	0	3	5	0	1	17
Boating	0	3	1	2	1	3	4	0	1	15
Cruises	1	1	1	1	0	0	2	4	0	10
Real estate	0	0	0	1	1	1	3	1	1	8
Outdoor activi- ty tourism	0	1	0	0	0	0	0	0	0	1
Rural/coastal tourism	0	1	0	0	0	0	0	0	0	1
Guided bird watching tours	0	0	1	0	0	0	0	0	0	1
Ecotourism	0	0	0	0	1	0	0	0	0	1
TOTAL	7	12	6	8	6	14	21	7	6	87

The outline of this report is as follows: in chapter 2, the basic questionnaire used for the interviews is presented. In chapter 3, the results from the interviews are summarized and in chapter 4, the main conclusions are drawn. The full interviews, question by question, are found for each Baltic Sea country in annexes I-IX.

2. The questionnaire

The following basic questionnaire was developed by the project team and was used for all interviews. In some cases, questions were removed and other questions were added in order to get an as interesting as possible discussion with the interviewees, based on their different experiences and backgrounds. However, in general the questionnaire below was used.

A. Introduction

This interview is a part of a project about the links between society and the marine environment of the Baltic Sea. It is funded by the Swedish Environmental Protection Agency.

What we refer to as "the Baltic Sea" is the salty and brackish waters of the Bothnian Bay, the Bothnian Sea, the Gulf of Finland, the Gulf of Riga, the Baltic Proper, the Danish Straits, the Kattegat and the Swedish coast of the Skagerrak.

The point of departure for the interview is the fact that the marine environment of the Baltic Sea is facing a number of problems, for example:

- Emissions of nutrients (nitrogen and phosphorus) causing eutrophication effects such as algal blooms and dead bottoms due to oxygen shortage [If necessary, the interviewer mentioned other eutrophication effects that are more relevant for his/her country.]
- Decline of the stocks of some important fish species such as cod.
- Oil spills from ships and other installations.
- Presence of hazardous substances such as [here the interviewer filled in with hazardous substances which might have an impact on the environment in the specific country or region. For example, in Sweden, TBT and PCB are common in discussions about hazardous substances and were used as examples in this introduction.]
- Litter.
- [The interviewer was free to also exemplify with other marine environmental problems which are specific to the country or region.]

The main purpose of the interview is to obtain information about your view on how XX [XX is the part of the tourist industry in/for which the interviewee is involved/has an overview] is affected, or is not affected, by these or other environmental problems.

B. Questions to be answered by all interviewees

- Q1a. What are your name, position and contact details?
- Q1b. How are you involved in XX?
- Q1c. How long have you been active in XX?
- Q2. How would you describe the purpose of your organization?
- Q3. How would you characterize the type of tourists in XX?
- Q4. In general, how has the activity in XX developed during the last 30 years?
- Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?
- Q6. Has XX been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]
- Q7a. By what problems was/is XX affected?
- Q7b. How was/is XX affected by these problems?
- Q7c. What is the trend during the last three decades for how XX is affected by these problems? More before and less now? Less before and more now? About the same?
- Q7d. Can you give any number for how XX is affected by these problems in the *last few years*?
- Q7e. Please rank the problems starting with the most severe one for XX in the *last few years.*
- Q7f. Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in XX due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?
- Q8a. Why has XX not been affected? [Q8 only if NO to Q6]
- Q8b. Was XX affected by any of these problems earlier than 30 years ago? If so, how?
- Q9a. Has XX been affected or not affected in the last 30 years by any marine environmental *improvements?*
- Q9b. If YES to Q9a, by which improvements? How was XX affected by these improvements?

Q10a. Which are the most important factors for the growth of XX? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Q10b. How do marine environmental factors rank in importance compared to other factors?

Q10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Q11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to XX?

Q12b. Does any of the following potential changes in the future matter for XX? If so, how large changes are required for them to affect XX? How would they affect XX?

- Climate change, resulting in a warmer climate in the Baltic Sea area.
- Reduced eutrophication effects such as [the interviewer gave examples that are relevant for his/her country].
- Increased eutrophication effects such as [the interviewer gave examples that are relevant for his/her country.]
- More oil spills due to heavier traffic on the seas.
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

C. Specific questions for countries and/or parts of the tourist industry

[Here the interviewers were free to pose any questions suitable for the interviewees, depending on the marine issues in the country and what part of the tourist industry the interviewee represented.]

3. Results

This section summarizes the results from the interviews. First, to give a background, the different sectors of the industries are described in terms of who are the customers and the general development in the last decades. This description is based on the responses in the interviews. This section is followed by a short summary of some of the most important findings, country by country and sector by sector, regarding how the tourism and recreation industries are affected or not affected by different aspects of the Baltic Sea marine environment and how sensitive they are to potential environmental changes in the future. The third subsection gives a short summary of the conclusions from each country report.

3.1 The industry sectors

As mentioned in the introduction, the interviewees were chosen as to cover the following sectors:

- Beach tourism including camping and rental of summer houses
- Recreational fishing
- Boating
- Cruises
- Real estate

Based on the responses to questions Q3 (*How would you characterize the type of tourists in XX*?) and Q4 (*In general, how has the activity in XX developed during the last 30 years*?), this section will briefly describe the most common characteristics of the industry sectors in the Baltic Sea countries. In general, there seem to be no major differences between the countries regarding these characteristics.

Beach tourism including camping and rental of summer houses

In beach tourism, the tourists represent a very diverse group. Most of the responses indicate, however, that the main share of the tourists is families with children from all socioeconomic groups. But the beach tourists are also represented by a wide range of other demographic groups. The unifying characteristic is that they all are looking for good weather and bathing. Most of the interviewees describe this market as being "domestic" because of the small share of foreign tourists.

The market faces a general increase in demand, which is not really yet met by a corresponding increase in supply. Thereby, the market is characterized by under capacity. On the supply side, however, a lot is happening in terms of the services offered. There is a development towards providing more comfort services and more

alternative activities. In many of the Baltic Sea countries, the industry has also recently gone through a structural change, from being publicly to privately managed.

Recreational fishing

The typical recreational or sport fisher is a middle aged man. This group also represents the main economic share of the market. However, the interviewees describe this market as having a very diverse clientele, since most people from children to the elderly engage in recreational fishing from time to time. Recently, there has been a development to more business around recreational fishing, with organized fishing trips and corporate customers. The market is expanding, and so are also the indirect markets, for example the markets providing fishing equipment.

Boating

A large share of the boat owners are middle class and up. The main reason to go boating is to be able to enjoy the nature and the environment. Boaters are also characterized by having a large degree of respect for environmental issues. During the recent decades, there has been a development to including also other socioeconomic groups; a consequence of general economic growth.

The industry faces a stable, slow expansion in line with the economic development, and there is a trend towards a more diverse boating industry, involving, for example, more canoeing and kayaking.

Cruises

This sector is diverse in terms of the users. All income groups are represented, but the market has a lot of sub segments; international vs. national, fancy vs. not fancy, etc. Also the reasons for cruising vary; some people go cruising to get somewhere, some to enjoy the boat trip, some to enjoy the sea or the archipelago nature. This last point is important to have in mind when discussing the sensitivity to environmental issues.

The cruising industry faces a stable development in general, but there is an increasing trend in the sector of larger ships and international cruises.

Real-estate

The typical buyer of a coastal property is wealthy. Many of the sales are for part time accommodation during vacations and weekends. Status seems to be the most important factor in the purchasing choice, but some people also want a seaside residence to be able to enjoy the nature.

The market is constantly growing and the Polish interviewees describe this as a boom.

3.2 Summary of the key findings, country by country and sector by sector

This section summarizes the responses to some of the key questions in the interviews, country by country and sector by sector. The focus points of the summary are (1) what the interviewees have said regarding how the industry is affected (or not affected) by marine environmental problems and (2) how sensitive the industry is to future potential changes in the marine environment. Regarding the second point, a *Low/Medium/High* scale has been introduced. This scale is based on (a) how many uncertainties there seem to be (more uncertainties gets the industry higher in the scale) and (b) the degree to which the industry is likely to be affected by these uncertainties. The reader should keep in mind that the tables below are the results of a subjective assessment. Another important thing to remember is that the results in the tables are not based on a large, random sample. They rather rely on a row of individual opinions from industry representatives. The full responses are available in the annexes.

Table 2. Denmark

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	General improvement in the environment, but more algae blooms cause negative effects. Visitors who encounter blue green algae might not come back. Today, the effects are mainly on a local scale.	High. (A major oil spill accident would be a "nightmare" to the industry and the whole of Denmark. More eutrophication can have serious consequences. Further decreased activity in fishery villages might be very harmful to tourism.)	Better sewage treatment and international cooperation against eutrophication are two important measures to take.
Recreational fishing	Decline in cod stock has affected recreational fishing negatively.	High. (A trawling stop would improve the possibilities for recreational fishing dramatically. Reduced eutrophication would have positive effects.)	Overfishing and trawling are blamed for the cod decrease.
Boating	N.A.	N.A.	N.A.
Cruises	Water has become cleaner, and this has been important for the development. Fish stocks have declined, which is negative, since some of the customers are fishing tourists.	Medium. (Eutrophication status important.)	Regarding oil spill, also violation of the regulations, not only accidents, is a problem.
Real estate	N.A.	N.A.	N.A.

Table 3. Estonia.

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Not affected. (There have not been any major environmental disasters.)	Medium. (Larger oil spill accidents or dramatic changes in eutrophication effects would influence the industry negatively.)	Litter control and a prepared- ness to oil spill accidents are important measures to take in the future.
Recreational fishing	Species have declined due to overfishing.	Unknown.	Legislation and administration are obstacles of the development today.
Boating	Not affected. (There are algae blooms, but you can always go somewhere else.)	Low. (Increased amounts of algae might affect the industry.)	Coastal real estate development is a problem for tourism activities such as windsurfing.
Cruises	Not affected. (In general, the waters are clean.)	Low.	Availability of local fish in coastal villages important for tourism. Promotion of small scale fishery might be motivated.
Real estate	N.A.	N.A.	N.A.
Outdoor activity tourism	Not affected. (There are scattered algae blooms, but you can always go somewhere else. Lack of fish might be a problem for fishing tourism.)	High. (More oil spills would have serious consequences.)	Shortening of the winter season, due to warmer climate might be a problem.
Rural/coastal tourism	Not affected. (There have been oil spill accidents, but not in tourist areas)	Low. (Big changes are needed in order to have an effect in the industry.)	

Table 4. Finland

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Blue green algae and litter might influence. There have been bans on swimming due to algae, which is negative, and causes reductions in bookings. No dramatic effects this far.	High. (Serious oil spill accidents would be catastrophic. More eutrophication effects would have effects on bookings. Climate change might be positive or negative, depending on the amount of rain.)	Weather is the most important factor for bookings.
Recreational fishing	Algae influences physically, and eutrophication causes ecosystem effects. Increased seal populations are negative. Increases in pike and perch stocks, due to warmer water, are positive. Dioxins are a concern.	High. (More frequent oil spill accidents would be "a kiss of death" to fishing. Variations in populations of salmon, sea trout and cod have affected fisheries and are likely to do so in the future as well. Eutrophication affects fish stocks in different ways.)	Winter fishing is decreasing due to warmer climate. On the other hand, the summer season is longer.
Boating	Not affected to large extent. (Blue green algae sometimes cause mechanical problems. This is emerging during very recent years. Filamentous and blue green algae are the biggest problem, but does not hinder or stop boating to any large extent.)	Medium. (Increased eutrophication would not have an impact on current boaters, but may have an effect on those who consider boating as a new hobby. Warmer climate would have a positive impact.)	New regulations on waste discharge cause problems since the infrastructure is not yet enough organized.
Cruises	Not affected. (Blue green algae blooms might have a minor, cosmetic, effect though.)	Low	Measures to avoid environ- mental problems, e.g. regard- ing waste disposal, affect the business.
Real estate	N.A.	N.A.	N.A.
Guided bird watching tours	Reduction in species diversity is a problem for the industry. Housing along the coasts reduces the possibilities for recreation. Until now, these issues have probably not affected the industry to any large extent.	High. (Increased eutrophication would cause further decrease in diversity. More oil spill accidents would cause reduced populations and consequently on bird watching.)	Birds should be taken into account when planning wind-mill farm locations.

Table 5. Germany

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	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Blue green algae and bird flu give a decrease in the number of tourists in cer- tain areas. Inherited ar- mament waste is a prob- lem, but no effect on book- ings.	Medium. (More oil spill and more eutrophication would have a negative impact. Warmer climate might be beneficial but would also increase algae mats)	
Recreational fishing	Reduced transparency and algae mats are problems, but not with serious consequences. Overfishing is a problem.	Medium. (Fish stocks are crucial for to the industry.)	Preservatory actions are required, especially for salmon, cod, sea trout, pike, zander and bass.
Boating	Not affected.	Medium. (More oil spill accidents would cause large effects in the industry.)	Fishing boats and freshly caught fish in harbor towns are important for tourism.
Cruises	Not affected	Unknown	
Real estate	Not affected. (There are algae mats, but this is only a temporary problem with no effect on the business.)	Medium. (Increased durations of algae mats might influence price setting.)	Activity in fishing villages important, but not a decision criterion.

Table 6. Latvia

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Not affected.	Low.	
	(Today, the sea is perceived to be clean. If there is pollution at one place, people can go somewhere else.)	(Climate change might have a positive effect, but it also causes more storms, which is negative. The industry is very adaptive to changes.)	
Recreational fishing	N.A.	N.A.	N.A.
Boating	Not affected. (Cleanliness only secondary to the industry.)	Low. (Global warming might have effects in both ways. Fish stocks unimportant for the development.)	Environmentalists are a restricting factor for the industry when it comes to new buildings and constructions.
Cruises	N.A.	N.A.	N.A.
Real estate	Not affected. (The environment is not a factor in determining prices.)	Medium. (Global warming might influence the market in certain areas due to sea level rise.)	
Ecotourism	Not affected. (Tourists are not sensitive to the marine environment. If one place is affected by for example eutrophication, people can choose another location.)	Medium. (Increased eutrophication would be a threat to the industry.)	Ecotourism promotes envi- ronmentally friendly and sus- tainable tourism.

Table 7. Lithuania

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	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Not affected. (Local and day-by-day variations in e.g. water transparency do not have any influence. The weather is the most important factor.)	High. (If a big oil spill disaster would occur, this would be disastrous. Increased eutrophication would affect the industry a lot.)	Beach erosion is another problem, but it is unclear if this affects bookings.
Recreational fishing	Not affected. (Fish resources are sufficient.)	Low. (Changes in eutrophication status would not affect a lot.)	Moving sand and beach denudation make fishing conditions worse.
Boating	Increasing algal blooms cause problems, the water looks and smells bad. These are, however, local phenomena and depend on the weather conditions.	High. (Increased eutrophication would influence the industry a lot.)	
Cruises	N.A.	N.A.	N.A.
Real estate	Not affected. (Since the environmental problems are not that serious.)	Medium. (More serious effects of the environmental problems would have an impact in the market.)	Prices are mostly affected by general changes in the market.

Table 8. Poland

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Blue green algae and litter are the most important threats. No dramatic effects, but reduced aesthetic values might influence bookings, and it might have caused a slowdown in industry growth.	High. (More blue green algae blooms might affect the industry severely.)	
Recreational	Not affected.	Medium.	
fishing	(The water quality is seen as good.)	(Increased oil spill is a threat to fishery)	
Boating	Not affected.	Medium.	There is a lack of knowledge
	(The weather is more important than the environment.)	(Local effects might occur due to eutrophication or oil spill. Lack of oxygen might be a more prominent prob- lem in the future. People might choose other destina- tions for their vacations.)	among the general public in Poland on the links between e.g. eutrophication and the services it influences.
Cruises	Not affected.	Low	
	(Cleaner waters are perceptible, but cruising tourists are not sensitive to this.)		
Real estate	Not affected.	Medium.	The real estate market is
	(Cleaner water now, but people don't take into account environmental factors to a large extent).	(Climate change might lead to flooding of certain areas. Regarding oil spill, only a substantial oil spill accident would have an effect.)	heavily dependent on the general economic situation.

Table 9. Russia

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Not affected.	Medium.	Media flow on pollution in
	(One reason is that the Russian tourists are poorly informed about the envi- ronmental state.)	(Hazardous substances, oil spill and eutrophication effects might influence if there is general knowledge about these problems in the future.)	different areas is important on a local scale.
Recreational fishing	N.A.	N.A.	N.A.
Boating	Not affected.	Medium.	Problems today are very local.
	(You can still sail even in slightly polluted waters.)	(The possibilities to swim are limited if the pollution continues. More oil spill would be negative.)	
Cruises	Not affected	Low	People mainly go to cruising trips to travel or enjoy the ship facilities.
Real estate	Not affected.	Medium.	Status, not environmental
	(The ecology is so far not a factor when buying or selling properties.)	(Prices might be affected by industry allocations. More oil spill might influence prices.)	quality, seems to be the most important factor in the purchasing decision.

Table 10. Sweden

	How is the industry af- fected by marine environ- mental problems?	Sensitivity to future potential changes	Other information from the interviews
Beach tourism	Blue green algae has a clear influence on the industry. In 2005, Öland lost 28 MEUR in turnover due to the algae blooms.	High. (Large oil spill accidents are a frightening scenario which can have very dramatic effects. More frequent algae blooms may have serious consequences. Fishery villages very important for tourism, these need to be preserved.)	The media flow on algae bloom issues is unbalanced, since the problem is often local, there are always many unaffected locations. The industry has responded by setting up own information channels.
Recreational fishing	Decrease in stocks of e.g. cod, pike and perch.	High. (An increase in the cod stock or the Baltic Sea wild salmon would be very beneficial to the industry.)	Higher resource rent in recreational fishing than in commercial.
Boating	More algae blooms give less boating tourism and causes relocations of existing boating from the outer to the inner archipelago.	Medium. (A scenario with more algae blooms would deepen the relocation effect.)	Shortage of moorings is a general problem. The industry is doing a lot to reduce its own environmental influence.
Cruises	N.A.	N.A.	N.A.
Real estate	Overgrowths in creeks and algae blooms affect property values. Might reduce values to 50 % in certain cases.	Medium. (A further deterioration of the sea would cause people to move abroad.)	Shore protection issues important for the industry.

Tables 11 and 12 below give a summarized picture of the above results.

Table 11. Is the industry sector affected (Yes) or not affected (No) by current marine environmental problems? Per country.

	DK	EE	FL	DE	LV	LT	PL	RU	SE
Beach tourism	Yes	No	Yes	Yes	No	No	Yes	No	Yes
Recreational fishing	Yes	Yes	Yes	Yes		No	No		Yes
Boating		No	No	No	No	Yes	No	No	Yes
Cruises	Yes	No	No	No			No	No	
Real estate				No	No	No	No	No	Yes
Outdoor activity tourism		No							
Rural/coastal tourism		No							
Guided bird watching tours			No						
Ecotourism					No				

Table 12. Sensitivity to future potential changes per country and industry sector ("High", "Medium" [Med], "Low" or "Unknown" [Unk]).

					.,				
	DK	EE	FL	DE	LV	LT	PL	RU	SE
Beach tourism	High	Med	High	Med	Low	High	High	Med	High
Recreational fishing	High	Unk	High	Med		Low	Med		High
Boating		Low	Med	Med	Low	High	Med	Med	Med
Cruises	Med	Low	Low	Unk			Low	Low	
Real estate				Med	Med	Med	Med	Med	Med
Outdoor activity tourism		High							
Rural/coastal tourism		Low							
Guided bird watching tours			High	-					
Ecotourism					Med				

3.3 Summaries of the conclusion sections in the country reports

This section summarizes some of the most important conclusions in each country report.

Denmark

Hasler et al. conclude: "The environment and the coastline are important for Danish tourism. Several of the interviewees indicate however – somewhat surprisingly – that marine environmental problems do not play a major role for tourism development in Denmark" (Annex 1, p. 76). However, they mention that the interviewees stated that it would be a tough task to estimate what tourism might have looked like without the marine environmental improvement that the country has faced recently, and they emphasized that "practically all interviewees agree that marine environmental quality is an important factor in relation to attracting tourists" (p. 76). The interviewees have stated that more eutrophication would give a negative impact on tourism and less eutrophication would give a positive impact. Hasler et al. also conclude that algae blooms can have a negative impact on a local scale, and that continuous or more frequent blooms might result in more general and long term effects.

Regarding fisheries, Hasler et al. report on problems related to overfishing, not least on cod. Despite the cod decrease, however, there are still good angling opportunities. There is also an interesting discussion on the effects of decreasing coastal commercial fishing, where some interviewees say that this is positive since the fish

stocks would increase, while others say that this is negative, since the cozy atmosphere of small fishing hamlets will be ruined. Hasler et al. conclude: "But as said by a couple of interviewees, this is not a real conflict as the small vessels – creating the cozy atmosphere – are not the ones responsible for the overfishing" (p. 78).

Estonia

Tuhkanen concludes: "In general, the findings above indicate that the Estonian marine and coastal tourism industry does not seem to have been strongly affected by the marine environment quality" (Annex II, p. 124). Later on she continues with describing how the respondents in Estonia felt that the reason for not being affected might be that no large environmental disasters have occurred. Also, the respondents described that the Estonian coastline is open, which minimizes algae gathering on beaches, and that there are always alternative places to go and alternative activities for tourists to do in a case with algae gathering effects.

A second explanation to the low importance of environmental factors to the tourism industry in Estonia could, according to Tuhkanen, be the industry structure, with relatively new markets which all face different other obstacles to development. She writes: "In conclusion, due to the combined factors of current generally good environmental conditions along the coast, a relatively young tourist industry dominated by the spa and cruise industry, new niche markets which are developing but small, the existence of other more urgent obstacles to development, there is currently a weak awareness of how the marine environmental changes could affect marine and coastal tourism" (p. 127).

Finland

Kurki et al. conclude that "the overall impression is that tourism industry is affected by eutrophication of the Baltic Sea. Blooms of blue green algae seem to have been the most visible part of the phenomenon with negative publicity" (Annex III, p. 150). They continue by stating that the most severe algae effects are experienced in the Gulf of Finland. However, they further conclude that none of the interviewees indicated that major economic losses would have been experienced.

The most important threat in the future to the industry seems to have been an oil catastrophe. A climate change might have both positive and negative effects, the positive ones due to a warmer climate, the negative ones due to increased winds and precipitation.

Germany

Kowatsch conclude that most of the respondents have noticed improvements in the marine environment, but that they might be relating to changes during the last decade rather than a longer perspective. In 1990, there were strong environmental regulations on e.g. eutrophication in Mecklenburg-Western Pomerania, a fact which has given results during the last decade.

She continues by describing that "the superficial look at the situation of the Baltic Sea very probably has a reason: real pecuniary injuries or financial damages caused by marine environmental problems have so far only occurred in individual cases (Annex IV, p. 172).[Later...] "Tourism in total, therefore, is almost not affected by these problems".

A large tanker catastrophe is described as a disastrous scenario. As of important actions, Kowatsch reports that the interviewees suggest the introduction of obligatory use of pilots to improve shipping safety.

Latvia

Vanags et al. conclude: "The development of tourism in Latvia during the last three decades has been largely independent of the environment of the Baltic Sea" (Annex V, p. 191). They continue by arguing that "more funding has to be given towards the development of ecological operations in the Baltic Sea, with the bigger initiative to be shown from the Nordic countries".

They also conclude that the tourism industry is predicted to grow, and the fact that Latvia has a long coast line provides reason to believe that if one place gets polluted, many other places will be clean.

Lithuania

Semeniene et al. conclude that "interviews revealed quite a low environmental awareness, or, better to express, quite simplified environmental awareness of Lithuanian coastal businessmen" (Annex VI, p. 226). So far, they conclude that environmental factors have not influenced Lithuanian tourism at all. The marine factors were judged as practically unimportant. The general opinion seems to be that relatively large changes in the environmental quality are required in order to have effects in the industry. "The major factors influencing their activities so far are related to weather conditions and recreational infrastructure" (p. 227).

Poland

Czajkowski et al. conclude that the interviewees find litter on the beaches to be the most important environmental problem for their business. Czajkowski et al. argue that this might be a consequence of generally low awareness of the causes and effects of, for example, eutrophication. This low awareness can also be an explanation to why the interviewees seem to have the opinion that there are hardly any serious environmental problems or threats in the Baltic Sea.

They continue: "According to the respondents, the tourists are rather 'resistant' to environmental changes and so is tourism industry in general" (Annex VII, p. 329). One explanation to this might be that the industry is characterized by under capacity – there is no real competition threat. As a consequence, Czajkowski et al. argue that the potential negative effects of a deteriorating environment are affecting the consumers more than the producers – maybe since they are fully booked anyway.

A risk scenario in the future would be a major oil spill accident. Everyday oil leakages were not as important, according to Czajkowski et al.

Russia

Volchkova concludes: "The first important similarity [between the interviews] is the drastic growth in the demand for tourist services in all spheres of sea tourism that is hardly affected by the worsening quality of the water" (Annex VIII, p. 351). She explains this by a general growth in the economy and the demand for tourism, which is not faced by the corresponding increase in supply for different reasons. The industry is thus characterized by under capacity.

Another reason for not being affected by environmental factors might, according to Volchkova, be the "lack or insufficiency of information on ecological conditions that differentiate Russian tourists from the foreign counterpart. Lack of such knowledge on the part of Russian tourists makes them less careful while choosing the vacation destinations than tourists from other countries" (p. 351).

Sweden

Hasselström concludes that "a general result is that the tourism industry is heavily dependent on a good state of the Baltic Sea. The eutrophication status seems to be the most important environmental factor for the industries, and blue green algae blooms seem to be the most threatening eutrophication effect" (Annex IX, p. 377).

Also brought up are the strong indications that a further deterioration of the Baltic Sea environment might cause a major harm to the industry. Catastrophic events,

such as major blue green algae blooms or a major oil spill accident, are the most important threats today.

However, exaggerating media reports seem today to be the biggest algae problem for the industry since most beaches are not affected even in the worst cases seen in Sweden. The interviewees fear a development towards more frequent or durable algae blooms, which would have terrible consequences for the tourism industry. Two quotes from the interviewees are brought up in the Swedish conclusion section (p. 377):

"The sea has to be saved immediately, otherwise we can say goodbye to the tourism industry and all economy related to this".

"All analyses have already been made, what we need now is action".

4. Conclusions

Looking to the conclusion sections in the country reports, they clearly suggest that so far, the tourism industries in the Baltic Sea countries are more or less unaffected by current marine environmental problems. The most important nuisance seems to be blue green algae blooms, an effect of eutrophication which reduces aesthetic and recreational values in beach and coastal areas across the Baltic Sea area. However, these algae blooms have not had any significant impact on bookings or profits in the industries so far. There are strong indications though, not least from Sweden, Finland and Denmark, that an increased frequency or duration of these blooms might cause very serious harm to the tourism industries, especially in the beach tourism sector.

Table 11 (p. 24) gives the picture that more of the countries are affected than the conclusion sections in the country reports describe. An explanation to this might be that table 11 relies on an "are you affected"-question, whereas the country reports are written from a broader perspective, including the answers to other questions in the questionnaire, such as "how are you affected". Many of the interviewees at first say that their industries are affected, but are then unable to describe how, or explain that this effect is more or less negligible.

Regarding differences between industry sectors, beach tourism and recreational fishing seem to be the most sensitive to the current and future environmental state, whereas the boating, cruises and real estate sectors seem to be less sensitive. This can probably be explained by the fact that beach tourism and recreational fishing occurs directly "in" the marine environment, whereas the other sectors are more indirectly related to the environmental state. Alarmingly, there are indications that potential changes in the marine environment might cause large scale negative economic effects in these sectors.

As of national differences, it is evident that Denmark, Finland, Germany and Sweden – compared to Estonia, Latvia, Lithuania, Poland and Russia – report a higher dependence of the marine environment, both in terms of current effects and future potential effects. Since there are no indications that the environmental state could explain this (rather, there are indications that the marine environmental state is actually better in Denmark, Finland, Germany and Sweden than in Estonia, Latvia, Lithuania, Poland and Russia), two handy explanations are (a) that the interviewees in Estonia, Latvia, Lithuania, Poland and Russia are generally less aware of environmental issues than those in Denmark, Finland, Germany and Sweden, or (b) that the environment is a smaller factor for e.g. choice of location for vacation in Estonia, Latvia, Lithuania, Poland and Russia than in Denmark, Finland, Germany and Sweden.

According to the interviewees, the environment does not currently seem to be a major factor for the businesses. In the country reports, three main explanations to this have been brought forward.

- (1) That the interviewees are uninformed about the causes and consequences of, for example, eutrophication. According to some interviewees, algae blooms are seen as a "natural" phenomenon, and are not viewed as an environmental problem.
- (2) That there is significant under capacity in the industry, which means that the demand is larger than the supply. This has the consequence that even if some people choose to go somewhere else for their vacation, the bookings are still full. This might mean that the consumers, not the producers, are the ones who bear the burden of environmental problems.
- (3) That the Baltic Sea environment is enough "ok" to not affect vacation choices to any large degree.

Nevertheless, these results from the interviews are important for policy making. For example, when considering the possibilities to further international cooperation against eutrophication, the public opinion is obviously a key factor. No matter which of the three explanations above causes the interviewees to respond like they do – if the responses are representative for the Baltic Sea tourism industry in general, then this is the public opinion of the tourism industry. Having such a uniform set of interview responses, it would also be hard to argue that this sample is way off representativeness. There are practically no indications of a different view among the interviewees regarding the influence of current environmental issues.

Except from the eutrophication issue, increased oil spill accidents make up a frightening scenario, according to the responses. Interviewee after interviewee says that a major oil spill accident in their area would be a complete disaster to tourism. This puts pressure on weighing potential harm of accidents to the costs of actions towards increased safety. If the number of oil spill accidents can be reduced by *one accident*, this might be a huge gain to society.

Regarding recreational fishery, voices are raised uniformly that there has been a dramatic decrease in the cod stock in the Baltic Sea, and that the industrial trawlfisheries are mainly responsible for this. There were many suggestions in the interviews to stop trawling for cod, since there are massive existence values in not extinguishing the stocks, and also since the economic value of having recreational fishermen catching cod instead of industrial fishery would be much greater. Furthermore, quick actions would allow for more industrial cod fishery later on, which would be a gain to society.

Another fish-related issue is small scale coastal commercial fishery. Many of the interviewees argue that activity in old fishery villages is crucial to tourism in the areas, and the ecological impact of this kind of fishery compared to, for example, trawling is negligible.

Future climate change would be beneficial to the industries, according to the interviewees, since the Baltic Sea area would be a better competitor to the Mediterranean area if the temperature would rise. Some worries are, however, brought up regarding ecological effects and the effects of increased winds and precipitation.

As to who is responsible for the environmental problems, no clear conclusion can be drawn from these interviews. The general opinion is that no single actor is responsible, rather the whole society. This is consistent with a general tendency among interviewees to suggest actions based on international cooperation.

Annex I. Denmark

Prepared by: Berit Hasler, Louise Martinsen, Anders Branth Pedersen and Lars Kjerulf Petersen, Department of Policy Analysis, National Environmental Research Institute, University of Aarhus.

Introduction

This annex comprises descriptions of the Danish interviews, and the conclusions regarding what these findings might indicate regarding the influence of water quality on tourism. As mentioned in the general introduction, time and resource limitations have restricted this assessment, and although the interviewees have been carefully selected to represent different tourism activities related to the sea, the findings are not necessarily representative for the opinion of tourists and tourism stakeholders.

The method for how we have found the relevant interviewees is:

- 1) First we made an overview over whom and which interests/organizations/types of tourism etc. are influenced by the quality of the water in the Baltic Sea, including the Danish Straits, Kattegat and some parts of Skagerrak. It was found most important to interview stakeholders at Zealand, the islands in the south eastern part of Denmark and Bornholm.
- 2) The most important stakeholders were decided to be
 - a. shipping companies etc. sailing anglers and other tourists for recreational activities in this sea-region either for several days or one-day trips,
 - b. other stakeholders with activities related to recreational fisheries in the area,
 - c. summer-house renters
 - d. campers or camping-area holders or organizations active in this region, as well as
 - e. general tourism organizations local and central.

Different stakeholder/interview candidates were found using Google and different search words, and this resulted in a long list of candidates.

The contact to different interview candidates within each of the categories mentioned under (2) was established by sending mails to a range of central and local tourist organizations, summer-house renters, camping-sites and shipping companies.

When conducting the interviews each interviewee was asked if he/she could recommend some other interviewees within or outside their own category or other categories of tourism groups/activities. Most interviewees were found during the first round of e-mailing, but some were found by the second "snowballing" procedure.

A total of 7 interviews were conducted. The organizations and persons interviewed are:

- 1) VisitDenmark
 - a. Tourism in general
 - b. Fishing Denmark (Fiskemærkeordningen):
- 2) Destination Bornholm local tourism office.
- 3) The Danish Camping Board ("Campingrådet")
- 4) Summer house renting, Zealand: "Sun and Beach" ("Sol og Strand")
- 5) Danish Knowledge Center for Anglers ("Dansk videncenter for sportsfiskeri"
- 6) The union of minor professional vessels ("Sammenslutningen for mindre erhvervsfartøjer")

All of the interviews were conducted in the period 21st April to 15th May. Most interviews were conducted by two of the researchers.

Some of the interviews were conducted face-to-face, and some of them by telephone. The intention was to conduct face-to-face interviews, but due to time- and resource limitations this was not possible for all of the interviews conducted.

Findings

This section includes first a summary of all findings from the interviews, followed by the reports for each of the interviews. All interviewees have seen and approved the report regarding their own interview.

For each of the interview-reports all questions are included. All questions were not answered however, due to lack of relevance for that particular person/organisation or due to other reasons. All questions are marked in bold, after which the answers follow.

Reports for each of the interviews

Visit Denmark

The interview was conducted in Copenhagen at the interviewee's work address, 21.04.2008.

Summary

According to this informant quality of marine environment doesn't play a major role for tourism development in Denmark. However, the significant improvement of swimming water over the past 10-20 years is a positive development with a positive effect on tourism. On the other hand, recent incidents of algae growth and "green pea soup" resulting in warnings and bathing bans from public authorities may have a negative impact if these occurrences continue. Tourists react on what they can see and smell and sense, so we also have to clean beaches and nature in general for litter. Furthermore, a potential oil spill in Danish waters may have catastrophic consequences not just for tourism but for the country as such. The environment is an important part of our attraction and we are well prepared, also for problems that may come as a result of future climate changes. But we have to be attentive, and the tourism sector is very conscious about the importance of environmental protection.

Questions and answers

Q1a. What are your name, position and contact details? [Anonymity is OK if the respondent wishes, but position is important to know.]

Title: Executive advisor in the development department in VisitDenmark (VisitDK): *Contact details://www.visitdenmark.com/danmark/da-dk/menu/turist/turistforside.htm*

Q1b. How are you involved in VisitDK?

With general development of tourism in Denmark

Q1c. How long have you been active in VisitDK?

From 1984 to 1991, in those days it was called the Tourism Council, and again from 1996 until today.

Q2. How would you describe the purpose of your organization?

The purpose of VisitDenmark is to work for the development of Danish tourism. The organization is affiliated with the Danish Ministry of Economic and Business Affairs, but is independent with its own board and with significant co-financing of

the organization's activities from the tourism business. The statutes of the organization say that its purpose is to work for economic growth and increased earnings in the tourism trade. At the same time we have to make sure that development in tourism is environmentally sustainable.

Q3. How would you characterize the type of tourists in VisitDK?

There are two types. Firstly we have the holiday tourists, secondly there are the business tourists, i.e. the big conferences and meetings that we actively seek to facilitate and attract to Copenhagen. It can generate considerable revenues if we for instance can attract a large international conference for gynecologists.

Q4. In general, how has the activity in VisitDK developed during the last 30 years?

Danish tourism has changed significantly in that period.

In the beginning, back in the 1950's, tourism was perceived in terms of host obligations, and work in the tourism sector was concerned with showing the best of Denmark, telling about history and nature and making it comfortable for visitors.

Gradually the economic benefits of tourism became apparent, and work in the tourism sector became concerned with promoting the business, developing its economic potential, and attract tourists in order to make money. There were regions and small communities, particularly at the west coast, which gradually became dependent on revenues from tourism, and the business became a considerable economic factor, also at a national level. Tourism became an instrument to create economic growth. During the 1980 the whole trade became professionalized, it became real big business.

Lately, we have seen a partial return to the concept of exhibiting Denmark, showing the best sides of the country, also to keep our reputation abroad. The cartoon crisis made it apparent that our reputation is very important. If you have visited Denmark once you also think that we have a wonderful country. Tourism is now also seen as an element in international, people-to-people collaboration.

Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

In general we have observed that water quality has improved, i.e. regarding the swimming water. There has been a definite reduction in the number of bathing bans due to poor water quality. However, in some year climatic conditions can result in large occurrences of algae. There has been talk of killer algae and green pea soup, and they have created headlines in the media, also abroad, particularly in Germany.

Furthermore we have had a few oil spills which have been eye-openers as to how vulnerable the environment is and how important it is to protect it.

But in general there has been an improvement in water quality.

Q6. Has VisitDK been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]

There has been a recent decline in tourism in Denmark, but environmental problems are in general not to be blamed for this decline.

Q7a. By what problems was/is Danish tourism affected?

To the extent that there has been an effect: (a) Oil spill and (b) de-oxygenation and algae growth.

Q7b. How was/is Danish tourism affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

There can be local experiences of environmental problems affecting tourism. If visitors in a particular local area have encountered green pea soup then they may not come back again next year.

Q7c. What is the trend during the last three decades for how Danish tourism is affected by these problems? More before and less now? Less before and more now? About the same?

[No answer]

Q7d. Can you give any number for how tourism in Denmark is affected by these problems in the *last few years*?

Economic effects can mainly be seen locally if one area has been particularly plagued by algae.

Our environment is an important part of our attraction. We are well prepared also for problems that may come as a result of future climate changes, but we have to be attentive.

Q7e. Please rank the problems starting with the most severe one for tourism in Denmark in the *last few years*.

The worst is permanent increase in de-oxygenation incidents and green pea soup which make it impossible to bathe and use the coast.

But the most serious immediate danger is oil spill. It is expected that there will be a tenfold increase from 2000 to 2015 in transportation of Russian oil through Danish waters resulting in an increased risk of oil spill. A large oil spill from one of those vessels will be a real nightmare; it would be a mega disaster, not just for tourism but for the country as such.

Q7f. Who do you think is mainly responsible for these environmental changes?

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in Danish tourism due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

It is difficult, there are many different sources: manufacturing industries, cities at the coast, agriculture in particular, concentration of tourism in small areas before anyone had figured out how to build proper sewage works, conditions in other countries around the Baltic – particular in the former East European countries.

Agriculture in particular has a responsibility for discharge of nitrogen and pesticides and the incidents of de-oxygenation they can cause, but it isn't only our fault in Denmark. Gradually we have gained control of the problem in Denmark, but that is of little use if the other countries around the Baltic – Russia, Poland, The Baltic states, Germany – do not follow.

However, VisistDenmark is a public organization, and it is not our job to sue anybody. I suppose it could be done with incidents of oil spill with businesses and organizations that are directly affected. But there is also The International Oil Pollution Compensation Funds and the Supplementary Fund which provide compensation for oil pollution disasters.

Q8a. Why has tourism in Denmark not been affected? [Q8 only if NO to Q6]

[Answer to Q6 was ambiguous, Q8 was not asked but still relevant; answer therefore extracted from discussion with informant and accepted by him]: There can be local impacts of environmental problems, but in General Danish tourism hasn't been affected. The development of tourism in Denmark has coincided with a growing environmental awareness, and in general there has been an improvement of water quality and swimming opportunities at the Danish coasts over the past 30 years

Q8b. Was tourism in Denmark affected by any of these problems earlier than 30 years ago? If so, how?

[Question not asked]

Q9a. Has tourism in Denmark been affected or not affected in the last 30 years by any marine environmental *improvements?*

Yes, it has been affected.

Q9b. If YES to Q9a, by which improvements? How was tourism in Denmark affected by these improvements?

Environmental improvements have made the coasts and the Danish nature more attractive. The coasts are one of the mains attractions of Denmark.

Q10a. Which are the most important factors for the growth of tourism in Denmark? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

In general, increased affluence in Western Europe is the most important factor – and an immensely increasing eagerness to travel.

Q10b. How do marine environmental factors rank in importance compared to other factors?

We have gone through a considerable development in tourism; particularly German visitors have flocked in. The reason is that we have a vast coastline from which you can bathe. So the coasts, the water, the sea and the nature all play a very important part; they are the largest, singular attraction, and it is crucial that we make sure to keep the environment clean – for instance by cleaning up the beaches. In general, all Danish tourism is affected by the marine environment because almost all major Danish cities are located by the coast.

Q10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

[No answer, question not asked]

Q11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Both/and

Large facilities where the environment hasn't been considered are a problem, but it isn't a big problem, because growing tourism has in Denmark gone hand in hand with emerging environmental awareness, and we had already seen how bad it could in Spain and the other South European destinations. But there are some isolated incidents of carelessness where tourist facilities can harm the environment.

But usually tourism benefits the environment. One thing that can make a local authority make an effort and clean up is the need to facilitate good conditions for the tourists. Beaches are being cleaned; litter in nature is removed to make it attractive. What is important for tourists is what they can see and smell and sense and if it isn't nice they will not return.

Tidying up is such a large expense for local authorities that they want the national government to assist, also because tourism benefits the society as a whole and just the local area.

A national eco-label scheme called Green Key has been established where contractors in the tourism sector must comply with some minimum standards regarding reductions in energy consumption and pollution and no chemicals in lawn care etc. The tourism business is incredibly conscious about the importance of a good environment. Together with environmental organizations they are the ones lobbying most for a good environment.

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to tourism?

In the short run: tourists react to what they can see and sense and smell; it is therefore important to tidy up and make sure that the beaches are cleaned. Waste management has to be effective. Similarly it is important with an effective oil spill alert.

In the longer perspective: thorough changes, strive to reduce emissions and discharges from agriculture and industry. We have already done a lot in Denmark, so more international cooperation is required.

Q12b. Does any of the following potential changes in the future matter for tourism in Denmark? If so, how large changes are required for them to affect tourism in Denmark? How would they affect tourism in Denmark?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Tourism is not just determined by the state of the environment here in Denmark but also by conditions at other destinations. Southern Europe can be severely affected by climate changes while Denmark becomes more attractive. Climate can become incredibly important. There may be international pressure on Denmark to cultivate our farmland more intensively so that we can provide food for other parts of the world where conditions for agriculture are made worse, but there may also be international pressure on us to open our country for more tourism

Reduced eutrophication effects such as reduced algae blooms etc..

Can be very important.

• Increased eutrophication effects such as more algae blooms

Can be very important. As said, tourists react on what they see and sense and smell.

More oil spills due to heavier traffic on the seas.

Can be very important. A major oil spill can have serious consequences

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

An active fishing industry makes harbour areas and local communities more vibrant and lively; it gives experiences for the tourists. If it disappears – and that will not necessarily be caused by environmental problems, but also by EU-regulations – then it will also damage tourism.

VisitDenmark – the 'Fishing Denmark' quality label arrangement for anglers

The interview was performed by phone, 12.05.2008

Summary

The respondent is in charge of a quality label arrangement giving quality labels primarily to Danish accomodations – camping sites, hotels, b&b's - which provide extra service for anglers by complying with a certain list of criteria. The respondent is only having one year of experience in the organisation. Therefore, she can't answer questions regarding the last 30 years.

According to this respondent, the decline in the cod population is overshadowing all other problems for anglers in the Baltic Sea at the moment. The main cause of the decline is probably trawling. Declining supply of cod in the Baltic Sea, means less demand for cod fishing boat trips, and therefore increased competition over the fewer angling tourists. Sometimes unsportsmanlike methods are therefore used: Some are going after spawning cod Needless to say, more fish is the number one priority for anglers. Some angling methods are more sustainable than others. E.g. fly-fishing is better than fishing with ecco sounder. 'Good tourism' is 'sustainable

tourism'. It is a good development when more money are generated without over-fishing.

It is possible to combine nature restoration and increasing angler tourism. The sea trout project at the island of Fyn is one example. Another, the big nature restoration project at Skjern River at the west coast of Jutland, where tourism has increased.

Trends are also having an impact. Today, fly-fishing is more trendy. Fly-fishers, in general, use more money at the destination and on their fishing equipment than other anglers. Thereby, they generate more money than an angler at a cutter.

There has been a negative trend in coastal tourism in general due to high prices and the downturn in the German economy over the last 10 years. However, this trend has turned in the most recent years. About pleasure angling tourism: Positive trend due to environmental improvements, better marketing of sustainable fishing tourism, constructive collaboration between the relevant actors (public authorities, private angling associations and tourism providers). It is very rare, that angling is having a negative environmental impact, but it depends on the administration of angling.

Recently, an analysis of Danish recreational fishing was started. The Swedish Fisk-eriverket has also analysed recreational fishing.

Questions and answers

Q1a. What are your name, position and contact details? [Anonymity is OK if the respondent wishes, but position is important to know.]

Theme project leader – Fishing Denmark http://www.visitdenmark.com/international/en-gb/go/fishing.htm

VisitDenmark Islands Brygge 43, 3. DK-2300 Copenhagen S

Tel. +45 32 88 99 00 / Fax: +45 32 88 99 01

O1b. How are you involved in VisitDK?

Theme project leader, quality label scheme

Q1c. How long have you been active in VisitDK?

1 year

Q2. How would you describe the purpose of the quality label arrangement?

It is a quality label scheme aimed at Danish and international pleasure anglers. It includes primarily destinations/areas, accommodation (campsites, hotels, bed and breakfast) and tour boats where an extra service is provided for anglers. You can receive the label if you live up to a set of criteria.

Q3. How would you characterize the type of tourists you are addressing?

Pleasure anglers

Q4. In general, how has the activity in 'Fishing Denmark' developed during the last 30 years?

Not asked.

Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

No – I have only 1-year's experience, but I've heard of problems (see below).

Q6. Has angling been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]

I believe so. I hear from the tour boats and the fishermen that cod angling is not going so well. The biggest problem is said to be trawler fishing.

Q7a. By what problems was/is angling affected?

The fewer cod mean that it is more difficult to sell cod fishing to pleasure anglers. It means greater competition between the tour boats – sometimes unsportsmanlike methods are used. E.g. I've heard that some are going after spawning cod. This takes place both among German and Danish tour boats. If there is a positive trend in the number of fish, then this naturally is good for pleasure anglers. There is also a difference between the various methods practised by pleasure anglers. Fly fishing is e.g. a lot more environmentally sensitive than targeting shoals of spawning fish. Funen has experienced a positive development with their sea trout project (you should talk to Steffen Hinchely from 'Seatrout Funen' (sh@syddanskturisme.dk), where environmental restoration is combined with tourism development).

Q7b. How was/is angling affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

Improved environment has an effect on 'good tourism'. Good tourism = sustainable tourism. Tourism that generates money without e.g. overfishing. Less sustainable (both environmentally and economically) tourism is e.g. when German and Polish tourists come up and fish round the clock (using only very little money at the destination) for several days in a row, fill the freezer with fish and drive back to Germany or Poland to sell the fish.

Q7c. What is the trend during the last three decades for how angling is affected by these problems? More before and less now? Less before and more now? About the same?

[no answer]

Q7d. Can you give any number for how angling is affected by these problems in the *last few years*?

No. A new analysis in the Danish Ministry of Food, Agriculture and Fisheries will be implemented to analyse the value of the recreational fishery.

Contact:

Ministry of Food, Agriculture and Fisheries

Tel. 33 92 37 23, 22 61 05 75

Q7e. Please rank the problems starting with the most severe one for tourism in Denmark in the *last few years*.

Overfishing and trawler fishery are, according to what I have heard, the greatest problems.

Q7f. Who do you think is mainly responsible for these environmental changes?

See 7e)

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in angling due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

[No answer]

Q8a. Why has angling in Denmark not been affected? [Q8 only if NO to Q6]

[no answer – question not asked]

Q8b. Was angling in Denmark affected by any of these problems earlier than 30 years ago? If so, how?

[No answer, question has not been asked]

Q9a. Has angling in Denmark been affected or not affected in the last 30 years by any marine environmental *improvements?*

Yes, this is shown by the Funen sea trout project. It does some good when something is done for the environment, but it demands support from various actors and support from the politicians.

Q9b. If YES to Q9a, by which improvements? How was angling in Denmark affected by these improvements?

More sea trout mean that Danish and foreign anglers are flocking to Funen. They are buying transport, accommodation, supplies, equipment, etc on Funen.

Q10a. Which are the most important factors for the growth/decline of angling in Denmark? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

About coastal holiday tourism in general: Negative trend in coastal tourism in general due to high prices and the downturn in the German economy over the last 10 years. However, this trend has turned in the most recent years. About pleasure angling tourism: Positive trend due to environmental improvements, better marketing of sustainable fishing tourism, constructive collaboration between the relevant actors (public authorities, private angling associations and tourism providers).

Q10b. How do marine environmental factors rank in importance compared to other factors?

See above.

Q10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

The economic situation in the respective markets. Trends in angling/fashions also have an influence. Fly fishing has become more 'in' (quotes added). Fly fishers generally spend more money at the destination and on equipment than other pleasure anglers. Thereby, they generate more money per fish than e.g. anglers targeting shoaling fish.

It can also affect angling tourism if there is an opportunity for other activities than angling. Anglers go on holiday with their families, and if there is an option for the rest of the family, who are not fishing, to have something to do, then there is a

greater likelihood that a main holiday will be spent in the vicinity of good angling waters.

Q11. Do you think angling has a positive/negative impact on the marine environment?

Depends on the type, but often positive

What would this impact be?

Pleasure anglers rarely have a negative impact, but this depends on the mangement of the recreational fishery.

Sensitive management/good environment and many fish can give Denmark a good image/reputation – not only in angling circles but also in general.

Are there any measures taken to alleviate these impacts?

[no answer, question not asked]

If yes, what are they?

[no answer, question not asked]

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to angling?

Don't know- ask the biologists and commercial fishermen.

Q12b. Does any of the following potential changes in the future matter for angling? If so, how large changes are required for them to affect angling? How would they affect angling?

- Climate change, resulting in a warmer climate in the Baltic Sea area.
- Reduced eutrophication effects such as [give examples that are relevant for your country].
- Increased eutrophication effects such as [give examples that are relevant for your country.]
- More oil spills due to heavier traffic on the seas.

General answer to these four questions: Very difficult questions. Don't know – ask the biologists.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Yes, if commercial (coastal) fishery is reduced there will be more fish /'catch experiences' [quotes added] for pleasure anglers and in turn it will become more attractive to go on a fishing tour/fishing holiday.

Activities in the harbours could be extended to attract more tourists, but a precondition for this is that there are fish.

Destination Bornholm

The interview was conducted by phone, 14.05.2008.

Summary

According to this informant quality of marine environment doesn't play a major role for tourism development in the island of Bornholm. However, while quality of marine environment in general is good and has been for a long time, and this is one element among others that constitute the attraction of Bornholm, recent years have brought algae growth resulting in bathing bans. So far, number of visitors and turnover are both increasing in Bornholm, but tourists have become aware of and concerned about the problems with algae etc. Maritime traffic is another source of potential environmental problems; the strait between Bornholm and Sweden is extremely crowded and an accident with oil spill could have very negative consequences not just for tourism but for nature and the environment.

Questions and answers

Q1a. What are your name, position and contact details? [Anonymity is OK if the respondent wishes, but position is important to know.]

Head of development department in Destination Bornholm (DestB) http://www.destinationen.dk/

Q1b. How are you involved in DestB?

I am involved in project based activities aimed at maintaining and developing tourism in Bornholm. I participate in the development of new tourism products and new marketing of tourism enterprises in Bornholm. It may for instance be a new bicycle route, new marketing initiatives or a new GPS-based guide we are developing.

Q1c. How long have you been active in DestB?

Five years.

Q2. How would you describe the purpose of your organization?

The purpose is to improve conditions for tourism and for all actors in the tourism sector in Bornholm and thereby create increased turnover and more jobs. We work for both big and small enterprises, from artwork designers to big hotels, who believe they need our assistance.

Q3. How would you characterize the type of tourists in Bornholm?

It is to large extent Danish tourists, 58 % to be precise, and also a lot of Germans, 35 %. And it is very much family tourists, in part families with small children, in part older couples with no kids. Those are the ones we aim at attracting.

Q4. In general, how has the activity in DestB developed during the last 30 years?

Basically, tourism has become one of the most important businesses on the island. 30 years ago tourism only played a minor role in the island's business structure, but there has been a considerable growth in tourism and the whole experience economy thing, particularly during the last 5-6 years. It is now the third largest occupation in Bornholm after oublic service and agriculture.

Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

In the past 5-6 years we have seen a growth in organisms such as blue-green algae and other stuff in the sea and they affect water quality. It has led to warnings from public authorities against bathing if one has open wounds and it has also led to direct bathing bans. It has only been a problem in later years, but whether it is a completely new phenomenon or public authorities just recently have become aware of it I cannot say.

But it is something the tourists ask about: whether there are algae; and even whether there are "killer jellyfish" – but they are mainly a problem for the fishermen, and they haven't been affected by jellyfish yet.

Another problem is accidents with oil spill which fortunately haven't affected Bornholm so far. There was a large oil spill a couple of years ago and for a while the oil slick threatened the coasts of Bornholm, but luckily it didn't hit us. In the end it drifted towards Sweden and polluted the coast there. The incident provoked quite some alarm and concern here, not so much because of the tourists but because of the damage the oil would do to animals and nature.

Q6. Has DestB been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]

Yes. Visitors are more focused on possible risks related to bathing in the sea. The media bring stories about algae growth and the like, and those stories spread.

Q7a. By what problems was/is tourism in Bornholm affected?

Algae; jellyfish; fear of oil spill disasters

Q7b. How was/is tourism in Bornholm affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

There was in the summer of 2006 a direct bathing ban. Tourists asked "what else can we do?" But we haven't seen that Bornholm has been dropped as a destination for that reason. The tourists just coped with the situation and everybody could see that the problem had spread to the entire country.

Q7c. What is the trend during the last three decades for how tourism in Bornholm is affected by these problems? More before and less now? Less before and more now? About the same?

Tourism is more affected by environmental problems now than 30 or just 10 years ago, but we haven't seen that Bornholm has been dropped because of environmental problems.

Q7d. Can you give any number for how tourism in Bornholm is affected by these problems in the *last few years*? Either an amount or a number from 0 to 10, where 0 is no effect and 10 is a total meltdown. What are the economic effects.

Tourism in Bornholm has seen an increase in turnover; even the though number of bed-nights is stagnant there are more visitors to the island and they spend more and more money. I don't think the algae can be blamed for stagnation in bed-nights and as said: turnover is increasing. Maybe local shops in beach areas can be affected when there is a bathing ban. So I would say that the effect has been minor, maybe 1 in general and perhaps 2 for the beach areas.

Q7e. Please rank the problems starting with the most severe one for tourism in Denmark in the *last few years*.

- 1. Algae
- 2. Oil spill

Q7f. Who do you think is mainly responsible for these environmental changes?

It would have to be my subjective assessment, but I would say industrialization and human behaviour.

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in Bornholm due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

I cannot answer that.

Q8a. Why has tourism in Bornholm not been affected? [Q8 only if NO to Q6]

[Question was not asked, because Q6 was answered with a yes]

Q8b. Was tourism in Bornholm affected by any of these problems earlier than 30 years ago? If so, how?

[Question was not asked, because Q6 was answered with a yes]

Q9a. Has tourism in Bornholm been affected or not affected in the last 30 years by any marine environmental *improvements*?

Yes, I should think so. There has been The Blue Flag scheme which states that swimming water is pure. But it doesn't play a major role. Improvement of swimming water quality has been of minor importance here compared to the rest of the country because swimming water has always been good in Bornholm. There is so much water around the island.

Q9b. If YES to Q9a, by which improvements? How was tourism in Bornholm affected by these improvements?

[Question was not asked]

Q10a. Which are the most important factors for the growth of tourism in Bornholm? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

First of all, infrastructure development has been a determining factor, specifically the Øresund Bridge and the high speed catamaran ferries. It also plays a role that Bornholm and Denmark are perceived as safe destinations. Then there is our fine nature, the authenticity and the good atmosphere.

Q10b. How do marine environmental factors rank in importance compared to other factors?

They have a modest effect. Bornholm is in that sense not a bathing destination; it's not a site just for fantastic beach holidays. People are happy to come here and experience the island and also happy to return and see its development. Of course, water is part of nature here, so quality of the marine environment does have an effect, but it is moderate.

Q10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

[No answer, question not asked]

Q11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

It is not our experience that tourists are messing up nature and the environment. There are no complaints from locals or from tourist businesses about that kind of problems. Maybe it is because general public campaigns about keeping nature clean have rubbed off on Bornholm's tourists.

But the high speed ferry does not have a positive effect on the environment. It counts, however, on the positive side that Bornholm has decided to be a Green Island with a sustainable business development – including tourism – like so many other places that want to promote a green image. Among other things we have an activity bus which runs in bio-ethanol.

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to tourism?

In Bornholm we have a plan to develop the 27 old harbours on the island and revive them. It should increase their amenity value while making sure to protect ma-

rine flora and fauna and to avoid littering the entire coast with hotels and summer houses.

Q12b. Does any of the following potential changes in the future matter for tourism in Bornholm? If so, how large changes are required for them to affect tourism in Bornholm? How would they affect tourism in Bornholm?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

It is awful to say this, but it will probably have a beneficial economic impact if the tendency with warmer weather continues. It will of course also be rainier but in comparison with southern destinations — with which we normally compete — it will still be more attractive to stay in the north because it will be too hot at the Mediterranean.

Reduced eutrophication effects such as [give examples that are relevant for your country].

It will have a distinct positive impact – provided that there is a connection between discharge of nutrients and growth in algae and bacteria.

• Increased eutrophication effects such as [give examples that are relevant for your country.]

It will have a distinct negative impact – provided that there is a connection between discharge of nutrients and growth in algae and bacteria

• More oil spills due to heavier traffic on the seas.

It can have an extremely negative effect. The strait between northern Bornholm and Sweden is one of the most crowded in the world regarding maritime traffic; an accident resulting in oil spill could have major, negative effects.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

It would have a negative impact if the harbours are drained of life. When there is no life and everything appears dead then tourists tend to stay away.

The Danish Camping Board

The interview was conducted face-to-face in Roskilde, at NERI, 30.04.2008.

Summary

According to the interviewee, the camping industry has grown markedly and become a professional industry within the past 30 years. Where camping previously was reserved for the working class, who had no other options, campers now come from all layers of society. 20 % of all Danes visit campsites, and regarding foreign visitors, most come from Germany, Holland or Sweden. There are two typical categories of visitors: 1) families with children between 3 and 14 years of age, and 2) middle-aged couples, without children living at home. Based on the interview, the sea, beaches, angling opportunities and the idyllic atmosphere of small fishing hamlets are important assets in relation to attracting camping tourists. However, marine environmental problems, and the more specific quality of the water in the Baltic, do not really seem to affects the Danish camping industry. As an example, algae blooms are usually very local phenomena, implying that they are fairly easy to avoid. Moreover, as most campsites have pools, which guests can use instead of the beaches, marine water quality has become less important.

According to the interviewee, the most two important factor hampering the development of the Danish camping industry is 1) the Danish Planning Act, which contains stringent rules regarding use of the coastal zone, and 2) the high Danish taxes on energy consumption, which have a negative effect on the competitiveness of the Danish camping industry.

Questions and answers

Q1a. What are your name, position and contact details? [Anonymity is OK if the respondent wishes, but position is important to know.]

Head of the Danish Camping Board,

Contact details: The Danish Board of Camping, phone: +45 39 27 88 44, e-mail:info@campingraadet.dk. Homepage: http://www.campingraadet.dk/

Q1b. How are you involved in the Danish Board of Camping?

I am head of the board.

Q1c. How long have you been active in the Danish Board of Camping? Since 2000.

Previously working more broadly with turism in "turismefællesrådet" (a broadly focused tourism organization), and as a transport economist at FDM (Association of Danish Automobile owners).

Q2. How would you describe the purpose of your organization?

Industrial organisation – coordinates between different interest parties within the camping industry and acts as a link between owner organisations, user organisations and the authorities. Works with marketing and public relations, as well as quality evaluation (objective <u>and</u> subjective classifications) and quality assurance.

In terms of the environment, the organisation works with two environmental classification schemes: the EU flower and "den grønne nøgle" (the green key – an environmental certificate for business providing overnight stays). Environmental concerns are however not the most important marketing features – environmental concern seem to have decreased with Lomborg, but may be on the rise now with all the ongoing debate on climate.

The Danish Board of camping has been involved in an association called Destination 21 (an offshoot of Agenda21) working with sustainable tourism. For a while the work of the association has been on hold, but has been revived in connection with the decision to establish National Parks.

Q3. How would you characterize camping tourists?

Not just one type; around 20% of all Danes use campsites. Still, two main types of visitors – families with children (3-13/14 years old) and middle-aged/older couples where the children have moved away from home. Traditionally people going camping were people who could not afford otherwise, now people from all layers of society go camping – visiting a campsite has become something people choose out of want not out of need. In this connection it is also important to note, that the most popular form of camping (i.e. caravan) is associated with quite high investment costs, implying that the relative affordability of camping compared to other vacation types may not be that advantageous.

Traditionally most of the foreign camping tourists come from Germany, Holland or Sweden. The typical German camping tourist belongs to low income segment of the German population, comes from the industrial areas in the northern part of Germany and is typically very focused on price. The Dutch camping tourists, on the other hand, are less homogenous. They come because they positively want to come – not because it is their only option – and they are typically less focused on price and more consuming. Regarding the Swedish camping tourists, the number of visitors have been reduced by 50% during the past decade – due to the unfavorable exchange rate (seen from their point of view) they choose to stay at home.

In terms of the types of camping tourists it is mentioned that about 90% stays in caravans, 5% stays in tents and 5% rents small camping cottages.

Q4. In general, how has the activity in the Danish Board of Camping developed during the last 30 years?

The Danish Board of Camping has existed since 1986 (i.e. 22 years); prior to that it was part of the Danish Outdoor Council.

During the past 3 decades the camping sector has become increasingly professionalized – it has become a business; previously it was more of a hobby activity. The competition in the sector is tough – if people are not satisfied they can move quickly, and in this context the EU is basically one big market.

Q5.Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

One of the fields of expertise of the Danish camping industry is to attract anglers, and in this context the interviewee has heard of problems related to decreases in species diversity and fishing opportunities. However, the problems appear to be minor, and the interviewee can tell several positive stories. Thus, studies show that the angling opportunities have in fact improved by the construction of the bridges; campsites on Bornholm has specialized in a special kind of salmon fisheries and Dutch anglers come to Funen off-season to fill their freezers.

In terms of algae blooms, it is not considered a great problem. Usually the algae is concentrated in smaller areas implying that it most often is possible to find clean/unaffected areas within a relatively small geographical area. Moreover, the fact that most campsites have pools implies that clean beaches/water becomes less important. As an example, the Blue Flag campaign, is considered a good concept – being assigned a blue flag is considered a distinction, but it is not believed to be an important determinant in relation to people's choice of holiday destination. Nevertheless, it is acknowledged that algae blooms, and perhaps even more importantly stories in the media about algae blooms, may have a negative effect on people's propensity to choose certain destinations. Therefore effort is devoted into avoiding negative stories in the media.

In terms of problems caused by the presence of bacteria it is mentioned that the presence of bacteria in 2007 did not really matter – what mattered was the rain! Still, there is no question that bacteria pose a serious problem for specific destinations if their presence leads to a prohibition of bathing.

Q6. Has the camping industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]

[Specific question not posed – covered by the answer to the previous question]

Q7a. By what problems was/is the camping industry affected?

[See Q5 and Q6. Specific question not posed – not really relevant due to the limited experience of problems]

Q7b. How was/is the camping industry affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

[Question not posed – not really relevant due to the limited experience of problems]

Q7c. What is the trend during the last three decades for how the camping industry is affected by these problems? More before and less now? Less before and more now? About the same?

[Question not posed – not really relevant due to the limited experience of problems]

Q7d. Which number between 1 and 10 best describes how the camping industry was affected by these problems during the past 5 years? Can you describe the economic effects?

A study focusing on the economic benefits of prohibiting a special kind of trawling fisheries on Funen is mentioned, but no specific or relative amounts are mentioned.

Q7e. Please rank the problems starting with the most severe one for the camping industry in the *last few years*.

[Question not posed – not really relevant due to the limited experience of problems]

Q7f. Who do you think is mainly responsible for these environmental changes?

Problems related to nutrient overloads are probably primarily caused by the agricultural sector and discharges of wastewater from cities, whereas other pollution problems primarily stems from the eastern European countries. Accordingly it is an international problem, and probably it can be solved through regulation (as has happened in Denmark).

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in the camping industry due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

[Question not posed – not really relevant due to the limited experience of problems]

Q8a. Why has the camping industry not been affected? [Q8 only if NO to Q6]

[Question not posed – with reference to the above it was not considered relevant]

Q8b. Was the camping industry affected by any of these problems earlier than 30 years ago? If so, how?

[Question not posed – with reference to the above it was not considered relevant]

Q9a. Has the camping industry been affected or not affected in the last 30 years by any marine environmental *improvements*?

[Question not posed]

Q9b. If YES to Q9a, by which improvements? How was the camping industry affected by these improvements?

[Question not posed]

Q10a. Which are the most important factors for the growth of camping industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

The most important factors are 1) the Danish Planning Act, which contains quite stringent rules regarding use of the coastal zone (i.e. restrictions on construction of the coast), and 2) the Danish taxes on energy, which hampers the competitiveness of the Danish camping industry compared to its e.g. Swedish and German counterparts.

Good marketing; until now, Denmark has not been successful in marketing itself. This was realized during the Muhammad crisis. Competition is hard, especially the Czech Republic, Hungary and Croatia have become important competitors on the camping market, so good marketing is important.

Q10b. How do marine environmental factors rank in importance compared to other factors?

The just mentioned factors are without doubt far more important than environmental factors. Economics are more important than environment.

Q10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Nature, the rural country side and activities such as biking, hiking/walking and fishing are important elements in the Danish marketing strategy; difficult to rank the importance of different factors.

Q11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

No, Don't think there are negative impacts

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the camping industry?

Not really the marine environmental quality that is a problem – the problem lies in the rules of the Danish Planning Act.

Q12b. Does any of the following potential changes in the future matter for the camping industry? If so, how large changes are required for them to affect the camping industry? How would they affect the camping industry?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Seen from one perspective the effect of increasing temperature on the camping industry will be positive – warm weather and sun stability are important for many tourists (and it will get too hot down south implying that Denmark will become even more attractive). However, half of the campsite areas in Denmark are found within the zone of coastal protection, implying that increases in the sea level either will imply significant area losses or the construction of e.g. sea walls which will ruin the natural look of the coastline. Thus, there will also be important negative effects.

Reduced eutrophication effects

As eutrophication presently has little or no effect reduced eutrophication is not believed to have an effect.

• Increased eutrophication effects

It has to become markedly worse than it is now to become problem. If algae blooms becomes a sure thing during the peak season there remains no doubt it will be a problem...... however, hopefully it will only get better from now on.

More oil spills due to heavier traffic on the seas

Some years back there was an oilspill in Grønsund; the effects were very short term. However, if we have an accident like the one in Biscayen (?), there is no doubt it will be a problem – it can ruin a large destination. Potentially it can also harm Denmark's reputation, but the actual effect is likely to depend on treatment of the matter in the media, and the long term effect is only likely to be local. The risk that something will happen is increased due to more traffic.

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

Small fishing hamlets are important elements of the Danish land-scape/countryside. it is important that they are "real" – not just fake settings – therefore a decline in small scale commercial coastal fishery is like-

ly to have a large negative impact on denmarks ability to attract camping tourists.

Holiday home rental agency, Zealand

The interview was conducted by phone, 14.05.2008.

Summary

The activity within the holiday home renting business has increased dramatically during the past 30 years, the prime reasons being increasing incomes and international market trends. Denmark has become an important holiday destination, and is known for its high water quality – that is, Denmark has a "clean" image.

The largest part of holiday homes are in the coastal areas and people go there because of the sun, beach, sand and water. Consequently, there is no doubt that marine environmental factors are important for the holiday home renting industry. The marine environmental problems that are mentioned by the interviewee are pollution caused by industrial discharge/emissions, declining fish stocks causing a decline in sportfishing tourism and waste on beaches. However, based on the interview one does not get the impression that the business currently is very affected by these problems.

There remains no doubt, however, that potential future increases in eutrophication, pollution or oil spills will have significant negative effects for the holiday home rental business. The potential effects of climate change and declining commercial fishery can have both negative and positive effects on the holiday home rental business. If climate change just means more sun, Denmark will become a more attractive holiday destination, while the opposite will be the case if climate change means more rain and higher water levels. Likewise, the effect of reduced commercial coastal fishery will be positive in relation to Denmark's ability to attract sport-fishing tourists, but negative in relation to attracting tourists who wish to experience the idyllic atmosphere of local fishing hamlets.

Questions and answers

Q1a. What are your name, position and contact details? [Anonymity is OK if the respondent wishes, but position is important to know.]

Contact details: Sol og Strand Feriehusudlejning (Sun and Beach holiday home rental)

Hornebyvej 62E 3100 Hornbæk

phone: +45 48 31 73 11

homepage: http://www.sologstrand.dk/

Q1b. How are you involved in Sun and Beach?

Manager.

Q1c. How long have you been active in Sol og Strand?

About 1 year; has been in holiday home rental business since 2001. Sol og Strand is the second largest holiday home rental firm in Denmark, and this year it is celebrating its 30-year anniversary.

Q2. How would you describe the purpose of Sol og Strand?

The purpose is holiday home rental – more specifically, to ensure that guests (i.e. those that rent holiday homes) have the best possible holiday experience, and that the owners of the holiday homes have the best possible economic result.

Q3. How would you characterize the people typically renting holiday homes, i.e. your typical customer?

It is not possible to define a typical guest. The holiday homes which we rent cover a wide spectrum from the very luxurious ones to quite basic ones, and the type of guests vary accordingly.

On Zealand about 35% of guests are from Denmark, about 20% are from Germany, while the rest comes from Norway, Sweden, Holland, the UK, the US and Australia.

Q4. In general, how has the activity in the holiday home rental business developed during the last 30 years?

Activity has increased dramatically.

Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Difficult to answer; has not personally experienced any changes.

Q6. Has the holiday home rental business been affected or not affected in the last 30 years by any marine environmental problems?

Very area dependent.

Q7a. By what problems was/is the holiday home rental business affected?

Discharges/emissions from industry; specific problems related to Cheminova on the western coast of Jutland and Proms chemical factory on the eastern part of Zealand are mentioned, but both specific examples refer to quite old incidents. You could also mention the levels of household waste etc. in the sea which wash up on beaches and is a defined problem for the industry.

Apart from that the holiday home rental business has experienced a decline in sportfishing guests. This is presumably caused by declining fish stocks – however,

it is apparently not a problem everywhere as the interviewee quite recently has observed some German tourists catch a lot of herring.

Q7b. How was/is the holiday home rental business affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

See above.

Q7c. What is the trend during the last three decades for how the holiday home rental business is affected by these problems? More before and less now? Less before and more now? About the same?

Less before and more now.

Q7d. Which number between 1 and 10 best describes how the holiday home rental business was affected by these problems during the past 5 years? Can you describe the economic effects?

Question not answered.

Q7e. Please rank the problems starting with the most severe one for the holiday home rental business in the *last few years*.

- 1) Industrial discharges/emissions
- 2) Decline in fish stocks (due to eutrophication)
- 3) Waste on beach areas

Q7f. Who do you think is mainly responsible for these environmental changes?

- 1) The industry
- 2) The agricultural sector/ all of us

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in the camping industry due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

DI (A business organization representing Danish Industries) would probably be the ones to sue. Difficult to determine a more specific amount to claim.

Q8a. Why has the holiday home rental business not been affected? [Q8 only if NO to Q6]

Question not posed.

Q8b. Was the holiday home rental business affected by any of these problems earlier than 30 years ago? If so, how?

Question not posed.

Q9a. Has the holiday home rental business been affected or not affected in the last 30 years by any environmental *improvements?*

Yes.

Q9b. If YES to Q9a, by which improvements? How was the holiday home rental business affected by these improvements?

Nature restoration projects – e.g. the Skjern River project which has served to attract anglers as well as tourist emphasizing nature experiences. Note: Skjern River is located in Jutland and the restoration project is the first large scale river restoration project of its kind in Denmark. The project is one of the largest nature restoration projects in Northern Europe.

Q10a. Which are the most important factors for the growth of the holiday home rental business? Think about all kind of factors that are important for the development of the business, both environmental and non-environmental.

- Increasing incomes/economic growth
- International market trends
- Denmark has become a popular holiday destination
- Denmark is known for its high water quality Denmark has a "clean"image

Q10b. How do marine environmental factors rank in importance compared to other factors?

Marine environmental factors are very important – the largest part of all holiday homes are in the coastal areas, and people go there because of the sun, beach, sand and water.

Q10c. Are there any non-marine environmental factors that affect your business? How do these factors rank in importance compared to other factors? See above.

Q11. Do you think your business has a positive/negative impact on the marine environment? What would this impact be?

Difficult to say – what is the alternative use of the areas affected by the holiday home rental business?

Are there any measures taken to alleviate these impacts? If yes, what are they?

No.

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the holiday home rental business?

- Reduction of industrial discharge/emissions
- Increased efficiency within the energy and transport sectors.
- In general, measures aimed a securing a clean water environment.

Q12b. Does any of the following potential changes in the future matter for the holiday home rental business? If so, how large changes are required for them

to affect the holiday home rental business? How would they affect the holiday home rental business?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Depends on the more specific character of the changes. If it just means more sun, then there will be a significant positive effect, as it will attract more guests. If, on the other hand, it just means more rain and increasing sea levels, then there will be a significant negative effect.

Reduced eutrophication effects

See below.

Increased eutrophication effects

Increased eutrophication will have a significant negative effect. We have seen how eutrophication and toxic algae have an effect – it may cause foreign guests to leave or claim compensation, and it certainly does not make them want to come back.

• More oil spills due to heavier traffic on the seas

Same effect as increased eutrophication.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

The effect can be both positive and negative. A decline in commercial coastal fishery will make Denmark more attractive for sportfishing tourists, as there will be more fish for them to catch. On the other hand, it will have a negative effect on Denmark's ability to attract tourists if the idyllic small fishing hamlets disappear. As an example, a much valued activity for tourists visiting the small fishing hamlet of Gilleleje on the northern part of Zealand is to go down to the harbour and buy freshly caught fish directly from the local fishermen.

Danish Knowledge Centre for Sportfishing (DKCS)

The interview was conducted by phone, 07.05.2008.

Summary

According to the interviewee, an angler is defined as a person who has gone fishing for recreational purposes at least once within the past 12 months. During the past 30 years activity within the angler industry has increased markedly, and important factors for this growth has been the increased mobility of people, improved economic conditions and eased accessibility and spread of information caused by the internet.

The most important marine environmental problem in relation to angling activities has without doubt been the disappearance of the cod, which has implied that the salmon and trout fisheries have increased. The cause for the disappearance of the cod is over-fishing by commercial fishermen practicing trawling fishery, and is – according to the interviewee - the result of a wrong prioritization of society's resources; i.e. insane that 5 trawlers can ruin it for 50.000 anglers. If someone should be sued for the problems faced by the anglers industry, it should be the Ministry of Food, Agriculture and Fisheries who regulates commercial fisheries, and regarding the amount to claim, it would amount to several billion DKK in total. Eutrophication and dioxin pollution have also had negative effects on the anglers industry. For pollution as such, it is society at large that is responsible.

In terms of the future conditions for anglers, a ban on commercial trawling fishery would have a tremendously positive impact, and so would improved water quality (i.e. reduced eutrophication). Oil spills and temperature increases caused by climate change are not believed to have significant effects, that is, as long as the increase in number of oil spills does not increase dramatically and as long as the temperature does not increase to the extent that the trout disappears.

Q1a. What are your name, position and contact details? [Anonymity is OK if the respondent wishes, but position is important to know.]

Contact details:

The Danish Knowledge Center for Sportfishing, phone: +45 23 32 89 88 email:steen@ulnits.dk homepage:

http://www.videncenterforsportfiskeri.dk/

Q1b. How are you involved in the Danish Knowledge Center for Sportfishing (DKCS)?

Head and founder of the organisation.

Q1c. How long have you been active in the Danish Knowledge Center for Sportfishing (DKCS)?

Is the founder of DKCS, and is the daily leader of the center. The center was founded in 2004 10 people are externally associated with the center.

Q2. How would you describe the purpose of your organization?

In brief, the purpose is to increase and communicate knowledge on sportfishing and its welfare economic effects. The background being that sportfishing is one of the most important outdoor activities in Denmark.

Apart from that, reference is made to DKCS' homepage; here it says: "The main purpose of Danish Knowledge Center for Sportfishing (DKCS) is to document and professionalize angling in Denmark. The center aims at sharing and expanding the knowledge base on sportfishing". To do this, DKCS collects – and makes available – information on Danish angling (including aspects related to legislation), plays an active role in education (including courses for tourists) and participate in international sportfishing networks.

DKCS' customers/clients include Anglers as well as all those actors servicing and/or catering Anglers.

Q3. How would you characterize a sportfisher?

In a survey on sportfishing made by a research institute in 1996 a sportfisher is defined as a person who within the past 12 months have gone sportfishing, where angling is defined as fishing for recreational purposes with rod, hook, line and leader. This definition is used by DKCS. In term of defining a sportfisher tourist, all Anglers are basically considered tourists, as they are all visiting the fishing site.

Q4. In general, how has the activity of sportfishing developed during the last 30 years?

The industry has been affected by increased mobility of people. The activity level has increased markedly – one might say that the activity level has increased proportionally with the increase in real estate prices.

Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

The cod has disappeared due to overfishing. This has had a very negative effect on sportfishing tourism.

Eutrophication has also played a role as it may cause fish to disappear temporarily; as the fish return, however, the negative effect caused by this is only temporary.

Dioxin emissions have also had a negative effect, especially in relation to the salmon fishery around Bornholm, but compared to the problems caused by overfishing, the problems/negative effects caused by pollution are limited.

Q6. Has the sportfishing industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]
See Q5.

Q7a. By what problems was/is the angling industry affected? See Q5.

Q7b. How was/is the angling industry affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

See Q5.

Q7c. What is the trend during the last three decades for how the angling industry is affected by these problems? More before and less now? Less before and more now? About the same?

As the cod fishery has declined, the salmon and trout fishery has gone up. Cod fishery attracts tourists; today, the situation regarding cod fishing is more or less catastrophic, and it cannot be improved unless trawling fisheries is banned.

In relation to the salmon fisheries, there have been very successful experiences with "delayed release" ventures with raised salmons (delayed release refer to a practice where the release of raised salmons is delayed compared to usual practice – by doing so, it is possible to ensure that the fish will return to the point of release when they have grown). It looked as a very promising business, but was stopped due to Swedish protests caused by concerns related to mixing between wild and raised salmon.

Q7d. Which number between 1 and 10 best describes how the angling industry was affected by these problems during the past 5 years? Can you describe the economic effects?

Reference is made to a report ordered by the municipality of Middelfart. This report analyses the economic effects of sportfishing with rod and line at a particular place in Lillebælt called 'Snævringen'. The report focuses on the fact that a fish caught by rod an line causes much more positive economic effects for the local economy, than a fish caught due to commercial fishery. In other words, a fish caught by sportfishing represents a value which is a lot higher than the market value of the fish.

Q7e. Please rank the problems starting with the most severe one for the angling industry in the *last few years*.

- 1) overfishing
- 2) eutrophication
- 3) Dioxin pollution

Q7f. Who do you think is mainly responsible for these environmental changes?

Overfishing is caused by commercial fishermen practicing trawling fishery. Overfishing is the result of a wrong prioritization of society's resources; commercial fishery is not very profitable – insane that 5 trawlers can ruin it for 50.000 Anglers.

For pollution as such, it is society at large that is responsible.

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in the angling industry due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

The one to sue would be the Ministry of Food, Agriculture and Fisheries – they are the ones regulating commercial fishery. Concerning the relevant amount to claim, it would be several billion.

Q8a. Why has the angling industry not been affected? [Q8 only if NO to Q6] Question not posed

Q8b. Was the angling industry affected by any of these problems earlier than 30 years ago? If so, how?

Question not posed

Q9a. Has the angling industry been affected or not affected in the last 30 years by any marine environmental *improvements?*Yes

Q9b. If YES to Q9a, by which improvements? How was the angling industry affected by these improvements?

The quality of the marine environment has generally improved; there are more fish, and some fish stocks can reproduce themselves. This is something that is important for many Anglers.

Q10a. Which are the most important factors that has affected the growth of the angling industry? Think about all kind of factors that are important for the development of the industry, both environmental and non-environmental.

The internet; that is the accessibility and spread of information. In this context it may be noted that Anglers' organizations were very quick to adopt the internet as a means of communication – thus one might say that Anglers were pioneers on the internet.

Q10b. How do marine environmental factors rank in importance compared to other factors?

The marine environmental factors are crucial – you cannot market something that is not there!

Q10c. Are there any non-marine factors that affect your industry? How do these factors rank in importance compared to other factors?

The fact that facilities demanded by Anglers has improved/increased has had an effect as it implies that more Anglers can be accommodated.

Q11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Primarily positive as it has the effect of attracting attention – including political attention – to issues related to the marine environment.

Some types of fishery, e.g. fishing shoaling cods with ecco device, may have a negative impact as it harms a lot of fish. However, nothing has been done to stop this undesirable type of fishery; the prime reason for this is that we are an old fishing nation where all is allowed, and there is no tradition for regulating fishery. In Sweden this type of fishing is not permitted.

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the sportfishing industry?

To stop all commercial fishery with trawling devices – then Denmark will be a sportfisher heaven!

To improve the marine water environment/water quality.

Q12b. Does any of the following potential changes in the future matter for the sportfishing industry? If so, how large changes are required for them to affect the sportfishing industry? How would they affect the sportfishing industry?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Increased temperatures will have both negative and positive effects on sportfishing. On the positive side, higher temperatures will imply that new fish species can live in Danish waters – examples are sea bass, mackerel and grey mullet, which are all attractive sportfishing species. On the negative side, however, it will imply that the cod will move north. However, as long as the temperature does not increase to the extent where the trout disappear (which would be a catastrophe) the effects are likely to be relatively small.

Reduced eutrophication effects

It would have a very positive effect – it would imply improved conditions for sportfishing.

• Increased eutrophication effects

It would be catastrophic – it is bad enough as it is.

• More oil spills due to heavier traffic on the seas

It would not be beneficial, but as long as the number of spills does not increase dramatically, it will probably not have a significant detrimental effect.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

A reduction in commercial fishery with trawling devices will, as already mentioned, have a tremendously positive effect on the sportfishing industry.

The union of small professional vessels (Sammenslutningen for mindre erhvervsfartøjer, SME).

The interview was conducted face-to-face in Helsinore, 09.05,2008.

Summary

This interviewee has been active in the organization since 1991. One main type of tourists using the vessels organised in this union are ordinary people who want to go out fishing in their sparetime; or who just want to go out sailing – perhaps to catch a few fish (cod or flatfish). Other tourists at the vessels are firms and other in a group – they can be Danish or foreigners.

The interviewee's experience is that the Danish waters have become cleaner, and that is important for his industry. If the environmental quality had not improved we would have had problems. On the other hand, fish stocks (in particular the cod) are declining, and this has a negative impact on anglers. Possible causes of the decline are temperature changes or changes in the activity level of commercial fisheries.

The biggest environmental problem in relation to the Baltic Sea is that not all countries are equally conscious about their discharges. One of the problems is that we can be very aware of the Danish environment, but what does that help if the countries in the eastern part of the Baltic do nothing? Furthermore, The Baltic is a highway for large ships and oil transports, and that implies great risks for accidents. As an example there was the oil spill in Grønsund (Denmark). This kind of accidents is severe for the Danish waters if they happen; however, I do not know if

the incident in Grønsund had an effect on the recreational fisheries, i.e the ships. Finally, agricultural discharge may be a problem.

The demands imposed by authorities are the most important factor affecting growth in this industry.

Q1a, b. How are you involved in SME?

Ole Vistrup is chairman for the union, and the only employee. The union is a branch organisation, and my primary responsibility is to stay in contact with official authorities, directorates in DK and EU etc

The union represents minor passenger vessels, and the union comprise 64 shipping companies – in all 105 vessels/ships. I was the keeper of a shipping company before I started here.

Contact details:

http://www.smedanmark.dk/

Q1c. How long have you been active in SME?

I have been active here since 1991. The union (SME) was funded then, and in other words it is 17 years now. The union of recreational sailors, SIL, which has existed since 1976, merged with the union of sailing-ships in 1996. The two formed the union of minor passenger vessels of today.

Q2. How would you describe the purpose of SME?

We do not negotiate agreements, but takes care of the interests of the branch. The mission is to monitor the legislation, the design and implementation of the regulation and the rules, to influence the development of the legislation – and ensure that we are capable to live with it. The initial work designing conventions and directives start off several years before the implementation – 5-6 years time ahead, and we must start early to influence them and ensure that the old sail-ships and vessels still can be sailing. There is a lot of work with authorisations – the old ships being authorised in the past cannot always be authorised now because the technical requirements have been more restrictive. The old ships are ensured a high degree of security because of operational rules (how to behave on the ship etc). Technically the gap between the old and the newer ships grows – because the newer ships get more and more technical equipment. The Union has the opinion that this fact does not make the older ships more uncertain and un-secure – only at this relative level – compared to the new ones. The technical equipment is very expensive.

Our mission is also to protect Danish coastal culture, as Denmark is a coast-nation - influenced by the long coastline.

Q3. How would you characterize your type of tourists?

One type of tourists using the vessels in this union are ordinary people who want to go out fishing in their sparetime; or who just want to go out sailing – perhaps to catch a few fish (cod or flatfish). This is a hobby type of demand Most are Danish tourists. There are some Germans among the cod-fishers however. The Oresund has an international good reputation for good cod-fishing possibilities – both because there are cod in the sea, and because the Oresund water is relatively protected from weather and windy conditions. The yellow reef close to Hanstholm and Hirtshals in the western Jutland is also excellent fishing water, but the weather here is much more hard and unpredictable. The tours at Oresund are seldom cancelled because of the weather.

Other tourists at the vessels are firms and other in a group – they can be Danish or foreigners. Teambuilding are also typical tours. The participants are invited to sail the ship etc., and this offer is sold to customers, suppliers, as a reward to the employees etc. One typical tour from Helinore or the eastern coastline is to sail to the island of Hven; then the ship owner has arranged everything, i.e. bike rental, entrance to the museum etc.

In the summer holiday period the market for business tours lies still. Instead the sailing ships are used for one-week trips in the Danish waters or to the Swedish archipelago – on these trips tourists can participate actively in the sailing of the ship. A race for old ships around the island of Funen is also arranged.

Camps are also arranged for school children – in fact this is how the use of old ships and schooners began – but this is becoming less common due to declining school budgets combined with increasing prices for sailing due to increasing maintenance costs.

Q4. In general, how has the activity in SME developed during the last 30 years?

For the recreational fishers it has become more difficult; the number of customers is the same, but it has become more expensive to operate and maintain the ships, and customers have not been willing to pay more. Moreover, the number of fish to catch has declined. As an example, the cod has basically disappeared from the Great belt.

For the sailing ships, the activity has primarily developed in a positive direction; the interest for the maritime way of life has increased, and people want to learn about the ships and the history. The number of sailing ships has increased, by around 20, and these primarily sail package tours. The market is continuously developing; more ships have become active during the past 5 years. The history of the ships is very important.

Q5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

My experience is, that the Danish waters have become cleaner, and that is important for us.

It is also important for the anglers that fish stocks are declining – among others, the decline can be caused by temperature changes or changes in the activity level of commercial fisheries.

However, the water has become cleaner. The sailing ship business is also experiencing cleaner water, and that is important because although the history and the old ship are important parts of going sailing, it is very important that the experience takes place in a "clean" setting. Brown and murky waters, and/or a coast with industrial plants does not work well with the experience we want to sell to people. Take for instance the new bathing facilities in the Copenhagen harbour – I would not have gone swimming there 20 years ago! We experience the more stringent rules in relation to the sailing ships, as an example it is no longer allowed let water from the toilets on board directly into the sea – and the water is better than when I was a boy. It is difficult for me to relate to pollution caused by the agricultural sector, and e.g. determine if they are doing enough, but there has no doubt been an

Q6. Has SME been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES to Q6, go to Q7. If NO to Q6, go to Q8.]

It is hard to measure an effect. Consciousness has grown in the same period, and if the environmental quality had not improved we would have had problems. But we have no problems.

Q7a. By what problems was/is your type of tourism affected?

improvement in the regulation of the ships.

Not answered

Q7b. How was/is your type of tourism affected by these problems? [Try to make the respondent answer in an as concrete as possible manner to Q7a and Q7b].

Not answered

Q7c. What is the trend during the last three decades for how your type of tourism is affected by these problems? More before and less now? Less before and more now? About the same?

It has become better.

Q7d. Can you give any number for how your type of tourism is affected by these problems in the *last few years*?

No, it is difficult to attach a number to the effect of changes in environmental quality.

Q7e. Please rank the problems starting with the most severe one for your type of tourism in the *last few years*.

The biggest environmental problem in relation to the Baltic is that not all countries are equally conscious about their discharges. One of the problems is that we can be very aware of the environment here, but what does that help if the countries facing the eastern part of the Baltic do nothing?

The Baltic is a highway for large ships and oil transports, and that implies great risks for accidents. As an example there was the oil spill in Grønsund. This kind of accidents is severe for the Danish waters if they happen; however, I do not know if the incident in Grønsund had an effect on the recreational fisheries, i.e. the ships.

Q7f. Who do you think is mainly responsible for these environmental changes?

I do not know enough about discharges/emissions from the agricultural sector, and as already mentioned then the environmental problems in the eastern part of the Baltic plays an important role.

Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits regarding your type of tourism due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

I do not think I would sue anyone – the problems have to be solved differently, i.e. through public debate and lobby-work. This was a very hypothetical question.

Q8a. Why has your type of tourism not been affected? [Q8 only if NO to Q6]

Yes, the water has become cleaner, but I do not know why fish stocks are still low. However, it is – in itself – very positive that the water has become more clean. The fact that the water is clean is not so much something you can actually see – it is more something you know. In the summertime, there can be algae blooms, but as soon as there is a bit of wind, the algae disappear again. Thus, it can be difficult to judge if the water is in fact clean or not.

Q8b. Was your type of tourism affected by any of these problems earlier than 30 years ago? If so, how?

(not answered)

Q9a. Has your type of tourism been affected or not affected in the last 30 years by any marine environmental *improvements?*

(not answered)

Q9b. If YES to Q9a, by which improvements? How was tourism in Denmark affected by these improvements?

(not answered, but interviewee mentioned previously that it is now possible to swim in the Copenhagen harbour)

Q10a. Which are the most important factors for the growth of your type oftourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

The demands imposed by authorities are the most important factor affecting growth. We want to have safe ships, but the regulation imposed on us by authorities does not work well. On the positive side, however, is that safety levels have increased.

Seen from an economic perspective it has become increasingly difficult to own and operate a ship. Previously VHF radios were sufficient, now much more expensive systems are required – this way the technical requirements makes it increasingly costly to operate a ship.

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Q10b. How do marine environmental factors rank in importance compared to other factors?

My answer should be based on facts and I cannot answer. If the question was on technical requirements I could answer right away in monetary terms, but concerning the marine environment I would have to imagine a situation where the environment had not improved, i.e. a situation without regulation.....

Q10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

The overall economic trend and the price development are of great importance.

Q11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

The effects of our activities are either neutral or positive, they are by no means negative. People are very conscious about not throwing things in the water, that they are on a clean ship. The scheme administered by the Danish Maritime Authority where you can report oil spills etc. has a positive effect on people's attitude and opinions.

If you have a good day and land a lot of fish you can be met by the attitude that recreational fishing is an important contributor to overfishing. But the proportion of the total Danish catch, for which recreational fishing is responsible, is very small – indicating that even this does not have a negative effect. The only problem can be fishing cods in shoals with ecco device, which – from a more ethical point of view – can be considered inappropriate. This kind of fishing is not prohibited in Denmark, but an increasing number of ship owners have abandoned it based on ethical grounds.

Q12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your type of tourism?

An important factor is, not if the sea is blue rather than brown, but that it is full of life – in this context it is my impression that discharge from the agricultural sector continues to be a problem. You cannot see agricultural discharge, as such it is not a problem, but you know there is a discharge – and you know it has a negative effect on plant and animal life in the sea.

Another important problem in the Danish waters is that the water is free territory – i.e. all can sail through Danish waters, and you cannot force ships to follow specific routes or to take a pilot on board. This is a problem in relation to the risk of accidents and pollution, and the regulation of sea freight traffic should be much more strict.

Q12b. Does any of the following potential changes in the future matter for tourism in Denmark? If so, how large changes are required for them to affect tourism in Denmark? How would they affect tourism in Denmark?

- Climate change, resulting in a warmer climate in the Baltic Sea area.
- Reduced eutrophication effects such as reduced algae blooms etc..
- Increased eutrophication effects such as more algae blooms Can be More oil spills due to heavier traffic on the seas.
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

The degree of eutrophication has important effects. At one point in time last summer, the amount of algae reached an unbearable level – it smelled and no one wanted to go sailing. You could compare it to going on a picnic right next to a sewage disposal plant. This was in Oresound, and primarily in those places where the water was stagnant.

Fortunately oil spills does not happen very often, but the lack of sufficient control is important – it would be a good idea to make it mandatory to take a pilot on board. Also, the ships clean their tanks when no one sees it, e.g. at night; this could also be avoided if there was a pilot on board. In this connection it is important to recognise that not all oil spills come from accidents, and that violations of existing regulations is an important problem.

Reduction of coastal fisheries – what does that mean? How far out does the term coastal fishery apply? The local coastal fishery is one thing, but those who sail far out is another thing. The small cutter sailing out with a trawl is not a problem in relation to overfishing, and therefore a reduction in this kind of fishery will have no effect. It is the big modern trawlers, which are so effective that no fish escapes, that is the problem. In this connection a problem with the current regulation is that licences to catch are granted to the individual vessels, but in practice can be used by any other vessel. Thus, you can in effect have one vessel responsible for the whole catch. Due to this hundreds of small cutters may be laid up, while big "factories" sail out and take all the catch. This not only ruins the traditional maritime way of life and the much valued atmosphere of small fishing hamlets, it also implies that the fish disappear.

Conclusions and summary of all findings

In this section an overall picture of what was found in the interviews is presented. As the interviewees are carefully chosen to represent as many different tourism activities as possible we anticipate that the findings – that do not differ very much between the different actors – to some degree represent the general attitudes and experiences held by the different stakeholders in the Danish tourism sector. At least we have no reason to believe that the expressed opinions are extreme in any way. However, due to the limited number of interviewees we cannot be sure that we have covered the whole spectrum of attitudes and opinions.

From the interviews it is clear that most of the interviewees find that the environment and the coastline are important for Danish tourism. Several of the interviewees indicate however – somewhat surprisingly – that marine environmental problems do not play a major role for tourism development in Denmark. However, it is important to note that most of the interviewees point to the fact that it is difficult to say, what the status would be *without* the improvement in the aquatic environment which we have experienced during the past years. In other words, many of the interviewees say that these past improvements, in particular the improvement of the bathing water quality, have had positive effects – also for tourism. Thus, it is important to emphasise that practically all interviewees agree that marine environmental quality is an important factor in relation to attracting tourists.

On the other hand, several interviewees mention that the recent incidents of algae growth and "green pea soup" resulting in warnings and bathing bans from public

authorities can have a negative impact locally, and that it may result in more general and long term impacts if these incidents continue to occur. However, two of the interviewees mention that humans forget fast, i.e. algae blooms, bacteria growth and bathing bans, are forgotten fast because they most often occur quite locally and because they disappear quickly in windy weather —and windy weather is a common phenomenon in Denmark. Moreover, one interviewee mentions that pools are good substitutes for bathing in the open sea, and that the construction of pools therefore is a way to mitigate the potential negative effects on tourism caused by eutrophication effects.

The interviewees representing anglers and the vessels/shipping companies are mainly focused on problems related to overfisheries. Fish stocks are generally declining, and the cod has more or less disappeared. This is considered a problem for the angling sector, as cod is a popular fish, which can attract many sportfishers. However, there are alternatives to cod fishery, i.e. trout and salmon fishery, so despite the decline in cod stocks there continues to be good angling opportunities in the Danish waters.

In terms of the potential effects of future hypothetical changes, most interviewees agree that oil spills can cause serious negative effects both on tourism and to nature and society in general. In this context it is important to note that Denmark's localization makes us very vulnerable towards oil spills – by accidents, but also by "intended" oil discharges caused by, e.g. cleaning oil tanks etc. This is not allowed, but is practiced.

When it comes to the expected effects of climate change and increasing temperatures, there seem to be agreement that the effects can be positive as well as negative; where increasing temperatures in itself will serve to make Denmark more attractive for tourists, effects in relation to increased unstable weather conditions may have the opposite effect. Moreover, increasing temperatures is also mentioned to have a potential effect on sportfishing tourism, as it may induce changes in the composition of fish species in the Danish waters.

It is indicated by several respondents that an important feature of Denmark in relation to attracting tourists is a clean environment; with this in mind it is not surprising that interviewees seem to agree that increasing euthrophication will have a negative impact on all kinds of tourism, while decreased euthrophication will have positive effects.

Lastly, in terms of the potential effects of declining commercial coastal fisheries, the opinions diverge somewhat. Where some – primarily those focused on fishing related tourism – believe it will have significant positive effects (due to the increases in fish stocks caused by the decline in trawling fishery), others expect it will have a negative effect as it will serve to ruin the cozy atmosphere of small fishing hamlets , which is highly valued by tourists. But as said by a couple of

interviewees, this is not a real conflict as the small vessels – creating the cozy atmosphere - are not the ones responsible for the overfishing.

Annex II. Estonia

Prepared by: Heidi Tuhkanen and Stockholm Environment Institute Tallinn Centre / Estonian Institute for Sustainable Development.

Introduction

The Estonian country report's aim is to indicate how changes in the marine environment of the Baltic Sea has in the past influenced and might in the future influence the tourism industry of Estonia. Of the four tourism sectors that were to be included in the scope (beach tourism including spas, camping and rental of summer houses, recreational fishing, boating, and cruises), only three were focused on in interviews. Formal interviews by recreational fishing industry representatives were left out due to the currently small size of this market. Between April and mid-May of 2008, brief background research was conducted followed by a series of interviews with 9 representatives for the tourism industry in Estonia.

The background research entailed an internet search, as well as personal contact via email with a representative of the Estonian Marine Institute of Tartu University, Dr. Georg Martin and a discussion with Dr. Sulev Nõmmann (marine scientist). This served to identify the general situation marine tourism and marine environment in Estonia and to tailor some of the survey questions to the Estonian situation. Furthermore, personal contacts with various individuals knowledgeable about the fishing industry were conducted to clarify the fishing situation in Estonia. This included Evald Ojaveer (Estonian Marine Instute of Tartu University), and Karmen Paju (Kuresaare Tourist Information Center). The face-to-face interviews covered representatives knowledgeable about beach tourism, boating and cruises. Face-toface interviews were conducted with a representative of the Estonian Yachting Union, the Pirita Harbour, OÜ Spinnaker (Estonia's oldest and largest yacht chartering company), Lootuur OÜ (outdoors trip outfitter), Tuule Grupp (Travel service marketing umbrella), Kaljas IRIS (small cruise service provider), Maaturism/Estonian Rural Tourism (Non-profit organisation representing rural tourism service providers), Reisi Ekspert (travel agency), as well as an Estcott OÜ (online vacation rental accommodation company). In one interview (Ado Tickerpäe), only part of the interview questions were answered. Additionally, a limited telephone interview was conducted with a representative of the Estonian Spa Association to see whether the spa industry should be included as marine and coastal tourism, due to its significance to the Estonian tourist industry. The summarised survey responses, as seen in the *Findings* section, were then sent back to each survey respondent for an opportunity to make changes to before final submission. Finally, the conclusions were reviewed by Dr Sulev Nõmmann, as well as Marje Braunbrück, Deputy Director at the Estonian Tourist Board.

It should be noted that the tourism industry in Estonia is economically dominated by the quite developed cruise and spa industries. The rest of the coastal and marine tourist industry is still developing and can be considered "niche markets," of which there seems to be a lack of overall knowledge, especially in terms of economic significance.

Findings

Interview with Mr Ado Tikerpäe, harbour captain at the Pirita Harbour, Pirita 2008-04-15

- How long have you been active in the boating tourist industry? I have been running the Pirita Harbour as the Captain for the last 10 years, but I have worked at the port doing all kinds of things for 28 years.

How would you describe the purpose of your organization?

The Pirita Harbour was built for the 1980 Moscow Olympics and was privatised in 2001. The port provides boaters services, such as electricity, water, showers, sauna, fuel, waste services, and assistance. We also provide boats spaces – we have 270 local estonian boats kept here year round and allmost all the spaces are full.

- How would you characterize the type of tourists in the boating tourist industry?

Last year we had over 200 500 boats use our harbour from all over the world. Over 90% of the customers are Finnish and maybe 20 boats were from Estonia. Tourists usually stay for at at Pirita port – a bigger port – for only 2 days and then they move to another port in Estonia – like the Estonian islands. This is especially popular during the Finnish summer vacation season.

- In general, how has the activity in the boating tourist industry developed during the last 30 years?

During the Soviet times, there was not much activity, and none with international boating tourism. However, locally, boats were owned by factories, you had to get permits to boat, etc. In 1986, the first foreign boats appeared.

In 1998, 300 200 boats visited the harbour, but it was really high because it was the first year that Finns didn't need visas. Now due to fuel costs rising, it has gone down again. Also, the boating tourist industry has decreased in Estonia due to increases of 200-300% in the port fees. Ports in Estonia are not subsidised at all and they are in relatively poor condition. To stay afloat, they have had to increase their fees, which are high compared to i.e. Finland.

The whole time, Estonian boating has increased, the last years a lot – last year we had 63 new Estonian boats that were kept in the harbour all year round.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years?
 Which changes?

Mostly temporary ones - during very warm summers, there has been this harmful algae in shallow areas. This has been problematic over the last 10 years. Also, there has been no ice in the bay in the wniter anymore.

- Has the boating tourist industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, the algae problems have not affected the tourist industry here in Tallinn atleast – maybe in the Estonian islands. The ice hasn't affected the tourists either. For us as a harbour, of course, if we know ahead of time that it won't freeze, it is better because then the boats do not have to come out of the water.

- Why has the boating tourist industry not been affected? Sailors and boaters are not swimming.
 - Was the boating tourist industry affected by any of these problems earlier than 30 years ago? If so, how?

There was no boat tourism 30 years ago.

- Has the boating tourist industry been affected or not affected in the last 30 years by any marine environmental improvements?

No, it has been the same – now it should be getting better due to less industrialisation and less leakage into the water.

- Which are the most important factors for the growth of the boating tourist industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Funding - now, all Estonian ports are privately owned, which makes us almost ineligible for EU funding. It is difficult to stay afloat as a private entrepreneur. From Denmark we have received some assistance for the infrastructure, pumps, etc. Ports do not have enough funding to improve their conditions by themselves. The city government in Tallinn is not interested in marine tourism, the city Tourism pages do not list marine tourism as a subject and the 10 year development plan does not mention marine tourism. No one understands that we bring money into the city.

 How do marine environmental factors rank in importance compared to other factors?

Very small

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Most important is the financial support for ports. I.e. in Estonia, The Pirita Harbour is the only one in estonia which is large enough to build any thing. The others are in such poor condition.

Interview with Mr Ott Kallas, The Secretary General of the Estonian Yachting Union. Pirita 2008-04-15

- How long have you been active in the boating tourist industry?

I have been involved in sailing since the age of 7 and am now nearly 40. I have been working for the yachting union for 3.5 years.

- How would you describe the purpose of your organization?

The Estonian Yachting Union was founded in 1928 by the biggest yacht clubs and it actively coordinates the sailing in Estonia. Today we have 30 members, mostly yacht clubs, 5 of which are rather large for Estonian standards. The Union, is what is considered a federation in other countries, mainly deals with racing, setting rules, organising events like regatas, development of the national sailing team, and public relations for the Estonian media. We try to create interest in Estonia for sailing as a sport – and also in the future as a way to spend a holiday.

We are not directly involved in the tourist industry per say, but in the yacht industry and with racing. We deal a lot with the cross-border relations and are members of international organisations as the Scandinavian Sailing Federation and the International Racing Union. Wthey are trying to have more ambitions outside of racing. The concept of yachting as a holiday is an area that we should enter, but have not yet started on. We provide a lot of information about Estonian yachting industry, the marinas and small ports to international organisaitons that share it with their members. I.e. a British cruising association is requesting information about the Estonian situation regarding regulations and the border control.

- How would you characterize the type of tourists in the boating tourist industry?

We are not directly involved in the tourist industry yet. The yachting clubs have not been very open associations historically. However, they are getting more involved in tourism in different ways. In the last few years, sailing schools have been established to teach sailing to adults. Courses have been used by tourists or people visiting their Estonian friends. Sailing clubs are organising tours for companies to go out to sea with their customers or staff. They are becoming more open, but tourism is not the main area of Estonian yachting clubs.

In other countries, boating associations cover more the tourism. However, the industry is not as developed in Estonia – and there are not such organisations.

- In general, how has the activity in the yachting industry developed during the last 30 years?

Yachting has become much more touristic and open due to the opening of the borders. Since the end of 2007, when Estonia entered Schengen, you can enter ports without officially registering with officials. The only border check is when you enter the Russian border.

I do not think that there are many records of it, but I think that there has been an increase in tourists from other countries in Estonian ports. People outside of Estonia are requesting more information about Estonia, what is going on with sailing in Estonia, etc.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

I have not experienced many changes in the Baltic Sea environment, except that Tallinn Bay is no longer a closed bay in the winter. The climate has changed during the last 30 years and the bay has been open all winter and ferry traffic no longer requires an icebreaker. Actually, I think that in the summer, the water is now colder than it used to be due to the active ferry traffic. The ferries create lots of turbulence in the tallinn bay. I feel that the water was calmer earlier, not so mixed by the non-natural currents.

In terms of the marine environment otherwise, I don't think it is really so bad. I know from the media that the water quality in the baltic sea is not good. But even as a sailor, I don't see or feel it. I don't recall even one case of illnesses from the sea water. Sometimes there are algae problems, but the sailors are not so directly affected – swimmers are more. Sailors like sailing and they go sailing as long as its not killing them. They don't stop sailing unless they are risking their life.

On the other hand, we are aware of what is going on in the east end of the Finnish gulf – where it is very bad. We are not very far from this area, but the pollution seems to be local. I know they just opened the new water treatment plant and have heard that it's better now. I know that in 2005 during a world championship in St. Petersburg, one-third of the competitors fell ill from contact with the sea water.

- Has the yachting industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

I do not think so, since there are not real big marine environment problems along the Estonian coast and during the winter it is too cold to sail.

- Why has the yachting industry not been affected?

As I mentioned earlier, sailors will keep sailing and the problems here aren't bad.

- Was the yachting industry affected by any of these problems earlier than 30 years ago? If so, how?

I do not think so.

- Has the yachting industry been affected or not affected in the last 30 years by any marine environmental improvements?

It has not been affected.

- Which are the most important factors for the growth of the yachting industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Growth of the boating sector depends on politics —open borders, less port checks for the boats, i.e. now foreign boats can go straight to other smaller ports without first initially registering at Pirita Harbour. For Estonians, it means that they can sail out freely from here and keep their boats near their summer cottage or go easily to the Finnish archpelago.

Also important is the economic situation, which has been positively developing for Estonians. During the Soviet years, sailing wasn't so widely developed. Once the economy started developing, Estonians bought mostly motor boats. However, now fuel costs are increasing and motor boat owners are realising that motor boating can be boring or not as much fun as sailing. During the last 2 years, so many boats have been bought that there are no more places to keep them in the ports. Also, the prices for spaces have increased a lot. In many areas, there are plans to build small ports. Many have succeeded to get EU financial support for these projects, especially to develop marine tourism for sailing.

- How do marine environmental factors rank in importance compared to other factors?

Very small

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Influence more – I do not know how to weigh them.

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Neutral - sailing is such a clean sport, its just using the powers of nature, instead of fuel. It is very close to nature and can be used to educate people about the waters and the need for cleaning. Sailors are ambassadors of the environment.

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the yachting industry?

I think that the most important is a well organised industrial and domestic waste control system and cleaning systems that would guarantee a clean sea for sailors.

- Does any of the following potential changes in the future matter for the yachting industry? If so, how large changes are required for them to affect the yachting industry? How would they affect the yachting industry?
- Climate change, resulting in a warmer climate in the Baltic Sea area.
- Reduced eutrophication effects such as reduced algae.
- Increased eutrophication effects such as increased algae.
- More oil spills due to heavier traffic on the seas.
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Tourism is influenced positively by cleanliness of water and not much by climatic changes as the weather is here relatively cold anyway.

- How important are the possibilities for recreational fisheries for boating? Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

I am not specialised in paints but the local boat shops can sure answer what kind of anti-fouling paints are used on our boats.

Interview with Mr Alar Volmer, sailing manager of Spinnaker OÜ, Pirita 2008-04-15

- How are you involved in the boating and sailing industry?

I have been involved in the boating and sailing industry all my life – both in free time and work innumber of ways: racing, selling boats, teaching sailing, running regatas, etc.

- How would you describe the purpose of your organization?

Spinnaker OÜ is addicted to sailing and the mission is to spread the addiction. We deal with organising boating events, teaching sailing, selling boating / sailing clothing as well as boats. We represent other boat building companies. In terms of events, we organise corporate events (mostly half day) and day cruises. These, along with our sailing school, are the most important activities. Spreading the addiction by building the own client base via the fun elements of sailing is what we like doing – we like to make people feel good.

- How would you characterize the type of tourists in the boating and sailing industry?

People crusing their own yachts or motor boats are mostly families. About 60% are Finns who come for the less expensive alcohol, but also Swedes and other Europeans. Finns usually come more frequently – a few times a year because they are so close, but come due to the price difference. Spinnaker OÜ does not have any Finns as its clients. As prices are rising in Estonia, this frequency of this kind of tourism may anyway decrease in the future. However, other Europeans, such as Germans may come less frequently, but are coming for substance – i.e. history.

Harbours, such as Pirita Harbour here in Tallinn, are also undergoing a change in clientele. They are starting to cater to locals rather than foreign tourists, which means more long-term contracts for rented boat berths and less spaces available for tourists. However, they are forced to do this for increased security and income because the maintenance of the harbours is expensive. Unlike in Finland, where the city, town or community will construct the harbour and rent it cheaply to a yacht club in exchange for maintenance and operation, in Estonia the harbours are privately owned and funded.

In Estonia, the number of boats per capita is small, but growing. In Estonia 8 out of every 10 boats is a motor boat because motor boats are easier to handle. With the increased economic devleopment, luxury motor boats are still being bought a lot. However, the number of sailing boats is also increasing as some former motor boat owners are trading in their motor boats for sail boats. They are realising that sailing boats are quiet, they don't require fuel so its cheaper, its more fun, and it has a social aspect with regular sailing club events. This side of sailing, unfortunately, is poorly advertised still. Sailing has this elite and complicated image, but we say it is easy and fun! So, estonians have motor boats, sail boats and are fishers, racers and sailors.

- In general, how has the activity in the boating and sailing industry developed during the last 30 years?

During the Soviet times, there was not any motor boating, but the racing side of sailing was very strong. Sporting was government supported and even off-shore sailing was allowed if you had the right permits. There is a rich history of Russia – Baltic sailing boat races and offshore championships go back 50 years for Estonia.

Some yacht clubs are more than 100 years old. In the best Soviet years, we had more than 100 yachts participating in races, now we have about 60. Then, the boats were owned by companies or factories.

After the Soviet times, boating declined, as tourism was still young. But, now it has gone up and keeps increasing. Now, we even have a Tallinn boat show. Boating teaches you navigation, engines, safety – it's about education.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

I have not experienced any strong changes in the Baltic Sea environment. I'm sailing on the water and have a feeling that the water is getting cleaner, as sometimes it has been smelly. But, they say that with less agriculture and fertilisers, it should be better now. Near Tallinn, the fast ferries are doing damage to the shore-side on the small islands with their wakes.

- Has the boating and sailing industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

I never really thought about it, but I do not think that the boating and cruise industry has been affected.

- Why has the boating and sailing industry not been affected?

Boaters are on boats and not swimming. It has to be really warm for boaters to swim – sailers arent really swimmers. No one in the industry has said anything about it. We talk about sails and races, etc.

- Was the boating and sailing industry affected by any of these problems earlier than 30 years ago? If so, how?

I do not know.

- Has the boating and sailing industry been affected or not affected in the last 30 years by any marine environmental improvements? I would not say so.
 - Which are the most important factors for the growth of the boating and sailing industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

For foreign tourism, it is the condition of the harbours and information about the harbours. For locals, harbour places are important, but popularisation, information, marketing and courses are needed.

Although there is an economic base already, economic growth needs to be even higher. Local economical growth is needed for people to believe that they can afford boating, even though you do not even have to own a boat to get into boating. 80% of the time, the boats are in the harbour instead of being used. However, ownership is usually thought of as a requirement even though it is not.

Also, the price of fuel affects whether people boat and what kind of boating they do. People are moving from motor boating into sailing because earlier when they bought their boat, they didn't think about the costs or the locations of fueling stations. However, motor boats consume a lot of fuel and with a motor boat, you cannot really go too far. On the Estonian coast, there is not much use for a motor boat.

- How do marine environmental factors rank in importance compared to other factors?

Very small.

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Information is very important, but without capacity (harbours) what do you do with the information. Estonia as a destination should be marketed worldwide and specifically to mid- Europe.

Also important is to make it more affordable. Perhaps via more economical approaches to boating and boat ownership – time sharing?

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Sailing boats are not doing much harm to the marine environment. In a small harbour, it might affect the environment if there are no environmentally safe amenities or the infrastructure —harbour toilets, etc, but the impact is small.

The pollution comes from bigger ships.

I do not think that there will be so many sailing/boating tourism in near future that can give negative (pollution) impact to marine environment. Even bigger crowds can be controlled by strict measures. I have no information about measures that should be taken.

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your coun-

try for having a marine environmental quality that is beneficial to the boating and sailing industry?

First should be the development of harbours and marinas with the infrastructure around them.

- Does any of the following potential changes in the future matter for the boating and sailing industry? If so, how large changes are required for them to affect the boating and sailing industry? How would they affect the boating and sailing industry?
- Climate change, resulting in a warmer climate in the Baltic Sea area.

Yes, it matters. As the summer season gets longer, there is more tourism and more local boatowners.

Reduced eutrophication effects such as reduced algae.

I am not experienced enough to comment.

• Increased eutrophication effects such as increased algae.

Yes, it matters, but it does not have influence boating as much as it does swimming.

• More oil spills due to heavier traffic on the seas.

No, I do not think this as a problem, as it can be controlled and cleaned if necessary.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Yes it would impact as it would give more man power to boatbuilding and sea tourism industries.

- How important are the possibilities for recreational fisheries for boating?

These are very important and there is an increasing trend.

- Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

It would be a problem if the number of boats were to triple.

- How important are environmental factors for your customers, compared to other factors?

Cruise customers like the environment, but at the same time they want an advanced and comfortable marina environment.

- How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

It ranks high.

Interview with Ms Dajana Tiitsaar, marketing manager at Tuule Grupp, Tallinn 2008-04-18

How long have you been active in the boating and cruise industry?

In the tourism industry, I have been involved for 9 years and the whole time in coastal tourism. I started off in working at a spa in Saaremaa Island and now here at the travel agency organizing the use of these spas and other destinations and marketing them. I am in marketing and sales and I sell the trips for tourists and make package trips for them. I also windsurf as a hobby.

How would you describe the purpose of your organization?

Tuule Grupp is made up of several companies offering travel services under a single umbrella – connected with boat and bus travel, travel bureaus, housing and catering. We are offering shopping and city tour packages cruise packages for Finns coming to Estonia, but also relaxation packages for Estonians going to Finland. We are selling touring and bike relaxation packages in Saaremaa to Latvians. Estonians are not so interested in going to Latvia using our services.

We also own a camping area in Saaremaa - Mäntala camping – which we bought two years ago. It covers 20 ha land and it is our dream is to make this a really nice natural beach resort and to preserve the natural environment there.

- How would you characterize the type of tourists in the boating and cruise industry?

As I mentioned, we are offering Finns shopping and city tour packages in Estonia, and Latvians touring and bike packages in Saaremaa via Ventspils. Estonians are not as interested in going as people coming. Estonians themselves like to be near the sea – they use the spas along the coast, see the manors, hike and camp, etc. but they organize it all themselves.

In Eastern Estonia, there are lots of coastal hiking trails and the coast is very high and there are spas and manors near the sea – the clients going there are Estonians, mid-Europeans or Scandinavians. Russians have been going for years to Narva Jõesuu for historic reasons. Last year, with the political tensions, this tourism decreased, but it rising again.

In Western Estonia, Finns are the number one clients in Haapsalu are, the Islands and Pärnu. They favor the spas and are older. Scandinavians and Germans tend to caravan camp with their families near the beaches. Also, many non-Estonians – mostly retired Scandinavians - have cottages there due to the price differences. Local tourists always go with families, even to the spa trips. A minority of the people go with groups. However, between Estonian companies hold many seminars at spas, etc.

- In general, how has the activity in the boating and cruise industry developed during the last 30 years?

During the Soviet times, there was zero official tourist activity, but people did it themselves – unorganized. We didn't actually have these traditional spas – the Estonian media and the EAS (Enterprise Estonia) have helped build this up via projects and media coverage. Right now there is a local tourism – "Vacation in Estonia"- project. After the return to independence, Estonians who could afford it, left Estonian for vacation, but now they are also spending their vacations here. Also, cheap airlines are bringing in more tourists from abroad, but they are coming to the Baltics and do not stay very long in Estonia. Marine tourism is constantly growing.

People are interested in hiking along the coast, Nordic walking, windsurfing, GPS games and motivation games near the sea and in the forest. In the islands, kayaking and canoeing are popular. We could offer recreational fishing if it was demanded, but we don't get requests. Also, you have to be a professional fisherman to be a guide and to have gear. This is difficult to find. I have not actually seen any such services.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

In the harbour environment there has been one big change. In Saaremaa, there is a new large deep water cruise port in Tamme. Estonia made a big investment in it, but there has been very low interest from the cruise ship companies. This might be perhaps due to more activities available to tourists at other ports. However, it might protect Saaremaa from the environmental impact of having 300-400 people disembarking at once.

Through my windsurfing. Also, I am doing windsurfing – it is also one thing to offer to tourists – we do that in Hiiumaa surfing centre. Less and less places in Estonia are available to surf because the real estate is coming closer and closer to the coast. In surfing we have to carry a lot of stuff and the boards depend on all kinds of conditions. Makes it hard.

Within the last 5 years, I have noticed that September and May have now become a viable tourism month in Estonia. Before it was quite cold. It has had a positive impact until now.

- Has the boating and cruise industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes.

- By what problems was/is the boating and cruise industry affected?

I have heard about two times where there have been oil leaks from ships. This has affected the coasts and the birds.

How was/is the boating and cruise industry affected by these problems?

I don't think it affected the tourism industry because there are so many alternatives to staying at the beach if something happens. I.e. in Pirita, I think the oil spill did not happen during tourist season anyway.

Also, I am doing windsurfing and there are les and less places in Estonia where it is possible to get in the water to surf due to real estate development close to the water. For surfing we have a lot of gear, so we need access by vehicle close to the water. The lack of places to get access to the water makes the sport more difficult to practice. This is also true for kite surfers and water scooters. This can limit the tourist industry being able to take advantage of these increasingly popular areas of activity, especially since Estonia has good wind!

- What is the trend during the last three decades for how the boating and cruise industry is affected by these problems? More before and less now? Less before and more now? About the same?

I do not have anything to compare the last years to, but now people know more about problems like algae and harmful algae. Perhaps it was not talked about before, but now we get information about it from the media. Each year we hear about a few places where there is harmful algae and we cannot go there. Each spring, the algae blooms and the public beaches clean up the algae with machines.

- Can you give any number for how the boating and cruise industry is affected by these problems in the last few years?

I just have a hunch that it affects tourism. We do not plan or organize anything differently when there are algae blooms because there are enough alternative activities and it is easy to get around Saaremaa to do other things. In Kurresaare, there is one beach that is opposite of 3 spa hotels. Now they have this harmful algae each year – the tourists are not very happy about it even though there is another beach nearby. But it is not such a big impact.

- Please rank the problems starting with the most severe one for the boating and cruise industry in the last few years.

The real estate development first because now it is even cheaper for foreigners to buy property. Then the environmental issues such as oil spills and algae.

- Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in the boating and cruise industry due to these changes. Who

would you sue and which amount would you claim for damage due to these environmental changes?

I do not know, but I think that the local government should organize the clean up.

- Why has the boating and cruise industry not been affected?

There are alternative things to do and people don't complain. The nature in Estonia is really rich and there are other possibilities.

- Was the boating and cruise industry affected by any of these problems earlier than 30 years ago? If so, how?

The tourism industry was not developed then.

- Has the boating and cruise industry been affected or not affected in the last 30 years by any marine environmental improvements?

I don't know.

 Which are the most important factors for the growth of the boating and cruise industry? Think about all kind of factors that are important for the development of an industry, both environmental and nonenvironmental.

Qualified personnel is difficult to find in terms of specific activities that we want to offer. Those providing services are doing it more as a hobby as it is seasonal work and cannot be depended on during the full year for money. This also makes them not so reliable.

Marketing is also needed.

Environment – not because of what actually happens, but because the media talks about things a lot and people get scared even when there is no real affect on health, etc. Also, the environment should stay healthy because word of mouth marketing is so strong.

Media affects the growth as Estonians believe the media.

- How do marine environmental factors rank in importance compared to other factors?

The environment is necessary, so I guess it comes first even though it is not thought of as important because it is in good condition. Next would come the Personnel and marketing/media.

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

There are places along the coast that smell each year due to canalization and wastewater flows to the sea. They affect everything - health, real estate, locals doing sport activities, tourism, but nothing is done about it.

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

I don't know if the ships have an impact on the environment. The shipping company we work with has an environmental management system. Some of the other activities we offer like the sports and the camping are natural and the best way to have a vacation in nature. Camping is good for the environment and takes less water and electricity than spa vacations.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the boating and cruise industry?

Quick reaction to problems in terms of detection and organization is needed. The garbage in the sea should be cleaned up. Canalisation and wastewater flows to the sea should be rerouted.

- Does any of the following potential changes in the future matter for the boating and cruise industry? If so, how large changes are required for them to affect the boating and cruise industry? How would they affect the boating and cruise industry?
- Climate change, resulting in a warmer climate in the Baltic Sea area.

I have heard that the climate might get warmer and the tourism period would be longer. I do not know how the nature itself will react to the warmer climate. So it could have a different impact. But as the season has gotten longer, it has had a positive impact on us so far.

• Reduced eutrophication effects such as reduced algae.

It would have a positive affect, but not large one as it is not a problem now.

• Increased eutrophication effects such as increased algae.

It would have a negative effect, but would need a large increase in algae. Currently, we have regular algae blooms, but it is not a big problem because we can always find places where there is no algae.

More oil spills due to heavier traffic on the seas.

It would have a negative effect, because it would be restrictions on going out to sea. Even a small change would affect things because the media reports it widely. The low numbers now affects tourism because people hear about it.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

It would have a negative effect on tourism if it meant less seafood for tourists to eat. Local food is quite popular for tourists. Unfortunately, this is already the case in the Islands.

- How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

We have not done this kind of research on the importance of the environment. We would like to get involved in environmental issues through this camping area – as a green key project area. Nature is very important to the tourists, but I do not know how to rank it.

Interview with Mr Herkki Haldre, owner of Kaljas IRIS, Tallinn 2008-04-22

- How are you involved in the marine and coastal tourist industry?

Marine and coastal tourism is directly connected to Maritime Heritage, which is the main idea of our organization. Marine tourism is what funds our maritime heritage work. We are ultimately interested in the preservation of a traditional historical vessel.

- How long have you been active in marine and coastal tourist industry? I've been interested in maritime heritage since childhood and have been sailing since age 6. I have worked at Kaljas IRIS since 2002.

How would you describe the purpose of your organization?

Our direct aim is to preserve maritime heritage and a specific vessel – a two-masted gaff rigged wooden schooner built in 1945 as a cargo ship for transporting wood in the coastal regions of the Gulf of Finland. Today she is the only living example of typical Estonian trader in Estonia.

At the same time, we are working part-time as the secretary for the Estonian Association of historical ships. The association is involved in the Estonian maritime

legislation. As they did not meet the very high Estonian standards, these traditional vessels were originally not allowed to sail in Estonian waters. The laws have now been changed.

We play an active part in organizing the maritime festivals, which helps to preserve and introduce people to the Maritime Heritage of Estonia. Due to the recent Estonian history, not many people know about our rich maritime history. The last Estonian built vessel was built in 1957. The Maritime Festival is a way to acquaint people with the past and glory of Estonian seafarers.

We lead trips upon this historic vessel as a way of spreading information, but also funding this heritage work. The trips range from afternoon cruises or sunset cruises to ones lasting up to 5 days. We take people to Western Estonian Islands, Åland Archipelago (Finland) and Gotland (Sweden). About half of the trips go to the Estonian Islands.

- How would you characterize the type of tourists in the marine and coastal tourist industry?

I do not know about the marine tourists overall, but 99% of our clients are corporations hosting events for their clients or staff - 90% Estonian and 10% foreign. We also host birthday parties and private parties. We have tried to hold ticketed cruises as well, but it has not worked here.

Our foreign clients are coming to us through incentive companies – highly specialized tourism agencies organizing corporate events. They are coming from all over – Finns, Swedes, Austrians, Germans, Brits, French, and even Koreans.

Our boat holds 36 guests maximum by law and is always filled. Our larger boats call for larger parties. We do not compete with non - historical vessels, such as yachts, as they hold about 10-12 people. The yachting cruise target group, on the other hand, is families, etc.

- In general, how has the activity in marine and coastal tourist industry developed during the last 30 years – or since the respondent joined the industry?

I cannot talk about the last 30 years because marine tourism is new due to our history and this part of the cruise industry is very recent and a small niche market. We were the pioneers and started 6 years ago. Since then, 2 others have started but one already ended its business and the other has announced plans to do so. It is a financially difficult business. Unfortunately, we must also move our vessel to the Caribbean, which does not help preserve Estonia's maritime heritage. The expenses of keeping up a large vessel are much higher in Estonia compared to neighboring countries like Sweden and Finland. This is because the Estonian laws are so strict.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

It has definitely gotten worse with all sorts of pollution. In the Estonian archipelago, there are nearly 100's of small islands. They have been well preserved due their isolation and limited access during Soviet military presence there. During that time, it was possible to sail there, but only with special permits. Now, the islands are open to people and the environment is being impacted. However, there is not a large amount of tourism there yet, so the impact is limited, but still visible. It is great for wildlife tourists due to seals and untouched nature. The Estonian part of the sea is in much better condition than the Atlantic and other parts of the Baltic Sea.

I have been sailing for 25 years and earlier there were not oil spills as there are today. Also there was not a problem with plastic litter as we see today. Then people used glass and cans which didn't float. However, in general, the Estonian waters are clean and nice and marine pollution isn't an issue. I still rarely see the oil spills - on the coastline you can sometimes see residues.

Has the marine and coastal tourist industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No.

- Was marine and coastal tourist industry affected by any of these problems earlier than 30 years ago? If so, how?

Marine tourism was not existent then.

- Has marine and coastal tourist industry been affected or not affected in the last 30 years by any marine environmental improvements?

It has not been affected by the environment, unless you include harbours as part of the environment.

- If YES to Q9a, by which improvements? How was marine and coastal tourist industry affected by these improvements?

The recent improvements of the small harbours through subsidies have had a positive effect on marine and coastal tourism. They still need a lot of work though.

 Which are the most important factors for the growth of marine and coastal tourist industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Estonian legislation makes very difficult to do business legally. It is not a multibillion dollar business – it is a survival business. It is difficult to stay in business

due to the strict regulations of the Estonian government. Doing everything by the book would mean immediate bankruptcy, as the expenses of keeping a large vessel are high – they are even higher than in Finland or Sweden. As a member of the European Marine Safety Council, I know it is easier in other countries.

The condition of the harbours should be improved. They do get EU subsidies and have improved, but are not to the level of the Nordic countries. When it comes to the average yacht owner – a retired couple from Sweden, it is difficult for them to handle the Estonian small harbours. There are only a few harbors to choose from when it comes to services at the harbour. The Estonian harbour fees are quite high and you pay for each additional service, rather than the system in the Nordic countries where you pay a low fee which covers all the amenities. We go to the small undeveloped islands where there are no harbours, but then you have to carry all your own supplies and drop anchor and row ashore.

Economic factors – during the Soviet times there were only a few people that could go out to sea at all – motor boats, yachts, only a few. They were used for company and sporting events, not tourism. We had sailing regattas and they were totally controlled. Since independence, not so many people have been able to afford a motor boat or yacht. About 5 or 6 years ago, there was a turn around and purchases have increased – but owners have been quite occupied by their work and the boats mostly sit in the harbours as status symbols. Now, the economy has kept improving and slowly the number of boats out on the sea has increased.

The length of the tourist season and weather affects the industry. The season is mid May to mid September at the latest. Our best season is theoretically 110 days. In our best season so far, we have done 150 cruises during 110 days, which is about 4000 guests. However, in 2007 the summer was slower due to weather and cancellations – we had 40 cruises.

Marine experience and a marine tradition are needed in Estonia. We have a serious lack of tradition in the seas and the combination of alcohol and the lack of safety skills has led to increases in the number of deaths at sea. Although marine safety issues have improved, there is a lot of work to be done.

- How do marine environmental factors rank in importance compared to other factors?

Very small

- Are there any non-marine environmental factors that affect marine and coastal tourist industry? How do these factors rank in importance compared to other factors?

No.

- Do you think the small vessel cruise industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Mostly, I think that our sailing cruise industry has a very positive impact, because people can have the ability to see what is happening. 1000's of people who have gotten to see the marine environment than much closer than they can from the big cruise liners. We can see the seals, because the ship is slow and quiet due to the use of windpower. Our guests are affected by the beauty of nature, and they can also see the litter. I do hope that our business improves their mental attitude, nature preservation, but also the environmental awareness. Maybe they themselves wont litter in the future.

On the other hand, in the heavy increase in the ferry boat traffic in the Bay of Tallinn has created wakes, which affect the shoreline and the small islands in the Bay – as well as the smaller vessels using the bay – row boats, and fishermans, and small dinghys. This has been a big issue since Tallink started increasing its business.

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the marine and coastal tourist industry?

Well, oil spills cannot be controlled because accidents can happen. The bigger the ship, the more likely is the destruction. But, I think that double hulled tankers are already being taken care of.

Litter control is something that can be affected and is linked with the condition of small harbours. If you are a small Swedish yacht and have just crossed the Baltic and are approaching the Estonian coastline. If the harbour seems unsafe for your boat, you will not go there – you will go instead to Tallinn. The longer the voyage, the bigger the chance is that some of the litter goes overboard. People don't want to do it, but it happens. If there were more smaller harbours in good condition, boaters would leave their trash in the harbour - where it is supposed to be dumped. It's like the trash bins in the forest, which have cut littering. The average person does not want to sail overnight and they want to sail short distances, but in Estonia there are long distances between the good harbours.

Does any of the following potential changes in the future matter for marine and coastal tourist industry? If so, how large changes are required for them to affect marine and coastal tourist industry? How would they affect marine and coastal tourist industry?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

It would have a positive impact on the marine tourism industry, but quite a large change is needed to really extend the tourism season.

• Reduced eutrophication effects such as reduced algae.

The algae is more an issue on the beaches concerning the swimming and where the water gets warmer. For the open sea and boaters, it isn't an issue.

Increased eutrophication effects such as increased algae.

See above.

More oil spills due to heavier traffic on the seas.

It would have a negative impact on the marine tourism, but a large increase in oil spills would required.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

It would have a negative impact on the marine tourism industry. The tourists are so disappointed when they go to the fishing villages and there are no longer fishermen or fish. A sailing trip logically calls for fresh fish – and it is quite a shame to have to serve them deep frozen fish. The government should support the fishing in the villages, - it adds to tourism. I think the lack of fisherman is also due to strict regulations and the government should allow them to do the business more freely. Fishing is very tough – these small fishermen who have been fishing for decades are now treated as commercial fishermen. They cannot meet requirements to be certified and have to pass exams – so most of them do it just for their own food. The government says that they cannot allow more nets because of the low numbers of fish, but there is such a difference in the impact of the big trawlers nets and those of small fishermen. The majority of the fish caught by the trawlers goes into fish powder that goes to feed the cows. The village fishermen are not prioritized and it is a shame because in general, there is so little activity going on in the villages and the coastal villages are disappearing as well.

- How important are the possibilities for recreational fisheries for boating?

I think there would be interest – we do not do it because you need permits.

- Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

With the paints, there is of course controversy due to environmental safety and the

economy. From the boat owner's point of view, the paints are a good thing because

it reduces the barnacles. Boating is really such a small industry, that I am not sure how significant the paint's impact is.

How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

I think the "enjoyment of the nature" is about half of the experience. We try to expose people to the splendor of the unspoiled nature and marine heritage, but these are corporate events and there is a lot of drinking as well. Estonia does not have a niche market to my knowledge focused on environmental sailing cruises like elsewhere. So, the satisfaction from the environment is secondary....to the restaurant.

This can also be reflected with the Saaremaa deep harbour, which has not really worked to increase tourism in the islands. There is not enough to do there once you dock in the port. Usually, the cruise lines keep the people on board as much as possible to consumer and the stops are about 2-4 hours for organized activities. In Tallinn, there is about 10-12 cruise ships a day and it is perfect to do a quick tour of the Old Town and buy souvenirs. In Saaremaa, they don't have anything to do as the cruise ship tourists aren't interested in the woods and nature.

Interview with Mr Madis Kipper, owner and manager of Lootur OÜ, Tallinn 2008-04-16

- How are you involved in the marine and coastal tourist industry?

I have my own business, which plans trips and promotes outdoor trips – which is quite a new industry in Estonia. I personally have outdoors background and have been hiking, canoeing, mountaineering in Russia, and skiing – active all my life. I started the tour company Lootur 5 years ago when when my family bought a house near the sea. I bought kayaks and started these sea related activities. We are situated near Vihterpalu, 70 k to the NW from Tallinn. On my own, I have kayaked on the sea for 7 years and in rivers for longer.

- How would you describe the purpose of your organization?

Lootur $O\ddot{U}$ organizes all kinds of trips for small groups and also does advertising. In Estonia, there are not many tourist companies making activities related to the sea, except for bird watching. We do mainly kayaking trips – corporate events for either staff or clients, but also ice skating on the sea if the weather permits, adventure games and team building events. This is our main income overall right now. We have about 200-300 clients a year. We earn a profit only because we do not have anyone on salary – but instead pay the guides for their trips.

- How would you characterize the type of tourists in the coastal outdoors activities industry?

Our corporate groups usually prefer to have a trip that is less than 1 day – about 4 hours. However, our private groups prefer at least 1 or 2 days. For kayaking, we have both one third foreign and two-thirds Estonian tourists. We are 70 km from Tallinn and it is difficult to get foreign tourists away from Tallinn – different parishes are of course trying to attract tourists, but it is difficult. So, it is more complicated to plan short trips outside of Tallinn.

Canoeing is more popular as kayaking is more new, but Kayaking is growing in popularity because rivers can only be canoed in the spring when there is enough water. With a kayak, you can also use it in the summer. We have to sell the idea that kayaking is not unstable.

- In general, how has the activity in the coastal outdoors activities industry developed during the last 30 years – or since the respondent joined the industry?

During the Soviet Times, we were not allowed to go on the sea, so it is difficult to compare sea activities in current times with previous times. There was no sea kayaking, ice skating and sea fishing. The first kayak tourism companies started about 8 years ago. Also, many hotels or hostels have kayaks to use and some bed and breakfasts advertise small kayaking companies/tour companies. We get people from i.e. Finland and even Italy, but most of our private customers come to us through accommodation companies. I think there are probably about 10 companies doing the same.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Yes, there are not enough fish anymore and this has been a continuous problem. We have also tried to sell the idea of recreational fishing on the sea for tourists, but it's pointless because of the lack of fish. The old fishermen say that there haven't been fish in our area for the last 5 years. With nets, it might be a different story. We would like to do it more as foreigners are often interested. I think that Estonians are not so interested in having a guide to do this because they can arrange it for themselves and get their permits.

Also, there has been a lack of ice for the last 2 years. I am not sure how permanent it is. However, we cannot do ice skating trips as there should be strong ice and not much snow. So, we try and supplement with snow shoes as an activity, but this year the lack of snow was also a problem. It does not affect the kayaking though because it is too cold for tourists to kayak. This season is quiet.

There are some algae problems here and there, but they are very localized and affect mostly beaches. There are forecasts giving out this information. Its not common.

Also the underwater sea environment is not as clear as it used to be.

- Has the coastal outdoors activities industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

We have not had problems with algae because we are on an open beach and Estonia's coastline is mostly open – so the waves and the wind move the algae away. Also, for the most part the algae is not harmful – and it is natural. We of course try and find places to get in the kayaks where there is no algae, but our customers are also into natural experiences and accept it if we cannot avoid it.

The underwater clarity does not affect us because we do not do diving. Perhaps the fish are affected, but I do not know.

- By what problems was/is the coastal outdoors activities industry affected?

The lack of ice and the lack of fish affect small sectors of the tourist industry because they limit potential for activities – it is hard to know to what extent. They are such small sectors and have been around for such a short time.

- How was/is the coastal outdoors activities industry affected by these problems?

It is hard to calculate because we never had a drop – we just never started.

The algae does not affect our business.

- What is the trend during the last three decades for how the coastal outdoors activities industry is affected by these problems? More before and less now? Less before and more now? About the same?

The lack of ice for the last 2 years and the lack of fish at least for 5 years. There used to be more ice and fish before.

- Can you give any number for how the coastal outdoors activities industry is affected by these problems in the last few years?

See above.

- Please rank the problems starting with the most severe one for the coastal outdoors activities industry in the last few years.

A lack of ice and lack of fish.

- Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in the coastal outdoors activities industry due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

Perhaps the trawlers are responsible for the lack of fish.

- Has the coastal outdoors activities industry been affected or not affected in the last 30 years by any marine environmental improvements?

Yes.

By which improvements? How was the coastal outdoors activities industry affected by these improvements?

We now have more sea eagles – the situation is getting better and it is good for marine tourism In the Soviet times, they were probably putting too many chemicals and pesticides into the fields and these eagles were in decline. Now the last 20 years, there are more.

- Which are the most important factors for the growth of the coastal outdoors activities industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

The availability of transportation from Tallinn to other areas where it is possible to do such trips. Also, the lack of accommodation places in some areas outside of Tallinn, and the information availability. These are the main factors for foreign tourists. In Finland and Sweden, there are very good websites that show what you can do in many places. In Estonia, there are many portals, but each has very sectoral information. It is difficult to find out who is organising which activities and how they relate to each other. General tourism information availability is difficult to get and when you have to really search, it limits people.

Access to nature and the existence of enough birds for people to view – bird watching is popular in Estonia. We also kayak to Pakri island and it brings so much more to people when they can view sea birds. See above about the improvement in sea birds.

 How do marine environmental factors rank in importance compared to other factors?

Small importance now as the water is quite clean and there are birds. It would be of course better if there were fish. If things got much worse, it would of course be a problem.

- Are there any non-marine environmental factors that affect the coastal outdoors activities industry? How do these factors rank in importance compared to other factors?

Information – very large importance, transportation – large importance, existence of accommodation – moderate importance and then the environment – important if it gets worse.

- Do you think the coastal outdoors activities industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

There is a definite positive effect. As people have more experience with the sea, they understand it better and respect it.

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the coastal outdoors activities industry?

Prevention of oil spills, limiting the dumping of ballast water in the sea, wastewater should be limited from entering the sea and garbage from the ferries and boats should be controlled. The garbage is not a real problem, it is just not very nice and customers say it ruins the feeling of nature. However, it does not really affect us.

- Does any of the following potential changes in the future matter for the coastal outdoors activities industry? If so, how large changes are required for them to affect the coastal outdoors activities industry? How would they affect the coastal outdoors activities industry?
- Climate change, resulting in a warmer climate in the Baltic Sea area. Positive impact on the industry as it is better to boat on sunnier days with warmer water. Our season would also be longer and we could kayak longer even outside

of summer. However, I do not think there would be a large impact.

• Reduced eutrophication effects such as reduced algae.

It is not important for boating in any place in Estonia – open sea around Estonia. The water is cold enough and there are winds.

Increased eutrophication effects such as increased algae.

See above. It might affect the beach industry more. Boating companies that operate from the beach may be affected if there is no one on the beach.

More oil spills due to heavier traffic on the seas.

Definite negative effect, as the birds are affected and the boats / kayaks themselves are oily. We are quite sensitive to oil spills and it takes an enormous effort to clean

after such spills. You have to clean the birds and the coast. In Estonia, there have been some oil spills which have affected the coastal areas.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

No real affect because there already is not much fishing. Change would not affect kayaking. If there are less fisherman in the area, then there may be more seals because they don't drown in nets. We do not see many seals now, but people would like to see them and I am not really sure whether seals and fishing are related.

Interview with Mr Heikki Jürvelinn, marketing consultant for ESTCOTT OÜ, Tallinn 2008-04-22

- How are you involved in coastal tourist industry?

I am involved in ESTCOTT via my own company. I make contacts with clients wanting vacation rental accommodations in Estonia, some of which are along the coast.

- How long have you been active in the coastal tourist industry?

I have been active in this business for the last 2 years.

- How would you describe the purpose of your organization?

The company was founded in 2005 and has been active since Autumn 2006. One of the owners has running the internet portal *Viro Web* since 2003, which is related to Estonian tourism mainly targeting Finnish tourists.

We provide short-term leases of summer cottages and apartments mainly for families – most of our clients are from Finland and quite a lot from Germany, Sweden and also Estonia. Altogether, we have 50 cottages and about a fifth are beach-side properties. If you include the beach town of Pärnu, it is about 30 coastal properties, as more than half of our places are in Pärnu.

The property owners are usually only offering lodgings and renters have to seek additional services themselves. When we advertise, we don't advertise additional activities unless we are sure that the owner can provide those.

- How would you characterize the type of tourists in the beach tourist industry that you deal with?

Our clients are both domestic and foreign tourists. They are mostly families renting during the summer. People from central Europe come towards the end of August, while the season for Finns stops when school starts.

In general, how has the activity in the coastal accommodation industry developed during the last 30 years?

This kind of tourist market – having an organized middle man intermediary - is new in Estoina. We only have one competitor – a Swedish company – who started a year earlier than us. The other service providers offer one or two properties. However, it takes years to develop this into a viable business. The Swedish company is about the same size with a few more properties, but they do not have a sole right to lease the property as we require. They have about 70 objects all together. In terms of turnover, we are roughly the same. In 2006, we had about 25 objects, last year about 50 and this year perhaps 60 and 70. You need time to develop a good reputation and also now more owners are willing to use bookkeeping. In the beginning, many only wanted to deal in cash and we will not work this way.

Pärnu has been a tourism capital in the summer for a very long time. The recent economic situation prompted many people to buy apartments for which they may have problems paying for mortgage later. Thus, they are offering them as rental accommodations.

During the Soviet Times, Estonia was a popular destination for Soviets and local people. Kloogaranna, near Tallinn and Keila Joa, was a very popular for destination for people from Tallinn. But even this has not been re-developed.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Not really – only what I have read in the news in general about the Baltic Sea and pollution. In terms of the Estonia and the coast, most everything is privatized now and the islands are accessible. Earlier, you had to get special permits to go there.

- Has the coastal accommodation industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

I don't think so.

- Why has coastal accommodation industry not been affected?

There have not been any major environmental disasters in the area and no real problems even with algae. Generally, our places are quite isolated.

- Was coastal accommodation industry affected by any of these problems earlier than 30 years ago? If so, how?

I don't know.

- Has coastal accommodation industry been affected or not affected in the last 30 years by any marine environmental improvements?

 I don't know.
 - Which are the most important factors for the growth of coastal accommodation industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Also, the price level in Estonia affects the tourism industry - Estonia is no longer a cheap country, which has fueled tourism. Our customers are not the ones coming for cheap things like alcohol though so it doesn't affect us. However, the price to quality ratio does affect everyone involved in the tourism industry. The price quality ratio in Estonia is improving, but slowly - the increase in prices has outstripped the increase in quality. There is a huge potential business wise, people have the quick buck mentality and sometimes quality service is lacking.

Marketing certainly is very important factor and the lack of marketing in Estonia is one real issue that affects the tourism industry. The state is investing and trying to find one unifying message for marketing tourism, but it hasn't been found. Also, despite Finns being the biggest group of tourists, there is not always information offered in Finnish. There is also a lack of coordination between different sectors. We have tried to provide Finns with such coordinated information, i.e. car rentals, beauty salons, etc. on *Viru Web*.

This part of the tourism sector is influenced by the real estate market. We are waiting for people to start offering us their apartments due to the slowdown in the economy. The real estate market undergoing quite big changes at the moment – it has pretty much stopped growing for the time being.

The relationship with Russia is also a factor. There is a huge potential for St. Petersburg residents to vacation in Estonia. Also, Northeast Estonia has traditionally been a popular holiday destination for them, but now they go to Finland.

- How do marine environmental factors rank in importance compared to other factors?

They are not mentioned because they are not so important.

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

No.

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

We do not see any negative effects, as we do not deal with mass tourism.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to coastal accommodation industry?

Litter control, control of wastewater at certain points, and to have more equipment on hand to deal with potential oil spill. I think there is a lack of preparedness in Estonia. These need more resources from the government. It is a political decision of resource allocation.

- Does any of the following potential changes in the future matter for coastal accommodation industry? If so, how large changes are required for them to affect coastal accommodation industry? How would they affect coastal accommodation industry?
- Climate change, resulting in a warmer climate in the Baltic Sea area. Initially, it would bring an increase in the beach tourism. The tourism industry is relatively sensitive because it's a summer industry. Longer warmer summers are better for tourism.
 - Reduced eutrophication effects such as reduced algae.

I think it would have a longterm positive impact on tourism, but it would have to be a significant change for tourists to notice, unless it was used in marketing.

• Increased eutrophication effects such as such as increased algae.

I think it would have a longterm positive impact on tourism, but It would definitely have a negative effect, but would have to be a relatively large change.

• More oil spills due to heavier traffic on the seas.

Larger oil spills would have negative effect.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

I don't know if fishing has any effect.

Other Comments:

In terms of accommodation rental prices, the closer they are to the coastline, usually the more expensive they are. Our pricing also depends on the furnishing and how they are equipped.

In general, I am not sure whether "enjoyment of nature" is a priority. For some, the enjoyment of nature is important and in Saaremaa, we have one place on the border of the nature park. We market that. In general, I wouldn't say that this is important.

Interview with Ms Ene Palmiste, incoming services manager at Reisiekspert, Tallinn 2008-04-28

- How are you involved in marine and coastal tourism?

I started with Enterprise Estonia the Estonian tourist board working on the EU funds in 2002 when they were just starting up. I worked with them to design a structure and strategy and model. We were marketing and promoting Estonia as a destination. In 2006, I started working here doing marketing. My educational background is communication and marketing. Here, I am responsible for the services and products that we purchase and sell within the Baltics, so I am responsible for those traveling to the Baltic countries. I communicate to tour operators why the Baltics are a destination worth to advertise to their clients – the end users.

- How would you describe the purpose of your organization?

Reisiekspert is a private business and we promote Estonia in the source markets. We sell 80% to tour operators and 20% to end users – we are a wholesaler.

- How would you characterize the type of tourists in marine and coastal tourism?

In some of our source markets, people usually don't know about Estonia. Coastal tourism is a very small share of our business, but something we have been developing intensely. However, it does not immediately click with tourists. I would say that the share of marine and coastal tourists is about 5% of our sales.

On average, the marine / coastal tourists are not so much price oriented. They are quite well prepared by themselves. The ones that come to the small harbours with their own yachts and the kayakers are well-traveled and know what the destination is all about. They are less price oriented than the ones going to other tourist destinations in Estonia. They are usually from neighboring countries – Sweden, Finland, and northern Germany - not as much from Denmark and practically no one from Russia. The boaters are usually wealthy. Rich Russians tend to go to sunnier more exotic destinations during summer. Also, they need the visa for Estonia, which is a hurdle and limits travel here.

In general, how has the activity in marine and coastal tourism developed during the last 30 years – or since the respondent joined the industry?

I would say that 20% of the tourists in Estonia are domestic and a higher percentage in the low season. There is a growing percentage of marine tourists – especially boaters. There are still motorboats more than sail boats or yachts and now there are scooters and new boats available for tourists. Ones connected with more extreme and adventure oriented tourism. This could, however, raise some questions regarding safety with some people. The sea for Estonia is traditional and tourism has grown rapidly with a lot of events in the islands during the summer. Our beaches are natural and not so developed and there is not really a beach industry. Maybe there is an ice cream stand, but nothing else. This probably affects beach holidays – the ones going are people that want serene places. It has grown, especially for families. For Estonians, going to the beach is a day or a weekend trip – not longterm. If the beach industry were more developed, it would benefit both Estonians and foreigners. Russians travel here for nostalgia – they used to come here during the Soviet times and now a spa hotel (Meresuu) in Narja Jõesuu is recreating that nostalgia.

Technical readiness for tourists has also improved. Small harbours and the communication systems have been developed quite a bit with recent state support, but the local infrastructure for tourism doesn't really match the expectations of the tourists. Boaters often sleep in their own vessels, so they do not necessarily need accommodation, but they want amenities – places to shop, nightlife, restaurants. Those things don't exist in the small harbours. Even Pärnu is only lively in June and July.

However, we do not have any statistics of how the industry has grown. We keep track of how many people we have serviced and where they are from. We don't know what they do here or why they come.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

I cannot say for sure, but probably mostly positive changes. The navigation systems and sea connections have improved.

The fish stocks had dropped at some point, but in Saaremaa, they are now supplementing the fish stock with grown fish to enhance the numbers. Some people are interested in hobby fishing and it is not so much about the quantity of fish – it is about the recreational environment. I do not think it is really influenced by how much fish they are in the sea. It's not really that popular, but it's a niche thing, like the hunting or bird watching. It cannot be a point for mass tourism in Estonia.

- Has marine and coastal tourism been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Definitely. Every now and then there is a report about sea pollution, like oil spills being detected. This leaves a mark on the credibility of the destination as a marine tourist destination because it is immediately broadcast across the Baltic Sea Area. We want Estonia to be on the shortlist of destinations to go to.

Algae has been in the news quite a bit, but isn't something that occurs on a regular basis.

Now – just this morning there was news about a new marine species introduced to the Estonian Baltic Sea waters – the American comb jelly. It has been introduced from foreign waters due to transit and trade affecting coastal waters. But I do not know whether there is a public health risk or other risk?

- By what problems was/is marine and coastal tourism affected? See above.
- How was/is marine and coastal tourism affected by these problems? See above.
 - What is the trend during the last three decades for how marine and coastal tourism is affected by these problems? More before and less now? Less before and more now? About the same?

More now – because of disclosure and media attention.

- Can you give any number for how marine and coastal tourism is affected by these problems in the last few years?

I cannot give numbers, but there was an oil spill a few years on the northern coast, and a little while ago another small one was detected near Saaremaa. People do not remember the specifics, but they remember that it happened. It probably affects the fishers more than the yachters.

- Please rank the problems starting with the most severe one for marine and coastal tourism in the last few years

I cannot say.

- Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/ government for action/no action which resulted in a decline of profits in marine and coastal tourism due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

From the news, I gather that it is the foreign vessels that pass through Estonian waters for transit that cause the oil spills. Thanks to Greenpeace and marine-related institutions, they have discovered and tracked these problems and origins.

However, we wouldn't sue anybody because it is not our mentality to think this way, plus suing is expensive and takes a long time. Perhaps if there was a specific large event planned and an oil spill or problem ruined the event, the losses could more easily be quantified – IF we had a different mentality. Also, Estonian companies don't have very good contracts with responsibilities, etc, which would make it easier to quantify losses.

- Has marine and coastal tourism been affected or not affected in the last 30 years by any marine environmental improvements? How was marine and coastal tourism affected by these improvements?

Beach tourism has been positively affected by the cleanliness of the sea. We have a blue flag programme for algae free, swimmable beaches. People are aware of this standard. It has gotten better and in more spots along the coasts than before, the water quality is better and also tracked.

Which are the most important factors for the growth of marine and coastal tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

The availability and attractiveness of the ports of call and harbours - right now we are happy with the number we have – cruise ship calls are now over 300 in Tallinn, which is more than St. Petersburg. It used to be less than a hundred beginning of the 1990s – there are days in the high season when there are more tourists than locals in the old town. There are about 3000 tourists per ship, but only about 600-800 per ship disembark.

We also have another deep water harbour in Saaremaa, but it has been problematic due to strong undercurrents and winds. There can be unexpected problems for the cruise ships docking – and when they unexpectedly cannot dock, there are large losses due to cancellations for the local industries expecting them.

The costs of docking in the harbours. This also affects the attractiveness of Estonia as a destination.

The availability of tourist services in Estonia. The industry needs to provide tour guides, busses, quality busses for all those getting off the ships. Important are the availability of events, whether they can shop, the availability of local culture for explorations, and local restaurants. It still cannot be compared to other Nordic countries. It's a slow process.

Marketing and communication to promote Estonia as a sea tourism destination. It needs a branding – for a dream / vision. Right now, the vision is not there and Estonia isn't perceived as a sexy destination by even Estonians themselves. Foreigners need more info about tourism and Estonia. And in regards to coastal and marine tourism, I don't know that people know that it is safe here – what the weather conditions are, whether we are prepared for emergencies. People remember the sinking of the Estonian ship. Notoriety of the destinations could help – for example, Tallinn old town being included in UNESCO world heritage has brought a lot of tourists.

- How do marine environmental factors rank in importance compared to other factors?

Very important. However, as long as the quality of the marine environment isn't seen in the public eye as connected to bad news and as long as everything is taken for granted, its viewed as a given for business to operate as they do. No one thinks about it much.

- Are there any non-marine environmental factors that affect marine and coastal tourism? How do these factors rank in importance compared to other factors?

Not really.

- Do you think marine and coastal tourism has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Positive. I haven't heard of cruise ships polluting waters or sailing boats having caused problems. Mainly it's the tankers and big transit ships. As for litter – Estonians are littering more than foreign tourists and I would say that most of the marine tourists are foreign. Thus, it is not such a big problem.

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to marine and coastal tourism?

These things need to be dealt with on the state level – keeping the environmental quality in check. The state needs to keep institutions in place and use boats and helicopters to monitor. Smaller organizations cannot do this especially ones dealing with tourists. The state should provide the backdrop, for which we can earn money and pay taxes to the government.

 Does any of the following potential changes in the future matter for marine and coastal tourism? If so, how large changes are required for them to affect marine and coastal tourism? How would they affect marine and coastal tourism?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Positive impact, but not a large one. In order to be positive, it should not be the Caribbean. We would more benefit from a more stable temperature between May and September.

Reduced eutrophication effects such as reduced algae.

Positive impact, but we haven't had that many problems with algae yet, so I do not know how much it would impact if there was less.

Increased eutrophication effects such as increased algae.

Negative impact. The tourism is quite sensitive to it, because in the niche areas of tourism, decisions are made on word of mouth. News travels fast and is not necessarily based on facts.

• More oil spills due to heavier traffic on the seas.

Negative impact and tourism is quite sensitive to it.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

No effect. The tourists don't care much about.

- Compare the effects of regular non harmful algae and algae that causes public health risk (blue-green algae) blooms. Which one of these has the most severe effects on beach tourism and profits?

I don't know and I don't think people know necessarily how to recognize it. There is more in the news about the harmful algae, but if people see other algae, they might also be concerned.

- How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

It is hard to say and it depends on the tourist. The average tourist doesn't even know what the kind of enjoyment they are looking for. They say 70% coming to Estonia are just coming to Tallinn. However, some are looking for quieter harbours, but then there is not enough to do in those places.

Interview with Mr Varri Väli, Chairman of the Board of the Estonian Rural Tourism – Maaturism, Tallinn 2008-04-22

- How are you involved in marine and coastal tourism? How long have you been active in marine and coastal tourism?

I am involved in rural tourism (which includes coastal areas) for the 5th year. Prior to that, I was at Herman Travel, one of the largest tourism agencies in Estonia since 1996. Now, through work I am involved in promoting tourist farms. Personally, I studied natural geography in Tartu University.

- How would you describe the purpose of your organization?

It is a strategic and political organization. We are informing for government on the kinds of tourism related programs/projects that interest farmers and those in the countryside. We are working with the Agricultural Ministry, Enterprise Estonia, and the Ministry of Economics. It is a non-profit organization. We train and teach about marketing and keep up a multilingual homepage and travel guide. We promote accommodation and active tourism, handicrafts and culinary skills. Right now we are promoting the Estonian food road – to promote restaurants around Estonia.

- How would you characterize the type of tourists in rural marine and coastal tourism?

Mostly they are boat owners and yachting people. Foreigners need information and easy access to other activities. Estonians – even boat owners already know what to expect and how to find their way around. However, both need some tourist services. As for the farms located along the coasts, tourists are wanting also to see the sea, swim in the sea, take the boats and do sea fishing, put out nets, and take trips to the small islands. But, there are not so many other differences between the tourists along the coastal areas or the forests.

Mostly, I think there are workgroups from companies and groups of friends – not really families as there is not much in the ports for children. They might be afraid as the ports are not in good condition.

In general, how has the activity in rural marine and coastal tourism developed during the last 30 years – or since the respondent joined the industry?

I don't know whether coastal tourism is still very developed – there has been low development. Of course it has improved in the last 30 years because there was not this industry under the Soviet Army times, especially with the closed coast. After that, people have gotten their land back and have perhaps sold it and developed it – but according to private and personal plans.

Maybe a third of all rural tourism is related to the coast. In general, the foreign tourist percentage of the rural tourist industry has increased from 15 to 30% since independence.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years?
 Which changes?

It is hard to say. I know that we have started to have nice summers with warm water.

- Has XX been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

I don't think so. We have not had any big catastrophes or accidents, though there have been a few oil spills.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution /company/ government for action/no action which resulted in a decline of profits in rural marine and coastal tourism due to these changes.
 Who would you sue and which amount would you claim for damage due to these environmental changes?

The large ships of low quality are responsible. There should be some kind of control of these ships, to make sure that they are constructed in a double hulled manner. The Baltic Sea is such a small and closed area. If something bad happens, it can have a very destructive effect. I think that the clear rules and regulations must be made at the government level. I do not think that action is a question for the tourist industry. It should be handled by the government.

- Why has rural marine and coastal tourism not been affected? Oil pollution has not affect tourism, as it has not affected touristic areas.
 - Was rural marine and coastal tourism affected by any of these problems earlier than 30 years ago? If so, how?

I do not know.

- Has rural marine and coastal tourism been affected or not affected in the last 30 years by any marine environmental improvements?
 I do not know.
 - Which are the most important factors for the growth of rural marine and coastal tourism? Think about all kind of factors that are important for the development of an industry, both environmental and nonenvironmental.

Network of and development of marinas. There is a small port organization - Marinas network, but there is not clarity in this organization and it is not working as is

needed. The small ports are important because they are a starting point for some tourists visiting in Estonia. Especially with the Schengen agreements, we should have small harbours in good order.

Information about marine tourism is needed and also information linking marinas, farmers and other points of interests. There needs to be something available for tourists that are starting their tours from small ports. They need information about tourist objects, trips, car rental, small bus trips, services, and transport services to specific places. This is true for Estonian and foreign tourists. Also, if there is much development of this infrastructure, it should also be usable outside of the summer seasons to be profitable. What is happening during the rest of the year? What kind of work people can do the other times of the year?

Marine environment of course. We are a sea country with a long coastal line and there is much potential in developing this.

- How do marine environmental factors rank in importance compared to other factors?

Very important.

- Are there any non-marine environmental factors that affect rural marine and coastal tourism? How do these factors rank in importance compared to other factors?

Not really. Our rivers are clear and clean. The Northern rivers are in national parks and they are clean.

Lack of port infrastructure.

Industry near the coast, about 30 km away, in NE Estonia. This might affect coastal tourism in the future. It does not know, but we should keep it in mind as tourism develops.

Privatisation and property development. It should be more defined what areas are for individual use versus communal use.

Litter is a small problem, which must be changed for tourism.

- Do you think marine and coastal tourism has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

As a geographer, I know that it has mostly a negative impact. But, we must preserve more areas and reserves. It's not so negative though.

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to marine and coastal tourism?

I think creating a vision and strategy are important. This we do not have. We do not have a list of problems that we must eliminate. To improve marine environmental quality, I think we really must develop ports with infrastructure, limit the use of nature protection areas more and develop specific things for tourism.

- Does any of the following potential changes in the future matter for marine and coastal tourism? If so, how large changes are required for them to affect marine and coastal tourism? How would they affect marine and coastal tourism?
- Climate change, resulting in a warmer climate in the Baltic Sea area.

Positive impact. If we have a little bit warmer weather, it would be good for beach tourism, boating and yachting activities. But, not too hot - it is too hot in the Mediterranean.

• Reduced eutrophication effects such as reduced algae.

Positive impact. It has become a bigger problem as summers have gotten warmer, but it is not a problem now really.

• Increased eutrophication effects such as increase in algae.

Negative impact and I think the tourism industry is sensitive to algae. If the algae blooms, it looks dangerous.

• More oil spills due to heavier traffic on the seas.

Negative impact and I think the tourism industry is sensitive to news of oil spills.

 A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Negative impact on the marine tourism industry because local fish are very important in the coastal areas. Smaller fishers must be supported and we must make it easier for them to have fish for tourism. The big boats don't help tourism. There must be food to eat, but also tourists want to go out to put out nets and participate in the smoking process and then eat the fresh smoked fish. This has been increasingly difficult, as fishing has decreased and continues to decrease. The good fishermen are old and it is difficult for them to get these licenses. Plus, there is no fish. It is quite difficult, even for us, to do something about this issue. Perhaps it will be like in Greece, where the fish is very expensive per kilo because there is not much of it.

Additional comments:

This gas pipeline might be an environmental issue – don't know if it will happen or not. There are poison chemicals and bombs that would need to really be dealt with and researched before.

Personal Communication via email with Mr Georg Martin, Tartu University, Estonian Marine Institute, 2008-04-14

According to Mr Martin, the Tallinn Bay, Pärnu Bay and Narva Bay areas can be considered as strongly affected by eutrophication, but algal blooms are not a problem. Although Cod has been irrelevant to Estonia due to the low stocks for about 30 years, other species, mainly coastal fish, that have been declined since the mid-90s due to overfishing. Oil spills are not a very big problem, as there have been only a couple during the last couple years. The presence of hazardous substances in general in the marine environment is for the most part at very low levels, though litter is problematic in the harbour areas. Marine environmental issues relevant to Estonia is the interaction between seals and local fishermen and also nature protection versus the different uses of the sea (fishermen, windmill parks, etc).

Telephone interview with Ms Karmen Paju, Kuresaare Tourist Information Centre, 2008-05-05

The survey questions were not used, as it was determined that there was not enough information available to answer the questions for the situation of recreational fishing even locally. Ms Paju felt that recreational fishing was a potential future tourism sector, mostly for Saaremaa, as she feels that there could be demand for it from tourists. Currently, fishing is somewhat advertised as an Estonian activity in Saaremaa, but that tourists might be disappointed to find out that there is not active recreational fishing, like in Finland. She mentioned that there have been some EU projects that have involved local fishermen in the islands and recommended the website Visit Saaremaa for more information about service providers. (http://www.visitsaaremaa.eu)

Telephone interview with Mr Evald Ojaveer, Tartu University, Estonian Marine Institute, 2008-05-12

The survey questions were not used, as Mr Ojaveer is not a representative of the tourism sector, but knowledgeable of the fishing sector. According to Mr Ojaveer, the obstacle to development of the recreational fishing sector in Estonia is not the lack of fish, but legislation and administration. He indicated that there are flat fish, flounder, white fish, herring and even the valuable pike perch available in Estonian coastal waters, especially around Pärnu and Saaremaa. Although the pike-perch is overexploited everywhere, he doubted whether recreational fishing would further impact the stock. Its spawning grounds are Pärnu Bay. The professional fishing

industry is made of both large fishing companies and small coastal fishermen, who tend to be elderly. Younger coastal fishermen have not entered the market as there are limits on the number of vessels permitted by authorities, thus local fishing is not a continuing profession in the coastal communities.

Mr Ojaveer indicated that it is a complex situation, as there is potential for fishing to support local coastal communities, however, the tourist industry is not organized enough to have an influence on fishing legislation. The market used to be more free, but regulations linked to fishing along the Estonian coasta are much more strict and heavily influenced by the large professional fishing companies.

Informational Interview with Dr Sulev Nõmmann, Marine Scientist, 2008-05-12 There have been floods in Pärnu that have caused serious impact on the tourist infrastructure there. A lot of money needs to be invested in Pärnu and some other parts of Western Estonia to cope with future floodings of the same magnitude. This could be linked with climate change as well and future affects. Also, it can be assumed that rapidly developing modern spa industry, which is mostly situated along the coastline would be very affected by changes in the marine environment. It was recommended to be in touch with the owners of e.g. Haapsalu Spa to discuss these potential threats further.

The deep water port in Saaremaa that has not yet been much used could have brought potential environmental impacts to the Natura areas (bird nesting) in the neighbourhood. The building of harbours and smaller ports needs to be looked at in terms of the environmental impacts. These coastal and island areas have a unique nature because they were so isolated by the military and border guards during the Soviet times. Coastal wilderness is very sensitive to even small changes and definitely economic and real estate development in the areas.

The nutrient loads to the sea used to be high due to the intensive uncontrolled use of fertilisers by collective farms during the Soviet time. After the collapse of the Soviet Union, the emissions loads dropped for approximately a decade, but since Estonia joined the EU, they have increased again due to the significant financial support from the EU. Now there is again growing pressure towards eutrophication, even though the situation is better controlled than it used to be. As a positive trend, the industrial loads in Estonia however have decreased since regaining independence.

Telephone interview with Ms Aire Toffer, Manager of the Estonian Spa Association, 2008-05-13

The survey questions were not strictly used, as there was a limited amount of time for the interview and the respondent was unsure whether the spa industry was relevant to the research.

How would you describe the purpose of your organization?

The association is made up of 15 therapeutic spas around Estonia, about half of which are located along the coast – and a few directly on the beach. The association aim is to provide common marketing of therapeutic spas and to be a representative of this sector in i.e. the Estonian Tourist Board, etc. The association does not yet include wellness spas, but might in the future as some would like to join as they have no unified marketing yet. We do not have knowledge about the spas outside of her association, but mentioned that there are a lot of them. We are not aware of any current sector-wide activities for the spas outside of the association.

How would you characterize the type of tourists in the spa industry?

The spa industry is a traditional Estonian industry which existed even during the Soviet times. Traditionally, the clientele has been mostly non-Estonian. During the Soviet times, the clients were all Russian and after independence, they were mostly Finns. In fact, between 2000 and 2002, over 90% were Finns.

In general, how has the activity in the therapeutic spa industry developed?

Since Estonia regaining independence, the industry has continuously grown and last year, 2007, was the first drop in profits and overnights, but only to 2005 levels. There was a big increase after Estonia joined the EU in 2004. More spas are constantly being built and being filled to capacity. In 2007, there were about 1 million hotel nights registered within our association, from about 300 000 clients and an annual turnover of 850 billion EEK (ca. 54,3 billion Euro).

- Has the therapuetic spa industry been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, I haven't heard that it bothers anyone. However, tourists in other areas of the Baltic Sea who are knowledgeable about the Baltic Sea marine pollution may assume that the pollution level is worse in Estonia than it is. It may be a reason for them to go to other European countries for Spa treatment.

Of course the beach condition and water safety is important, but it is not the most important issue. Whether the sea water is clean or not does not matter as our clients come for our spa services. I do not know of spas offering outdoor activities such as kayaking or windsurfing, though some offer walks in the forest. Water may be very important to Haapsalu spa, as it uses the sea water in its therapeutic services.

- Has the therapeutic spa industry been affected or not affected in the last 30 years by any marine environmental improvements?

No, I don't think so.

Which are the most important factors for the growth of the therapeutic spa industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Service quality, product availability, competitiveness of spas, price, the opening of the borders, warmer climate, clean sea water

- How do marine environmental factors rank in importance compared to other factors?

Big

- Are there any non-marine environmental factors that affect the therapeutic spa industry? How do these factors rank in importance compared to other factors?

"I am sure that so many factors affect the industry, even ones that we do not know about. "After examples of potential factors (air pollution, traffic noise, land development) were given, she agreed with all of them having an effect, but was not sure how important they could be.

- Do you think the therapeutic spa industry has a positive/negative impact on the marine environment?

Neutral, it does not have an effect.

- Does any of the following potential changes in the future matter for the therapeutic spa industry? If so, how large changes are required for them to affect the therapeutic spa industry? How would they affect the therapeutic spa industry?
- Climate change, resulting in a warmer climate in the Baltic Sea area.

Climate change probably will not have an effect on the spa tourism as it is not seasonal tourism, but of course if the weather gets too hot as is predicted, then it will have a negative effect.

• Reduced eutrophication effects such as reduced algae and reduced smells in the water.

A big change would be needed to have any impact on the spa industry.

• Increased eutrophication effects such as increased algae and increased smells in the water.

A big change would be need to have a negative impact on the spa industry.

• More oil spills due to heavier traffic on the seas.

I do not know.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

No effect.

Conclusions

In general, the findings above indicate that the Estonian marine and coastal tourism industry does not seem to have been strongly affected by the marine environment quality. Prior to 1992, Estonia was occupied by Soviet Union, during which time there was no marine tourism due to a different economic system, though the state owned spa industry was popular among Russian tourists. There was strict control of the coastal area and access to the Estonian archipelago was limited under the Soviet regime. Since Estonia regained its independence in 1992, the tourism industry has continuously developed. Thus, within its current economic context, it can be considered quite a young industry.

Currently, the coastal areas are an important destination for tourists from both Estonia and abroad, especially those coming from neighboring countries of Finland, Sweden and Germany. In the last few years, Estonian prices have increased and the quality of services and tourist infrastructure seems to be in development.

In terms of coastal and marine tourism, two of the countries strongest tourism sectors are spas and cruises. The rest of the coastal and marine tourist industry (beach tourism, boating, and small cruise vessels included) seems to be somewhat fragmented and made up of many very small actors and entrepreneurs that are not represented by a larger organisation. Most of respondents had been involved in the industry for 2-6 years and described their specific markets (not including spa and cruise industry) as niche markets with only a handful of competitors. For example, ESTCOTT OU is one of two vacation rental accommodation broker offering numerous choices to mainly foreign tourists. Also, according to the Kurresaare Tourist Information Center, the recreational fishing industry in Saaremaa, which is the most active area for such activities in Estonia consists of only five holiday house locations which offer sea fishing possibilities. Furthermore, Lootur OÜ is one of about 10 outdoors outfitters providing marine oriented activities like kayaking and sea ice-skating in Estonia.

The cruise and therapeutic spa industry should be handled separately as the cruise guests for the most part remain in Tallinn during their short period of stay on land and therapeutic spa industry clients are focused on their in-spa treatments rather than the outdoors. Due to the lack of an overall representative of wellness spas (non-therapeutic), it is now known whether it is also true for these tourists.

Due to the large size and economic significance of the cruise sector, economic and other statistics have been compiled and analysed for the cruise sector. According to studies, 307 000 cruise passengers visited Tallinn in 2006 through 292 calls to port, making it the second largest member port. They spent on average $40 - 50^1$ EUR/per tourist in the city totalling 12 to 15 MEUR and a calculated direct and indirect turnover of 18 to 21 MEUR in 2006 (2007) (COWI 2007) (Tallinna Sadam

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¹ Source: Port of Tallinn, excursions booked via cruise line or on internet not included.

AS 2006). Tourist industry statistics focused on the coastal and marine tourism are not available in the Statistics Estonia online database (2008). Also, such calculations were not known by the interviewees to have been made for the other parts of the coastal or marine tourism sector.

None of the respondents in the smaller niche markets were able to provide economic information about their industry. However, the vacation accommodation rental broker mentioned that the number of the properties they are offering currently (70) has increased from 25 in 2006 to 50 in 2007 and that the rental prices are usually higher along the coastline. In Pirita Harbour, the harbour captain mentioned that in recent years, harbour fees have increased 200-300% and are now higher than those in Nordic countries. This affects the attractiveness of Estonian harbours negatively, especially since harbour amenities are not included in this already high price. The Pirita Harbour is now focusing on providing Estonian boats with year-round spaces rather than tourists with temporary spaces to help recover costs. Last year, they had 270 local Estonian boats (including 63 new clients) docked year-round and 200 500 boats visiting the harbour. The outdoors outfitter, Lootur OÜ, has about 200-300 clients per year and operates without paid staff – only paid guides. According to Varri Väli at Maaturism, coastal tourism accounts for about a third of rural tourism.

There was agreement among the interviewees that there is potential, but also still much to be developed in terms of the coastal tourism. Among coastal and marine tourists, the following tourist categories were mentioned: cruise guests, who mostly come into Tallinn and stay in Tallinn for a few hours, boaters and yachters from Estonia, Finland, Sweden and Germany, who tend to be retirees, families and retirees from also these same countries to rent summer accommodations, especially around Pärnu and the Estonian western islands, and corporations holding cruising and boating events.

In terms of changes in the Baltic Sea environment, respondents reported both positive and negative changes as having taken place during their lifetime. Positive changes were cleaner water, warmer weather and a longer tourist season, and warmer water. Negative changes mentioned included increased pollution, increased private land development, new harbour development in Saaremaa, colder and more mixed water due to increased ferry traffic, occasional and localized oil spills and algal blooms, the lack of ice and a closed bay in the winter, the decrease in the fish stock, and coastal damage to small islands by ferry traffic.

Most of the respondents felt that at least their part of the coastal tourism sector was not affected by both marine environmental problems and also non-marine environmental problems, mainly for the reason that no large environmental disasters had occurred. It was mentioned by those involved in boating that perhaps swimmers might be more affected than those in boats by marine environmental problems. Also, despite occasional algal blooms, most of which are not harmful, it is not seen as a problem for tourism as the Estonian coastline is not so quite open, the

wind and waves minimize the algae gathering, algae is cleaned away from public beaches, and there are always alternative places to go and alternative activities for tourists to do. Those in the small cruise vessel and boating industry specifically mentioned that boaters are more separated from the water than swimmers and thus not as affected. Although the same specific claim was not made for large cruise passengers, it could be assumed that they are even less affected due to the fact that they have even less contact with the water and are more interested in land-based tourist objects. However, it was mentioned that oil leaks have happened and one responded added that when an issue is big enough to get media coverage, the Estonian tourism is affected due to the negative attention. One non-industry representative who reviewed the findings felt that they were one sided and that the spa industry must be affected by the marine environment. The spa association, which represents the therapeutic spas of Estonia, but not other wellness spas, was contacted and responded in line with the other findings. The other spas do not have representation.

Factors important for the growth of the marine and coastal tourism industry were often related to the condition of the harbours and the availability of other touristic attractions, competitiveness of tourist destinations, qualified personnel, services, activities, transport, and accommodation, especially around small harbours, which serve as an entry point to Estonia. Marketing and the communication of a unified vision linked with coastal tourism were mentioned as factors. Also, the price and price-quality ratio of services and level of Estonian economic growth, Estonian legislation, the openness of borders, and media were also mentioned as factors, along with the weather and length of the summer tourist season. Two respondents mentioned access to and availability of clear nature. Most respondents mentioned that environmental factors were not high in importance, but many commented that the importance is perceived as low because of the relative good current condition of the Estonian marine environment. Thus, if there were problems, the perception might be different.

In terms of assigning responsibility for past environmental changes, the respondents identified fishing trawlers for the lack of fish and large ships for oil spills. Suing for damages is not considered part of the current Estonian culture. Thus it was difficult for respondents to respond to the question regarding financial compensation for economic impacts of environmental damage. It was mentioned that this should be handled by the government and not the tourist industry. Similarly, in terms of recommended measures to be taken for having a marine environmental quality beneficial for marine and coastal tourism, many felt that public authorities were responsible for providing an environment conducive to tourism. For example, resources should be allocated for monitoring, and to ensure quick reactions and preparedness for accidents. Litter control was mentioned, with harbour development as a specific solution, along with limiting the routing of ballast water and wastewater into the sea.

In terms of the potential changes in the future and their affect on the marine and coastal tourism and the sensitivity of tourism to the effects, most respondents felt that a warmer climate would have a positive effect. Answers as to whether or not the industry was sensitive to it varied. In general, the effects of changes in eutrophication such as increased algae were seen to negatively affect tourism, but not very much. Beach tourism was mentioned as potentially negatively affected in the case of large increases in algae. The tourist industry was thought to be sensitive to and negatively impacted by oil spills. According to respondents, the Estonian coastal fishing is dominated by larger fishing vessels that do not contribute to fishery related activities along the coast. Also reported by several respondents was the lack of fish in many places along the coast, though some felt that there would be tourist market demand for more local seafood and activities such as fishing and preparing smoked fish.

In general, respondents felt that due to the small size of Estonia's coastal and marine tourism sector, there was not a negative impact on the environment. Positive impacts were linked with small-scale tourism activities that brought people in contact with nature without pollution, i.e. hiking, camping, sailing, etc.

Similar to the difficulty for respondents to rank the importance of environmental factors for the growth of the tourism industry due to the lack of experience with environmental problems and their impacts, they also had a difficulty in deciding how important "enjoyment of nature" was to their tourists. It seemed to be a given in that it is a benefit for tourists to be able to enjoy it, especially since it is of relatively good quality in Estonia, but hard to rank among other tourist priorities, i.e. enjoyment of food and drinks during boating, the local culture, spa services and the capital city of Tallinn, etc.

In conclusion, due to the combined factors of a current generally good environmental conditions along the coast, a relatively young tourist industry dominated by the spa and cruise industry, new niche markets which are developing, but small, the existence of other more urgent obstacles to development, there is currently a weak awareness of how the marine environmental changes could affect marine and coastal tourism.

Since past changes in the marine environment are not perceived to have affected marine tourism, research could focus on potential future changes. This research could develop detailed descriptions of localised potential changes that might take place for the areas most relevant for the developing marine tourism industry and the circumstances under which these changes might take place. This could make it easier for tourism representatives to see the relevance to their sector. Also, it is recommended that more information is gathered on the marine and coastal tourism sector overall, as well as specifically economic information as well as the market potential, to consolidate the experiences of the niche markets outside of larger spa and cruise tourism. Although the niche markets do not by themselves have a high

economic value, they might be more significant (especially in terms of local economic development and cultural value) if combined. This includes markets like bird watching, outdoors activity outfitters, non-therapeutic spas, and coastal fishing.

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Annex III. Finland

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Introduction

The criteria for selecting the interviewees were their expected knowledge of recreation and tourism as well as experience and expertise in the Baltic Sea environment. It was a challenge to find representatives having these broad views in the tourism branch. In particular, it was difficult to find a person with knowledge of the Baltic Sea rather than issues related to inland waters.

In the selection of the interviewees, it was helpful that the Finnish Forest Research Institute was simultaneously carrying out a mapping of actors in nature tourism in the Finnish coastal regions and archipelago.

Two actors contacted denied interviews because of lack of time or interest. In the sample of interviewees, there are no nature tourism entrepreneurs included, because it is typical for nature tourism in Finland that the firms are extremely small and sampling them would have required more time and resources to guarantee representativeness for the whole branch. Therefore, branch associations were contacted instead. The particular persons to be interviewed were found through the internet and telephone calls.

Finally, six interviews in total were carried out during April 22 and May 14 2008.

Findings

The following interviews were carried out with representatives from beach tourism (camping, rental of cottages), guided bird watching tours, recreational fishing, boating and cruising in Finland.

1. Camping

Interview with Mr Antti Saukkonen, Managing Director, Finnish Camping site Association, Helsinki 2008-04-22

How long have you been active in the association? 8 years

How would you describe the purpose of your organization?

Marketing of the Finnish camping sites, education of the entrepreneurs who are members of the association, and promotion of the interests of the members. An overall goal is to improve the image of and possibilities for camping and development and improvement of quality of our sites and services.

How would you characterize the type of people who use the camping sites?

Customers are often families with children, but also couples and singles. Families are the most visible campers. Tents, recreational vehicles, and cottages are used for accommodation. Also boating services are provided where appropriate.

In general, how has the activity in the association developed during the last 30 years?

Previously services were provided by municipalities. Nowadays camping sites are run by private entrepreneurs as tourism business. Although the seasonal nature of the business is still a problem, camping sites are operated more professionally than before.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Blue green algae: most visible.

Collapse of fish stocks: some fish species disappeared.

Disappearance of jellyfish (medusas).

Baltic Sea is more crowded because of the increased traffic and recreational boating.

Has camping been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

There are indirect impacts. There are no facts, but our view is that blue green algae have increasingly negative impacts on camping sites. Blue green algae are the most visible and they affect the activities most.

Many camping sites are simultaneously municipal swimming beaches. Changes in the sea level can also cause problems especially in Helsinki region. Also litter and littering is a problem for camping, and it has increased lately.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

St Petersburg and its untreated waste waters.

Was camping affected by any of these problems earlier than 30 years ago? If so, how?

No

Has camping been affected or not affected in the last 30 years by any marine environmental *improvements?*

No observable changes seen.

Which are the most important factors for the growth of camping? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Domestic tourists:

Weather conditions: rainy summers are less busy and good summers increase tourism.

Summer holidays of schools: current timing of school holidays (starting early June) is not the most optimal for tourism

Disposable income: recession affected camping as well

People's time available for leisure

Foreign tourists:

Increase in tourism in countries where the tourists depart from (e.g. Germany, Holland): the economic conditions affect camping

Travel plans of Russians from the St Petersburg region

Clean coastal waters are important, particularly for foreign tourists. Polluted beaches do not attract for traveling.

Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Global warming may lengthen the camping season, if summers become warmer. If they become rainy and wet, the impacts will be negative on tourism.

Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Positive impact: camping in dedicated areas with waste disposal services.

Negative impact is caused by camping outside the camping sites. As a remedy, supply of camping sites should be increased.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to camping?

Most important:

- 1. Improved treatment of waste waters in St Petersburg.
- 2. Farms should obey environmental regulation and reduce phosphorus emissions to rivers.

Others:

International monitoring system for Russian oil transports and harbors. Containers for boats for emptying their tanks of waste waters. Stronger punishments and sanctions for environmental crimes.

Does any of the following potential changes in the future matter for camping? If so, how large changes are required for them to affect you? How would they affect camping?

Climate change, resulting in a warmer climate in the Baltic Sea area.

Positive or negative impact: longer season due to warmer weather or a threat to business if rainy summers become more frequent.

• Reduced eutrophication effects such as [impacts of water quality on recreation – swimming, boating etc].

Positive impact on business, recreational use improves which could be good for marketing ("Clean Baltic Sea")

Increased eutrophication effects

90 % of camping sites located along coastal areas and inland waters – this means that if waters cannot be used for swimming, camping can decrease during holiday seasons.

• More oil spills due to heavier traffic on the seas.

Negative impact. Camping sites should be closed due to serious oil catastrophes.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Less fishermen may make small villages less attractive for tourists when local fish products are not available – could have a negative impact.

2. Rental of cottages and summer houses

Interview with Mr Pekka Huttunen, Marketing Manager, Oy Lomarengas Ab Ltd (Finnish Country Holidays), Helsinki 2008-05-07

How long have you been active in Lomarengas?

22 years

How would you describe the purpose of your company?

Lomarengas is the leading marketing and sales organization for rental of cottages and summer houses, accommodation and holiday trips to skiing sites and the Finnish countryside.

How would you characterize the type of people who rent the cottages?

About 75% of the customers are Finns. Domestic travelers are often families with children from urban areas. No clear profile of foreign tourists, less families with children though.

In general, how has the activity in the association developed during the last 30 years?

Turnover of the company has increased considerably. Internet has been the biggest change during the last 10 years.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Eutrophication and blooms of blue green algae have been strong in the eastern part of the Gulf of Finland in particular.

Have rentals of cottages been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Environmental problems affect mainly the eastern part of the Gulf of Finland (Vironlahti). From time to time there have been bans on swimming due to blooms of blue green algae, and bookings have been cancelled or rental periods suspended.

What is the trend during the last three decades for how cottage renting is affected by these problems? More before and less now? Less before and more now? About the same?

Environmental problems have a marginal impact even at the moment.

Can you give any number for how XX is affected by these problems in the *last* few years?

No

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

Waste waters from St Petersburg are the single most polluter of the Baltic Sea. The city of St Petersburg should take care of arranging treatment of waste waters appropriately.

Why has rental of cottages not been affected?

The most severe environmental problems are in the eastern part of the Gulf of Finland where we (Lomarengas) do not have cottages. In other coastal areas we have not experienced similar problems; only 5 % of our cottages are located in the coastal sea areas and a majority along inland waters.

Was use of cottages affected by any of these problems earlier than 30 years ago? If so, how?

Do not know.

Has cottage accommodation been affected or not affected in the last 30 years by any marine environmental *improvements?*

No. The condition of the Baltic Sea has deteriorated only.

Which are the most important factors for the growth of your industry? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Threats are pollution (nature catastrophes) and activities in Russia. However, these threats are theoretical. Demographic changes and urbanization have promoted rental of cottages for recreation as urban population does not often have cottages of their own. On the other hand, increased insecurity elsewhere (in Russia and Europe) increases tourism to countries such as Finland which is perceived as a safe and clean country.

How do marine environmental factors rank in importance compared to other factors?

A big environmental catastrophe could have a significant impact; environmental factors are important. "Any nature catastrophe would be a complete catastrophe to our industry as well."

Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

As we rent cottages, and they are used by several people, our business can be considered ecological. All people do not need to build cottages for their own use but several people can rent the same cottage. This is comparable to the issue of public transport vs. private cars.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to renting/use of cottages?

If eutrophication and pollution of the Baltic Sea could be fully controlled, it would have a positive impact on the prerequisites of our branch.

Does any of the following potential changes in the future matter for cottage renting? If so, how large changes are required for them to affect you? How would they affect use of cottages?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Warmer climate with stable weather conditions has a positive impact as the summer season is the most important for the rental of cottages. On the other hand, bad winters without snow affect winter season, but mainly in the southern Finland only. Due to lack of snow, winter season may be lost in some rental areas.

• Reduced eutrophication effects such as [impacts of water quality on recreation – swimming, boating etc].

Positive impact, increased business possibilities.

• Increased eutrophication effects

A cottage with a beach affected by blue green algae has no value as it cannot be used for swimming or fishing and does not attract any customers.

• More oil spills due to heavier traffic on the seas.

An oil catastrophe would have even bigger negative impacts than eutrophication. Oil spills would put our company in an awkward poisition.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

At most sentimental value for tourists.

What are the most important environmental factors for the price of cottages situated at the coast?

Distance to/proximity of the coastline and privacy.

Blue green algae affect more than filamentous algae which are not toxic and do not prevent swimming. "Both types of algae are bad but the blue green algae are much worse."

3. Guided bird watching tours

Interview with Mr Mika Asikainen, Director, BirdLife Finland, Helsinki 2008-05-06

How long have you been active in the association?

Since 1999 as a director, participated in the activities and tasks of the organization since 1997

How would you describe the purpose of your organization?

To promote biological diversity. Goals are achieved by conservation of bird populations.

How would you characterize the type of people who participate in the guided bird watching tours?

Currently, the profile of participants is changing dramatically. Earlier bird watchers were typically young or old men. Just ten years ago about 4/5 of the members were men, now more than every other new member is a woman. Another trend is an increased interest among senior people. "It is no longer that children get interested in the hobby in nature clubs at schools … people in their fifties and sixties get interested in bird watching as a hobby."

All socioeconomic groups of society are represented: bank directors, blue-collar workers, teachers, physicians, unemployed people.

In general, how has the activity in the association developed during the last 30 years?

Initially, the association collected and published observations on birds. In 1990s issues of conservation of nature became more important. Environmental awareness has all the time been in the background since the 1970s. Conservation of nature rather than promotion of bird watching is currently the number one issue.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Changes have been only negative. Thick algae masses in the Baltic Sea in July, already in May water is muddy. Enormous frequency of oil transports, for example, amounts of oil transports to Koivisto harbor (in Russia) incredible. Housing development around the coastline is problematic for recreation. "When the coastline has been developed then it is truly lost and nobody can use it for recreation in free time any longer."

Has bird watching been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Water quality has not yet affected birds according to our observations. However, massive deaths of birds have been observed in 1990s. Birds in archipelagos are suffering, but there are also increases in some bird species. Bird watching is mainly affected by increasingly limited access to seashores due to housing development (not an environmental problem as such).

All environmental impacts affect the association, not so much the bird watching as such.

The association is active in communities and engaged in issues related to e.g. zoning, agricultural loads.

What is the trend during the last three decades for how bird watching is affected by these problems?

Currently more effects can be seen. For example, there are less and less long-tailed ducks which has been explained by the poor ecological state of the Baltic Sea. When species become rare it has an indirect impact on bird watching.

Can you give any number for how bird watching is affected by these problems in the *last few years*?

The amount of bird watchers has not been affected by environmental problems.

Please rank the problems starting with the most severe one for bird watching in the *last few years*.

Housing development around coastlines.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

Policy makers. On the other hand, the Ministry of the Environment is responsible for certain issues and acts independently even though it is steered by political decisions. The Prime Minister's Office affects the ministries; they are responsible.

Why has bird watching not been affected?

Environmental problems have not affected birds. Since there still are birds, there are bird watchers.

Was bird watching affected by any of these problems earlier than 30 years ago? If so, how?

No.

Has bird watching been affected or not affected in the last 30 years by any marine environmental *improvements?*

Improvements of national parks have promoted bird watching which is not a measure to solve environmental problems.

Which are the most important factors for the growth of bird watching? Think about all kind of factors that are important for the development of your activities, both environmental and non-environmental.

Increased leisure time. People's interest in nature and its diversity has increased too.

How do marine environmental factors rank in importance compared to other environmental factors?

Other environmental factors do not have an impact.

Do you think bird watching has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Direct impacts are minimal, littering could be an issue, but is a minor one. Littering is reduced by guiding and instructions are provided by a booklet "Ethical guidance for a bird watcher". Indirect positive impacts through documented observations on birds which provide data on bird populations. These data can affect decision makers and public opinion.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to bird watching?

Birds should be taken into account in location of wind mills. Reduced water pollution may have a positive impact on bird populations, for instance, eutrophication and decreases in fish stocks affect birds and hence recreation.

Does any of the following potential changes in the future matter for bird watching tours? If so, how large changes are required for them to affect you?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Exact impacts not known; will affect composition of species –it has been predicted that there will be increase in southern bird species.

• Reduced eutrophication effects such as [impacts of water quality on recreation – swimming, boating etc].

Increased diversity and increased interest in bird watching.

• Increased eutrophication effects

Massive deaths of birds due to lack of nutrition; loss in biological diversity.

o More oil spills due to heavier traffic on the seas.

A dramatic negative impact on bird populations and consequently on bird watching.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Not a significant impact. Could affect the transportation of bird watchers and back-packers in the archipelago. Overfishing may affect bird populations.

4. Recreational fishing

Interview with Mr Markku Myllylä, Managing Director, Federation of Finnish Fisheries Association, Helsinki 2008-05-14

How long have you been active in the association?

I have participated in the activities of the organization since 1985, and since 1989 I have been managing director of the association.

How would you describe the purpose of your organization?

We promote the interests of partners of fishing waters, statutory fishing waters and commercial fishermen. Management of fishing waters to provide sustainable fish catches to all parties.

How would you characterize the type of tourists?

Fish tourism is a new, increasing area (development started about 1995). Tourists and corporate customers from Russia in particular are significant. Companies bring

their customers and personnel to fish trips and use accommodation and fishing services. Often they rent cottages increasing the utilization rate.

In general, how has the activity in the association developed during the last 30 years?

The association was established in 1981 when it was financed by government funding (90%). Since the end of 1980s only 30% of financing has come from public funding which has changed the nature of activities. The government is still the biggest customer. Training and research have become increasingly important. Internet and electronic communication has changed public relations and our web site (www.ahven.net) is very popular among fishermen. Fish tourism since 1995 has also changed our activities.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Increase in the seal population ("explosion of the population") has been the most considerable nuisance or damage to fisheries, and has stopped fishing totally in some areas. In the Gulf of Finland, kelp has disappeared. In bottoms, there are more filamentous algae and blooms of blue green algae have become usual. Traps are slimy due to algae which is a particular nuisance for commercial fishing. We do not know yet the impacts of invasive species on the ecosystem of the Baltic Sea. The variations in the stocks of salmon, sea trout and cod have affected considerably fisheries. In general, the sea suffers from the eutrophication.

Has recreational fishing been affected by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Seal is the biggest problem. Those traps that are "seal-safe" are very expensive. On the other hand, winter fishing has collapsed due to mild winters. Warm waters are good for pike-perch and its stocks have increased in the Baltic Sea. Mild winters also lengthen the fishing season: the longer season in the fall and earlier start of the season in the spring are favorable for fishing pike. "Pike is the most important fish species for the fish tourism here in the coastal regions."

What is the trend during the last three decades for how recreational fishing is affected by these problems? More before and less now? Less before and more now? About the same?

Since 1950s the state of the Baltic Sea has worsened. On the other hand, pigment toxins (in boats) are no longer used and extinction of sea eagles (due to quick silver) could be avoided – so there are improvements too. New concerns are caused by dioxins which restrict the use of Baltic herring as food.

Can you give any number for how the members of your association are affected by these problems in the *last few years*? Please rank the problems starting with the most severe one in the *last few years*.

Algae (blue green algae in particular) and eutrophication (through slimy traps) can even hinder fishing.

Please rank the environmental problems starting with the most severe one for fishing in the *last few years*.

Warmer climate has had the strongest impact on winter fishing, although the fishing season has become longer.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

There are so many who are responsible. For example, primary production (agriculture, forestry, fisheries), industry and municipal waste waters. Waste wagers from St Petersburg in particular cause problems in the Gulf of Finland.

Was your business affected by any of these problems earlier than 30 years ago? If so, how?

Fish tourism has not been affected as it is such a small part of the whole fisheries. Fisheries in general have been affected by oil spills and disappearance of kelps (by reducing suitable living environments for pikes – fishing techniques must have been changed).

Has your business been affected or not affected in the last 30 years by any marine environmental *improvements?* Any examples on these improvements?

Waste water treatment (industry and municipalities) has had the biggest impact on fishing. Hard to say anything about the combined effects of climate and other changes. Finnish waste water treatment is on top level in Europe.

Which are the most important factors for the growth of fish tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Number of skilled fishing guides and training has a positive impact on fish tourism, even though some entrepreneurs have had problems with fishing licenses. Fish stocks have a direct impact too. Development and marketing of fish tourism has led to a strong growth and there are more entrepreneurs now. The increased interest of Russian tourists in Finland has increased fish tourism as well. Cooperation between entrepreneurs, communities and authorities has had a positive impact on fish tourism.

How do marine environmental factors rank in importance compared to other factors?

The strengths of the Baltic Sea are short distances from the biggest cities, from Helsinki in particular; good fish species and a large number of customers.

Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

White fish (pike-perch, perch, pike) benefit from the warmer climate, and have a positive impact (of course there are other impacts too).

Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Positive impact through great nature experiences. A skilled fishing guide releases "extra" catch if the fish has not been damaged.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to boating?

In the Gulf of Finland, treatment of waste waters from St Petersburg. In agriculture, buffer zones and wetlands would help to reduce emissions. Increasing efficiency of treatment of nitrogen in municipal waste water plants if possible.

Does any of the following potential changes in the future matter for fish tourism? If so, how large changes are required for them to affect you?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

White fish benefit from the warmer climate, and open water fishing season in general. Jigging and winter fishing is impossible due to milder winters in southern Finland in particular.

Reduced eutrophication effects such as [impacts of water quality on recreation – swimming, boating etc].

Reduced eutrophication could increase fish stocks by affecting plankton. Sight depth would improve and kelps would come back thanks to improved water quality. There would be a positive impact on fish tourism.

• More oil spills due to heavier traffic on the seas.

More oil spills would be a kiss of death for fishing. Polluted beaches would be closed, and polluted fish could not be eaten. Oil spills really are a threat in the Gulf of Finland, in particular. All oil transporting ships should have double hulls.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Commercial fishing has halved already during the past 15 years. The decrease in the number of commercial fishermen has not affected catches yet. The problems

with seals may affect the industry (expensive traps) such that there will not be domestic fish available, but it is imported from Norway and from more exotic, distant countries.

5. Boating

Interview with Mr Hannu Laine, Managing Director, Finnish Boating Association, Helsinki 2008-04-28

How long have you been active in the association?

As a managing director 3,5 years, earlier among other activities a chair for a commission for boating and environmental activities.

How would you describe the purpose of your organization?

Boating association coordinates the activities of local and regional organizations. The purpose is to promote the interests of Finnish boating and boaters. We also represent boaters in the Finnish sports confederation.

How would you characterize the type of people interested in boating?

There is no particular stereotype. Boaters are often families who respect and enjoy the nature. They are interested in environmental issues as improvements in the sea water quality affect boating. There are a lot of boaters in Finland, and they are often influential people in the society.

In general, how has the activity in the Boating Association developed during the last 30 years?

Regarding the environment, there is now more focus on broader, more influential issues rather than maintaining conservation attitudes and intervening in small details. There is cooperation with the Finnish Nature Conservation Association and John Nurminen Foundation ("Clean Baltic Sea"-campaign). In the past years, an inspection system for tanks of waste water discharges in boats implemented. Boating safety is an increasingly important issue.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

The state of the Baltic Sea is critical: considerable algae blooms, sea bottoms covered by filamentous algae, sea water clarity poorer. Close to urban areas water quality has improved thanks to waste water treatment plants, but it does not necessarily mean that the state of the Baltic Sea would have improved. Other European countries are not necessarily interested in the state of the Baltic Sea, not even all those countries surrounding the sea. In international meetings, the Boating Association keeps the improvement of the state of the Baltic Sea on the agenda.

Has boating been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

The worst one is the blooming of the blue green algae which causes even mechanical problems. Environmental problems affect indirectly route plans of boaters as the plans have to made according to location of waste discharge collectors along the coast (these are too few and the pumps are inefficient; poorly organized in Finland).

What is the trend during the last three decades for how boating is affected by these problems? More before and less now? Less before and more now? About the same?

30 years ago the environment was the main attraction, sea water was clear and the bottoms were healthy. Clean sea attracted tourists, fish catches were bigger and it was easy to keep nets clean. Environmental problems have emerged during the very recent years.

Can you give any number for how boating is affected by these problems in the *last few years*? Please rank the problems starting with the most severe one for boating in the *last few years*.

Cannot give any estimate. Boaters go to the sea despite any extra charges posed on us or independent of the deterioration of environmental quality. Waste discharge collection system affects route plans. Most boaters have taken nature into account during the past 30 years: waste is collected; coastal areas with nesting birds are not visited etc.

Blue green and filamentous algae have had the biggest impact. They do not hinder or stop boating, though.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

There is no single agent responsible, but awareness of the environmental problems has changed little by little.

- 1. Treatment of municipal waste water. Currently, waters are treated in waste water treatment plants. Close to urban areas and cities the sea water quality has improved dramatically.
- 2. Application of fertilizers in agriculture. However, farmers cannot be blamed for trying to make their living on agriculture. Agricultural support should be allocated to decrease the overuse of fertilizers. "One should not apply fertilizers just to be on the safe side, a bit lower yields should be tolerated." "Finland is the worst polluter of the Baltic Sea in per capita terms which is a shame for a country like this."

Was boating affected by any of these problems earlier than 30 years ago? If so, how?

Not aware of any problems.

Has boating been affected or not affected in the last 30 years by any marine environmental *improvements?*

No impacts can be seen yet. The measures taken by the John Nurminen Foundation to clean waste waters in St Petersburg will surely be seen. The activities of the Foundation have been goal oriented and concrete. The others have hardly done anything that would have enough impact.

How was boating affected by these improvements?

The waste water treatment mentioned above. The environmental impacts of boating are so minor that the tanks of waste water discharges built in boats recently hardly affect the state of the environment. Boaters have responsible attitudes though as they have invested in expensive waste water storage systems. Now the society should improve the waste water collector infrastructure along the coastline.

Which are the most important factors for the growth of boating? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

The stability of the economy has a considerable impact. Changes in energy prices have also a large impact. Environmental factors (such as extinction of fish stocks) affect mostly sport fishers who comprise a significant group of boaters.

Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Impacts of climate change are seen very slowly. Hopefully its impact on people will not be observable.

Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Positive impact: Boating does not increase nitrogen or phosphorus emissions which cause considerable problems today. Negative impact is miniscule. The environmental friendly attitudes of boaters have a bigger impact, because boaters are often in influential positions and their opinions count.

The damage caused by the boaters on the environment is really small compared to the benefits brought by the positive attitudes and political influence of the boaters.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to boating?

Use of biodiesel: recreational activities could be supported by (government) tax revenues, if (subsidized) biodiesel were tested in boats.

Fuel taxes collected by the government could be used for building proper, easy-touse waste water discharge collectors along busy boating routes such that everybody would learn to use them.

Does any of the following potential changes in the future matter for boating? If so, how large changes are required for them to affect you? How would they affect boating?

• Climate change, resulting in a warmer climate in the Baltic Sea area.

Global warming would have a positive impact as the boating season would become longer. Increased rainfalls and windy weather can decrease boating. As a whole the impact is negative.

• Reduced eutrophication effects such as [impacts of water quality on recreation – swimming, boating etc].

Reduced eutrophication would have a positive impact as recreational use and nature friendly attitudes would increase. "It is more fun to conserve a clean nature than a dirty one!"

• Increased eutrophication effects

Does not have a big impact on the current boaters, but may have an impact on those who are considering boating as a new hobby. Negative publicity in particular may have an impact.

More oil spills due to heavier traffic on the seas.

Cannot say. Boaters hardly see any oil spills. A large oil catastrophe would stop boating for a certain period of time. Nature would perhaps recover from the damages over time, but on the other hand, the Baltic Sea is more sensitive than other areas where such spills have occurred.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Hardly any impact.

How do you see the measures and restrictions imposed by regulation on boating?

In principle, the response has been positive. For example, there is a voluntary, annual inspection system for waste water storage tanks arranged by boating organizations. However, it is annoying that boaters make these investments for nothing if the society does not build infrastructure for waste water collectors to be located along the boat routes. All responsibility is placed on producers and boaters. A single user or a boating club should not be responsible but the society. There are about 730 000 boats in Finland (2,5 million people in total are in-

volved with/participate in boating) out of which about 50 000 are organized – they cannot be those who should pay the costs.

6. Cruising

Interview with Mr Pekka Haltia, Managing Director, Finnish Passengership Association, Helsinki 2008-4-30

How long have you been active in the association?

Since 1988 I have been a board member and secretary for a regional passenger ship association that was merged with two other associations when the current organization was established. Since 2006 I have been a half-time managing director of the association.

How would you describe the purpose of your organization?

The association is a branch organization that promotes the interests of passenger ship entrepreneurs operating in Finnish coastal and inland waters. We also represent employers in labor market negotiations.

How would you characterize the type of tourists in passenger ships?

Domestic travelers, but there are increasingly tourists from all over the world in sightseeing tours.

In general, how has the activity in the association developed during the last 30 years?

After the merger of several associations we have about 60 shipping companies as members and the number is increasing all the time. Adaptation to EU regulations has been a major task in the last years.

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

The only (observed) change in the state of the Baltic Sea is eutrophication, but the major change for us has been increasing windiness.

In inland waters, industries – e.g. paper mills – have improved their cleaning capacity: earlier times lye and other toxins were emitted directly to waters, but now waste waters are treated. This has a certain impact on the Baltic Sea through rivers.

Have passenger ships been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Actually, measures to avoid the environmental problems have affected us. There is a tight regulation even for small ships regarding waste disposal, containers of waste waters and their emptying. The costs have been considerable for many ships.

Algae blooms cause cosmetic damage. Tourists do not like traveling through thick algae masses.

What is the trend during the last three decades for how your industry is affected by these problems? More before and less now? Less before and more now? About the same?

Algae problems have increased with nitrogen loads during the past 10 years. The problem hardly existed earlier, but now the blue green algae blooms can be seen along the route between Helsinki and Tallinn.

Can you give any number for how the members of your association are affected by these problems in the *last few years*? Please rank the problems starting with the most severe one in the *last few years*.

The impact on the cruising business has been negligible. Blue green algae are rather cosmetic nuisance, and they do not affect the volumes of the cruising business.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

We are all responsible for the problems of the Baltic Sea. Nitrogen emissions from ships are a considerable polluter. In the future, there will be catalysts that filter even 80 per cent of nitrogen emissions.

Was your business affected by any of these problems earlier than 30 years ago? If so, how?

No. "Then water was water."

Has your business been affected or not affected in the last 30 years by any marine environmental *improvements?* Any examples on these improvements? More and more piers are built in the archipelago which is good for entrepreneurs in our branch.

Which are the most important factors for the growth of your business? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Seasonal volumes and growth are most sensitive to weather and economic conditions. Sailing season seems to become longer due to the climate change which is "positive" to us.

Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

Wave-damages caused by large passenger ferries in the archipelago and nitrogen emissions are negative impacts, but they are minimized all the time. For people living in the archipelago passenger traffic is always a positive thing as it is necessary for them.

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to passenger ships?

For us, the most efficient measures are to build proper piers and repair the old ones to match the needs of recurrent ships, vessels and boats.

Does any of the following potential changes in the future matter for your industry? If so, how large changes are required for them to affect you? How would they affect boating?

Climate change, resulting in a warmer climate in the Baltic Sea area.

"As I said before, a warmer climate would have a positive impact as the season would become longer."

• Reduced eutrophication effects such as [impacts of water quality on recreation – swimming, boating etc].

"Reduced eutrophication could have a slight positive impact; nowadays people are very sensitive in these issues and they avoid cruising among algae masses, but clean waters attract people. Of course, the impact is opposite if eutrophication increases."

More oil spills due to heavier traffic on the seas.

Oil spills are unavoidable, but they are taken care of by authorities and do not affect us or our scope for action.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

Cannot see any impact on our business.

How do you see the measures and restrictions imposed by regulation?

There has been good cooperation with authorities, especially in the area of passenger safety.

How important is water quality for your business?

"As I said, clean water is an important prerequisite when potential travelers make their decisions on participating in cruising. I have heard people complaining about dirty water in the spring and early summer when observing brown and muddy waters from the river basins."

Conclusions

The overall impression is that tourism industry is affected by eutrophication of the Baltic Sea. Blooms of blue green algae seem to have been the most visible part of the phenomenon with negative publicity. The most severe problems were experienced in the Gulf of Finland. However, none of the interviewees was able to quantify the impacts of eutrophication nor indicated that major economic losses would have been experienced.

Weather, overall economic conditions, disposable income, and time available for leisure were pointed out as the most important factors affecting tourism. Seals were seen as a considerable problem for (commercial) fishing.

Warmer climate was expected to have a positive impact by lengthening the tourism season, but negative impacts due to milder winters, rainfalls and windiness were feared too. There were mixed opinions about oil spills: minor spills were seen even unavoidable by shippers, but an oil catastrophe was considered as a major threat for tourism.

It was generally agreed that several parties – agriculture, municipal waste waters, industry, shipping – are responsible for the environmental changes in the Baltic Sea, and it was difficult to single out some institution that should be blamed for the environmental problems. Passive policy makers were criticized by an environmental organization arranging guided bird watching tours.

Annex IV. Germany

Prepared by: Astrid Kowatsch, Duene e.V.

Introduction

In order to find German interviewees representative for the different types of tourism, some essential addresses had been contacted. In a first step, we sent an email to the Department of Tourism of the Ministry of Economics of the Federal State of Mecklenburg-Western Pomerania and gave a short description of the project. We asked to be given names of some appropriate organizations or people for the interviews. The ministry forwarded our request to the Tourist Board where they gave us a number of addresses and names to contact.

In a second step, we consulted some people who already had been involved in subproject three (EMI-3) and who are part of scientific working groups concerning Baltic tourism. They gave us some helpful suggestions to select the interviewees. They advised us, for example, rather to consult a certain person of a fishing-organization with only regional importance than the manager of the supra-regional organization because they considered the first person better qualified and well-informed about questions concerning the Baltic Sea.

In a third step, the interviewees chosen were contacted by email and by telephone in order to inform them about our intention and to make an appointment. In most cases, the persons were willing to be interviewed.

Only for "cruises" it was difficult to find a person. We wanted to interview the travel business and shipping company AIDA cruises as supplier of Baltic Sea cruises but unfortunately the management did not agree. Alternatively, we interviewed a person from the development company of Rostock Port who is responsible for cruise shipping. But in the course of the interview, the person stated that he did not feel qualified to reply to our questions. So we decided to talk about the theme without the questionnaire. For this reason, the interview is not expressed like the others but only in form of a short summary of the talk.

The organizations our interviewees represented and their corresponding types of tourism are listed in table 1.

The face-to face-interviews were carried out between April 17 and May 08 and written down in abstracted form. In order to check that the interviewees felt cited correctly, the interviews were sent to them. In most cases, the interviewees agreed with the abstracted interviews; only in a few cases, modifications of small importance were made.

In the following chapter, the abstracted eight interviews are presented in the same order as mentioned below in table DE1.

Table DE1: Organization of the interviewees in Germany

Type of Tourism	Organization
Beach tourism/camping	a) Spa Association Mecklenburg-Western Pomerania, Graal-Müritz
	b) Recreational and Camping Business Association Mecklenburg- Western Pomerania and management of a camping site on Usedom Island, Zinnowitz
Recreational fishing	a) Team Bodden Angeln (Company for recreational fishing in the Greifswalder Bodden and the Baltic Sea), Greifswald
	b) Regional Angling Association, Karlsburg
Boating	a) Marina Group Baltic Sea and Marina Kröslin, Kröslin
	b) Bareboat Charter Baltic Sea (company), Kiel
Cruises	Development Company of Rostock Port, dept. cruise shipping, Rostock
Real estate agency	Real estate agency "Ostseeimmobilien", Buxtehude/Rerik

Findings

Beach tourism/camping

a) Interview with Peter Gebser, board member of Recreational and Camping Business Association Mecklenburg-Western Pomerania (Camping- und Freizeitbetrieb Mecklenburg-Vorpommern e.V.), member of Federal Association of Camping Business Germany (Bundesverband der Campingwirtschaft Deutschland e.V.) and General Manager of camping site "Pommernland", Zinnowitz/Usedom, 2008-04-17

www.camping-caravan-mv.de (vcfmv@t-online.de) www.camping-pommernland.m-vp.de (camping-pommerland@m-vp.de)

1. How long have you been active in your field?

Since 1981 in camping business, in the association since 1990.

2. How would you describe the purpose of your organization?

Quality assurance in camping business (e.g. certification), increase in number of camping sites intended.

3. How would you characterize the type of tourists you deal with?

People nowadays do not spend their free time exclusively camping. They do not camp because of financial reasons but because they want to be close to nature and spend some nice time. Therefore, they demand high standards of camping sites. Main target groups are families with children and seniors (with grandchildren).

4. In general, how has the activity in your branch developed during the last 30 years?

Camping tourists do not only want to have sanitary facilities and space to stay but also a choice of different recreational activities. There is a strong tendency towards

more offers ranging from catering and activities with children to sport and event activities.

5. Have you experienced any changes (continuous/temporary, positive/ negative) in the Baltic Sea environment during the last 30 years? Which changes?

"Water quality has improved since 1989. Nevertheless, the water in the eastern part of the Baltic Sea is more cloudy than the water in western regions of the German Baltic – because of natural reasons."

6. Has your branch been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

The beach and camping tourism has been affected.

7a. By what problems was/is your branch affected?

On the island of Usedom, a specific problem is the inherited armament waste of World War II. During bomb attacks on the Peenmuende military airfield, incendiary bombs containing phosphorus were used. Most of them landed in the Baltic Sea. Nowadays, pieces of phosphorus are washed ashore and look like amber. Tourists pick them up thinking they found amber. When phosphorus dries in their pockets, it oxidises and ignites itself and may lead to considerable burn injuries.

7b. How was/is your camping site affected by these problems?

They could not detect any direct reactions, e.g. decrease in number of tourists.

7c. What is the trend during the last three decades for how your branch is affected by these problems?

"The extent has considerably decreased. In contrast to years ago, there are only individual cases nowadays."

7d. Can you give any number for how your branch is affected by these problems in the last few years?

No.

7e. Please rank the problems starting with the most severe one for your branch in the last few years.

Specific problems for camping tourism are not discernible.

7f. Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/ government for action/no action which resulted in a decline of profits in your branch due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

No comment possible because specific impairments do not exist.

9a. Has your branch been affected or not affected in the last 30 years by any marine environmental improvements?

Even though nowadays there are more regulations this has not led to any significant improvements.

10a. Which are the most important factors for the growth of your branch?

The growth of our branch is rather at a standstill because the number of sites does not increase. In regional planning procedures, camping business is not given any priority, e.g. because of new declarations of FFH-areas.

10b. How do marine environmental factors rank in importance compared to other factors?

Water quality is as important as general infrastructure and value of tradition.

10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Healthy nature is important as camping tourists want to experience and enjoy nature. But none of the factors is more important than another one.

11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

No. Besides, there are legal requirements which prevent any potential negative impact.

12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your branch?

The status quo is ok. There is no need for any measures.

12b. Does any of the following potential changes in the future matter for your branch? If so, how large changes are required for them to affect it? How would they affect it?

- Climate change, resulting in a warmer climate in the Baltic Sea area "A warmer climate is camping-friendly, therefore this would be advantageous for our branch."
 - Reduced eutrophication effects

"If reduction of eutrophication really led to clearer water this would be advantageous."

 Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

Carpeting of algae increasing in size and frequency would have a negative effect. However, this would rather affect the western part of the Baltic Sea coast.

 A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

"Oil pollution which can be noticed on the beach would of course be disadvantageous. Affects of tanker catastrophes would be even worse."

Compare the effects of filamentous algae and cyanobacterial blooms. Which one of these has the most severe effects on beach tourism and profits?

"Blue-green algae (cyanophyta) are dangerous and therefore affect our branch more. Filamentous, on the contrary, are negligible. However, Lion's mane jellyfish can cause problems (especially in western part of Baltic Sea) but their appearance is not subject to environmental factors."

b) Interview with Marianne Duesterhoeft, Executive Director of Spa Association in Mecklenburg-Western Pomerania (Baederverband Mecklenburg-Vorpommern e.V.), Graal-Müritz, 2008-04-25 www.baederverband.m-vp.de (baederverband@m-vp.de)

1. How long have you been active in tourism?

Since 1990 in tourism, since 1995 in the field of medical tourism.

2. How would you describe the purpose of your association?

Promotion and marketing of rehabilitation institutions and health-oriented hotels, cure institutions as well as of the whole branch of medical tourism in Mecklenburg-Western Pomerania.

3. How would you characterize the type of tourists in medical tourism?

One special type of tourists does not exist because in spa and seaside resort tourism there are all kinds of tourists from child to senior, from single traveller to group traveller.

4. In general, how has the activity in medical tourism developed during the last 30 years?

During the last years, there has been a tendency towards quality assurance and quality improvement, also regarding environmental aspects. The branch tries to find niches to develop certain strengths. Increasingly, guests have been willing to pay for quality and have come to appreciate local medicinal substances (sun, air, water, forest, mud baths, chalk).

5. Have you experienced any changes in the Baltic Sea environment during the last 30 years? Which changes?

Since the mid-1990s, water quality has improved because of less discharge of nutrients.

6. Has tourism been affected or not affected in the last 30 years by any marine environmental problems?

Yes.

7a. By what problems was/is it affected?

By blue-green algae and bird flu. In most cases, however, media dramatize the problems.

7b. How was/is it affected by these problems?

Especially in connection with bird flu, numbers of guests decreased considerably.

7c. What is the trend during the last three decades for how your branch is affected by these problems?

There is no trend discernible, problems arise here and there.

7d. Can you give any number for how your branch is affected by these problems in the last few years?

Talking about bird flu, the Island of Ruegen was affected. There were numerous cancellations of stays.

In January 2006, there were 29% cancellations, at Easter 28%. Because of the

warm fall, the annual amount of cancellations was reduced to 3% (information obtained by telephone from Federation of Tourism Ruegen, 2008-04-29).

9a. Has your branch been affected or not affected in the last 30 years by any marine environmental improvements? Yes.

9b. By which improvements? How was your branch affected by these improvements?

Water quality has improved. This, however, has not led to any noticeable changes in spa tourism.

10a. Which are the most important factors for the growth of your branch?

Quality offers (clean beaches, well-tended parks, service etc) and well-aimed, well-structured offers, good value for money, infrastructure, marketing, appreciation of local medicinal substances.

10b. How do marine environmental factors rank in importance compared to other factors?

Increasingly, marine environmental factors gain in importance and are at least as important as other factors today.

10c. Are there any non-marine environmental factors that affect your branch? How do these factors rank in importance compared to other factors?

An attractive and charming landscape which conveys the feeling of moving in healthy nature is as important as other factors.

11. Do you think your branch has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

A positive impact of our branch is the campaign "Blue Flag" which is an environmental award for special efforts towards preserving nature and landscape. Since 1987, beaches (and pleasure craft harbours) have been awarded a blue flag. The award also stands for proved water quality and special environmental management (e.g. environmentally compatible waste disposal, dealing with sensitive nature areas).

12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to spa tourism?

One important measure to reduce the potential danger of tanker catastrophes is to introduce the obligatory use of pilots in Kadetrinne (kadetrenden). Besides, all tankers should be double-walled and lined to reduce the risk of oil pollution. Another important measure would be to limit the construction of offshore wind parks.

12b. Does any of the following potential changes in the future matter for your branch? If so, how large changes are required for them to affect it? How would they affect it?

- Climate change, resulting in a warmer climate in the Baltic Sea area Warmer climate would lead to a warmer Baltic Sea and to carpeting of algae increasing in size and frequency. This could have a negative effect on spa tourism. On the other side, more sunshine would probably have a positive effect on the number of guests at the German Baltic Sea coast.
 - Reduced eutrophication effects

Improved water transparency is not really a decisive criteria for guests; water quality is more important. Scuba divers would profit from better water transparency but they are only a minority.

 Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

Carpeting of algae increasing in size and frequency, especially of blue-green algae, would have negative effects as guests are sensitised. Guests are also highly sensitive to oil pollution. Therefore, even smaller amounts of pollution would have highly negative effects.

 A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

Activities related to fishery in Baltic seaside resorts (fish markets, fishermen's festivities or deep sea angling offered by fishermen) are very important for the atmosphere of spas. If indeed fewer guests would come if these activities were not offered, cannot be predicted.

Recreational fishing

a) Interview with Jens Feissel, co-founder of the company "Team Bodden-Angeln", Greifswald, 2008-04-18

www.bodden-angeln.de (jens.feissel@bodden-angeln.de)

1. How long have you been active in this way?

"For about 10 years in "Team Bodden-Angeln"; private angling for about 25 years."

2. How would you describe the purpose of your organization?

"We offer guided angler tours around the Island of Ruegen, i.e. in Greifswald Bodden and Baltic Sea."

3. How would you characterize the type of tourists you attract?

"Sheer angler tourist."

4. In general, how has the activity in your field developed during the last 30 years?

In general, activities have increased. However, Mr Feissel thinks that the high number of potential tourists has so far not been attracted. In the last few years, there have been increasing enquiries from foreign tourists, e.g. Switzerland.

5. Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Throughout the last five years, the number of demanding fish species (e.g. salmon, sea trout) has increased. The grey mullet has successfully been resettled.

A negative change is the considerable increase in cargo ship traffic which bears a strong risk potential especially in the area of Kadetrinne (kadetrenden).

6. Has your professional field been affected or not affected in the last 30 years by any marine environmental problems?

No.

8a. Why have you not been affected?

"Water quality has rather improved, especially compared to times before 1990 when the amount of waste water discharged into the Baltic Sea was higher. Around the Island of Ruegen, the water e.g. has become significantly clearer and the oxygen content has increased."

8b. Was your professional field affected by any of these problems earlier than 30 years ago? If so, how?

"I do not know".

9a. Has your branch been affected or not affected in the last 30 years by any marine environmental improvements?

Yes.

9b. By which improvements? How were you affected by these improvements? Improvement of water quality (see Q8a).

10a. Which are the most important factors for the growth of your field?

- preservation of fish population (esp. salmon, cod, sea trout in the Baltic Sea, pike, zander and bass in Greifswald Bodden)
- infrastructure (road system, air connections, harbour structure, touristic setting, hotels etc.)

10b. How do marine environmental factors rank in importance compared to other factors?

Top rank, because they are the only means by which fish populations – the basis for angling tourism in the Baltic Sea - can be preserved.

10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"There are other factors which might affect our industry but, at the moment, they are of no importance."

- 11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

 No.
- 12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your company? Establishing a reasonable marking of the navigation channel for cargo ships, introduction of obligatory use of pilots in Kadetrinne (kadetrenden).

12b. Does any of the following potential changes in the future matter for your company? If so, how large changes are required for them to affect it? How would they affect it?

- Climate change, resulting in a warmer climate in the Baltic Sea area
 When the water is warmed up so much that the populations of fish species depending on cooler water diminish, the angling tourism will be badly affected.
 - Reduced eutrophication effects

As the results would be an improved water quality and therefore an increase in fish populations, this would be advantageous.

• Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

Increased eutrophication has negative effects as it results in deteriorating water quality and therefore a decrease in fish populations.

Another negative effect will be if eutrophication leads to phytoplankton bloom causing fish mortality.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

Commercial coastal fishery should be conducted in a more sustainable way

- to reach a better understanding between commercial fishers and hobby anglers
- so that angler tourists can profit from commercial fishing activities in coastal regions

How important is the stock of cod compared to other fish species?

"As cod is one of the most desired species and its angling relatively easy, it has a special significance for hobby angling. However, I would not rank it higher than other species".

b) Interview with Winfried Wilke, Chairman of regional Angling Association (Kreisanglerverband Ostvorpommern e.V.), Karlsburg, 2008-04-18

1. How long have you been active in your field?

Private angling since 1980; in association since 1991.

2. How would you describe the purpose of your association?

Hobby anglers shall find good conditions for quiet and undisturbed angling in as many waters as possible and in the Baltic Sea. The association wants to ensure that waters are kept clean and healthy fish populations are preserved.

3. How would you characterize the type of tourists in your association?

The association attracts mainly local anglers who are no tourists. Hobby anglers regard their hobby as recreative activity and enjoy eating their fish.

4. In general, how has the activity in your field developed during the last 30 years?

People tend to angle more specific kinds of fish, e.g. herring, triggerfish and salmonidae. In the last years, salmonidae populations have grown because of introduction measures. Anglers notice this growth. Angling methods have become more modern. Since 1989, angling in the Baltic Sea has developed intensively. It used to be forbidden before and was restricted in the Greifswalder Bodden.

5. Have you experienced any changes in the Baltic Sea environment during the last 30 years? Which changes?

In Greifswalder Bodden, water quality has increasingly deteriorated since the 1980s. Eutrophication led to reduced water transparency, and carpeting of algae has grown. Depending on directions of wind and current, results are sometimes more, sometimes less visible.

6. Has your branch been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes.

7a. By what problems was/is it affected?

Main problems are eutrophication and overfishing by commercial fishing.

7b. How was/is it affected by these problems?

Fish populations have decreased which led to decrease in fish yield to anglers.

7c. What is the trend during the last three decades for how your branch is affected by these problems?

The problems started at the end of the 1980s and have continually grown since then.

7d. Can you give any number for how your branch is affected by these problems in the last few years?

No statement possible because statistics for yield to hobby anglers do not exist.

7e. Please rank the problems starting with the most severe one for your branch in the last few years.

Not possible because rating of decreasing fish populations is based on subjective perception and not on measurements.

7f. Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/ government for action/no action which resulted in a decline of profits in your branch due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

Industry and agriculture are mainly responsible but no statement is possible concerning the second part of the question.

9a. Has your branch been affected or not affected in the last 30 years by any marine environmental improvements? Yes.

9b. By which improvements? How was your branch affected by these improvements?

Fish stock have grown because of resettlement of sea trout. This happened because sea trout spawning area is in flowing water. Water quality has improved throughout the last years so that young fish could survive and migrate to the Baltic Sea after one to two years.

10a. Which are the most important factors for the growth of your branch? The growth of our branch has remained rather the same.

10b. How do marine environmental factors rank in importance compared to other factors?

The factors cannot be ranked because there is now growth.

10c. Are there any non-marine environmental factors that affect your industry? No.

11.Do you think your industry has a positive/negative impact on the marine environment?

Hobby angling has neither positive nor negative impact on marine environment.

12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your branch?

All Baltic littoral states should abide by HELCOM-agreement regulations. Further eutrophication especially from agriculture should be avoided. Waters leading into the Baltic should be opened e.g. through removal of barriers.

12b. Does any of the following potential changes in the future matter for recreational fishing? If so, how large changes are required for them to affect the branch and how would they affect it?

- Climate change, resulting in a warmer climate in the Baltic Sea area Warmer climate would be problematic if water warmed up. Especially cod would have problems then.
 - Reduced eutrophication effects

A reduced eutrophication would have positive effects on fish populations, especially cod.

• Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

Increased eutrophication, because of the resulting oxygen deficiency, would have negative effects for fish populations. Especially cod would have problems with procreation as cod spawn in free water.

Oil pollution would have negative effects; however, dumping of oil into the sea is more problematic than shipping traffic in itself.

• A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

This would rather have a positive effect for hobby anglers. If commercial fishing activities were reduced, this would lead to more fish populations for anglers.

How important is the stock of cod compared to other fish species?

The cod population is very important for hobby anglers. It is good food fish which people like to eat. Some anglers have specialized in cod.

Boating

a) Interview with Falk Morgenstern, Chairman of Marina Group Baltic Sea (Marinaverbund Ostsee) and Managing Director of Marina Kroeslin, 2008-04-17 www.marina-kroeslin.de (info@marina-kroeslin.de)

1. How long have you been active in your branch?

Since 1999 at Marina Kroeslin, since its foundation in 2003 at Marina Group.

2. How would you describe the purpose of your Marina Group?

- main purpose: joint marketing e.g. to reduce costs
- other purposes: lobby work more effective when managed by group, aim: make customers come back. Marina Group started as a regional organization in Mecklenburg-Western Pomerania, today has locations in Poland and aims at expanding towards the east.
- **3.** How would you characterize the type of tourists who come to your marina? People who only have a weekend off and appreciate nature and peace.

4. In general, how has the activity in your marina developed during the last 30 years?

Increasing personal wealth led to increasing demand. Therefore the marina increased supply and offers.

5. Have you experienced any changes (continuous/temporary, positive/ negative) in the Baltic Sea environment during the last 30 years? Which changes?

For several years, carpeting of brown algae (Phaeophyta) has grown and become increasingly visible in the Baltic Sea. Water transparency (especially in eastern part of Greifswalder Bodden) has been low for years because of location.

"From time to time, resulting from industrial wastewater, there is foam on the water." Another problem is the increasing commercial navigation which leads to oil pollution. Wind power stations are conceived as disturbing.

"However, the dimension of the aspects mentioned is low enough and therefore does not influence our branch in a negative way."

6. Has your branch been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Not significantly.

7a. By what problems was/is your branch affected?

"A special and current problem of our marina is a hard-coal fired power station planned in the neighbouring community Lubmin. A deterioration in water quality because of warm wastewater is expected." They also expect that people will feel disturbed because the buildings will be erected close to the coast line.

7b. How was/is your branch affected by these problems?

"A number of tourists have already declared that they would not return if the power station was realized." They would not be able to enjoy recreation and holiday atmosphere anymore.

7c. What is the trend during the last three decades for how the marina is affected by these problems?

No comment, because general problems have not caused any visible damages so far.

7d. Can you give any number for how the marina is affected by these problems in the last few years?

Because the project mentioned (power station) has so far not been realised and the problems have not started yet he cannot say anything about a decrease in numbers of tourists. In any case, such a decrease would definitely involve financial loss.

7e. Please rank the problems starting with the most severe one for your marina in the last few years.

- 1. hard-coal fired power station
- 2. commercial shipping

7f. Who do you think is mainly responsible for these environmental changes? Industry and commercial shipping

Imagine your organization could sue some institution/company/ government for action/no action which resulted in a decline of profits in your marina due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

Cannot say anything about this point.

9a. Has your marina been affected or not affected in the last 30 years by any marine environmental improvements?

Even though there are several regulations dealing with this matter this has not led to any significant improvements.

10a. Which are the most important factors for the growth of your branch?

- increasing earnings of people
- increasing internationality: German locations have increasingly been visited by international tourists.

10b. How do marine environmental factors rank in importance compared to other factors?

Marine environmental factors are quite important for the image. In total, however, they only rank in mid position.

10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

- for tourists travelling by pleasure craft, the surrounding nature is significant for their choice of route and location. Tourists appreciate e.g. bird reserves close to the marina when they see white-tailed eagles above the water.
- another important factor is climate: mild weather prolongs the summer season and therefore affects the branch positively. Mild winters, on the other hand, cause financial loss for marinas as boat owners do not rent and pay for shelters but leave their boats in the water.

11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"Strictly speaking, every boat/ship causes some kind of pollution (e.g. motors). Therefore, our branch has probably also a negative impact on the marine environment.

On the other hand, our branch has a positive impact because every single person, by dealing with the element water, is sensitised towards the environment and nature."

Concrete measures:

- environmental certification of marina by Technical Control Board (TÜV)
- directions for boat tourists to dispose of waste correctly
- waste separation at the harbour
- boat wash facilities
- install faecal tanks in boats even before legal obligation in 2008

12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your branch?

- prevent new industries in the coastal area which affect the scenery as well as the water
- ship routes of commercial shipping should be declared more strictly and should run far from the coast

12b. Does any of the following potential changes in the future matter for boating? If so, how large changes are required for them to affect boating? How would they affect boating?

- Climate change, resulting in a warmer climate in the Baltic Sea area Warmer climate would lead to advantages: longer summer seasons; additional tourists would be attracted who prefer warmer temperatures and therefore rather travel to the Mediterranean Sea these days. Mild winters, on the other hand, would result in loss of income (see answer to Q10c) which, however, would be more than compensated by positive effects.
 - Reduced eutrophication effects

"If reduction of eutrophication really led to improved water transparency this would be advantageous because our tourists appreciate and emphasize this factor."

 Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

Carpeting of algae increasing in size and frequency would have negative effects if they occured locally because tourists would choose other locations.

 A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

This might be advantageous as the large number of gillnets is rather disturbing for water tourism.

How important are the possibilities for recreational fisheries for boating?

Of great importance because tourism related to pleasure craft is often connected to angling tourism. If facilities were restricted, the boat branch would be affected, too.

Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

"For about five years, TBT-paint has been prohibited for pleasure crafts. However, it is still allowed in commercial shipping. It is not correct to have double standards."

Interview with Rolf Brezinsky, founder and Executive Director of PCO (Private Charter Baltic Sea) Kiel, 2008-05-08 www.pc-ostsee.de (rolf.brezinsky@pc-ostsee.de)

1. How long have you been active in your field?

Founded the company in 1999, active sailor since 1970.

2. How would you describe the purpose of your organization?

They offer sailing yachts and cruisers for tours on the Baltic Sea (about 400 ships can start from more than 40 harbours along the German Baltic Sea coast).

3. How would you characterize the type of tourists you deal with?

Our customers are rather wealthy and belong to the upper middle-class.

4. In general, how has the activity in your branch developed during the last 30 years?

Activities have increased continuously. However, as our customers need to have certain qualifications to charter ships for tours on the Baltic Sea (e.g. boating certificate), activities have not increased as much as on the lakes (e.g. Mueritz) where tourists do not need such certificates.

- 5. Have you experienced any changes (continuous/temporary, positive/ negative) in the Baltic Sea environment during the last 30 years? Which changes? "I have not noticed any special changes. However, in my opinion, the number of cyanea capillata has increased."
- 6. Has your branch been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

 Not until now.

8a. Why have you not been affected?

Typical sailors get on board, tour around the Baltic and call at different ports. They do not notice any problems or are not really affected by them. They are not like typical bathing tourists who might inform themselves about water quality at their holiday resort.

8b. Was your professional field affected by any of these problems earlier than 30 years ago? If so, how?

No.

9a. Has your branch been affected or not affected in the last 30 years by any marine environmental improvements?

No.

10a. Which are the most important factors for the growth of your branch?

"Weather conditions are important. Last year, weather in April was cold and wet and made people decide against making or planning sailing tours. We can tell by reduction of demand."

10b. How do marine environmental factors rank in importance compared to other factors?

Marine environmental factors are of very low importance because they do not really affect sailors.

10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors? See answer to 10a.

11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"I guess that the impact is rather neutral by now. When environmental awareness and waste separation were not as socially accepted as today, people used to throw waste (e.g. beer cans) over board. Today, everybody knows that one does not do that. There may be exceptions to the rule but this does not have anything to do with our branch as exceptions are everywhere."

12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your branch?

"I cannot think of any measures right now."

12b. Does any of the following potential changes in the future matter for your branch? If so, how large changes are required for them to affect it? How would they affect it?

- Climate change, resulting in a warmer climate in the Baltic Sea area "Warmer climate would be advantageous for our company as our branch depends heavily on weather."
 - Reduced eutrophication effects

"In my opinion, this would not play a special role."

Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

"Oil pollution would be disastrous if caused by a tanker catastrophe. This would be fatal for our branch."

 A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

Fishing boats and freshly caught fish in harbour towns are important tourist attractions and are important for the atmosphere of harbours and for supply of sailors. If reduced activities really had effects on the branch is difficult to tell. It might be important what kinds of alternatives were offered.

How important are the possibilities for recreational fisheries for boating?

Angling facilities are not of special importance because angling from sailing yachts is rather difficult.

Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

"We only use permitted paint without TBT. I do not know how they deal with this topic in other Baltic littoral states."

Cruising

Interview with Christian Hardt, Development Company of Rostock Port (Hafenentwicklungsgesellschaft Rostock), Director Corporate Communications and Cruise Shipping, 2008-05-07 www.rostock-port.de (c.hardt@rostock-port.de)

In summer, cruise shipping plays a major role on the Baltic Sea, with upward tendency. Rostock's cruise ship port in Warnemuende is one of Germany's most important cruise ports. In the early 1990s, there were four to five port calls by cruisers per year. Nowadays, there are 117 port calls by 30 ships annually. Referring to problems of marine environment, cruise tourists are not affected. However, they want to embark on a ship with a good conscience. That means that ships should keep certain standards. Nowadays, shipping companies are sensitised towards this issue and fit out their ships accordingly (e.g. industrial water conditioning, waste disposal, use of fuel with reduced soot emission etc.) Tourists take for granted that everything is all right. Problems might occur when an incidence attracts media interest. This could have a negative effect on our branch but has not occurred so far.

Real estate agency

Interview with H. Dieter Theis, Executive Director of Theis real estate marketing company (Immobilienmarketing GmbH), Buxtehude/Rerik, 2008-04-30 www.theis-immobilienmarketing.de (theis@ostsee-immobilien.net)

1. How long have you been active in your field?

Since about 40 years in real estate business and since 15 years in Baltic Sea real estate business.

2. How would you describe the purpose of your organization?

"Our company deals with the development and realization of marketing strategies for apartment complexes, especially for holiday resorts at the German Baltic Sea coast."

3. How would you characterize the type of people interested in Baltic Sea real estate?

"Types of potential buyers might rather be categorized according to size of buildings than to local situation. However, because Baltic real estates are holiday real estates, it might be correct to say that potential buyers come from bigger cities in northern Germany."

4. In general, how has the activity in your branch developed during the last 30 years?

Offers used to be advertised in print but now have increasingly been replaced by internet advertising. Demand has not changed but remained stable.

- 5. Have you experienced any changes (continuous/temporary, positive/ negative) in the Baltic Sea environment during the last 30 years? Which changes? "I think that carpeting of algae has increased."
- 6. Has your branch been affected or not affected in the last 30 years by any marine environmental problems?
 No.

8a. Why have you not been affected?

Potential buyers know that these are temporary problems which do not affect the value of real estate.

8b. Was your professional field affected by any of these problems earlier than 30 years ago?

No.

9a. Has your branch been affected or not affected in the last 30 years by any marine environmental improvements?

No.

10a. Which are the most important factors for the growth of your branch?

Many places have been made more attractive and revalued by comprehensive and ample renovation and rehabilitation measures. A good infrastructure contributes to increasing demand.

10b. How do marine environmental factors rank in importance compared to other factors?

"In our branch, they are of little importance compared to other factors."

10c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

There are some factors of major importance. Frequently, wind power stations close to real estate are regarded as being negative. Some potential buyers place great importance on a distance to antenna masts because they do not want to be subject to electrosmog.

However, ranking is not possible because importance varies with every single potential buyer.

11. Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"As our company arranges sales of holiday real estate which already exist, our company does not have a negative impact. Looking at the whole branch one could say that it might lead to uncontrolled urban spread and overbuilding in the coastal area. However, the construction of new buildings which have to be marketed does not have any impact on the quality of the Baltic Sea".

12a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to your branch?

Any dumping of waste into the Baltic Sea should be prohibited so that the water quality does not worsen or even improves.

12b. Does any of the following potential changes in the future matter for your branch? If so, how large changes are required for them to affect it? How would they affect it?

- Climate change, resulting in a warmer climate in the Baltic Sea area Does not play any role.
- Reduced eutrophication effects

Does not play any role.

 Increased eutrophication effects such as more oil spills due to heavier traffic on the seas

If eutrophication led to carpeting of algae increasing in frequency and duration, this would probably have a negative impact on demand at locations in question. As sensibilization towards oil pollution is rather high, this would also have a negative impact. This would mainly apply if pollution led to permanent problems. A tanker catastrophe would of course have disastrous consequences because it leads to high pollution in the coastal area.

 A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns

Activities related to fishery are highly attractive. However, it is difficult to say if any decline has any impact on demand of real estate. "In my opinion, this is not one of the decisive criteria."

Conclusion

When asked about changes in the Baltic environment during the last 30 years, most interviewees refer to a shorter period of time. In Mecklenburg-Western Pomerania, this period starts in 1990 after the political change which indeed brought along strong limitations in eutrophication and dumping of waste into the sea. This led to noticeable changes in the marine environment. The majority of the interviewees therefore state that they noticed an improved water quality. Only one interviewee mentions that marine environmental factors in the Baltic are deteriorating in the long term.

The interviewees' view on the existing problems of marine environment is rather superficial. Even though almost all of them know about different problems, they do not see any special danger for their individual branch. The representative of camping tourism even said that the present state of the Baltic Sea was all right and there was no need for action. However, this opinion is probably not a representative but rather a private one.

The superficial look at the situation of the Baltic Sea very probably has a reason: real pecuniary injuries or financial damages caused by marine environmental problems have so far only occurred in individual cases. One such case was on the island Ruegen when numerous people cancelled their bookings after media reported findings of birds suffering from bird flu. However, according to the interviewees, such cancellations are mainly caused by exaggerating media coverage.

Tourism in total, therefore, is almost not affected by these problems. When asked about any numbers to measure negative impacts and ranking of problems, the answers given remained imprecise or were not given at all. The same applies to their comments on how potential changes might affect their branches. Answers to this question are also rather abstract. Obviously, nobody feels that they are fit to provide definite statements. This is understandable as reactions of tourists towards selective or sudden changes probably differ from those towards continuous changes which formed the basis of the scenarios. One might assume that so far the branches have dealt little or not at all with such scenarios.

Many interviewees see real danger in a potential tanker catastrophe and the ensuing disastrous consequences. This is also understandable because such situation and the scale of consequences have been apparent in other places. It is obvious that this kind of catastrophe would affect all branches of tourism heavily.

Asked about important measures regarding marine environmental quality, several interviewees suggested the introduction of obligatory use of pilots in Kadetrinne (kadetrenden) in order to improve shipping safety. Discussion about this area between the German peninsula Fischland-Darss-Zingst and the Danish island Falster,

which is known as one of the most difficult and dangerous parts of the whole Baltic Sea, has been going on for years without any political success. For such international waters, measures can only be introduced if all littoral states agree.

Question 10 shows a relatively low consciousness regarding the importance of environmental factors for the growth of their branches. In some interviews, only non-environmental factors are stated as the most important ones. Only when question 10c asks about non-marine factors which affect their branches, some interviewees think that aspects like "attractive and charming landscape" or "healthy nature" are at least as important.

It is striking that most of the interviewees try to give a good account of their branches and do little auto-criticism. Sometimes the interviewer receives the impression that the interviewees are bound to their roles as stakeholders and therefore do not always answer in an honest and open way.

This seems to be the case with question 11 which asks about the impact of their corresponding branches on the marine environment. Almost all interviewees say that they have no or even a positive impact. Only the managing director of a marina knows that every boat somehow has a negative impact. However, he immediately qualifies his statement and mentions several measures which have been taken to make a more positive impact.

Also, the interview with a member of the Federal Association of Camping Business shows that answers are not always given in a neutral and honest way. According to his answer to question 5, water quality has improved. However, his answer to question 9a is inconsistent: today's numerous regulations did not lead to any significant improvement.

This statement is probably caused by the reproach that there are a lot of individual regulations which especially tradespeople have to cope with. As other businesses, camping sites have to observe environmental protection rules, too. They also have to take measures which involve certain investments.

All these interviews show that tourism so far has almost not been affected by changes in the marine environment. Everybody knows that significant deterioration or catastrophes might have severe consequences. However, none of the interviewees is able to give concrete estimations. Therefore, the interviews in Germany could not explicitly contribute to get sound results about cost and benefit for our overall project "Economic Marine Information".

Annex V. Latvia

Prepared by: Alf Vanags, Ance Kalēja, Mārtiņš Kālis, Baltic International Centre for Economic Policy Studies.

Introduction

All interviewees were selected to create a complete picture of tourism related to the Baltic Sea in Latvia. Beach tourism was represented by the city of Jūrmala, the centre of national and international beach tourism. Therefore we asked the tourism department of Jūrmala city council to give an interview. Boating in Latvia is not considered a tourism sector, but it nevertheless influences the environment of the Baltic Sea. To find out more about this influence, we interviewed owners of a marina situated in Pavilosta – a city next to the Baltic Sea, offering boat-rent and cruises to close islands of other countries, as well as fishing. Furthermore, we interviewed a representative of the Latvian Camping Association in Kurzeme, a region with the closest link and the longest coast line with the Baltic Sea. An interview was conducted with a representative of the Latvian Association of Ecotourism to get a view on the ecological situation in the Baltic Sea as seen by friends of nature. We also interviewed a real-estate agent to cover the question of the change of prices of properties situated next to the sea, and the reasons why that has or has not happened.

We also tried to interview representatives of the Faculty of Geology of the University of Latvia and the Hydro-ecological Institute to receive professional opinions about the changes in the environment of the Baltic Sea during the last three decades and their prognoses of the upcoming three decades; however in both cases they would not agree to an interview. Some interviewees from the tourism industry requested to see the questions of the interview beforehand, and cancelled the meeting afterwards because of the specificity of the questions, saying that they cannot answer such nature-related questions as representatives of the tourism industry.

During the process of arranging interviews, we also tried to contact the professional rural tourism association "Countryside Traveller" that is responsible for assigning of the quality trademarks "the green certificate" and "the butterfly" to camp sites all over Latvia, but their answer was that a similar research had been recently made with their participation and they do not wish to participate in a similar project. The previous project "AGORA - Network Sustainable Tourism Development" was carried out by the University of Greifswald (Germany).

The interviews were arranged in April, and conducted between the dates 20 April and 6 May. Since the option of delivering an interview face-to-face was preferred, and the locations of the interviews covered a wide territory of the country, from Riga to Pavilosta, the interviews also illustrate different opinions on the question of the impact on tourism of ecological quality in the Baltic Sea.

Findings

Interview with Mr Andris Junkurs, head of the Latvian Association of Ecotourism, responsible of the development of strategic planning, work with society and academic partners – educational institutions and co-operation with international partners working with the same issues in their countries, *Riga* 2008-04-28.

- How long have you been active in the sphere of tourism? "I have been working with the projects on the development of ecotourism since 1997, and I have been the head of this NGO since 2001," answered Mr. Junkurs.

How would you describe the purpose of your organisation?

"The aim of the organisation is to create opinions in society about ecotourism as a good alternative and idea," stated Mr. Junkurs. He then pointed out three main principles that Ecotourism is based on – respectively the development of tourism with the preservation of cultural heritage, development of tourism through informative events aimed to educate tourists and the locals about the preservation of nature, and the third principle being the similar division of income between all players offering tourism services, including those offering ecological tourism. The main motive of ecotourism is the usage of a persistent, long-term method, to preserve nature and safely use natural resources.

How would you characterise the type of tourists that ecological tourism attracts?

"Those are mostly local tourists, and surveys made previously show that most tourists we deal with are in harmony with their necessities, know their own personal values and think highly of the chances of learning, information and new feelings through travelling; on average s/he is a 30-35 years old professional, maybe has a family, finds pleasure in knowing that his/her way of tourism is not only touristic, but also nature-friendly; not easy to define, because we as a country and a society are in the transitional period," explained Mr. Junkurs.

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

Mr. Junkurs explained that if 30 years ago Latvia and the Baltic states access to the sea was restricted, because it represented the border of the USSR, but since the beginning of the 1990s it has been completely open. Lately it has been restricted by private properties. So the question of parking, availability has become more and more relevant. And thus the polluting of the sea has grown in an increasing speed. Other polluters – sea transport, cargo transit, transit of oil products, improvement works of the ports have left its influence. "Ten years ago we were fighting against the

Butinge Oil Terminal, because of the threat of pollution and that has eventually come true – they have had accidents polluting the Baltic Sea more and more; now there is chemical pollution, discomfort for tourists and discomfort for nature itself; but nature tends to recreate, thus it "cleans up" itself, even if to a small extent," elaborated Mr. Junkurs.

According to him, the tourism industry is a polluter itself. The number of tourists have grown, each one of them generating their own pollution. The intensity of agriculture also increases pollution through the use of dung water and chemical fertilisers. The problem is the chain – everything on the ground gets in the rivers, and eventually – in the Baltic Sea. But he doubts that the tourist industry has done everything it can in order not to pollute. Purification plants, conservatism for catering that are an obstacle for a complete decomposition reaction. And the latter one is definitely a tendency common for the last years, caused by the opening of the Baltic Sea to the public.

- Has tourism been affected by any marine environmental problems in the last 30 years as those mentioned previously?

"I think we cannot speak about a direct influence of the Baltic Sea environment to tourism up to now, especially in Latvia. Since it has been so recently that the shore has been open to the public, we can still consider the tourism industry to be rather new, developing unconditionally from the problems of the environment of the sea. We have to be careful to preserve nature, but that would have to happen unconditionally, and the sooner tourists start to think about it, the better. But right now tourism is developing and will develop individually. The Baltic shore in Latvia is big – if it will be polluted in one place, tourists will find a different place." Mr Junkurs predicted that tourism will develop independently of the environmental problems of the Baltic Sea at least in the upcoming years, until the situation becomes desperate. If one looks at the places tourists go to, it can be very surprising how dirty these places are and how little tourists care about the environment. Mr Junkurs believes that, until real evidence of polluted waters is published in the media, nothing will change in this area and businesses and tourists will continue to pollute as much as they do now.

- Who do you think is mainly responsible for these environmental changes? Imagine your association could sue some institution/company/government for their action – who would you sue and which amount would you claim for the damage due to these environmental changes?

"Then you would have to turn against the whole society. The main polluter is the society that has its own history and the process of development. We have to think about more innovative solutions to environmental problems, modernise equipment," Mr. Junkurs revealed. He also explained that it all requires money, provided by the government and society is the one judging

if they agree with the priorities or if they do not. He continued by telling us that unless the media starts discussing the question with concrete evidence, society will find other ways of the using the money. Many people do not have the money for survival, thus any idea of giving big amounts of money for environmental problems will be unpopular.

- Which are the most important factors for the growth of ecotourism? "Educating society about the importance of the preservation of nature"
- Are there any non-marine environmental factors that affect your industry?

The human factor seems to be very important in any sphere of tourism. The human as the tourist, human as the educator and the human as a preserver of nature

- Do you think your industry has a positive or a negative impact on marine environment? What would this impact be?

The current activities of his organisation are looking for new modernised ways of environmental protection in infrastructure and technology, such as introducing biological purification plants to companies and municipalities. They are working with the creation of paths in protected areas that they are attractive for the society, but are also informative and educational. They also have international co-operation with Georgia and the Black Sea to exchange experience and ideas with subcontinental character that would be interesting to the mass media.

 What are the most important measures to take in your country for having a marine environmental quality that is beneficial top ecotourism?

First of all, there have to be parking places and toilets all through the coastline – such conditions have to be given to people, for them to pollute as little as possible. Water purification plants that would be easy to use by all have to be updated – the ones installed years ago cannot purify the water with chemicals used nowadays. And at the end of the day it all ends up in the Baltic Sea.

According to Mr. Junkurs, the main actor in this would have to be the Ministry of Environment, the main player in nature protection policies, and their institutions are the main institutions introducing these policies. There are certain tools, but too few – harsher measures have to be taken. A fine for not following certain laws is not enough. Meanwhile, all the countries around the Baltic Sea have to have a common policy towards questions concerning ecology of the sea. Agriculture, tourism objects, services should act in a manner to pollute as little as possible, and this should be encouraged by the appropriate ministries. The Ministry of Finance has to secure the necessary funding for environmental protection, so that it would not disappear as often before.

The Ministry of Education and Science has a big role in the future as well – educating future generations about how ecotourism could lead towards a better situation. Mass media projects with no censorship, financed from the government, should report on the ecological situation of the sea even if it is not flattering to the country itself.

There should be tax discounts for the ecological businesses that try save resources, purify water, etc. They would also get a certificate. And there have to be the same norms for everyone concerning the control system that cannot be influenced by corruption or the lack of influence. It should cover not only tourism, but business in general, including factories and others.

Which potential future changes could matter for environmental tourism and what would their affect be?

According to Mr. Junkurs, climate change does not influence ecotourism as such, unless it creates environmental problems. Ecotourism can function in different conditions. If people are not able to go skiing, they will go hiking instead. Eutrophication is a bigger threat to ecotourism – water as a motive of travelling is very important in Latvia. The accessibility of water is an important factor – if the nature around the coastal line would start to change and the water became inaccessible, that would be a big threat to the development of tourism in Latvia. Eutrophication would be one of the first problems to solve, one of the biggest influencing specifically ecotourism. Oil spills are a negative influence to the brand of Latvia – the sandy beaches that are the face of Latvia. Because of the characteristics of the Baltic Sea, any damage that happens in it directly affects our shores. The pollution caused by transit ships was present 30 years ago, just as it is now. There are laws restricting such spills, but there is little control over it.

- Any last comments?

"I think that the more practical research and prototyping in the environmental protection field would be from the Nordic countries, for whom it is easier to find funds for such topics, the quicker things would move forward. Nordic countries should take the initiative and deliver practical help to increase of the quality of the Baltic Sea, especially because much of their economic growth depends exactly on the actions taking place here – shipping, banking system, everything."

Interview with Miss Anete Blažēviča and Mr Ģirts Vagotiņš- Vagulis, co-directors of the Northern European agency of yachts Western Shore, of the structural unit "dock" (SIA "Ziemeļeiropas jahtu aģentūra Rietumu Krasts" struktūrvienība Pietātne), Pāvilosta 2008-05-04.

- How would you describe the purpose of your organisation?

The company works with a yacht dock, camping, gas station for ships, boating school, yacht charters, and has the aim to preserve clean nature. For example, the gas station is primarily meant for ships to have an environmentally friendly way of refuelling with no spills. The houses in the campsite are based on wood, since they are in the dune zone. The aim is to develop the most modern yacht service centre with the broadest offers in the Baltic States.

- How would you characterise the type of tourists in your particular sphere?

They have two types of tourists – land and sea tourists. Of the sea tourists – that is people coming with ships – 95% are foreigners who come here to refuel and to stop to enjoy the view. Latvians are the land tourists that use the campsite rather than the dock.

- In general, how has the activity of boating developed during the last 30 years?

The company has only been actively working for the last three years and is still developing, so, without pretending to be experts, they state that they believe the activity has only grown – more people can afford yachts.

- Have you experienced any changes in the Baltic Sea environment during the last 30 years?

In comparison with the Gulf of Riga the water in the open sea is much cleaner. The rivers are the dirtiest ones. Lielupe, the Gauja and the Daugava all run into the Baltic Sea thus polluting the waters more.

Other than that the sea shore has become dirtier with everyday garbage left there by tourists, but this trend is more common on public properties, where there is no one to clean up the property and take care of it. There are also things washed ashore, but not much has changed in this sphere, at least not in the last three years.

Mr. Vagotiņš mentions the decline of the stocks of cod. 20 years ago cod was a very common fish in the Baltic Sea. However, now with the consistency of the water having changed, even fish like salmon have become more common than cod.

Talking about pollution, they could not say that in the Soviet times the sea was cleaner. Then the problems were chemical fertilisers from agriculture

and dirty water from factories coming to the sea through rivers. Now the type of pollution has changed, but the situation has not.

- What problems have affected boating?

During the last three years, their business has not been affected by environmental problems, it has only developed because of the services they offer. The cleanness of the sea appears to be a secondary reason. In previous years boating was not common in Latvia, it simply was not available. It is still a rather new activity, and a rather exclusive one, so it is still developing rapidly.

- Which are the most important factors for the growth of your business? Silence, cleanness, the refuelling station are important factors. And, of course, yachting being a rather new activity in comparison to others and the fact that the people we deal with tend to have high monthly income.

"To be honest, nature friends are a very restricting factor for our development. They restrict building and development, regardless of the fact that our business is ecological. And it is true that if a property is owned by someone, it is clean and protected; however, if it is not owned by anybody, it lead to conditions that are much more harmful to nature," asserted Mr. Vagotiņš.

- Are there any non-marine environmental factors that affect your industry?

Here they point to the existence of corruption even in this sphere as a very influential factor. Their boats have to operate under certain restrictions of pollution, but many other companies don't follow such restrictions, thus polluting for themselves and for others. They mention that such restrictions exist, but they are not properly controlled and those who do not comply are not fined.

- Do you think your industry has a positive or a negative impact on marine environment? What would this impact be?

Ms. Blažēviča points out that in here opinion the effect is only positive. The whole business is based on the preservation and protection of the nature, so she considers her boating complex to be a nature-friendly environment. The boats docked there follow certain restrictions. When yachts go to sea, they have to sign a document that they will not put the trash out in the sea – their dock has a special place for that.

They have organised cleaning of the area and surroundings. If the coast is clean, it only attracts tourists and develops the whole industry, and the environment. At the beginning of 2009 their dock will be awarded the "blue flag", stressing the environmentally-friendly operation of the business.

What are the most important measures to take in your country for having a marine environmental quality that is beneficial top ecotourism?

"I can answer especially for Pavilosta and other small towns along the coast – fixing of breakwaters and jettys would be one of the first things to do in order to preserve the coast and preserve fishing and boating as such. In many areas their condition is poor, and that slows down the development of those areas," explained Mr. Vagotiņš.

The yacht business should be supported by the government, because the people sailing with wind do not pollute the sea at all – they only use the water to go in and out of the port. More people should be encouraged to sail. Both respondents suggested that young people should be educated to sail.

They suggested that there should be laws that would allow building in the ports, to promote development of the industry. Upkeep should be the responsibility not only of the municipality, but also of private owners. That would only be a plus if there was someone taking care of the concrete area. If the country has no money to clean up, then they should give it to the private owners.

Mr. Vagotiņš pointed out that to his mind it is too late to do something about it. He thinks that if the pollution stopped, the sea would take another 25 years to clean itself from the existing level of pollution.

- Which potential future changes could matter for environmental tourism and what would their affect be?

"Global warming can have a positive and a negative effect at the same time – the Baltic Sea area becoming warmer would attract more foreign tourists and the diversity of fish species does not really affect boating as an industry. Few use fishing as a tourism experience these days, and it no longer attracts tourists. So, however it may sound, I think our industry could survive even with the effects of global warming," stated Mr. Vagotiņš.

- Who do you think is mainly responsible for these environmental changes? Imagine your association could sue some institution/company/government for their action – who would you sue and which amount would you claim for the damage due to these environmental changes?

"Of course we are most threatened from Butinge Oil Terminal," said Mr. Vagotiņš. "The Latvian shore is where all the problems of the Baltic see are illustrated. Whenever anything happens in the sea, it is immediately visible on our shores." As the most ridiculous thing he points out that before the building of the Butinge Oil Terminal, a document was published, that said that in case of accidents in Butinge would happen and the water would be polluted, it would only attract tourists, because they would come

to the shores to see the damaging effect the accident has caused. If they had to sue someone, they say they are most affected by Butinge, and the effects caused would show on our coasts for another 25 years. When asking about the sum of money, he says that it is impossible to calculate all the damage they have caused, that is why it is impossible to name a certain amount. The oil in the sea does not go anywhere. If it gets into the food chain, then it will affect the marine environment for a long time.

Interview with Mrs Jelena Eihenbauma, the head of Jurmala office of the real-estate agency Latio, Jūrmala 2008-05-06.

How long have you been active in this sphere?

"I have been working in SIA "Latio" since 2000, helping to find appropriate properties for our clients."

- Have the prices for the coastal properties changed during the past 30 years?

The prices have definitely changed. Besides general economic trends Mrs. Eihenbauma can only mention the desire of customers to spend their time further away from the city, as life there has become more intense. More and more people want to own such properties, that is why the prices have changed so rapidly.

- Has the environment of the Baltic Sea had to do with any of these changes into the values of the properties?

To her mind, this factor has not influenced the prices thus far. Since these properties have only recently become available, the changes in the environment of the sea have not had the time to influence owners of these properties. Jurmala is situated by the Gulf of Riga and still lives on its historical glory as the sea resort of the former Soviet Union.

- What are the most important factors influencing the prices for the coastal properties in Jurmala?

Mrs. Eihenbauma mentions three leading factors: "The presence of nature, silence, unlike the capital, and the presence of the sea."

What would be your prognosis about how these prices could change during the upcoming three decades and what would be the factors influencing these changes?

"I will not make any prognoses today, because of the main factor influencing these prices – the economic situation in Latvia, the crises and the rapid changes of the value of the properties. Unlike recently, I could predict that these prices will rise more slowly than before, but they will still become more and more expensive, unconditionally from the environment of the Baltic Sea," stated Mrs. Eihenbauma.

- What future changes and threats to the environment of the Baltic Sea do you think would influence the changes to the costs of the properties?

Definitely all the effects of global warming – rising of the sea level, changes in the nature by the seashore, the protected dune zone, everything. It will influence the prices and the availability of such properties.

Interview with Mrs Dace Markvarte, director of NEMO camping water attraction park and the head of Latvian Camping Association, Jūrmala 2008-05-06.

- How long have you been active in this sphere? It is the 5th season working with tourism for Mrs. Markvarte.

- How would you characterise the type of tourists in your particular sphere?

Camp sites are first of all attended by young people, who can and want to be close to nature, sleep in tents; families with children, because they want to spend time closer to nature; people with restricted income who cannot afford more luxury places; travellers with their own trailers from foreign countries. There are also open air activities, such as sports games, and the initiators of those are both richer and poorer institutions.

- What camp sites are more popular among tourists – the ones next to sea, or in land?

It appears that in the Baltic States that if one hears the word "camping" s/he immediately associates it with some kind of water. But at the same time Riga City Camping is very popular and is not situated anywhere near the water.

- In general, how has tourism activity in Jurmala developed during the last 30 years?

Camp sites used to be relaxation bases for the employees of state enterprises. Now the old camp sites have been privatised and more places have been given to the private sector.

- Have you experienced any changes in the Baltic Sea environment during the last 30 years?

"I am not a professional, but I would like to say that the Baltic Sea is rather clean, the beautiful blue flag beaches are very popular and very tourism-tended," stated Mrs. Markvarte. A new trend is the opening of new camp sites near the shore of the Baltic Sea.

What problems have affected nature tourism?

People want to be around a clean environment that is why the most influential factor for camp sites is private owners taking care of the cleanliness of their places. Latvia is a small country, but it has a lot of forests and waters, and if pollution appears in one place, the industry would adapt and move to another place.

One of the problems faced by nature tourism is the so-called "Wild Tour-ism" when people relax in forests, places by the waters, picked by themselves. In that case there is no one to clean up after them, no one to see if their actions are legal or illegal and no one to watch over them.

A problem of growing importance in Europe has now become the trailers that travel and do not stay overnight in a registered area. Thus everything they leave behind remains in the forests, later on ending up in the Baltic Sea.

- Which are the most important factors for the growth of camping?

The most import influential factor is the weather. Mrs. Markvarte explained: "We can build an amazing camp site, but if the weather is cold and unpleasant, it will stay empty." That is why it is easy for camp sites and the tourism industry in general to adapt to possible changes of the environmental conditions.

- Are there any non-marine environmental factors that affect your industry?

The human factor – the tourists themselves. The ethics of travelling, and being a tourist.

- Do you think your industry has a positive or a negative impact on marine environment? What would this impact be?

I think camping helps to clean up the environment. The territories are clean and attractive to tourists. Camp site owners rent a part of the beach from the municipality and are responsible for this area to be clean and tidy. In the opinion of Mrs. Markvarte camp sites have only a positive influence on the environment.

What are the most important measures to take in your country for having a marine environmental quality that is beneficial top ecotourism?

What is important is that all the camp sites should be connected with the city sewage system, so that the sewage does not end in the sea. "I have heard about big amounts of pollution in the Baltic sea. I do not know where it comes from, but I doubt that it is only the tourists creating the pollution. The appropriate authorities should take care of the sea and ensure that the shore is clean," stressed Mrs. Markvarte.

- Which potential future changes could matter for environmental tourism and what would their affect be?

As the main influence, both positive as well as negative, Mrs. Markvarte mentioned climate change, which will turn our climate into a more Mediterranean one. It will be a future tourist attraction.

Interview with Mrs Gunta Ušpele, the head of the department of tourism and external relations in Jurmala city council, Jūrmala 2008.05.06.

How long have you been active in this sphere?

Mrs. Ušpele presented herself as: "I have been working with tourism for 6 years, and 4 years in this concrete position. I am the head of the tourism department as well as the head of the centre of tourism and information in Jurmala."

- How would you describe the purpose of your organisation? The department's aim is to develop tourism in the city of Jurmala with careful use of the available nature resources.

- How would you characterise the type of tourists in your particular sphere?

A big part of them only visit Jurmala for one day in order to visit the beach or different events taking place in the city. Another part are those using the luxuries of spa, relaxation close to nature and the advantages of the beach. An important majority of the tourists they attract enjoy the nature, which is why the Ķemeri National Park and the Nature Park of Ragakāpa, all equipped with the infrastructure necessary for tourists, have become very popular.

- In general, how has the activity in tourism in Jurmala has developed during the last 30 years?

In 2002 the department of tourism and external relations was established in Jurmala City Council and in 2005 they opened a tourism information centre. With these developments, the marketing of tourism in Jurmala of different tourism-related projects, and tourist-centred industry development have become more active.

In February 2008 the strategy of the development of tourism in Jurmala was adopted for the years 2007-20018. It includes the careful use of nature resources in the city. The strategy is publicly available at www.jurmala.lv.

- Have you experienced any changes in the Baltic Sea environment during the last 30 years?

Mrs. Ušpele describes the situation as follows: "As far as I have been introduced to this topic, I know that the Baltic Sea is very polluted and dif-

ferent measures need to be taken in order to preserve it for future generations. Of course, the Baltic Sea and the sea shore affect tourism, not only in the Baltic States, but also in the whole Baltic Sea region – German coastal resorts, Poland, and others. The Baltic Sea has positively affected Jurmala in raising the number of tourists in the city. However, its negative effects are caused by the storms, when the shores are washed away and the dunezones carried away in the sea. And that is a growing tendency. That is why the most important question for us is the strengthening of dunes, so that the infrastructure of tourism would not be affected (e.g. the re-establishment of rescue stations in the beach)."

- What problems have affected tourism in Jurmala?

Storms, oil spills. The shore is washed away, the improvements of the beach suffer and have to be restored, if the quality of the sea would get worse, we would have to come up with other ways, because the tourism of Jurmala is mostly based on two factors – the sea and nature.

The department has made regular analyses of the water in Jurmala, and, although they cannot answer for the past 30 years, the analyses made recently affirm the purity of the water. In Soviet times, however, the number of tourists was enormous and the danger for the environment critically transcended the norm. In summer months all beaches of Jurmala, those in the Gulf of Riga, as well as the river Lielupe, possess the Blue Flags that affirm the cleanness of the waters in those places. The most damaging of the factors are the storms influenced by global warming, but up to now the problems have not been so extreme that they have seriously damaged or influenced the development of tourism in Jurmala.

- Which are the most important factors for the growth of tourism in Jurmala?

Nature tourism, resort and spa tourism, velo-tourism, those are factors encouraging tourism in Jurmala. The main factor is unique nature resources, and a reasonable usage of them in the tourism industry and the development of new products or services of tourism.

- How do marine environmental factors rank in importance compared to other factors?

Those are very important factors for the industry of tourism in Latvia, some of the most important factors. The sea, the beach and the dunes are the main areas of interest in the context of the development of Jurmala as a sea resort.

- What is the trend during the last three decades for how tourism is affected by these problems?

The situation has become better during the past 30 years. In the Soviet times, all resorts would send the sewage to the sea without using any water purification devices and now this situation has changed for the better. A lot

is thought about environmental protection, and people have to pay a toll to enter the city, which mainly serve as a tool for reducing transport, and thus exhaust fumes, in the city.

- Who do you think is to be held responsible for these climate changes? Imagine your organization could sue any institution/company/government for the action or the lack of action which resulted in a decline of profits in beach tourism due to those changes. Who would you sue and which amount would you claim for the damage?

Mrs. Ušpele could not answer this question, because she considered the storms to be the biggest threat, which is a result of the global warming, thus each one of us can be partially held responsible. The oil spills are created by the companies working in this field, but she chose not to comment on this.

 How have these environmental problems changed during the last couple of years?

The weather will become much warmer in comparison with the previous years. More storms, wilder nature.

- Do you think beach tourism has been improved by some positive improvements in the environment of the Baltic Sea?

"Yes, definitely! As I mentioned before, a positive effect is caused by the development of infrastructure, setting of toilets in beaches, regular water analyses etc.," affirmed Mrs. Ušpele.

- Are there any non-marine environmental factors that affect your industry?

The human factor, highly qualified staff and many other important factors.

- Do you think your industry has a positive or a negative impact on marine environment? What would this impact be?

The Department of Tourism and External Relations acts to raise the quality of the whole infrastructure of tourism, facilitation of the beach, setting of toilets, dressing cabins, they clean the beach and hold it in order, introduce paths for bicycles, nature paths, setting up of the informative signs, building family relaxation park. They do the marketing of tourism and work towards educating and informing tourists thus doing much to prevent an average tourist from polluting and harming the environment.

- What are the most important measures to take in your country for having a marine environmental quality that is beneficial to ecotourism?

There should be harsher measures for the driving of transport on the beaches, bigger taxes put on the companies of manufacturing industries, cargo terminals etc. that are situated close to the territory of the Baltic Sea.

- Which potential future changes could matter for environmental tourism and what would their affect be?

The climate has changed. It is predicted that in the upcoming years, the temperature in Jurmala will be on average 4-5 degrees higher. There will be no winter, but all the precipitation will be in the form of rain. The most dangerous change predicted is that the number of storms will rise, especially in the month of January, which could damage the coast line. Thus the most severe factors to my mind would be oil spills and climate change.

Interview with Mr Jānis Jurģis, board member of the Kurzemes reģiona attšitības plāņošanas aģentūra, Riga 2008-04-28.

- How would you describe the purpose of your organisation?

The main aim of the organisation is to establish the sustainable development of the Kurzeme region through tourism. The agency has been active since approximately 1998. The agency is an organisation that is an intermediary between the ministry and municipalities.

- How would you characterise the type of tourists in your particular sphere?

A part of the tourists are looking for nature, the other part chooses big cities like Ventspils or Liepāja with the local events. There are also foreign tourists that drive through Kurzeme enjoying the nature.

- In general, how has the activity in tourism in Kurzeme developed during the last 30 years?

In the 80s during the Soviet time a big part of the shore was the Soviet border, when without a special permission no one could reach the sea shore. In the beginning of the 90s, when the period of independence was resumed, it was still under restrictions for some period. So tourism did not exist at all in those times. There was a wave in the second half of the 90s, when ornithologists came from all the Northern countries because of the preserved species. And then another wave started when Latvians themselves started to explore the country. After that, international tourism started, but it has been improving and growing fast during the last decade.

- Have you experienced any changes in the Baltic Sea environment during the last 30 years? What problems have affected particularly tourism in Kurzeme region?

"I do not have proof that some things would be positive or negative, but a positive trend is represented by the water purifying plants and centralised garbage collection. A negative aspect is that those things cost a lot of money. The private sector can cover it, but the municipalities cannot.

However private sector wants to build close to the sea, and that creates problems," clarified Mr. Jurgis.

- Which are the most important factors for the growth of tourism in Kurzeme?

The attitude of the locals is a very important factor, according to Mr. Jurgis. Many locals are tired of tourists already and do not want tourism to develop. Privatisation of land close to the sea is also a minus, because now it is owned by people, however nothing can be built. Most tourists are attracted by big casinos, aqua-parks, people and parties, not peace, and in a way Kurzeme is adapting to such demands, thus leaving the nature unprotected. Seasonality is an important factor, a lack of such tourist products that would affect foreign tourists. And of course the lack of a common tourism policy for all municipalities.

- How do marine environmental factors rank in importance compared to other factors?

Oil spills from Mažeiķi are a negative factor, a minus is the equipment of the yacht ports, the lack of information about those Thus many yachts pollute more than if they would if this area was in order. Of course the sea shore is a very important factor of tourism in Kurzeme, that is why in case our sandy beaches would be unreachable for tourists, we would experience changes in the industry. However the beach has not changed up until now because of the sea, at least not so much as to influence the cleanness of the beach or the tourism industry as such. "However, the tourism marketing factor s that I find most influential are not connected with marine-environmental factors," elaborated Mr. Jurģis.

Are there any non-marine environmental factors that affect your industry?

"Yes, of course! Economics, transportation, private sector, the tourism industry itself! The locals, society as I mentioned before," reaffirmed Mr. Jurgis.

- Can you rank the most influential environmental factors starting from the most influential one for tourism in Kurzeme.

"Oil spills from Mažeiķi, the results of eutrophication, but that is all influencing us from outside, the rest is up to the human/tourist," said Mr. Jurģis.

- If you could sue any institution for their action/lack of action that has resulted into the decline of profits in tourism industry in Kurzeme, who would that be and how much would you sue them for?

Mažeiķi, Būtinģe, but Mr. Jurģis had no idea about the sum. Their influence on the environment has been long-lasting and serious. As a second choice, Mr. Jurģis would sue the Saeima (parliament), who let people privatise land by the sea knowing that building anything will be a tabu. And now people want to build on their properties, logically.

- Do you think your industry has a positive or a negative impact on marine environment? What would this impact be?

The tourism industry as such tends not to be too environmentally-friendly; however, a lot is done to change this. A life without pollution is hardly possible, but we can strive to achieve as little pollution as possible, and that is what the tourism industry is striving for at the moment. The situation has changed for the better in the last years.

What are the most important measures to take in your country for having a marine environmental quality that is beneficial to tourism in Kurzeme?

In case of the demographic growth, nothing will be done – people will have to have a place to live, but the most important factor is to preserve the nature and trees. Additional educational work for tourists and locals should be conducted, thus promoting a less harmful use of space and resources of land.

A common policy in the countries around the Baltic Sea would also be useful in the field of protection of nature and the sea, and at the end of the day one thing has to be set straight – you have to control how much priority to put to tourism and how much to stretch the growing industry. A thing that one should not over exaggerate about.

 Which potential future changes could matter for environmental tourism and what would their affect be?

"Erosion, eutrophication, the problems caused by the sea itself and its characteristics," quickly lists Mr. Jurgis.

Conclusions

The development of tourism in Latvia during the last three decades has been largely independent of the environment of the Baltic Sea. Pollution was prevalent 30 years ago, and it exists now, only the sources of pollution have changed. More funding has to be given towards the development of ecological operations in the Baltic Sea, with the bigger initiative to be shown from the Nordic countries.

The global warming effects have seemed to be very obvious to tourism actors in Latvia during the last couple of years; however, these years have also been active in environmental protection. People working towards the protection of the environment are mostly from the private sector or different NGOs; however, much more could be done on the part of the government. It is acknowledged that corruption exists in this sphere and unless common rules and checking is adopted for everyone, the general situation of the sea will not change.

Experts predict a growth in the development of tourism in the upcoming years, independent of the situation in the environment of the Baltic Sea. Latvia has a long coast line, and if one place becomes polluted, there will be many that are clean.

Experts admit that nature has a way of re-creating and judge the current situation as, if carefully worked upon, something that can be improved in the upcoming three decades. Common policies should be adopted by all countries surrounding the Baltic Sea in the spheres to preserve the environment.

Annex VI. Lithuania

Prepared by: Daiva Semėnienė, Rasa Ščeponavičiūtė and Simona Daugintienė, Centre for Environmental Policy / Aplinkos apsaugos politikos centras (AAPC).

Introduction

Interviews with 12 respondents were carried out mainly during the week April 7 – April 11. AAPC consultant visited three towns by the Baltic Sea in Lithuania: Klaipeda, Palanga and Nida, as well as some companies' headquarters in Vilnius, where representatives of those companies working in the following touristic spheres were surveyed:

- A. Organization of recreational activities (4 companies)
- B. Accommodation (3)
- C. Yachting, sailing (3)
- D. Fishing, angling (3)
- E. Real estate sales and lease (1)

One respondent represented commercial coastal fishermen. We decided to present this kind of information with the goal of comparison the major problems recreational fishermen and commercial fishermen have.

The companies representing the recreational activities in the seaside of Lithuania were selected using the informational websites, tourist guides and expert knowledge. While preparing for the meetings, representatives of some companies were asked of their competitors or co-operators working in similar sectors.

In the beginning of an interview interviewees were very briefly acquainted with the project and then asked the specific questions of the survey. After the answers were transferred into files, they were sent to the respondents to check whether their opinions were understood and registered correctly.

All interviews according to the sub-sector are described below. Based on the answers, conclusions are drawn and summarised in the last chapter of this Annex.

Findings

Interviews with representatives of companies organizing recreational activities

Among representatives of seaside companies whom we made interviews with, were three companies organizing recreational activities.

1. <u>Interview with Mr Edmundas Kevisas, director of tourism agency</u> "Poilsis pajūryje" ("Recreation on seaside"), Klaipeda, 2008-04-07

Q1b. What activities are you involved in?

Organising recreational trips by the Baltic Sea for mainly tourists from other countries (mostly Russian speaking countries so far, though a proportion of tourists coming from EU countries is increasing).

Q1c. How long have you been active in this sphere?

For more than 10 years now.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, the director has not seen any impacts on their company by environmental factors of the Baltic Sea.

Q4a. Why have your company's activities not been affected?

People who come to Lithuania's seaside for recreation are not so interested in the Baltic Sea environmental problems. Most of them believe there are no major problems with the environment of the Baltic Sea and this Sea is not polluted. The priority for them is the high quality of the service. Foreigners value a clean air most of all; those coming from southern countries value not too hot weather.

Q4b. Was your activities affected by any of these problems earlier than 30 years ago? If so, how?

Respondent could not answer this question.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Respondent says that improvement of the service quality is the major factor for moving forward for their company. He notes that quite a big part of clients of his company are wealthy people, who want to have a very good service.

Q5b. How do marine environmental factors rank in importance compared to other factors?

So far marine factors are practically not important. As mentioned, services are the most important thing for the clients from foreign countries.

Director stresses that the media has a great influence on the behaviour of tourists. If, e.g. newspapers inform about too busy resort towns or dirty beaches, big crowds in, potential tourists don't go there. Though, according to the director of the tourist agency, usually information presented in media does not reflect the real situation.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Two other environmental components - air quality and waste management – are very important factors, influencing flows of tourists from other countries to Lithuania's seaside. Foreigners value air quality in Lithuanian resort towns very well, therefore they are coming to the Baltic Seaside with pleasure. Also, as mentioned, important role can be attached to the Lithuanian climate in general, as very many tourists from southern countries enjoy not so hot weather.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

According to the director of "Poilsis pajūryje", state institutions' capacities are too low; therefore state informational tourism centres are providing not correct information on the recreational possibilities in many cases. State policy should be to interfere the tourism activities as little as possible.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Out of the mentioned types of changes the "climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area" was mentioned as the only influencing factor.

Warmer climate would affect flows of tourists from southern countries, who are looking for cooler places.

According to the respondent, most of clients of this recreational company are educated and informed about the chemical materials and weapons in the bottom of the

Baltic Sea. If there is any risk of those materials to be run out into the water or if such accidents took place, number of visitors would for sure decrease.

At the end of the interview the respondent stressed that quality of air and water should be good in order his clients continue travel to Lithuanian seaside.

2. <u>Interview with Mrs Janina Komchenkova, director of travel agency "Gintarinė sala" ("Amber island"), Vilnius, 2008-04-04, tel.: +370 5 2123601, janina@gintarinesala.lt</u>

Q1b. What activities are you involved in?

Organising recreational trips by the Baltic Sea, recreational fishing, accommodation, organising cruises from Riga. The respondent stressed that they do not posses boats needed for fishing/angling, therefore rent them up.

Q1c. How long have you been active in this sphere?

The company was established in 1994, cruises were started to be organised in 1997.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes, the director states that the activities of their company have been influenced by the mentioned marine factors.

Q3a. By what problems were your activities affected?

The main problem - emissions of nutrients (nitrogen and phosphorus) causing eutrophication effects such as algal blooms.

Also two more problems in the seaside of Lithuania were mentioned – beaches are becoming narrower because of elution of sand and there are more construction works going close to the seaside.

Q3b. How is your business affected by these problems?

It is more theoretical impact. We get some regrets related to the algal blooms, narrower beaches and especially construction works, but in real terms the number of tourists is not decreasing so far.

Q3c. What is the trend during the last three decades for how your business is affected by these problems? More before and less now? Less before and more now? About the same?

As mentioned, we don't have a major impact on our business, but problems themselves are more visible now than before.

Q3d. Can you give any number for how your business is affected by these problems in the *last few years*?

I cannot mention any numbers, as tourist flows are not impacted by those reasons specifically.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

Respondent thinks that earlier the list of problems was shorter, that environment was cleaner. She bases her opinion on the judgement of some clients who used to come to the Baltic Sea side also in soviet times.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Respondent says that the main factors are political: Schengen visas, shortage of advertisements of country in general, low understanding of the situation with visas for tourists by the Ministry of Foreign Affairs. Also weather conditions (short summer season) are important factors in comparison to what weather conditions are in other (southern) countries.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other factors are much more important than marine factors.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

The major factor for our business type is too cool climate. In order to keep clients, there is a need to create much more entertainments and improve the service quality level.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for

having a marine environmental quality that is beneficial to the seaside tourism?

There is a need to have closer cooperation between state institutions and private travel agencies in order existing problems are clarified and ways of joint solution of these problems are found.

Also the Ministry of Foreign Affairs should play more active role in advertising Lithuania as a country where seaside tourism is developed.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area	Would not have major impact
Reduced eutrophication effects such as less algae blooms and more transparent water	More tourists from Western Europe would come
Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora	Would be less tourists
More oil spills due to heavier traffic on the seas	Impact would be negative
A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns	Cannot say, don't know
other:	

C. Some specific questions:

• Does the denudation of sand from beaches and dunes affect the tourism and your activities specifically?

Narrowing of beaches has an impact on the recreational activities on the seaside. So far this has not affected the tourist streams, but if this continues, tourists will start selecting other places for recreation.

How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

In cruise ships the service and ship-specific factors are so far much more important than environment. Weather conditions are very important as well.

Additional remarks:

In Klaipeda, we need much more active "behaviour" of the port; more services should be generated and suggested for future clients.

3. Interview with Mr Laurynas Vainotis, head of the culture and tourism centre "Agila", Nida, 2008-04-08, tel.: +370 469 52538, info@visitneringa.lt

Q1b. What activities are you involved in?

Provision of information and intermediary services regarding the accommodation, entertainment, excursions in Neringa. Organisation this kind of activities in Neringa. Organisation of cultural programme in Nida.

Q1c. How long have you been active in this sphere?

As a cultural centre it exists since 1961. This centre became the culture and information centre in 2001.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes.

Q3a. By what problems were your activities affected?

The main problem – existing oil well D6.

Q3b. How is your business affected by these problems?

Existence of this well is affecting people psychologically. It is associated with a constant risk.

People are not aware of other problems. There is no information on these problems. One exception maybe a problem related to the denudation of sand in Palanga area and thus resulting sand extraction close to Juodkrantė (village belonging to Ner-

inga), from which this sand is taken to Palanga. Population of Neringa is afraid such an extraction may cause problems.

Q3c. What is the trend during the last three decades for how your business is affected by these problems? More before and less now? Less before and more now? About the same?

The impact was lesser before, as the oil well D6 was constructed in 1996.

Q3d. Can you give any number for how your business is affected by these problems in the *last few years*?

I cannot mention any numbers, there are no calculations made. Moreover, the Baltic Sea problems have no influence on tourism so far. Sea is very clean here and people like very natural conditions and quietness, which are still in Neringa. This is the main reason why people come to Neringa.

Q3e. Please rank the problems starting with the most severe one for your business in the *last few years*.

It is possible to mention the one, which was mentioned before – risk caused by the oil well D6.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I cannot say, just remember that when a tanker accident happened close to Palanga, we with my parents would not go to the Sea one year, as it was polluted.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Of course, a major positive development factor is so beautiful nature and quietness in Neringa.

So far the major obstacle for the development is attitude by local people. They think that the nature is so big value itself and so important for tourism that a human being does not need to do anything. The service quality therefore is not sufficient.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other than marine environment factors are more important. People who come for vacation just relax and don't think of any problems.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

The only other factor is weather conditions and climate.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

It is very important to develop educational and public awareness raising activities and inform tourists and local population about environmental problems. People should understand that they are the driving force which may change a lot the environment where they live.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area

This factor has a big impact. Already now a lot depends on what kind of season (in terms of weather) we have.

Reduced eutrophication effects such as less algae blooms and more transparent water

Would not impact much

Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora

Impact would be negative, tourists would not come only to watch beautiful pine trees; they need water as well.

More oil spills due to heavier traffic on the seas

Would have negative impact.

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. I cannot say, though am hearing talks from fishermen that fish resources have decreased.

other:

C. Some specific questions:

• Does the denudation of sand from beaches and dunes affect the tourism and your activities specifically?

Narrowing of beaches has an impact on the recreational activities on the seaside. So far this has not affected the beaches of Neringa, but if the situation is like in Palanga, that would negatively affect tourist streams.

 What are the most important environmental factors for the price of houses situated at the coast?

Prices for real estate may be affected by the marine environmental problems only in case they would become much stronger or if, say, any big accident would happen. So far this is not happening; currently prices have stabilised.

4. <u>Interview with Ms Aušra Pilibaitytė, manager in the Klaipėda tourism and information centre, Klaipėda, 2008-04-07, tel.: +370 46</u> 412186,

Q1b. What activities are you involved in?

Provision of information, search for accommodation, organisation of excursions, preparation and organisation of cruises and water regattas.

Q1c. How long have you been active in this sphere?

Our centre is active since 1995, cruise programmes are organised for approx. two years now.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes, the manager states that the activities of their company have been influenced by the mentioned marine factors.

Q3a. By what problems were your activities affected?

The respondent says that the situation is not so bad that would directly affect recreational businesses, but she has heard that fishermen catch some "spotty" fish and that happens, as the respondent thinks, because of chemicals in the water.

Q3b. How is your business affected by these problems?

Not affected.

Q3c. What is the trend during the last three decades for how your business is affected by these problems? More before and less now? Less before and more now? About the same?

As mentioned, we don't have a major impact on our business, but problems themselves are more visible now than before.

Q3d. Can you give any number for how your business is affected by these problems in the *last few years*?

I cannot mention any numbers. Nobody so far has made such kind of calculations.

Q4a. Why have your company's activities not been affected?

People are not interested so far in such problems. Moreover, there are not sufficient proofs on the impacts of such problems. Tourists coming by cruises are interested in the region in general, they don't see too much of the sea and are not aware of any environmental problems. Usually they participate in various excursions and other activities in Klaipeda and Neringa.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

The respondent does not know.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Respondent says that the main factors are related to the existence of touristic infrastructure. If such an infrastructure exists, then it stimulates tourism activities. Absence of such an infrastructure hampers tourism.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other factors are much more important than marine factors.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

So far I cannot list any factors, but it is clear that if shipping is increasing, then the pollution will increase as well and that might have some influence.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

I don't know.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area	More rainfall will mean worse conditions for recreation
Reduced eutrophication effects such as less algae blooms and more transparent water	This would affect more individual tourists, but not cruise businesses
Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora	This would affect more individual tourists, but not cruise businesses
More oil spills due to heavier traffic on the seas.	Impact would be negative
A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.	This would have negative impact on fishing business

other:

C. Some specific questions:

How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

I don't have a clear opinion which factors are more important. For those coming by cruise ships it is very important to which city they come. For example, St. Petersburg is much bigger and more interesting for such type of tourists. Lithuania is too small to develop the cruise business. Such a business is very expensive one.

Additional remarks:

So far demand for entertainment shipping is not too big. Perhaps it is too expensive entertainment form.

Interviews with representatives of companies organizing accommodation for tourists

Among representatives of seaside companies whom we made interviews with, were three companies organizing recreational activities.

5. <u>Interview with Mrs Jolanta Gervaitiene, lawyer in the resthouse</u> "Žuvėdra", Giruliai, 2008-04-07, tel.: +370 46 310986, jolanta@eurovesta.lt

Q1b. What activities are you involved in?

Accommodation services.

Q1c. How long have you been active in this sphere?

Since 1997.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, our business has not been affected by mentioned problems or other environmental problems.

Q4a. Why have your company's activities not been affected?

Such problems may affect our business only if they become really very acute. For example, a large oil spill or similar accidents.

So far environmental problems are not big. Eutrophication is a bit larger in Melnrage, where water from Curonian lagoon flows. In Giruliai water is clean. Moreover, Lithuania has a very short seaside border, therefore Lithuanian population willing to rest by the Sea, has not a big choice. They bath in the Sea even if the water is not so clean

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I cannot say. Just remember that still in soviet times a lot of people would go to the seaside, as simply there were no other possibilities. Everybody was swimming notwithstanding whether the sea was cold or polluted. Around 1986 there was an accident of a tanker and a lot of oil was spilled to the sea. Even this event did not have an impact on those visiting the seaside. People were even more interested to see how the oil looks like...

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Respondent says that the main factors are related to the weather conditions. When weather cools down, streams of tourists decrease.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Weather conditions are more important than marine factors.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Beach erosion, denudation of sand – these are environmental factors, seen in recent years. However, it cannot be stated that they are affecting accommodation business. Tourists' streams are not decreasing because of that.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

There should be a system of measures implemented. One should not enforce only one measure. For example, currently some amount of sand is planned to be taken from Juodkrante to put it on Palanga beaches, however, it may negatively impact the environment around Juodkrante.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area

This is the factor influencing the tourism industry most of all

Reduced eutrophication effects such as less algae blooms and more transparent water

This would not affect too much. Beaches can accept limited number of people in any case.

Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora

This would affect the tourism industry and thus the accommodation business negatively

More oil spills due to heavier traffic on the seas.

Impact would be negative

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. Don't know

other:

C. Some specific questions:

 Does the denudation of sand from beaches and dunes affect the tourism and your activities specifically?

I think this problem becomes really cute, however, so far, it is not too strong to impact tourism activities.

• What are the most important environmental factors for the price of houses situated at the coast?

I think that if environmental problems become much stronger, especially if pollution increases a lot, then prices for real estate would drop. So far, however, such problems do not exist.

6. <u>Interview with Mr Ricardas Kiciatovas, director the camping "Nidos kempingas"</u>, Nida, 2008-04-08, tel.: +370 682 41150, info@kempingas.lt

Q1b. What activities are you involved in?

Accommodation services and catering. We have also some bars.

Q1c. How long have you been active in this sphere?

Current owners have it five years.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, they haven't.

Q4a. Why have your company's activities not been affected?

It is not pleasant when water in the sea is not clean and not transparent. But so far this kind of pollution is very uneven. In some days the sea water is not very clean, but the weather and current change and water becomes transparent again. This has not yet influenced the tourist numbers so far.

Such problems may affect our business only if they become really very cute. For example, a large oil spill or similar accidents.

I see oil spills as the main problem, because the D6 oil well is not so far away from us.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I cannot say.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Respondent says that the main factors are related to the weather conditions. When weather cools down, streams of clients decrease.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Weather conditions are more important than marine factors.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

As Nida is in the National Park, the major obstacles for businesses here are stemming from this protected area status.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

In our case the most important thing is to find possibility to talk "the same language" with the Directorate of the National Park, as current interpretation of limitations seems too strict for the businessmen.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and
more rainfall in the Baltic Sea area

This factor influences the tourism industry a lot. As soon as weather cools down, clients don't find enough activities.

Reduced eutrophication effects such as less algae blooms and more transparent water Maybe it would be more individuals, but in general Neringa can accept limited number of tourists.

Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora

This would affect the tourism industry a lot.

More oil spills due to heavier traffic on the seas.

Impact would be negative. Especially if there are problems with D6 oil well.

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. Fishermen complain now that the fish resources are less and less, so even bigger changes in water quality would certainly affect the fishing industry.

other:

C. Some specific questions:

 Does the denudation of sand from beaches and dunes affect the tourism and your activities specifically?

This problem in Nida, in comparison to other places, is not acute.

• What are the most important environmental factors for the price of houses situated at the coast?

Prices are increased because there is a small category of rich people who buy apartments for totally senseless prices.

7. <u>Interview with Ms Kristina Blinova, director of the hotel "Nidus",</u> Nida, 2008-04-08, tel.: +370 469 52001, info@nidus.lt

Q1b. What activities are you involved in?

Accommodation services.

Q1c. How long have you been active in this sphere?

I am a director for four years now. The hotel was established in 2003 instead of former recreational house.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, they haven't.

Q4a. Why have your company's activities not been affected?

So far people do not feel any changes in the Sea. The situation is worse in Klaipeda, beach of Melnrage. Therefore inhabitants of Klaipeda, who want to spend their leisure time by the seaside, take ferries over Curonian lagoon and come toSmiltyne, beach by the Sea in Curonian Spit.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I think that problems become more acute now.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Director of the hotel says that nature in Neringa (Neringa consists of Nida - the biggest town in Curonian spit – and a few very small villages) is very beautiful so far, it is very clean here. That is the main reason to attract tourists to Neringa.

The negative factor – weather conditions. There is a direct relationship between the weather and streams of tourists. Moreover, prices are quite high in Neringa, acting as a filter for tourists. Poor people cannot come here.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other than marine environment factors are more important. Here, in Neringa, we don't have any serious marine environmental problems.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

We have a transport parking problem.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

There is a need of investments into the services improvement and renovation of infrastructure. Also it should be assured that existing status of nature is preserved and pollution of the Sea would not increase. It is also very important to keep Neringa's status of protected area.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area This factor would impact

negatively

Reduced eutrophication effects such as less algae blooms and more transparent water

Would not impact much

Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora

This would affect the tourism industry negatively

More oil spills due to heavier traffic on the seas.

Impact would be negative

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. I don't know

other:

C. Some specific questions:

• Does the denudation of sand from beaches and dunes affect the tourism and your activities specifically?

Don't know.

Additional remarks:

So far recreational conditions in Nida are excellent. It is clean, quiet and silent. It is a very good place to spend vacation for families. If the situation changes, e.g. more entertainment appear, then the type of those who are coming would change as well, but there will not be a reduction in tourists visiting Neringa in general.

Interviews with representatives of companies organizing yachting, sailing

8. <u>Interview with Mr Valdemaras Vizbaras, captain of sailboat "Brabantas", Klaipėda University, Klaipėda, 2008-04-09, tel.: +370 698</u> 40443, valdemaras.vizbaras@ku.lt

Q1b. What activities are you involved in?

Recreational sailing.

Q1c. How long have you been active in this sphere?

The sailboat belongs to Klaipėda University for two years; the captain himself sails for more than 20 years.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes.

Q3a. By what problems were your activities affected?

The main problem - emissions of nutrients (nitrogen and phosphorus) causing eutrophication effects such as algal blooms.

Also movements of sand are causing some inconveniency for fishermen.

Q3b. How is your business affected by these problems?

Water looks very unpleasantly when it is green and stinks. Such water is not attractive, of course, for tourists who would like to swim. The good thing is that my sailboat can go to places where there is no effect of algal blooms. These blooms are migrating depending on the wind, water streams, and air conditions.

Q3c. What is the trend during the last three decades for how your business is affected by these problems? More before and less now? Less before and more now? About the same?

Problems are more visible now than before.

Q3d. Can you give any number for how your business is affected by these problems in the *last few years*?

I cannot mention any numbers. Such effects would need to be assessed in economic terms. Sea tourism is not developed in Lithuania sufficiently, therefore it is not enough various analyses made and thus no numbers available.

Q3e. Please rank the problems starting with the most severe one for your activity in the last few years.

Eutrophication.

Q4a. Why have your company's activities not been affected?

It is possible to answer to this question as well. My sailboat can avoid eutrophication effects simply by going to those areas in the Sea where they are not felt. Oil spills are more important to those who recreate on the beach.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I think that areas with algal blooms are increasing.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Infrastructure in ports. Absence of infrastructure hampers the development. Absence of recreational ports in Palanga and Šventoji decelerates development of sailing and do not propose sufficient conditions for sailing tourists from other countries. It is a big shame.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other than marine environment factors are more important.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Currently there is very dusty in the port, air is polluted, as constant reconstructions are going on. Weather conditions are very important.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

Development of better infrastructure, establishment of recreational ports in Klaipėda and Šventoji.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area impact.

This factor would have an impact.

Reduced eutrophication effects such as less algae Would not impact much blooms and more transparent water

Increased eutrophication effects such as more Would have a big impact algae blooms, extinction of the bottom fauna and flora

More oil spills due to heavier traffic on the seas. Impact for sailboating is

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. Would have an impact for commercial fishing. Fishing during sailing is not really a doable job.

minimal

other:

C. Some specific questions:

How important are the possibilities for recreational fisheries for boating?

Sailors usually are bad fishermen. There are sometimes, but rarely, such clients who are interested in fishing.

9. <u>Interview with Mr Viktoras Denisovas and Mr Sigitas Stalionis,</u> technical director and mechanic of the company "Pramogu flotilė", Klaipėda, 2008-04-09, tel.: +370 612 35435, viktoras777@bk.ru

Q1b. What activities are you involved in?

Recreational sailing and fishing in the Baltic Sea and Curonian lagoon. This company has got the largest recreational ship in Klaipeda port.

Q1c. How long have you been active in this sphere?

The technical director has been working in Klaipeda port for already 20 years. The company "Pramogų flotilė" functions one year.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, they haven't.

Q4a. Why have your company's activities not been affected?

Our clients, at the time of sailing are not so interested in water quality. For recreational fishing fish resources are sufficient. Only industrial fishermen feel a lack of fish resources.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

We think that there were fewer problems earlier.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

- 1. Infrastructure in ports. So far there is too little ports in the Lithuanian coast in general (recreational ships port in Klaipeda is under construction only now). Moreover, all ports lack quite elementary services like showers, toilets, places for collecting sewage from ships etc. This is the major problem. Ships sometimes have to spill sewage directly to the Sea. Here our respondents give a comparison with ports in other developed countries, where sewage from ships is collected free of charge.
- 2. The legislation is very strict for recreational sailing. In order to go for a recreational sailing one needs to register in the Sea Register. The latter requires fulfilling of a lot of requirements. If a ship is registered only in the

River Register, it can take not more than 12 persons to the Sea and for not longer than 7-12 sea miles trip into the sea. Our ship can take 50-80 persons, so we are facing a lot of various bureaucratic obstacles.

- 3. Introduction of Schengen visas does not help in developing touristic cooperation with Kaliningrad region.
- 4. Weather conditions, seasons, unstable winters

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other than marine environment factors are more important.

Climate change resulting in a warmer climate and

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Sand denudation is a problem in general, but not for our business. Fishermen complain that sand is moving quite a lot thus making fishing conditions worse.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

From our point of view, we would be interested in fuel prices to be regulated for our sector; Ministry of Transportation should make more liberal conditions for recreational sailing.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

This factor does not have a

more rainfall in the Baltic Sea area	major impact, maybe even some positive impact if the recreational season is longer.
Reduced eutrophication effects such as less algae blooms and more transparent water	Would not impact much
Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora	Would not impact much
More oil spills due to heavier traffic on the seas.	Impact would be negative

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. If commercial fishing decreases, then it is better for marine environment

other:

C. Some specific questions:

How important is the stock of cod compared to other fish species?

Cod is a very important species of fish for recreational fishing. Other types of fish are not so interesting for tourists.

• Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

These kinds of paints were more popular in southern countries, but during last five years owners of boats started to use more such type of paints also here, as we noticed appearance of alien fauna species, which stick to boats. On one hand, such paints will be used in the future, though, on the other hand, there are quite good other type of paints available which are not so harmful.

How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

The ship itself and quality of services are the most important factors for such kind of tourists. Enjoyment of the nature is not so important.

10. Interview with Mr Viktoras Golubovskis, owner of a yacht "Neringa", Nida, 2008-04-08, tel.: +370 685 46171, info@jachtaneringa.w3.lt

Q1b. What activities are you involved in?

Recreational sailing in the Baltic Sea and Curonian lagoon.

Q1c. How long have you been active in this sphere?

Around 20 years.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes.

Q3a. By what problems were your activities affected?

The main problem - emissions of nutrients (nitrogen and phosphorus) causing eutrophication effects such as algal blooms.

Q3b. How is your business affected by these problems?

If a wind and water brings algae blooms close to the beach, it becomes not possible to bath and swim. It is very unpleasant to sail through the "green porridge", which sometimes the Curonian lagoon and the Sea become.

Q3c. What is the trend during the last three decades for how your business is affected by these problems? More before and less now? Less before and more now? About the same?

The impact does not change over years – it is more or less the same.

"Blooming" of water depends a lot on the weather conditions. When a season is warmer, the "blooming" is more intensive as well. Water status is changing all the time. It is, however, important to stress that the lagoon, in comparison to the soviet time, is cleaner nowadays.

Q3d. Can you give any number for how your business is affected by these problems in the *last few years*?

I cannot mention any numbers, as impact of the pollution is not stable and steady.

Q3e. Please rank the problems starting with the most severe one for your business in the *last few years*.

It is possible to prioritise the problems like this:

- Eutrophication
- Oil spills, though they are small and rare
- Fishermen are always complaining that fish resources are decreasing

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I think that earlier, when most of wastewater treatment plants in Lithuania were missing, our main river Nemunas was bringing much more polluted waters to the Curonian lagoon and thus the water status was much worse.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

Weather conditions, lack of ports and infrastructure are the main factors influencing my business.

Lithuania is more a state of farmers than a state of sailors; capital is far away from the Sea, therefore all problems related to the sea tourism are being solved very slowly. Tourists coming to ports of Lithuania by small boats and ships are not happy with really very poor services. Elementary things like toilets, showers and sewage collection units are missing.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Other than marine environment factors are more important. The most important is a lack of infrastructure.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

The only other factor is climate.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

Compromise with the directorate of the National Park should be found. Environmentalists are not allowing to improve infrastructure, e.g. to construct a fuel station in the port. Sailors are using simple canisters therefore causing, according to the respondent, even more risks to the environment.

Port infrastructure should be improved in other places of the Lithuanian coast. It is necessary to construct a yacht port in Šventoji. This could attract more tourists from foreign countries.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area

This factor does not have a major impact. It could be some negative impact like appearing more alien unpleasant etc.

Reduced eutrophication effects such as less algae blooms and more transparent water

Would not impact much

Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora

Would make esthetical view worse.

More oil spills due to heavier traffic on the seas.

Impact would be negative

A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns. This does not have any impact on recreational sailing. It is not possible to fish while sailing.

other:

C. Some specific questions:

• How important are the possibilities for recreational fisheries for boating?

It is not possible to fish while sailing therefore recreational fishing is not important for me. However, there are always clients who are interested in fishing.

• What are the most important environmental factors for the price of houses situated at the coast?

Good economical status. People have got money, but there are not many other investment possibilities like only into the real estate.

Additional remarks:

The state should decide what priorities are and what the most important sectors are. One example: more funds are collected from amateur angling than for the commercial licences. At the same time commercial fishermen catch much more fish and make much more damage. So, assessments should be made and relevant decisions taken.

Interviews with representatives of companies organizing fishing and angling

See interviews No1 and No 9 with representatives of "Gintarinė sala" and "Pramogų flotilė" above. Also:

11. <u>Interview with Mr Antanas Kontautas, lecturer at the Klaipeda University, interview by telephone on 2008-05-09, tel.: +370 846 398936, antanas.kontautas@ku.lt</u>

We decided to interview this person, as he made a few studies on commercial fishing recently. In such a case we could get summarised view of how commercial coastal fishermen value environmental questions raised in our questionnaire.

Q1b. What activities are you involved in?

Research related to fish resources.

Q1c. How long have you been active in this sphere?

Around 20 years.

Further the answers are presented as if they were summarised answers by commercial coastal fishermen.

Q2. Have activities of commercial fishermen been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

Yes.

Q3a. By what problems were your activities affected?

The main problem - emissions of nutrients (nitrogen and phosphorus) causing eutrophication effects such as algal blooms.

The second problem would be decline of the stocks of some important fish species such as cod.

Q3b. How is your business affected by these problems?

The reduced quantity of fish impacts turnover and profitability of companies.

Q3c. What is the trend during the last three decades for how your business is affected by these problems? More before and less now? Less before and more now? About the same?

The overcatch was not a problem before, therefore it is possible to say that commercial coastal fishing was less affected before and more now.

Q3d. Can you give any number for how your business is affected by these problems in the *last few years*?

Catches have reduced considerably. Today, in comparison to what was 10-15 years ago, catches of some fish species decreased by two times.

Q3e. Please rank the problems starting with the most severe one for your business in the *last few years*.

It is possible to prioritise the problems like this:

- Overcatch
- Eutrophication
- Sank nets are obstacles for fishing

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

No, not affected.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

From the point of view of commercial fishermen, the major obstacle for development of their business is various environmental restrictions. Possibilities to fish are less and less and no compensations are suggested for that.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Among marine environmental factors such factors as appearance of invasive cancer species and increase of seal population is mentioned by fishermen.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

No, other environmental factors are not important.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

From the perspective of commercial fishermen, as their activities are restricted by environmental limitations, compensations related issues should be solved in the first place.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area	This factor would affect commercial fishing
Reduced eutrophication effects such as less algae blooms and more transparent water	Impact would be positive
Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora	Impact would be negative
More oil spills due to heavier traffic on the seas.	Impact would be negative
A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.	n.a.

other:

C. Some specific questions:

How important is the stock of cod compared to other fish species?

A lot of coastal fishermen are dependant on this species.

• Do you have any predictions regarding the use of anti-fouling paints (containing TBT) to reduce fouling of the Bay barnacle on boats?

Some special kind of paint should be used, however, for Lithuanian coastal fishermen the most important problem of this type is fouling on nets.

Interviews with representatives of real estate sales and lease companies

12. <u>Interview with Mr Rolandas Lobanovas, director of real estate</u> agency "Palbiuras", Palanga, 2008-04-07, tel.: +370 675 37222

Q1b. What activities are you involved in?

Sales and rent of real estate, other related operations.

Q1c. How long have you been active in this sphere?

Since 2003.

Q2. Have your activities been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

No, they haven't.

Q4a. Why have your company's activities not been affected?

Environmental marine problems are not so serious that could affect the market of real estate. Sea is sufficiently clean, there are no any oily spots or similar.

Q4b. Was your type business affected by any of these problems earlier than 30 years ago? If so, how?

I cannot say, as such kind of business did not exist at that time. I think that marine environmental problems were fewer.

Q5a. Which are the most important factors for the growth of your activities? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

General situation and activities in real estate market, inflation and general economic situation in the country.

Q5b. How do marine environmental factors rank in importance compared to other factors?

Marine factors are practically unimportant.

Q5c. Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

Currently there are no environmental factors which would affect our business. The most important factor is existing infrastructure in a city.

Q6a. Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to the seaside tourism?

The respondent could not mention any measures, as, according to him, marine environment is currently sufficiently favourable.

Q6b. Does any of the following potential changes in the future matter for seaside tourism activities? If so, how large changes are required for them to affect these activities? How would they affect these activities?

Climate change, resulting in a warmer climate and more rainfall in the Baltic Sea area	This factor would impact the real estate market negatively
Reduced eutrophication effects such as less algae blooms and more transparent water	Would not impact much
Increased eutrophication effects such as more algae blooms, extinction of the bottom fauna and flora	Would impact negatively
More oil spills due to heavier traffic on the seas.	Impact would be negative
A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.	Would not have any impact

other:

C. Some specific questions:

• What are the most important environmental factors for the price of houses situated at the coast?

Prices of real estate are mostly impacted by changes in the market. Marine factors would impact prices only in the case they become very strong. For example, if the Sea was much polluted.

Additional remarks:

People are getting used to existing conditions and they learn to be flexible. Population of Lithuania is used to the current situation. It is true also as regards the bigger pollution. For example, people are coming for vacation not during the time of algal blooming.

Conclusions

Interviews with 12 representatives of Lithuanian coastal companies gives quite a representative picture of the opinion on how marine environmental factors have influenced their businesses. Interviews also reveal understanding of representatives of major touristic coastal sectors of environmental issues and status of the Baltic Sea. We grouped major conclusions into the following:

- Market economy in Lithuania is not an old phenomenon. This fact influences the content of answers in most questions of our questionnaire. Private companies and business-oriented thinking has not long traditions in Eastern Baltic countries, therefore it was not possible in most cases to provide opinions on trends (especially long-term).
- Moreover, some interviewees are quite young themselves; therefore separation of general environmental problems and how they affect specific touristic industry was not a very straightforward thing to do. Also, understanding of climate change was very simplified and sometimes quite opposite potential impacts were stated.
- Interviews revealed quite a low environmental awareness, or, better to express, quite simplified environmental awareness of Lithuanian coastal businessmen.
- The major conclusion from interviews is that so far environmental marine factors have not influenced the tourism industry in Lithuania at all. No any single answer from 12 to the question on how marine environment factors rank compared to other factors was different: conclusion by everybody was that marine factors were practically unimportant.
- The above conclusion is stemming from the fact that most interviewees value marine environment well and do not see dangers for their businesses

from this point of view. They note that there should be really strong changes in marine environment in comparison to the current situation that the tourism industry was affected. The major factors influencing their activities so far are related to weather conditions and recreational infrastructure.

However, another very important issue, disclosed by interviews, is that assessments and valuations on the marine environment and tourism are missing. Therefore no numbers on the relationship between environmental conditions and tourism could be provided. Quite a few interviewees stressed that such kind of analysis is needed very much.

Annex VII. Poland

Prepared by: Mikołaj Czajkowski, Agnieszka Markowska, Marta Zygmunt and Tomasz Żylicz, Warsaw Ecological Economics Center, Warsaw University.

Introduction

The surveys were conducted on the 11th – 13th of April 2008 in Gdańsk, Gdynia and Władysławowo, on the Polish coast. In total there were 21 surveys conducted. Most of the interviewees were contacted by phone beforehand and asked to participate in the survey. The respondents were selected based on internet and phone book search to represent the major branches of tourism industry, including beach tourism (hotels, guest rooms, private lodgings), recreational fishing (organized recreational fishing cruises), boating, water equipment and water sports (sailing, windsurfing and kitesurfing schools, sailboat rentals, wreck diving), cruises and organized sea voyages and real estate agents specializing in properties on the Polish coast.

During the interview the interviewees were asked if they agree with the summary of their responses taken down by the interviewer in order to make sure that they felt they were properly cited.

The interviewees were asked for names and contact details, however revealing this was not compulsory. In case a respondent wished to stay anonymous, only his branch of tourism industry was noted. Contact details of the respondents are available at request from Warsaw Ecological Economics Center.

The respondents who wished to be provided with the summary of the study could have left their emails in order to be sent the results in English.

Findings

Below are the results of 21 interviews with representatives of the selected branches of the tourism industry in Poland. The surveys are grouped into major tourism activities (tourism industry branches).

The 'XX' in the questions and answers refers to the tourism industry branch in question. Missing answers imply 'hard to say' / 'don't know' answers and answers not directly connected with the question asked.

1.	Beach tourism	230
1.1	Interview with Ms Anna Burbulis, owner of "Agat" guest house, Władysławowo, 2008-04-12230	
1.2	Interview with an owner of a guest house in Władysławowo, Władysławowo, 2008-04-12235	
1.3	Interview with Ms Marta Jakubowska, employee of "Rejs" hotel, Władysławowo, 2008-04-12239	
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Beach tourism

INTERVIEW WITH MS ANNA BURBULIS, OWNER OF "AGAT" GUEST HOUSE, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

I was employee of a holiday centre in Jastrzębia Góra. Now I am engaged in my own activity – I own a guest house.

Q1b. For how long have you been involved with XX?

I had been working in Jastrzębia Góra for 29 years and I have this guest house since 2006.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Ms Burbulis says that generally all kinds of people come to stay, she says: "from 18 to 70 years old".

Q3. In general, how has the activity in XX developed during the last 30 years?

The interviewee says that it has changed significantly. Nowadays people come to stay for a week or 5 days, while some time ago these periods were longer – they booked rooms for 3 weeks. Secondly, the holiday season is now longer – tourists come from April to September and some of them even in winter, while earlier the only busy months were June, July and August – during school vacations. The clients are also more fastidious and their preferences have changed, e.g. more of them demand rooms with WC.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Ms Burbulis has noticed two changes. Firstly, water in the sea is less polluted and secondly, tourists' awareness of environmental problems is higher- the beaches are cleaner, less bottles or cigarette butts are being left behind. Also, people don't walk the dogs on the beach as often as some time ago.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

Yes, definitely.

Q5a. By what problems was/is XX affected? Appearance of cyanobacteria.

Q5b. How was/is XX affected by these problems?

The interviewee gives an example. About 4 years ago, there have been cyanobacterial blooms in the Hel Peninsula. It forced tourists who were spending their time there to change location and they started to come to Władysławowo. In her opinion, the tourists will easily change their plans if such problems disturb their rest.

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

It's hard to distinguish a clear trend. If the conditions are bad, it may affect the tourism.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

"It is difficult to say, but if we assume the worst scenario – dirty beaches and the presence of algae, there might be 30% less tourists."

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

1	Algae blooms
4	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
2	Oil spills from ships and other installations
3	Presence of hazardous substances in the sea
1	Litter in the water and on the beaches
5	Presence of ship-wrecks and other dangerous obstacles
2	Other (describe) lack of guarded beaches

Guarded beaches are particularly important for families with children. If there is even only a small but guarded section of the beach, it really improves their comfort.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

"We are all responsible for it. It is caused by negligence of some irresponsible people, whose awareness isn't high enough" – says Ms Burbulis. She points out the necessity of educating children and young people in order to create a more aware society. The adults should know that by polluting the environment, they prevent their children from benefiting from it. She also segregates recyclable materials and she argues: "why should I throw plastics to the landfill, if I have the possibility not to do that."

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Ms Burbulis talks about estimating her losses but rather in the context of the noise and other inconveniences caused by a construction area in the neighbourhood rather than the environmental changes. She says that it is about 15%.

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

It's definitely more sensitive to such changes, because people come here to benefit from the nature and such issues preclude them from doing it.

Q6a. Why has XX not been affected?

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

Ms Burbulis claims to have witnessed many positive changes: the number of oil spills has diminished ("there used to be some dirty oil on the beaches and dead fish and sea-gulls"). There is also less algae.

Q7b. Have these changes had an impact on XX? (in what way?)

Rather not, because the tourist activity is developing all the time and it will continue to develop, irrespective of such factors.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Definitely the infrastructure is the most significant factor. "I see some buildings being built in the centre of town and I wonder who have approved the projects". The activity of local authorities in creating the good name of Pomerania is also essential. It has an impact on foreign tourists' decisions.

Q8b. How do marine environmental factors rank in importance compared to other factors?

They are less significant, but we should be aware of them.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

From 5 to 7 points.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The interviewee tells about the influence of the fishmeal industry in the past, but it isn't a problem anymore. "And also some time ago people used to walk on the dunes".

Q9. Do you think XX has any impact on the marine environment? "Maybe partly it has, but we are really happy when more people come"

Q9a. Do you think your personal professional activity has any impact on the marine environment?

No.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

Ms Burbulis talks about meetings of the local community, when they discuss current issues.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

The interviewee points out other than environmental measures: Poland should promote the region, especially Kaszubski dialect and culture and build good roads.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"I've noticed the change and it may have an influence, because it lengthens the tourist season".

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

The impact of this factor will become probably less significant.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It will not have any impact (if the situation doesn't change dramatically).

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

There will not be any effect of this factor on tourism industry.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

"It really depends on the people and the way they have been brought up, so I can't generalize." – says Ms Burbulis.

How sensitive are the tourists to the water pollution?

"They are very sensitive to it although some of them don't realize it."

INTERVIEW WITH AN OWNER OF A GUEST HOUSE IN WŁADYSŁAWOWO, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

"I own an estate by the sea and I offer guest rooms for the tourists."

Q1b. For how long have you been involved with XX? For 10 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Various kinds of tourists, but mainly the families. There are also many people from Warsaw.

Q3. In general, how has the activity in XX developed during the last 30 years?

"Yes, definitely. There has been an increase in the number of tourists" – says the interviewee.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The interviewee says that there have been some changes, but it's difficult to say precisely if they have been positive or negative. "There were both better and worse times, but the overall result is positive." He mentions algae blooms, occasional presence of small amounts of oil coating the beaches and poor quality of water, but also presence of jellyfish.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

Yes.

Q5a. By what problems was/is XX affected?

Mainly by algae present in the water, decreasing water quality and aesthetic value of recreation.

Q5b. How was/is XX affected by these problems?

People easily give up their holiday plans, especially when the beaches were closed. It mainly refers to Sopot and the areas along the Gulf.

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

The number of tourists is rising, but the increase isn't as rapid as it could be, because of the quality of the environment.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

The number of tourists increases because of the enriching society; the effects cannot be decomposed easily.

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

4	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
5	Decline of the stocks of some important fish species
3	Oil spills from ships and other installations
	Presence of hazardous substances in the sea
2	Litter in the water and on the beaches
	Presence of ship-wrecks and other dangerous obstacles
1	Other (describe) lower water clarity

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

The government and the local authorities – they should prohibit dumping untreated sewage to the rivers and then to the sea.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

The interviewee can't decide what is the most influential factor and estimate the losses. "The environment quality has a general impact on my comfort, and the comfort of tourist" – says the interviewee.

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism? It's comparable.

Q6a. Why has XX not been affected?

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

In his opinion, there has been recently a general improvement in the overall state of the maritime environment – "less algae, no closed beaches, higher water quality and clarity".

Q7b. Have these changes had an impact on XX? (in what way?)

They have a positive effect in the long run, because the tourists are willing to choose the Baltic Sea more likely.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

There is an increase in the number of foreign tourists – the Germans or the Dutch with caravans. The Poles' demand has also increased a lot, because they are getting richer and the towns on the coast have been developing rapidly after the political transformation in Poland.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Their influence is rather minor.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Litter and cigarette butts on the beaches and environmental pressure.

Q9. Do you think XX has any impact on the marine environment? "Indirectly- yes, because of the presence of tourists" – says the interviewee – "but the nature – it's all for us". Fortunately it isn't particularly strong.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Negligible.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

People shouldn't drop litter and damage dunes. Such activity would have effects, if everyone did it. Otherwise institutional solutions are necessary.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

The first steps undertaken by the government should refer to cleaning the rivers, not only the main ones, but also small rivers and canals, since they influence local water quality in many regions of Baltic Sea coast.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"If it would happen, what I believe however is doubtful, in case of Poland it would have overall a beneficial impact on the tourism industry."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It is significant, the beaches are being closed and it will probably continue. The tourists will then choose different countries to spend holiday in.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It negatively affects comfort of relaxing on the beach – thus important factor.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

It doesn't matter and it won't matter.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

It is rather low and tourists pollute the beaches and water.

INTERVIEW WITH MS MARTA JAKUBOWSKA, EMPLOYEE OF "REJS" HOTEL, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

"I am a receptionist in this hotel. It's a family business."

Q1b. For how long have you been involved with XX? "For 7 years."

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

"Very wide age range: 20-70 years old. About 10% of our clients are foreigners, and the rest are Polish."

Q3. In general, how has the activity in XX developed during the last 30 years?

Ms Jakubowska says that there is a visible increase in the number of tourists. She also demonstrates the statistics from the hotel – she shows the number of hotel guests in March- in 2006 it was 123 people, in 2007 - 161 and in 2008 - 231. She also emphasizes that March is a rather less active touristic period.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The interviewee doesn't have any information about ecological changes.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

No there is no such relationship.

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

3	Algae blooms
7	Lack of oxygen in some bottom layers of the Baltic Sea
5	Decline of the stocks of some important fish species
6	Oil spills from ships and other installations
4	Presence of hazardous substances in the sea
1	Litter in the water and on the beaches
2	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

The interviewee asked for a remark, that she ranked the importance of these factors in general

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

The interviewee says about the inhabitants. She also mentions local authorities but not as the ones who are guilty of the negative changes but rather as those whose duty is to limit them or reduce the consequences. When asked about tourists, she admits that they also have an impact.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

It's rather resistant and Ms Jakubowska thinks that e.g. water sports and surfing in the Peninsula is more sensitive.

Q6a. Why has XX not been affected?

Many people use swimming pools and it's a good alternative for them, especially if it is olympic-size. The guests don't ask about the presence of algae or general condition of the Baltic Sea when booking the rooms.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

No, the situation was similar.

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

"Yes, the local authorities do their best and it's visible."- says Ms Jakubowska. She gives the example of the beaches, which are dirty in the evening, after the whole day of presence of the tourists, but in the morning they are clean again.

Q7b. Have these changes had an impact on XX? (in what way?)

Yes, it is a positive influence, but rather not on those richer and more fastidious, who are the clients of the hotels. However, in general, it definitely has an impact.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Ms Jakubowska explains that travelling abroad is sometimes cheaper than organizing a stay in Poland. This discourages the tourists to choose Pomerania.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

"3, maybe 4 points"

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

An important positive factor is the presence of iodine. People benefit from that and want to come more frequently, especially children and people with some health problems.

Q9. Do you think XX has any impact on the marine environment?

The interviewee doubts if there is any negative influence of the tourism industry on the environment. She mentions the positive impact, i.e. the taxes being paid.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

No.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

"This is always reasonable to do something on our own initiative what refers to the environment"

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

Ms Jakubowska tells about her idea of solving the problem of traffic. She suggests that some parts of the town could become non-parking zones. The cars would have to be left either in the suburbs or at least not in the centre and the tourists would have to walk to the beach. Nowadays, parking is a problem, there is not enough space for it, so either there should be some new car parks created or such a solution should be introduced.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"It's hard to anticipate but it will be better, if it's warmer. For entire Poland, but especially the coast"

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

"It's almost not observable in the sea, maybe sometimes in the Gulf. But I doubt if it matters or if it will matter for the surfers. They just have fun irrespective of algae"

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It might become more significant in the future.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

It may affect the recreational sea fishing (which is a minor problem in Poland) but not other branches.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

Ms Jakubowska says that she is not sure, but from her experience, the major group of tourists is families with children who spend the whole days on the beach, so she guesses that they are ok with the present state of the environment.

INTERVIEW WITH THE OWNER OF A GUEST HOUSE, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX? We offer guest rooms in our house for the tourists who come to Władysławowo.

Q1b. For how long have you been involved with XX? For 10 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Everyone, but especially families with children.

Q3. In general, how has the activity in XX developed during the last 30 years?

The activity increases significantly during the tourist season and also it is increasing each year. "In the summer, it is difficult to get here by car."

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

There are some information about algae blooms, but it is rather more common in the Gulf. It is a natural consequence of presence of sewage in the water and high temperature. But there has been an improvement in the water quality in the last two decades or so.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

No, if somebody has planned to come, he will come in spite of the blooms or pollution. Tourists just try to avoid such places on the beach, because the algae are present only in some sections of the coast. And Sanepid [Polish government institution for controlling sanitary and epidemic conditions] does its best.

- Q5a. By what problems was/is XX affected?
- Q5b. How was/is XX affected by these problems?
- Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)
- Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (describe)

It had no effect.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

Honestly speaking, I can't see much devotion to Pomerania in local authorities' works. The tourism has a negative influence on the environment, but the tourism is the only developed branch of the economy in this area. That is what the majority of inhabitants do for a living. And also the port should be national property, but now it's a property of companies which are subsidized by the government.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Rather resistant.

Q6a. Why has XX not been affected?

People avoid algae and don't like dirty beaches, although it's them who drop litter. However, these problems don't affect the decisions of the tourists. They may only affect their mood in a short period of time, but they will still come, so there aren't any negative effects on the tourism industry.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

No, it hasn't changed.

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

"I have to say that the water is cleaner. Probably due to the sewage treatment plants"- says the interviewee.

Q7b. Have these changes had an impact on XX? (in what way?) The tourists are pleased with this fact.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Many factors are essential, e.g. promotion of the region, weather, infrastructure etc.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Less important, they don't have direct influence.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

No clear answer.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The interviewee describes the possible improvements due to sewage treatment plants. He suspects that during the tourist season, it's impossible to clean all the sewage, only about 30-40%. In his opinion, some of it is being let off to the sea and paradoxically, it has a negative influence on the environment. He offers a solution-biological sewage treatment plants and presence of willow.

Then he says that more environmental problems refer to the Gulf of Gdańsk. There are big ports and nitrogen plants which had a critical influence on the eels a couple of years ago.

The last thing is the presence of the ammunition and mustard gas at the sea bottom.

Q9. Do you think XX has any impact on the marine environment?

"Maybe in a way - the forests are trampled..."- says the interviewee. He doesn't think that it's significant and stresses that the nature has the ability to reconstruct.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Not much.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

The social awareness is essential as well as ecological education.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"The problem is that if only we didn't have such neighbour as Russia, former Soviet Union and Putin who doesn't like Poles, we would be able to do something. There are some conventions signed, Poland has the catch limitations to keep, while Russians can fish as much as they want. The same is with oil spills and building the pipeline. The proceedings and meetings of the Baltic Sea countries, e.g. the one in Helsinki are worthless as long as the situation is like that." He hopes that Poland as a big country will take part in international agreements, however Russia will be forced to join in as well.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

The water levels are noted by the boatswain's office. I have heard that it has risen by 50 centimetres. It depends, however, on the weather. Sometimes it's a result of northern winds which force in a large amount of water from the North Sea. It flows through Danish straits to the Baltic Sea. It might be summarized that Baltic sea water level will not have an influence.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

The interviewee doubts if it will have an influence. It appears only in some areas and for a short period of time, so it shouldn't be a problem for tourism in the future, as it isn't a problem now.

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

The situation is under control. Every day in summer a helicopter patrols the shore and the sea. All the spills and contamination must be reported to proper authorities. Some vessels, however, dump litter or bilge waters into the sea, because for the foreign ship-owners, it is more payable to do it in the Polish waters. There are some penalties, but practically nobody pays them. Something has to be done with it.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

Not directly for the tourism industry.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

It is constantly increasing, especially children are more aware.

INTERVIEW WITH MS MAŁGORZATA URBANIAK, RUNNING PRIVATE LODGINGS FAMILY BUSINESS, WŁADYSŁAWOWO, 2008-04-13

Q1a. What is your job and how are you involved in XX?

I live in Władysławowo, so I am w witness of all the changes in the region. We also offer guest rooms. Apart from that, I study tourism.

Q1b. For how long have you been involved with XX?

The interviewee is now 26 years old and says that she has been involved "from the beginning" by helping her parents.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

We used to entertain summer camps, but now the majority of our clients are families with children from Warsaw, Poznań, Toruń, Bydgoszcz, sometimes from Silesia and rarely foreign tourists. But all kinds of people come to stay at the seaside.

Q3. In general, how has the activity in XX developed during the last 30 years?

Ms Urbaniak says that the activity is increasing every year. Despite the fact that many new houses are being built, tourists still have problems with finding accommodation, especially in the second half of July and first half of August. Sometimes, even when they stay in Władysławowo, they have to choose other beaches, because these are packed.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The interviewee describes the changes and concludes that all of them are results of human activity. "The tourists trample dunes, pee and drop litter."

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"No, environmental problems have no influence on the tourism industry. People always come. Sometimes they will just comment on e.g. algae or weather, but they still want to rest here."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (describe)

The interviewee asked to comment, that most of the tourists have no idea about such issues. They may be more significant in the case of Gdańsk. The seaside isn't polluted.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

"The tourist activity is." – says Ms Urbaniak. She also describes a kind of tourists who are especially eager to come to Władysławowo – "those are young people with quite a lot of money and rather low awareness of ecological problems." She concludes that the behaviour of tourists on the coast differs completely from the mountain tourism. It is, however, difficult to diminish the tourism in Pomerania, because "that's what we do for a living."

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

It is difficult to describe, because there haven't been any sudden changes which might have had an impact on the tourism industry, but in case of serious threats, it would be this branch and also water sports which would suffer the most.

Q6a. Why has XX not been affected?

The only thing important is the sun and getting a sun tan. Maybe if there was some information about life-threatening factors, then the people would reconsider their plans.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

No, it was just as it is now.

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

Rather not. The interviewee just hears about client's satisfaction in general. It may refer to cleaner and wide beaches.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Clean air and just the possibility to come here – it has to be said that the Baltic Sea is relatively close for the Poles and we are satisfied that we have our "own" sea. Not only the people from Gdańsk who come here on weekends, but also tourists from southern parts of Poland.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Despite the doubts on the relation between environmental changes and tourism, the interviewee gave these factors 7 points.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

"No, rather not. Maybe only clean air which I have already mentioned."- says Ms Urbaniak.

Q9. Do you think XX has any impact on the marine environment?

"Yes, because of the large number of tourists. Władysławowo has about 17 thousands of inhabitants and during the summer this number increases seven times."

Q9a. Do you think your personal professional activity has any impact on the marine environment?

The interviewee says that it's hard to talk about one guest house, because "one guest house wouldn't make a difference".

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

"There is always something that should be done, but I am not sure if it would bring any significant effect. Everyone here is involved in tourism and hardly anybody would be willing to reduce the tourist activity in the region."

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

Ms Urbaniak points out that the first and the most important step that Poland can and should undertake is ecological education end influencing people's awareness. It should refer not only to the environmental issues, but also to everyday life's activities, e.g. recycling.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

It is already visible – there are changes in the seasons and the weather is variable. The interviewee says that it may influence tourism industry, but doesn't precisely say if it is negative or positive.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It may have an effect, but rather in Gdańsk and in the Gdańsk Gulf.

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

If there is a threat of a large oil spill, it will definitely affect the whole seaside.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

Difficult to say.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

There is probably a group of tourists who know about it, but it's rather the minority. "I also have some doubts about this influence and I am probably not aware of all the consequences." Such information is not widespread.

INTERVIEW WITH AN EMPLOYEE OF A GUEST HOUSE, WŁADYSŁAWOWO, 2008-04-13

Q1a. What is your job and how are you involved in XX?

The interviewee's family offers guest rooms in Władysławowo and it's a family business.

Q1b. For how long have you been involved with XX?

She has been working as a waitress for 4 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

All kinds of tourists, especially families with children and sometimes grandparents with their grandchildren.

Q3. In general, how has the activity in XX developed during the last 30 years?

The interviewee isn't able to describe the whole period of 30 years because of her young age, but as far as she knows, the number of tourists is rather constant year by year and there aren't many differences between the succeeding holiday seasons.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

She doesn't have knowledge about any negative changes in the marine environment.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"Definitely, it's an obstacle for the development"

Q5a. By what problems was/is XX affected?

The interviewee didn't mention it as an environmental change, but when asked about the problems, she says that there are sometimes algae blooms.

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

The guests don't change their plans because of any environmental factors.

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

6	Algae blooms
5	Lack of oxygen in some bottom layers of the Baltic Sea
7	Decline of the stocks of some important fish species
1	Oil spills from ships and other installations
2	Presence of hazardous substances in the sea
3	Litter in the water and on the beaches
4	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

Firstly, the tourists are responsible for dropping litter. Secondly, the local authorities are responsible for cleaning the beaches.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

"It is definitely sensitive to such changes" – says the interviewee. However, it seems that she considers the possible influence of these factors on tourism, provided that they are really serious, so the answer rather refers to a possible situation in the future (see the answer to the next question). "The guests will stop coming and all of the people here do tourism for a living".

Q6a. Why has XX not been affected?

"It's not so bad right now".

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The interviewee can't think of any positive changes.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

"It's obvious that it's the weather. Everything depends on it".

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

So far they have 2 points.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Recently the tourists complain about noise and crowd. There is also a landfill in the neighbourhood of Władysławowo. In the interviewee's opinion, it isn't protected well. In the holiday season, especially when there is sweltering heat, the odour is unbearable and the area directly near the landfill is completely excluded from the tourist activity. The litter is also being blown away and it stays on the fields and the surrounding areas.

Q9. Do you think XX has any impact on the marine environment?

"Yes, the tourism has definitely a positive impact on the environment" – says the interviewee. "Tourism is an essential branch of economy for this city and the authorities make efforts to improve the look of this area. There is also negative influence of the tourists' presence."

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Rather not, the guest houses don't have much effect.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

The interviewee believes that such activity would positively affect the environment, but she hasn't heard of such initiatives.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

The interviewee mentions only the necessity to clean the beaches (despite the fact that she hasn't rank litter as the most important factor), remove the bottles and cigarette butts.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"It's even possible that our town will be flooded" – says the interviewee. However, she sees a possible positive influence of such changes on tourism "in the beginning".

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

The interviewee doesn't know if the eutrophication will be increasing or not, but if it's increasing, it will have strongly negative influence on tourism, because business would be slower.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

If there is a really serious accident, it will be disastrous for the tourism.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

The number of people interested in recreational fishing would probably diminish.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

The interviewee doubts if the tourists are aware of any of the mentioned problems.

INTERVIEW WITH MS KINGA SELKE, EMPLOYEE OF "TITANIC" HOTEL, WŁADYSŁAWOWO, 2008-04-13

Q1a. What is your job and how are you involved in XX? Ms Selke works as a maid in the hotel and she lives in Pomerania.

Q1b. For how long have you been involved with XX? For 4 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

"Different, generally all kinds of tourists" – says the interviewee.

Q3. In general, how has the activity in XX developed during the last 30 years?

The number of tourists is rather increasing. There were some periods when less people were coming, but it can be said that the constant growth is visible.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

"People say that it's getting worse" – says the interviewee. She can't name any changes and she refers rather to a general trend which she has heard of than to some real changes which she has observed.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

The interviewee says that it probably has some influence on tourism.

Q5a. By what problems was/is XX affected?

The beaches in Hel Peninsula are sometimes closed and the beaches in Władysławowo were closed 2 or 3 years ago. Ms Selke doesn't know, however, the reason for the closure.

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
1	Oil spills from ships and other installations
2	Presence of hazardous substances in the sea
	Litter in the water and on the beaches
	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

The interviewee is able to rank only some of the problems.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

"We are all responsible for the pollution" – says Ms Selke.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Q6a. Why has XX not been affected?

"The tourists just want to see the sea if the weather is good".

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

In the interviewee's opinion, nothing has changed.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Ms Selke can't think of any factors which are essential for the development of tourism.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Ms Selke can't rank them.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

"Iodine is very important for some tourists who come here because of health problems." Ms Selke also mentions the fact that the landfill produces a very unpleasant smell, but it only influences the direct neighbourhood and doesn't have much impact on tourism in Władysławowo.

Q9. Do you think XX has any impact on the marine environment?

The interviewee says that it has an influence, but she stresses that even when there are no tourists (i.e. not in the holiday season), the pollution is still present and is still being produced, so it is difficult to conclude if it's tourism what is really harmful for the environment.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

No, the activity of one guest house or hotel doesn't cause any real changes.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

She isn't sure if it can help.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"It is difficult to say, maybe introducing some penalties or bans would be helpful".

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

It will be more significant in the future and it will positively influence the tourism industry.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It will probably diminish and will not affect tourism.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It will probably decrease.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

Ms Selke isn't able to describe the influence in the future.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

The tourists aren't aware of the possible threats – for example, they bathe in the sea despite the fact that the beaches are closed.

Recreational fishing

INTERVIEW WITH MR MICHAŁ NECEL, ORGANIZER OF RECREATIONAL FISHING CRUISES AND OWNER OF A GUEST HOUSE, WŁADYSŁAWOWO, 2008-04-13

Q1a. What is your job and how are you involved in XX? I am engaged in recreational fishing and letting out rooms for tourists in Władysławowo.

Q1b. For how long have you been involved with XX? In tourism for 11 years, in fishery for 10 and in recreational fishing for 4 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mr Necel sums up that generally everyone wants to have some rest and that is why the diversity of tourists is so large. "Everyone - from children to the elderly".

Q3. In general, how has the activity in XX developed during the last 30 years?

"It can be said that tourism is developing very rapidly. There has been an increase in the number of tourists and sometimes there is little space on the beach in the summer. More people choose Pomerania as a place for spending holidays."

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Mr Necel hears about some minor oil spills from time to time, but doesn't consider it as very harmful. He notices presence of algae, but strongly opposes the opinions that it is unfavourable. "I have been living here my whole life and I can say that it is not unwholesome. This issue is definitely exaggerated, particularly in mass media. It is just so called water bloom, it is completely natural for a short period during the year, after which it just disappears and it happens every year. It doesn't hurt or burn, it just doesn't look well."

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

The interviewee says that the algae blooms may have an influence on tourism, but not directly. Mass media love this topic, spread information about the presence of cyanobacteria and artificially magnify the problem.

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

There is a constant increase in the number of lodging required, but there is no relation between it and the environmental changes.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

"The problem of algae blooms discussed on TV causes sometimes a couple of phone calls from the clients who would like to check if it's true, but it's generally before the season and if the TV stations stop commenting on it, the problem stops to exist."

Q5e. Please rank the problems starting with the most severe one for XX in the last few years $(1 - most\ severe,\ 7 - least\ severe)$

3	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
1	Oil spills from ships and other installations
	Presence of hazardous substances in the sea
2	Litter in the water and on the beaches
	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

Presence of wrecks has no negative effect on tourism, it may influence fishery, because the nets are destroyed. And it may rather be an advantage for recreational fishing, because there is a lot of fish around the wrecks and the tourists sometimes want to go there to catch some bigger specimens, despite the danger of damaging their equipment.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

Mr Necel says that obviously people are responsible for the presence of litter or oil spills. Sometimes it can be accidental, but generally it's people's fault due to their lack of knowledge or stupidity.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Definitely more resistant, because there is no relation.

Q6a. Why has XX not been affected?

Recreational fishing is a quickly developing branch of tourism and such problems don't influence it yet.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

"From a practical point of view, the water quality has improved" says Mr Necel. That is why new fish species reappear after not being seen for dozen years. There is also a lot of jellyfish, which live only in clear water. It may be a result of treating more and more sewage.

Q7b. Have these changes had an impact on XX? (in what way?) "Rather not, these are only our observations"

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Mr Necel mentions just the presence of the sea and a microclimate with healthy air. "It's just the availability of the sea and the possibility to come here what makes the tourism develop"

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Mr Necel can't name any, apart from the fresh air and microclimate which attract tourists.

Q9. Do you think XX has any impact on the marine environment?

The interviewee claims that certainly, more tourists can cause an increased amount of litter and have some negative effects. Despite the fact that the social awareness is higher and there are more possibilities to reduce harmful effects, the activity of

some people still has a destructive influence. "But it is all to use it and benefit from it. The negative effects aren't so significant".

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Mr Necel says that the activity of his clients has no impact. "Their presence isn't harmful at all, they just catch a couple of fish."

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

He thinks that generally, people should pay more attention to cleanness and maybe also recycle. "But what else...?"- he asks.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

Mr Necel describes building pipelines at the bottom of the Baltic Sea as one of the biggest threats for the environment and tourism. In his opinion, Poland should be against such activity and the pipelines should be built on land. "I have recently read that somebody, I think it is in Russia, that they want to rinse the pipelines with a corrosive substance before transporting the gas and let it off to the sea" says Mr Necel.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

The interviewee says that it will probably have a minimal influence on the tourism industry in Poland, because "we are quite far away from those glaciers and before it comes to us, there will be disasters in other places". He has also read that we may witness a temporal climate cooling. The warming will have an effect, it is observable now during mild winters, but the tourism will rather benefit from this change.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

Mr Necel argues that it isn't threatening at all. It cannot be eliminated, because it's natural, but there aren't any consequences for the people. When asked why the beaches are being closed, he replies that it is mainly for aesthetical reasons and "it stays on feet when you step into it".

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

Mr Necel considers it as one of the major potential threats for the growth of Pomerania. Reducing ship traffic would be a solution, but it's impossible. There should definitely be some punishments as a discouraging factor.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

It may have an influence on tourism, if it also affects fishing, not only professional fishery.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

Mr Necel is aware of the problems, but regards them as broader. "The tourists on the coast throw litter about, but people also do it in the cities etc." He also claims that social awareness in some western countries is radically lower than in Poland.

QC2.1. Which fish species are the most important for recreational fishing? Definitely cod. Rarely salmon, garfish or flounder.

QC2.2. How important is the stock of cod compared to other fish species? Most important.

INTERVIEW WITH MR GRZEGORZ TURSKI, HEAD OF "POMORZANKA" GUEST HOUSE AND RECREATIONAL FISHING CENTRE, WŁADYSŁAWOWO, 2008-04-13

Q1a. What is your job and how are you involved in XX?

Our main activity consists in organizing recreational fishing cruises which have become more popular in the last 5 years.

Q1b. For how long have you been involved with XX? For 9 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

90% of our clients are men, who start to bring their families after a few years. They discover that it's a great way of spending free time and resting together with the family. The wives and the children can (but don't have to) sail with them.

Q3. In general, how has the activity in XX developed during the last 30 years?

"It has to be remembered that it's a very young branch. Young but very promising. There has been an increase in the number of tourists, especially during the last 5 years. It's a kind of fashion and also big companies have to spend the social fund somehow and for the last couple of years they have been choosing recreational fishing more often. "

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Mr Turski recalls that there hasn't been any cyanobacteria for the last two years. He describes the relation between the presence of algae and sprat fry and cod – claims that abundance of fish reduces the amount of algae.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"No, not at all" – says Mr Turski. "The tourists are willing to come, although they would sometimes like to bathe in warmer water and regret that it's impossible in the Baltic Sea. It isn't a problem, however, because in Greece or Spain, they have to spend much time in air-conditioned rooms, while here they can be more active, despite some inconveniences."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (describe)

The interviewee commented, that not only the problems listed don't have any influence, but also such problems don't exist at all. "Lack of oxygen? Baltic isn't lacking in oxygen, because we can't sail in almost 40% of the days because of the squally weather which causes water oxygenation.

The stocks of fish – is not increasing and not diminishing.

Oil spills – I haven't heard of any.

Hazardous substances- it's said that there are somewhere in the sea, but who knows?

Litter – there is no litter, the beaches aren't dirty and I observe cleaning in the morning, when I walk the dog.

Wrecks aren't dangerous, their presence even enlarges population of cod. Only algae and cyanobacteria – if it's present, everyone has stomach ache"

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

"It's natural." – says Mr Turski. Asked about the contamination, he answers: "nobody has seen it and nobody has admitted to polluting water."

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Today it's more resistant.

Q6a. Why has XX not been affected?

"Because Baltic is clean. And if it's clean, the tourists come. If it is said that it's polluted, it would set off a chain reaction in tourism."

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

This is not relevant for recreational fishing.

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

"As far as I have heard from the divers, Baltic is significantly cleaner and the seafloor is beautiful."

Q7b. Have these changes had an impact on XX? (in what way?) No.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Mr Turski names weather as the most important factor. In his opinion, it is unfavourable for his business, but very profitable for the sea. Western winds and storms increase the salinity of Baltic waters.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

The interviewee couldn't rank these factors.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

No factors have been mentioned, but Mr Turski said that the start-up of the power plant in Żarnowiec could possibly have a big influence on tourism in the future.

Q9. Do you think XX has any impact on the marine environment?

"Yes, but only positive. The more tourists come, the more money comes in to the budget and the more can be spent on the environmental care"

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

"No, I don't think so" – says Mr Turski. He thinks that the local authorities should undertake some steps to protect the environment and they have this possibility due to bigger returns. He gives an example of such activity. "We stock the Gulf – I heard that it is $100\ 000\ fish\ quarterly$ ".

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"Just take care of what we have, be happy that we have 520 kilometres of the Baltic coast and encourage everyone to visit us."

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"Yes, it would negatively influence angling because of more frequent storms. And we can expect some more in the future."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

The interviewee claims that algae blooms will be less frequent due to increased fish stock and as a result increased algae consumption.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

"I haven't seen any but if something like this happens in the future, it will be a disaster for all the tourism branches."

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

He would rather consider some legal issues as a more serious problem in the future. He is afraid that the anglers can be treated similarly to the fishermen and considered as a one group and that could have a negative impact on the branch.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

"Certainly not. What's the most important for them is good weather and warm water."

QC2.1. Which fish species are the most important for recreational fishing? "Cods are the most important. There is a regulation that a person can catch seven cods per day and we try to make money from it."

QC3.3. How sensitive are the water sports tourists to the water pollution? Mr Turski says that they are rather sensitive to the weather than to some environmental changes. "Even if they pay a sum on account, it is not a problem for them to change their plans if they hear that the weather is bad"

INTERVIEW WITH SEA CPT. MARIAN LESZEK WIŚNIEWSKI, ORGANIZER OF RECREATIONAL FISHING, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

"I organize tourist cruises, mainly for the anglers, but the scuba divers also used to sail with me and sometimes they still do" (e.g. divers from the Polish Maritime Museum in Gdańsk).

Q1b. For how long have you been involved with XX?

It will be 15 years now and I can say that I was the first recreational fishing organizer in the south-east Baltic.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mr Wiśniewski says that it's impossible to mark out some particular groups – everyone can be interested in recreational fishing, because it is a hobby for people representing completely different professions, e.g. actors, doctors, engineers, labourers etc.

Q3. In general, how has the activity in XX developed during the last 30 years?

Generally, the tourist activity is developing, e.g. there are more passenger ferries. The fishing branch is relatively young. Some ideas of developing this way of recreation were brought up about 25-30 years ago, but they can be realized only for the last 10-15 years. Recreational fishing is becoming significantly more popular.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Mr Wiśniewski admits that there has been an improvement in sewage treatment. In the past, water in the Gulf had been contaminated by the sewage from a fishmeal factory and municipal liquid waste. Bathing in the nearest area was almost impossible because of the dirty water and odour. Fortunately, the production of fishmeal has been stopped and sewage treatment works in Swarzewo and Jastrzębia Góra take care of the water pollution. He also mentions some cases of oil spills. Each time all precautions have been taken to diminish negative effects, but he says that some birds died.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"No, rather not, because recreational fishing takes place in the open sea." Mr Wiśniewski gives a thorough description of a "plankton-sprat-cod" food chain. The presence of cyanobacteria may cause some inconveniences for the tourists who want to rest on the beach but according to him, algae is beneficial for fish stock.

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (descri-
be)

Presence of wrecks is not a danger, they provide shelter for cod, so I try not to fish there to make their growth possible.

Algae blooms – an excessive amount causes formation of cyanobacteria and it's not a pleasant view. I don't know to what extent it is harmful. However, it does not have any influence on tourism.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

The Nature is responsible for the blooms and mainly the tourists and people who don't obey the rules are responsible for the pollution and litter on the beaches. During the cruises, Mr Wiśniewski demands certain procedures regarding water and litter be followed.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

"Definitely more resistant. The clients come back irrespective of how good or bad are their experiences of environmental quality."

Q6a. Why has XX not been affected?

Those environmental issues don't matter for the fishermen. They are just interested in spending good time on a vessel.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

Yes, the water is cleaner.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

"It is just the fact that fishing is a hobby for the clients and the best way of spending time they can think of. It's also a challenge for them to check the fishing conditions at sea, while they have experienced only fishing in freshwater."

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

No influence at all

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Q9. Do you think XX has any impact on the marine environment?
Q9a. Do you think your personal professional activity has any impact on the marine environment?

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

First of all, we should provide that no hazardous substances or contaminations get to the water and we are all responsible for that. The national activity could be based on monitoring, controlling and imposing punishments. He also suggests that the beaches most heavily threatened by erosion should be better protected.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

It's hard to say, maybe the climatologists should say something. I have experienced the influence of climate changes, but rather in a virtual way – some information in mass media can really make the tourists anxious and change their decisions, e.g. the weather forecasts on TV show bad conditions, while there is a lot of sun here.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

I strongly oppose the Russian-German pipeline – it's not necessary and a possible leakage would be a disaster.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

Mr Wiśniewski says that the tourists notice the problems when they see them, but don't know much about them earlier.

QC2.1. Which fish species are the most important for recreational fishing? Definitely the cod, but there are also other species: sprat, herring, flounder, Platichthys flesus [Pl. stornia] or European plaice [Lat. Pleuronectes Platessa, Pl. gładzica], Psetta maxima [Pl. turbot], viviparous eelpout [Pl. węgorzyca] or garfish.

QC2.2. How important is the stock of cod compared to other fish species?

QC5.1. How important are environmental factors for your customers, compared to other factors?

It can be said that they are not important at all, at least they don't affect recreational fishing.

INTERVIEW WITH A FISHERMAN, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

The interviewee is not directly involved in tourism, but lives in Pomerania and is a fisherman ("I catch fish, mainly cods").

Q1b. For how long have you been involved with XX? Since 1986.

- Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)
- Q3. In general, how has the activity in XX developed during the last 30 years?

The number of fishermen has decreased, because the earnings aren't sufficient anymore. Also, The European Union has cut the catch limits by about 70%, which is disastrous for this branch. Asked about tourism, the interviewee stresses its constant development.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The cleanness of the Baltic Sea has improved. In the 80's, the water was very polluted. Fortunately, there has been a significant and visible improvement. What's more, higher penalties for letting off bilge waters to the sea have been introduced.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

No. there is no influence.

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
	Oil spills from ships and other installations
	Presence of hazardous substances in the sea
1	Litter in the water and on the beaches
	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

The interviewee has been asked for a general commentary on issues named above. He points at the presence of litter as the most important problem for tourism. He also adds that the stocks of fish aren't declining.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

Some ship owners are responsible for the pollution they produce, while it's the authorities' duty to control it.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

The interviewee says that the succeeding governments are responsible for the crisis of the shipbuilding industry and the diminished catch limits, but doesn't give any numbers which would reflect his losses.

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Q6a. Why has XX not been affected?

He doesn't consider the environmental factors as influential in the context of fishing and isn't able to describe the relationship between the environment and tourism, but mentions that the only important factors for the tourists are weather and temperature and also the price of accommodation.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The water is significantly cleaner due to the sewage treatment plants. It is particularly noticeable in the Gdańsk Gulf. The interviewee recalls that in the 70's the algae were more ubiquitous in the Baltic Sea.

Q7b. Have these changes had an impact on XX? (in what way?) No.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

The interviewee's opinions refer mainly to the situation of fishing industry, so he emphasizes the relations between the fishermen and government, which are essential for the development of this industry. Recent political decisions have had a ruinous influence on fishing.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

He couldn't name such factors in the context of fishing as well as in the context of tourism.

Q9. Do you think XX has any impact on the marine environment? It would have an influence, if the Baltic Sea was overfished. "But it's not" – says the interviewee.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

No.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

It's difficult to think of such activities in fishing industry.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"It is difficult or even impossible to introduce some real changes which would help the environment. There should be a system of penalties and harsher law which would force e.g. to utilize waste and not dump it." Moreover, the interviewee regards fishing as a symbol which promotes Pomerania.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

It causes more storms which, on one hand are beneficial for the environment but temporarily slow fishing down.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It has no influence on fishing and the interviewee doesn't think it would be important for the tourism.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It may have an impact, because this kind of pollution causes damages of the equipment.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

This factor is essential for the branch, so the impact is obvious.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

The tourists are aware of some environmental problems, but mainly of those visible ones. In other cases, social consciousness is rather low. He gives an example of dunes which are damaged, despite the fact that walking there is forbidden. He also mentions bottles and cigarette butts on the beaches.

QC2.1. Which fish species are the most important for recreational fishing? The interviewee mentions cods and also herrings and salmons as species which are the most important for fishing.

INTERVIEW WITH AN AMATEUR ANGLER, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

The interviewee is a retired soldier, but he is also an angler and lives in Pomerania.

Q1b. For how long have you been involved with XX?

He has been angling and taking part in some angling events for 20 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

He describes mainly the tourists who are interested in recreational fishing or angling. These are all types of people (mainly men) who come in groups of 10-15 people, together with their friends or co-workers.

Q3. In general, how has the activity in XX developed during the last 30 years?

This branch is developing rapidly. The interviewee gives examples of fishing lures used by the tourists and better quality of their equipment.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The interviewee doesn't talk about any trend in the environmental changes. He only gives examples of different changes, both positive and negative – e.g. he mentions the presence of some hazardous substances at the bottom of the sea but also the presence of some new fish species which possibly require clearer water.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

Yes.

Q5a. By what problems was/is XX affected?

The interviewee doesn't precisely name the problems, he only gives examples of some situations which he had heard of and which may be evidence for the influence of the environmental changes on tourism. All of the examples refer to presence of some hazardous substances, water pollution and oil.

Q5b. How was/is XX affected by these problems?

There can be a decrease in the number of fish caught because of some oil stains or toxic gases left at the bottom of the sea.

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

When asked about trend, he rather emphasizes the constant growth of all of the branches of tourism in Pomerania which is not significantly affected by the environment.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

2	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
1	Decline of the stocks of some important fish species
	Oil spills from ships and other installations
3	Presence of hazardous substances in the sea
4	Litter in the water and on the beaches
5	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

Human beings bear the full responsibility for pollution and degrading the environment, because only natural processes would sustain the balance, but it's the activity of people what makes it unstable.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Q6a. Why has XX not been affected?

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

"It looks like the beaches and the water is cleaner. It's probably because the local authorities take care of it."

Q7b. Have these changes had an impact on XX? (in what way?) No.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Definitely the weather is the most important factor for all kinds of tourists. More sunny days imply more people here and more money. And it is easily observable. On the other hand, he concludes that "it depends on the people" and that sometimes they are not so sensitive to weather conditions.

Q8b. How do marine environmental factors rank in importance compared to other factors?

The interviewee couldn't rank those factors, because it looks like that he is only aware of some situations from the past which are examples of some ecological problems in the context of tourism or industry, but he doesn't think of them as influential in general.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

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Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Only the weather, which influences the tourists' behaviour and angling conditions. He also proves that local presence of some fish species is also dependent on the weather conditions, so angling is affected by them too.

Q9. Do you think XX has any impact on the marine environment? It definitely doesn't cause damages. The situation when the all fishing smacks stay in port is undoubtedly more harmful.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

When asked about individual fisherman's activity, the interviewee says that hopefully, it doesn't have much impact on the environment and nowadays, some old vessels are being scrapped.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

It would be good to create a kind of club or association for anglers. However, he doubts if any individual behaviour could have a real impact on the environmental situation.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

Poland should definitely take care of the water quality. He suggests that more controls and interest in local issues would be helpful. He also mentions the need of increasing social awareness and providing the public with more information about such problems.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"It is a real threat and such changes are already happening in the Spitsbergen and they will take place in this area as well."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

The interviewee mentions the presence of sewage treatment plants, but he also stresses large amounts of components which are essential in this context, e.g. detergents.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

The influence is increasing, but there are also some steps undertaken to diminish this impact, e.g. the helicopter which is controlling the quality of water and beaches

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

Asked about this factor, the interviewee points out that recreational fishing is a constantly developing branch for amateurs, so probably the influence of this factor isn't very strong.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

It is too difficult for the interviewee to say if the tourists have any knowledge about such issues or not.

Boating, water equipment and water sports

INTERVIEW WITH MR PAWEŁ GOSTKOWSKI FROM "JUNGA" SAILING SCHOOL, GDYNIA, 2008-04-11

Q1a. What is your job and how are you involved in XX?

I work in a sailing school for children, youngsters and adults. We prepare them for independent yacht steering, after acquiring the helmsman certificate.

Q1b. For how long have you been involved with XX? Since 2000.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mainly adults, last-years students. But we have also an offer for children between 10 and 14.

Q3. In general, how has the activity in XX developed during the last 30 years?

Mr Gostkowski noticed stagnancy and then the development of sailing in late 90's. From 2000 the branch is growing, especially some new private firms and schools appear.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The interviewee claims that about ten years ago there have been no cyanobacteria in the Baltic Sea and didn't hear about the problem of blooms in the Gulf of Gdańsk. There were also no round gobies [Lat. *Neogobius Melanostomus*] which are now numerous in Baltic. He has also observed some new fish species.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"No, it may have an influence on tourists, but rather on those who rest on the coast and not those who sail. Even if there are algae and blooms, it doesn't affect sailing. When the customers are interested in a sailing course, they don't ask about the water pollution."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

3	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
	Oil spills from ships and other installations
	Presence of hazardous substances in the sea
1	Litter in the water and on the beaches
2	Presence of ship-wrecks and other dangerous obstacles
	Other (describe) temperature changes

In sailing it would be better to have no shipwrecks. And the rest isn't important at all.

Mr Gostkowski regards also the temperature changes as worth mentioning. It lengthens the season from year to year. "Some time ago it was impossible to sail in March and nowadays it is" – he adds.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

He doesn't know but he suspects that it's a large industry.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Mr Gostkowski says that it's impossible to estimate measurable damages over a couple of years, but if the Gulf of Gdańsk will be commonly regarded as eutrophicated and less attractive then the open sea, it may have some negative consequences in the long run.

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

"I think that more resistant because generally it's all about the sun and the wind".

Q6a. Why has XX not been affected?

"Maybe because the Baltic waters have been always considered as unfriendly to swim. Bathing in the sea is more important in the southern countries. And the contamination doesn't have a direct influence on the quality of sailing."

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

"No, also rather not."

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The interviewee says that he is not sure but he heard that some years ago, the Baltic shores were more polluted – the beaches were contaminated, swimming was prohibited and the beaches were closed in Sopot or Jelitkowo and now it doesn't happen, but these conclusions refer only to stationary tourism.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

He thinks that it's the enrichment of society what influences sailing mostly, because it implies that more money is spent on recreation and not only on basic necessities of life.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

"I would give them 4 points"- says Mr Gostkowski. "But rather in the long run, because if there is a constant tendency of increasing pollution and people know about it, it's obvious that the whole region will suffer."

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The interviewee points out the climate changes – i.e. milder winters and cooler summers than in the past – the climate according to him would be more temperate.

Q9. Do you think XX has any impact on the marine environment?

Mr Gostkowski doubts if sailing has any impact on the environment. That is because the marine tourist activity is minimal, even when both the sailing boats and the motor boats are taken into account. However, he suspects that the windsurfers and motor boats in the Puck Bay may have an influence on the ecosystem – e.g. they scare the Harbour Porpoises (Lat. *Phocoena Phocoena*) or the seals which

would like to lie on the beaches. In the Gulf of Gdańsk and the open sea the influence can be seen only in ports and marinas.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

"Yes, especially the awareness in a sense that people should inform about the oil stains on the Baltic surface, not only steer clear of them. And also that they shouldn't let off the bilge waters, which are contaminated with petroleum, to marinas. Such activities may have an impact on the incomes in the long run".

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

Mr Gostkowski says that this issue is beyond him and there are too many factors which are significant. He states, however, increasing the efficiency of the sewage treatment plants as the important measure to be undertaken.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"It may have a vast influence, although not perceptible in the next couple of years. In other words, it may be difficult to predict but it arouses anxiety."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

"It would have the biggest influence, it's noticeable – and it's generally the lack of oxygen in Baltic. I don't know how to deal with it, but I would give it about 70% of significance."

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

The interviewee describes the common fear of an ecological catastrophe, but the threat is minimal since there is much effort made to prevent such disasters – there is an anti-collision system, the ships are traced by VShip – an institution which monitors the maritime traffic. It is well-organized and the only thing to do is to obey the existing rules.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

"I don't have knowledge about it but I would say that it should be extended. I don't know if it's possible and what are the fish supplies but I would prefer hundreds of small fishermen to have a job than a trawler to catch tons of cods."

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

Mr Gostkowski thinks that they have some knowledge about it but they don't link it to the services that they are interested in. They underestimate these problems, because only the weather and some free time are the things that count. It would be favourable to introduce some lessons at schools, especially in Gdańsk which would help to awake ecological awareness in children.

- QC3.1. How important are the possibilities for recreational fisheries for boating?
- QC3.2. What are the most important environmental problems of XX?
- QC3.3. How sensitive are the water sports tourists to the water pollution?

INTERVIEW WITH MR OSKAR KUBICKI, AN EMPLOYEE OF A WATER SPORTS SCHHOL IN THE HEL PENINSULA, GDYNIA, 2008-04-11

Q1a. What is your job and how are you involved in XX?

"I am an employee of a windusrfing and kitesurfing school in Hel Peninsula, at one of the many camping sites there, between Chałupy and Władysławowo. We organize courses in the Puck Bay. And I come from Gdynia, so it is also my connection with the Baltic Sea. "

Q1b. For how long have you been involved with XX?

"I was born in Gdynia, I have been surfing for 7 years and I have been connected with this school for the same period of time."

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mr Kubicki emphasizes that some time ago it depended on the financial status, and sport seemed to be expensive in general. Nowadays the group of clients is wider thanks to society enrichment. The school introduces some new offers, like camps with a twenty-four hour pedagogical care provided to younger students. The clients are 10 to 50-60 years old and the adults don't have to be managers, as it used to be.

Q3. In general, how has the activity in XX developed during the last 30 years?

"Yes, it is related to the fact that the society gets richer and there are more people interested in such way of recreation. Higher earnings enable Poles to spend even only weekends in the Peninsula. This is such an attractive and trendy place that even people from Gdańsk come for a couple of days.

And also riding on personal water crafts or Jet-Skis in a short distance form the shore is forbidden. Some time ago it was obvious that the PWC were mostly rentals, but now many people own one."

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Mr Kubicki refers to his experience and concludes that the water is cleaner both in the Baltic Sea and in the Gulf of Gdańsk than 10 years ago. There are some algae, their presence depends on the temperature. Sometimes there are cyanobacteria, but he claims that it's more frequent on the open sea than in the Gulf. He also hears about the closure of Sopot beaches from time to time.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

The interviewee thinks that there is no relation between the environmental changes and the tourists' behaviour. "People don't think about cyanobacteria, but rather about the weather and if the weather is good, they decide to come, but if it's not,

they can change their plans". But he also mentions a group of people who have their own apartments or houses in the Peninsula and they come irrespective of weather conditions. He concludes that water sports aren't influenced by the environmental problems but rather by weather. "I can't remember any situation when the bay was closed for surfers because of the contaminations. Only sometimes, when people see the algae, it isn't very pleasant for them, but they still decide to stay."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years $(1 - most\ severe,\ 7 - least\ severe)$

1	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
	Oil spills from ships and other installations
	Presence of hazardous substances in the sea
1	Litter in the water and on the beaches
	Presence of ship-wrecks and other dangerous obstakles
	Other (describe) vanishing dunes, narrowing beaches

Those are visible.

The tourists have rarely heard about the declining stocks of fish and they don't have much knowledge about fish species. And the same is with the lack of oxygen. Presence of shipwrecks can be only an attraction for the divers. And the hazardous substances may be a problem if the information is spread.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

"I think that we are all responsible for damaging the environment, because everyone does it – on purpose or not. And it's related to the free market – everyone would like to make money."

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Mr Kubicki hesitates if it's possible to state it explicitly, because all of the tourist branches are firmly linked and a breakdown in one of them might result in losses in other branches.

Q6a. Why has XX not been affected?

"It just depends on the people."

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

"Thinking about the example of beach closure in Sopot: on the one hand, the water sports suffer in such a situation, but on the other hand, the tourists easily choose other types of entertainment and other services benefit from that."

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

"Cleaner water and beaches, the sand is very nice now."- says Mr Kubicki. "I travel a lot and if the weather was similar to Mediterranean, we wouldn't lag behind those countries."

Q7b. Have these changes had an impact on XX? (in what way?)

Mr Kubicki claims that they have, but it depends on the availability of information – if the media discuss the problems or comment the improvements, people get more sensitive to such issues. Still, however, they are less important than the weather and fashion.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

"Economic and social factors are essential. By social, I mean trends and fashions, because it is the people who stimulate the economy and the markets. And economic – I mean the enriching the society."

Q8b. How do marine environmental factors rank in importance compared to other factors?

They are not so important.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

"Thinking of a situation when there are many blooms and litter and the beaches are very contaminated, those factors could get 4 points."

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Mr Kubicki mentions only the presence of iodine, which healing qualities might be mythical. However, it attracts many tourists.

Q9. Do you think XX has any impact on the marine environment?

"Wind-driven equipment doesn't have any influence, maybe just the number of windsurfers may scare the fish and in this way disrupt the nature's balance. But the presence of motor boats or PWC in the Gulf has a negative effect. Fortunately, the tourists who enjoy water sports are rather reasonable and don't drop litter."

Q9a. Do you think your personal professional activity has any impact on the marine environment?

"The activity of an individual no, but in groups – yes, it has. If there was only one school, there wouldn't be so many tourists in the Peninsula"

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

Mr Kubicki says that his school tries to take care of the area around the camping by cleaning the beaches and picking up the litter. He advises the tourists to follow, because it is an easy, effective and cheap way of diminishing the consequences of human activity.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

He thinks that it would be profitable to reduce the number of estates being constructed in the Peninsula or to define the construction materials more precisely. It could be only wooden and not concrete houses. A sewage system in the whole Peninsula would be also necessary. He also marks that there are some problems with enforcing the law.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"Warming is definitely positive – it results in a higher number of sunny days, but the rise of the water level can possibly make the Peninsula disappear, because its minimal width now is only 80 metres."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

"If such changes were significant, the tourists would rather choose Egypt or Greece for their holidays because of cleaner and warmer water".

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

"It may have an influence if it is visible"

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

Mr Kubicki says that it would not be noticeable for the tourists, since frozen fish has to be used in the summer now anyway.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

The awareness of environmental issues depends on age, education and some general knowledge about the environment. For some people it is obvious, because they have been brought up with respect for nature or their job is strictly connected with marine environment.

QC3.3. How sensitive are the water sports tourists to the water pollution? "It really depends on the people. Part of them would change their plans and the others would stick with it."

INTERVIEW WITH MR SEBASTIAN POPEK, A WRECK DIVER, GDYNIA, 2008-04-11

Q1a. What is your job and how are you involved in XX?

"My connection with the tourism industry is twofold. I am a boatman – I carry people to the wrecks (those which are accessible for the tourists i.e. are on the list of Maritime Office in Gdynia). And secondly, I am a diving instructor."

Q1b. For how long have you been involved with XX?

"I have been a boatman for 3 years, a diving trainer for 2,5, but I have been diving for almost 13 years now."

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mr Popek says that the clients are people in every age, from 16 to 50-60. It depends on who is the organizer of such a cruise, but there are mainly groups from diving schools or diving centres which come with their students. We rarely have individual clients.

Q3. In general, how has the activity in XX developed during the last 30 years?

The activity is increasing significantly year by year. Two or three years ago, the main ports for divers were Jastarnia and Hel, but wreck diving in Gdynia has developed very rapidly. The Maritime Office in Gdynia collects statistics from each port and in some of them it is even over 200% increase in the number of departures.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

"For me, it hasn't changed much"- says Mr Popek. "But I observe some new species in Baltic. For example, Comb Jellies (Lat. *Ctenophora*) which appeared last year. And also crabs and small shrimps on some of the wrecks, mostly on the shallow ones, where there is more light."

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"No. Shipwreck diving is at such a stage of development that it is very attractive despite some inconveniences. Probably in some time, in 10 or 15 years, the clients will become more demanding about the services, but now they just come for new experiences. Real Polish wreck diving began in 1997 or 1998."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years $(1 - most\ severe,\ 7 - least\ severe)$

2	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
	Decline of the stocks of some important fish species
	Oil spills from ships and other installations
	Presence of hazardous substances in the sea
	Litter in the water and on the beaches
1	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

Presence of wrecks is pivotal for the branch, because people don't dive to see the fish, because in many cases there aren't any to see, only the round gobies and the cods, sometimes a flounder, rarely an eel.

The blooms are also influential because of the following relation: if the winter was mild (like this year), the visibility will be worse during the warmer months. Two years ago or last year, the winter was harsh and ended in April and the good visibility lasted until the end of June. The rest of the listed issues have little or no impact.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

The interviewee can's say for sure, because he doesn't have knowledge about the sewage treatment plants on the coast. He is, however, certain that there are less species and that recently some new, unusual species appeared, like comb jellies, crabs or shrimps. On the other hand, everyone says that the presence of these species in Baltic is a proof of an improvement in water quality.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Mr Popek doubts if it's possible to estimate the damages nowadays. In such a young branch of tourism, there is no reference point – the number of people interested in such way of spending their time is growing year by year and it is impossible to say about a change for the worse. And the development is also a result of a higher number of wrecks available for tourists.

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

"I think it's resistant to such changes, but it's sensitive to weather conditions. Weather is the biggest problem in wreck diving in Poland. Some people travel hundreds of kilometres just to hear that the trip is impossible because of a strong wind." The interviewee notices that recently there have been more windy days and wonders if it's just a coincidence or rather a result of the climate factors.

Q6a. Why has XX not been affected?

"This branch is too young and the market isn't saturated yet. Shipwreck diving in Poland is still regarded as one of the biggest challenges in diving in general and an unforgettable experience. As long as such people will be eager to try it, the business will develop, but if the clients start to fuss at the wrecks' positions, it will force some equipment changes and innovations from us." He is aware that the diving circle in Poland is used to low visibility and gives an example that the visibility at the same position can reach 40-50 meters in winter months and 20-30 centimetres in the other. He concludes that nothing can be done with it.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

Mr Popek can't think of any.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

The interviewee notices the specificity of this type of diving and names the availability of the wrecks as an obvious, but the most important factor. Each year there are new wrecks being found – especially west from Leba. Another factor is the safety on the wrecks – i.e. the presence of hazardous substances.

He also mentions legal problems as a difficulty for this industry – there is no concept how to regulate wreck diving. "There is a number of onerous duties, e.g. reporting a list of participants with their personal data to the boatswain. Some time ago, it was even obligatory to write applications to visit the wrecks. Sometimes the boatswain interpreted the regulations differently and we couldn't sail out."

The last factor he lists is the prices of fuel which have increased by 30-40% since last year.

Q8b. How do marine environmental factors rank in importance compared to other factors?

"There are wrecks where the environmental factors matters a lot, e.g. some positions are forbidden because of the leakage of fuel and such wrecks are threatening. Two years ago, together with the Maritime Office, we conducted research on the leakages and pollution of the bottom of the sea around the wrecks. It has to be remembered that there will always be a slight pollution, because the ships didn't drown without any liquids, but sometimes it is more widespread."

Mr Popek concludes that in general, ecology is one of the smallest problems in diving. He points out the presence of fishing nets on wrecks, which are one of the most serious dangers for the divers. The nets cannot be drawn out and many cods live there.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

It's not so important, but it's difficult to rank.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?

The changes in the maritime environment aren't as important for the divers as for other groups of tourists. The latter are more sensitive to contaminated beaches, litter or polluted water. Mr Popek says that this part of the Baltic Sea and the Gulf are well-monitored by Maritime Office, Border Guard and also the diving environment is responsive to such issues. These are mainly people who spent their lives by the sea and are aware of the damages in natural resources.

Q9. Do you think XX has any impact on the marine environment?

The interviewee presumes that wreck diving may have an influence on the environment, but mainly because of inexperienced divers who degrade the wrecks and open the containers or loadings.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

"As an individual no, but maybe the activity of the people who dive with us. Every year we take about 200-300 people, so it is impossible that nothing happens. The wrecks are shelters for some fish species, mainly cod and the eel, so if there are many divers, the fish won't feed there. It is observable particularly in the early spring, when there is plenty of cods, but in the summer they move to the deeper parts. Maybe it is a result of the warming up of the water, but probably the divers are also the cause of this movement."

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

Mr Popek informs that a few years ago they have founded the Baltic Wrecks Society, which searches for some new wrecks and cooperates with Maritime Office and the Polish Navy. This year, they plan to mark the wrecks with buoys which will make the positions visible and create a safe way to get down to the wreck. Nowadays the boats moor to the wreck and it degrades the underwater environment.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

The interviewee marks out two major measures. These are: simplification of the law and radical tightening of the regulations. The first could be based on an English example – only the position to which we are heading would have to be reported for safety reasons and the organizer bears responsibility for the rest. The second would require introducing penalties for degrading the wrecks – sometimes the tourists dismantle some parts (e.g. portholes or compasses) and the organizers are obligated to react. The punishments would motivate them to some more definitive responses.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"Does it exist? I wouldn't be so sure about that. Ten years ago everyone was grumbling about the harsh winters, sixty years ago the Gulf used to be frozen over, five years ago it was snowing for a couple of days and two years ago the snow was lying from December to April, so I am not sure if it was an anomaly or if it is just the way it is."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

Mr Popek is certain that it will be more influential in the future. In his opinion, it causes two problems. The first is lower visibility. Apart from that, it will discourage the families from coming. The divers will still come, because presence of algae on the beaches doesn't matter for them, but their wives and children will choose some different places to spend holidays, so the changes will be rather perceptible for other segments of tourism.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

"Nowadays it is not a problem, because there is regular supervising and also it happens far on the open sea, while we dive closer to the shore, but if it intensifies, we will not dive in such places, because of the possible health consequences and the probable damages of the equipment."

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

Mr Popek claims that it will have a beneficial impact for wreck diving. "The fist consequence will be the increase of the number of fish around the wrecks. Sometimes we can see the same specimens for a few years. And the next thing is that there will be less dangerous fishing nets."

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

"Some of them are aware, but those are mainly the people who are somehow connected with the sea (by their life or work). Unfortunately, for many divers, visiting wrecks is like collecting trophies. They aren't interested in the history or some detailed information. And that is why they don't bother if they scare the fish or degrade the wreck and they don't think if they cause some more pollution. We cannot generalize, because there are many careful tourists who are conscious of their activity, but the majority behaves in a different way. We have recently decided to make an introduction for the tourists in order to call their attention to some important issues."

INTERVIEW WITH MRS BARBARA STANIEWICZ-ZALEWSKA, OWNER OF THE "BŁĘKITNY PIOTRUŚ" SAILING AGENCY, GDAŃSK, 2008-04-11

Q1a. What is your job and how are you involved in XX?

"Our agency organizes water rest, inter alia in Masuria, but also the on the Gulf of Gdańsk and the Baltic Sea."

Q1b. For how long have you been involved with XX? For 9 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mrs Staniewicz-Zalewska says: "Firstly, they can be divided into age groups: youngsters and adults. Young people and children are choosing this way of recreation under pressure of their parents who e.g. also sail. Or they don't sail and would like their child to be more outgoing and open than they are. And there is also this group of more conscious tourists – these are adults who consciously choose this way of spending time, i.e. water, yacht, coastal environment or the gulf cities."

Q3. In general, how has the activity in XX developed during the last 30 years?

Mrs Staniewicz-Zalewska describes the situation in sailing both from her personal and professional experience and she emphasizes the changes in general availability of such forms of recreation. She says: "It used to be completely different – the availability of the coastal base-ports, sanitary or technical infrastructure or the equipment or accommodation base. It is all developing and more people enjoy this way of recreation. We are talking here about the Baltic Sea, but it's similar in other regions of Poland. When there is demand and interest, the base is being created and more tourists come."

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The interviewee hasn't bathed in Baltic for 25 years for health reasons and is not convinced about the good bathing conditions. She mentions that "on the coast, we frequently get some signals that the beaches are closed because of cyanobacteria." She has, however, noticed an improvement in the environment care over the last three or four years. "It can be seen that there are more dustbins, the beaches are being cleaned." It's obvious for her that some of the environmental changes are permanent, but the local authorities' efforts to reduce them are noticeable.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

These environmental problems don't have any direct influence on water sports, especially on sailing, because it is a completely different way of recreation. "But it

definitely has an impact on stationary tourists." Mrs Staniewicz-Zalewska observes the development of sailing tourism and tourism in general. Some examples of the development are the improving conditions of the sanitation, increasing number of dustbins and water analysis by *Sanepid*. Such activities increase the ecological consciousness of tourists who become more willing to come if they are sure that they can use these conveniences.

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

"There is an increase in the number of tourists and an increase of interest in sailing but it is related to the improving infrastructure and port adaptation – especially places where throwing out the rubbish or pouring out the refuse is possible. Without such adjustments, Polish coast is unattractive for yachtsmen and they choose to sail to Sweden or Norway." Mrs Staniewicz-Zalewska hopes that Polish sailing will achieve higher standards, because it is still not too attractive. In general, the awareness is increasing.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

"In general, we have not noticed that e.g. the clients call us and cancel their cruises when they hear information about closing parts of the coast. They don't associate the pollution with a particular place. This would have an effect on people who come to stay here for some time, whereas sailing tourism is not influenced by such problems."

Q5e. Please rank the problems starting with the most severe one for XX in the last few years $(1 - most\ severe, 7 - least\ severe)$

2	Algae blooms
	Lack of oxygen in some bottom layers of the Baltic Sea
4	Decline of the stocks of some important fish species
1	Oil spills from ships and other installations
1	Presence of hazardous substances in the sea
3	Litter in the water and on the beaches
	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

The interviewee ranked problems for tourism in general (not only for cruises). "Mere mortals have no idea about the lack of oxygen. And the presence of shipwrecks is rather an attraction and it encourages the divers to come."

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

The interviewee thinks that what is the most necessary is the sustained work of the whole society. "Beginning with the national institutions, in cooperation with international organizations, social associations and foundations – if there is an information campaign launched, it has an influence on everyone. If it is made accessibly and constantly, it will have a reflection in our activity." She is certain that we all bear responsibility for the environment, but the authorities' job is to raise awareness of these problems.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

In general, in case of tourism, the losses are connected with the tourists' decisions not to come. However, Mrs Staniewicz-Zalewska points out the specificity of tourism law, which implies that the organizer doesn't bear responsibility for the forces of nature. "If there is an oil spill and it's a cause why somebody cannot participate in a cruise organized by me, I don't bear the direct responsibility for this and it's not me who indemnifies them for it. That is why it is difficult to estimate the damages. It also depends on the current prices etc."

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Yes (more resistant).

Q6a. Why has XX not been affected?

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The interviewee stresses that the positive changes result from the improvement of the social awareness and also from the activity of local authorities. These imply that the beaches are becoming cleaner and prepared for the tourists. "And the second change is that the incidents of beach closures are less frequent".

Q7b. Have these changes had an impact on XX? (in what way?) It is once again emphasized that it has an impact on infrastructure – the ports are better prepared for the yachtsmen.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

Mrs Staniewicz-Zalewska regrets that one of the most important factors are the regulations, which aren't clear and change very often just before or during the season. The industry's rapid adjustments are constrained, because they are not always possible, since they would require investing in equipment which is always costly and durable.

Asked about some positive influence, she named the society enrichment as an influential factor. "The fact that the society has more money implies that more people are looking for a way of spending time which is exclusive and only for people who own a yacht."

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

"These would get 2 or 3 points"

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

It is stressed that the tourists prefer "cleaner" and more natural regions in general, so the general pollution of a region may be significant. Mrs Staniewicz-Zalewska mentions the case of Sopot which is so attractive because of being a health-spa resort. The "star" of a resort is what magnetizes people. Gdańsk is also a city by the sea but doesn't have this status and, in opinion of the interviewee, maybe that is why it is less crowded by the tourists.

Q9. Do you think XX has any impact on the marine environment?

"I think that sailing has a strong impact, because it's a human influence on the environment. We can contaminate the environment with everything. There is no possibility to deal with the sewage on a yacht, so there must be a possibility to leave the sewage, the faeces and the oils in a proper place in port. If there is no such possibility or when the containers are full and the yacht is far away from a delivery point, the containers are sometimes being emptied in the sea."

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Mrs Staniewicz-Zalewska notices that sailing is not just a couple of yachts. Polish fleet is not so big, compared to other European ones, but there are thousands of yachts in Europe, so it's easy to multiply and count the possible effects, assuming that each yacht has a water container of e.g. 300 litres.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

The interviewee reports that there are some initiatives undertaken both by the sailing or tourism associations and the ministry, to develop the region.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"The basic action is informing the society. And it is necessary to introduce penalties for dumping the waste in the sea, because it's effective in other countries. This is, however, possible only when special places in ports will be created."

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

Mrs Staniewicz-Zalewska underlines two sides of this change. "It is better for tourists who will be encouraged to come here for warmer holidays, but on the other hand, there is also this negative effect."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

She sees a probable negative effect on tourism development in the future.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

"Definitely yes – it's noticeable when there is information even about one tanker, that people become uneasy about that."

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

"It's hard to say if it has any influence".

QC1.1. Compare the effects of filamentous algae and cyanobacterial blooms. Which one of these has the most severe effects on beach tourism and profits?

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

Mrs Staniewicz-Zalewska thinks that the tourists aren't aware of the environmental problems – they don't have any knowledge about them and they don't realize it.

She watched some people who had decided to bathe in the sea in spite of *Sanepid* warnings many times. They justified bathing by saying that this was what they had come for.

Cruises and organized sea voyages

INTERVIEW WITH MR JAROSŁAW KIRSZLING, ORGANIZER OF RECREATIONAL FISHING CRUISES, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

"I organize recreational angling cruises and short sea voyages along the Baltic shores. I am also engaged in fishery."

Q1b. For how long have you been involved with XX?

"I have been organizing the cruises for tourists and fishery for 15 years and recreational fishing for 8 years."

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

Mr Kirszling divides the clients into two groups- the first are well-off businessmen or managers. The second group is not so rich companies' employees who use the social funds or their own savings. Another way of classifying the tourists takes their consciousness into account. These are fishing fans and pothunters. The first are aware that it isn't always possible to catch a fish and just the activity of fishing gives them pleasure. The latter are like conquerors and it is never enough for them.

Q3. In general, how has the activity in XX developed during the last 30 years?

It is a completely new branch, because some regulations of the former political system precluded its development. Fortunately, it has become possible for the last 12 years. Years 2000-2005 have seen a rapid development in recreational fishing, but now the trend is rather reversed. Mr Kirszling couldn't decide if it is a result of lack of interest or an increase in the number of vessels.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Firstly, water quality has improved. Secondly, there appeared fish species which have been absent for a long time. The significant improvement is due to the increase in the number of sewage treatment plants. The new species are: twait shad [Lat. *Alosa Fallax*], allis shad [Lat. *Alosa Alosa*], mackerel, some fresh-water fish, zander and Barbus barbus (the latter in the Gulf). And also trout, which appear due to stocking. The presence of twait shads is a proof of cleaner water.

Mr Kirszling recalls that 20 years ago he used to see bits of oil on the beaches, which came from bilge water. It stuck to feet or shoes, but the consequences for the waterfowl were fatal.

Another thing mentioned by the interviewee is the contamination of beaches with litter and troubling lack of portable toilets.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"Nowadays the situation is better. When I think about my school years, there has been a tremendous improvement of the water conditions and visibility. That is due to the sewage treatment and the Marpol convention."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

It is difficult to say but I think that the influence is more negative than it was in the past.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

The interviewee only said that the number of tourists is increasing and that one of the Baltic's advantages is low salinity.

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

·
Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (describe)

"I think that none of these. Algae blooms are not a problem for me to bathe – I don't know why, but I have never had any skin diseases. The lack of oxygen may be a problem for fish stock in the Baltic Sea, but not for the tourism. The last inflow was in 2003. The main factor that matters is the weather. And maybe the algae, but only a little."

Mr Kirszling also mentions some cases of burns caused by mustard gas which had taken place dozen years ago.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

Municipal authorities are responsible for the changes on the beaches, not in the sea. The beaches are not being cleaned up, although the city has bought a beach-

cleaning machine which could sieve the sand. The litter become visible in autumn and in winter, during the storms, when the wind uncovers it.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

"It's hard to say, because the fishing results are satisfactory, but the size of fish in Baltic is diminishing."

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

The interviewee sums up that all these problems mentioned above don't have a direct influence on recreational fishing.

Q6a. Why has XX not been affected?

"It seems that these problems are not perceptible for this group of tourists."

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The improvement of water quality, as mentioned earlier. Apart from that, Mr Kirszling claims that he can tell from the looks of the sand, that the quality of environment is increasing.

Q7b. Have these changes had an impact on XX? (in what way?)

"Yes, I think that when the water was dirtier, people were really reluctant to bathe in the sea. Such behaviour was more visible in the Gdańsk Bay."

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

The interviewee recalls some experiences that the fishermen shared with him and one of the factors they had named was lack of fish in freshwater and a desire to take part in a new adventure.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

They wouldn't get any points.

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The only issue that the interviewee can list is an unpleasant smell which is diffused between Władysławowo and Swarzewo [close to the sewage treatment plant]. It may influence the tourists' moods, especially in the summer when they are stuck in the traffic jams near Władysławowo.

Q9. Do you think XX has any impact on the marine environment?

"No, because each vessel has special containers for sewage and dropping litter into the sea is forbidden." Besides, the vast majority of fishermen, according to the interviewee, are fully aware of the environmental problems.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

No, such activity should take place in mass media and schools.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

Firstly, bars and pubs on the beach should be definitely banned. The number of portable toilets has to be increased. And the amount of plastic garbage has to be diminished.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"It will definitely result in a change of stock of cod, because of migrations of fish (e.g. sprats which follow colder waters) can be already observed." – says Mr Kirszling.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

If the level of this factor is as it had been before, it will not have an impact on tourism development.

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

"It is difficult to comment on the last two points, because over a half of Polish fleet has been recently scrapped and there are plans to continue this process. It is also impossible to make a living of fishing." – says the interviewee.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

The tourists are aware only of the issues that are visible, i.e. the algae, but they still don't have knowledge about such occurrences. And only the fishermen know about the lack of oxygen in Baltic, because it has some clear consequences for their activity.

- QC2.1. Which fish species are the most important for recreational fishing? "Only cod. Sometimes there is salmon, but mainly cod."
- QC2.2. How important is the stock of cod compared to other fish species? "I could say that it's 99,99% for cod."
- QC2.3. Which changes make it more difficult and which make it impossible to run your business?

"Of course, water and environment pollution could make it impossible to fish, but it would have to be really serious, e.g. the water would have to emit an unpleasant odour."

INTERVIEW WITH A TUGBOAT OPERATOR, WŁADYSŁAWOWO, 2008-04-12

Q1a. What is your job and how are you involved in XX?

The interviewee has had many jobs connected with fishing or shipping. Now, he's a tugboat operator in Władysławowo.

Q1b. For how long have you been involved with XX? About 40 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

All kinds of tourists visit Pomerania, mainly people from Poland.

Q3. In general, how has the activity in XX developed during the last 30 years?

The number of tourists is growing and the infrastructure is being developed in this region.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

The water is cleaner, especially in the Gdańsk Gulf. The interviewee emphasizes the significance of sewage treatment plants on the coast. In the 60's there used to be a fishmeal plant and the waste produced by it made it impossible to bathe in the sea nearby.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

The interviewee names numerous changes both in the marine, as well as in the maritime environment, but he doesn't notice any significant relationship between them and the development of tourism.

- Q5a. By what problems was/is XX affected?
- Q5b. How was/is XX affected by these problems?
- Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)
- Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (describe)

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

"Some of the changes are natural, like e.g. the blooms. The tourists are responsible for litter, the plants are responsible for the pollution, the authorities – for lack of regulations and also history – for the presence of wrecks and hazardous substances." Thus, the interviewee lists many problems which have various reasons and particular groups of people bear the responsibility for dealing with them.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Q6a. Why has XX not been affected?

The weather is mainly what the tourists take into account.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The quality of water has improved and the water clarity is significantly better due to the sewage treatment plants. There are also new fish species (e.g. round goby (Lat. *Neogobius Melanostomus*) or garfish).

Q7b. Have these changes had an impact on XX? (in what way?) No.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

The interviewee mentions the weather and development of infrastructure as the most significant factors.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The well-developed sewerage has a positive effect

Q9. Do you think XX has any impact on the marine environment?

The tourists become more aware of the environmental problems, but still they drop litter and cause water pollution. It is also impossible to eliminate contaminations produced by the industry.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

Everyone should take care of the environment, but the activity of the authorities will definitely have more positive and stronger influence.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

The interviewee names numerous steps which refer to various issues. Firstly, he emphasizes the need to continue to clean the water (i.e. more sewage treatment plants using more modern technologies). Secondly, some information campaign about the environmental changes and the consequences of human activity are necessary and also enforcing everyone to obey the law would be helpful. Moreover, the authorities should undertake some steps in order to protect the nature (e.g. narrowing beaches or eroded cliffs).

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

The climate changes are visible now and will probably have an influence on tourism and generally on people's activity in the region. The Hel Peninsula is narrowing. The Gulf used to freeze over in the winter. It is all caused by the development of civilization.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It's difficult to say if there are more or less algae. Nevertheless, the blooms are rather fleeting and not so noticeable by tourists. The interviewee also doubts if it has a negative influence on health according to his personal experience.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It is potentially the biggest threat for the whole region. 95% of the inhabitants are involved in tourism and there is no industry, so it would be a disaster for everyone. The interviewee also mentions the ship wrecks with oil or some hazardous substances, as well as the pipeline, which is also a danger.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

He doesn't know.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

They become more aware of the problems, but it is impossible to educate all, so the litter on the beaches is still visible.

Real estate agents familiar with coast properties market

INTERVIEW WITH MRS KAROLINA LEŚNIEWSKA, EMPLOYEE OF THE ZALESKI ESTATE AGENT, GDAŃSK, 2008-04-11

Q1a. What is your job and how are you involved in XX?

"Our agency is engaged in selling and renting apartments and premises, houses, lots and commercial buildings, so our sphere of activity is rather broad."

Q1b. For how long have you been involved with XX? For 7 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

"It depends on the estate market segments – the clients are ordinary people (who buy or rent apartments or lots) as well as companies which search for appropriate premises."

Q3. In general, how has the activity in XX developed during the last 30 years?

"There was rather a stagnancy in real estate market in years 2000-2002, but after that it started to expand since the credits became more available and years 2006 and 2007 can be described as a real estate market boom."

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

Mrs Leśniewska considers all the changes in the coastal environment that she has noticed as rather positive. She emphasizes the local authorities' contribution to preserving or improving the environmental conditions. The beaches are cleaner and they introduce some procedures for cleaning water which may help to revive fauna and flora. Even despite the development of the tourism industry, the condition of water and beaches is getting better.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

There has been a constant progress in tourism industry, but in the last couple of years it became more rapid. Regarding the Gdańsk estate market and the tourist areas, the investments have increased by 30-40%. Mrs Lesniewska perceives it as a result of the environmental changes. She gives an example of Sopot which benefits from becoming a health-spa resort. The city takes care of clean beaches and the Baltic Sea waters and that attracts foreign investors. Another advantage of the Polish coast is sandy (and not rocky) beaches.

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

5	Algae blooms
7	Lack of oxygen in some bottom layers of the Baltic Sea
6	Decline of the stocks of some important fish species
3	Oil spills from ships and other installations
2	Presence of hazardous substances in the sea
1	Litter in the water and on the beaches
4	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

[&]quot;The oil leakages were bigger a few years ago and now they have diminished."

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

In the interviewee's opinion, we all bear the responsibility, because "the industries expand and so does every sphere of life. The pace of life is faster and it all has an influence on nature". All these changes are positive but they have consequences for the environment – e.g. possible oil spills from the tankers or pollution caused by the tourist branch. "But the emphasis on ecology is stronger, so the total result is positive".

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

It cannot be said that there is no relationship between this branch and environmental changes but it's not direct so it's difficult to talk about measurable losses.

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

More resistant.

Q6a. Why has XX not been affected?

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

No, because of the former political system and we can say that ecology and real estate market may have something in common for about last 10-15 years.

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

Mrs Leśniewska explains that there are more sewage treatment plants in this region which have a significantly positive impact on the water quality and clarity.

Q7b. Have these changes had an impact on XX? (in what way?)

"Yes, it encourages the foreign investors to enter our tourism market and build hotels and guest houses. The same is with agro-tourism. And also people from different parts of Poland decide to develop such a tourist activity in Hel Peninsula."

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

For the real estate market, the most important is the economic factor. The economic growth causes an increase in the number of apartments in the market and also an increase in earnings, which implies more investments. For the interviewee, also the accession of Poland to the EU facilitated economic development of the country.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

"Regarding estate market, they rank somewhere in the middle, near 5 points."

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

Mrs Leśniewska describes Gdańsk's environment as threatened with the activity of *Siarkopol* and Gdańsk refinery and also "the presence of a fluorine pile in Sobieszewo. The morbidity in this region is much higher". These are the factors that, in her opinion, may influence the decisions of some of the clients, if they are aware of them and their consequences.

Q9. Do you think XX has any impact on the marine environment?

Mrs Leśniewska says that it is difficult to say, but maybe there is this indirect influence caused by the fact that selling the lots by the sea causes some damages in the maritime environment. The vegetation is being cut and more brick buildings are being built.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

Yes.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

"As far as I know, the companies which invest in this region take steps to diminish the side effects of their activity – e.g. install some filters or introduce ecological regulations. Also the industrial areas are rather in the suburbs of Gdańsk in order to diminish pollution and traffic." Mrs Leśniewska adds that the waste removal fees are lower in case of segregated waste.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"Mainly the sewage treatment plants – they are really necessary. And as far as I know, there are many platforms where they try to extract something, I'm not sure if it's successful and if it's a threat, but I think it might be and there should be some protective measures undertaken."

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

Mrs Leśniewska predicts a significant influence of the climate change on the market in the next few decades. The effect is not so visible now, but it will change in thirty years.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It is a problem in the summer, mostly in Sopot because of the water currents, so probably mainly this city will try to cope with them. "In June and July the beaches

in Sopot are covered with algae and sometimes it's impossible to bathe. There is also an unpleasant smell".

Q10b3. More petroleum products spilled to the Baltic sea as a result of heavier sea traffic and oil products transport.

Mrs Leśniewska doesn't consider it as an important problem, but she thinks that more frequent ferry cruises in the future might be a potential threat. Some "fuel stains" on the water, which are sometimes visible, might be the proof.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

It is probably the least significant of these problems mentioned here and is important only for fishermen.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists/ clients?

The interviewee thinks that the tourists are aware of the problems only when they are visible and when they disrupt their holiday or even make it impossible. She has recently seen that some students were collecting signatures against building works in the maritime zone and they got support mainly from the elderly. She says that these two groups may be considered as the most involved in environmental issues.

INTERVIEW WITH MR KRYSTIAN SEKULSKI, EMPLOYEE OF A REAL ESTATE AGENCY, GDAŃSK, 2008-04-11

Q1a. What is your job and how are you involved in XX?

Mr Sekulski works in a real estate agency in Gdańsk and is responsible for office management and brand promotion.

Q1b. For how long have you been involved with XX? For 2,5 years.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

A variety of people and companies – from big investors to individuals.

Q3. In general, how has the activity in XX developed during the last 30 years?

The interviewee describes a period of time rather shorter than the last 30 years. He notices a mild increase in the number of investments, but the last year has seen a rise especially in the group of small investors.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

He has been living in Gdańsk for 3 years, so it is rather hard to say, but as far as he knows, there haven't been any significant changes.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

"There is no relationship between these two issues. Maybe our sea isn't as attractive as others, but it doesn't affect the development."

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

Algae blooms
Lack of oxygen in some bottom layers of the Baltic Sea
Decline of the stocks of some important fish species
Oil spills from ships and other installations
Presence of hazardous substances in the sea
Litter in the water and on the beaches
Presence of ship-wrecks and other dangerous obstacles
Other (describe)

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

There is lack of resolved actions in order to protect the environment and the government is responsible for it.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

Definitely more resistant, other branches are far more sensitive.

Q6a. Why has XX not been affected?

Real estate market strongly depends on the economic growth and it's rather impossible to see a direct influence of the environmental changes, because the vast majority of the clients don't take it into account.

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

No, the investors' decisions have always depended on their financial potential.

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

No, none.

Q7b. Have these changes had an impact on XX? (in what way?)

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

The most significant one is economy and clients' wealth. The latter is constantly increasing and it provides profits in the real estate markets.

Q8b. How do marine environmental factors rank in importance compared to other factors?

They are much less significant than others, but probably there is a slight influence.

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The undoubted advantage is the air. Although it's being polluted as in every big city, there is the wind from the sea which disperses pollution and it is not so annoying as in the cities further inland.

Q9. Do you think XX has any impact on the marine environment? Mr Sekulski debates that there is probably a minor indirect influence, when there is a lot of big investments and new buildings.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

No, definitely not directly.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

It would be profitable for everyone. He gives the example of SPPON, an association of estate agents in Pomerania. His agency is also a member of SPPON. The interviewee thinks that such associations should find time and money to deal with environmental problems too.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"It is a rather serious issue but one of the ideas would be to introduce some solutions using renewable energy technologies and to use the possibilities that are given by the sea."

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

"There is no real threat. It's difficult to imagine that the water level would raise much enough to damage the region. The changes shouldn't be really significant."

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

"It might have a minor influence, but only a small fraction of people who buy lots or apartments by the sea are really interested in the sea itself."

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

Not a big influence, unless the changes are widespread.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

A minor influence.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

Everyone has some knowledge about it, but only a small part can really make use of it. Such information doesn't influence the decisions on buying estates.

INTERVIEW WITH MS MARZENA ŁĘGOWSKA, EMPLOYEE OF 'WGN' REAL ESTATE AGENCY, GDYNIA, 2008-04-11

Q1a. What is your job and how are you involved in XX? Ms Łęgowska works in an estate agency in Gdynia.

Q1b. For how long have you been involved with XX? She has been working for 'WGN' since November 2007.

Q2. What kinds of tourists are usually your clients / involved in beach tourism?(Please describe)

All kinds of tourists come to visit Pomerania and also various kinds of people are interested in buying estates there.

Q3. In general, how has the activity in XX developed during the last 30 years?

The interviewee gives an example of Gdynia and says that she has been observing a very dynamic increase in the number of tourists and a very rapid development of the tourism industry.

Q4. According to your knowledge, have there been any changes in the Baltic Sea environment during the last 30 years? (Please describe, constant/temporary, positive/negative, symptoms, localization)

"Generally, it's cleaner" – says Ms Łegowska. The quality of water has improved due to the sewage treatment plants, e.g. in Kosakowo. What's more, either the vessel traffic has diminished ("because there are less ships lying in the roadstead"), or the ships are dumping less waste to the sea. The interviewee has also noticed some jellyfish in the water. There are, however, algae blooms from time to time. There used to be a fishmeal plant which was causing an unpleasant smell and sometimes some pollution from refinery was visible, but nowadays the plant has been closed and there are no oil stains.

Q5. Has XX been affected by any marine environmental problems (those mentioned earlier or other) in the last 30 years?

Ms Łęgowska says that it is obvious that many people prefer living in a clean neighbourhood. She notices that there is less chemical pollution flowing to the Baltic Sea with rivers.

Q5a. By what problems was/is XX affected?

Q5b. How was/is XX affected by these problems?

Q5c. What is the trend for how XX is affected by these problems during the last three decades? (better, worse, no change, explanation)

Q5d. Can you give any number for how XX is affected by these problems in the last few years?

Q5e. Please rank the problems starting with the most severe one for XX in the last few years (1 - most severe, 7 - least severe)

5	Algae blooms
6	Lack of oxygen in some bottom layers of the Baltic Sea
3	Decline of the stocks of some important fish species
1	Oil spills from ships and other installations
2	Presence of hazardous substances in the sea
4	Litter in the water and on the beaches
7	Presence of ship-wrecks and other dangerous obstacles
	Other (describe)

Nowadays, the presence of ship wrecks is rather an advantage for the tourism. People have no idea about the lack of oxygen in the sea.

Q5f. Who do you think is mainly responsible for the negative environmental changes? (some people, institutions, all, no one)

The interviewee names some chemical plants (e.g. Fosfory Gdańskie in Wiślinka) which cause pollution. She also concludes that every municipality is responsible for taking care of the environment and dealing with some sewage issues and preventing sewage from flowing to the sea.

Q5g. Imagine you could sue some institution/company/government for action/no action which resulted in a decline of your profits in XX due to these changes. How would you estimate the damages?

Q5h. Was XX more vulnerable or more resistant to changes in the marine environment than other branches of tourism?

It's rather resistant.

Q6a. Why has XX not been affected?

"If somebody has to live here, the environmental factors don't affect their decisions. And other people take them into account only in microscale, i.e. they may influence their comfort or satisfaction in a short period of time, but don't influence their choices."

Q6b. Was XX affected by any of these problems earlier than 30 years ago? (If so, how?)

Q6c. If XX used to be affected by any of these problems and is not any more – what is the reason for this?

Q7a. Have there been any marine environmental improvements in the last 30 years?

The beaches and water are cleaner.

Q7b. Have these changes had an impact on XX? (in what way?) No.

Q8a. What is the most important factor influencing the growth of XX? Think about all kind of factors that influence XX, environmental as well as any possible other (economic, social).

The most important factor is the lack of dynamic development in the region and weakness of the industry. The political support isn't sufficient for the new investments.

Q8b. How do marine environmental factors rank in importance compared to other factors?

Q8c. If the most important factor were given 10 points on a scale of 0 to 10, how would the marine environmental factors rank?

"Somewhere in the middle, especially if the environmental changes were really annoying."

Q8d. Are there any non-marine environmental factors that affect your industry? (air pollution, ground water, etc.; how do they rank in comparison to the other factors?)

The interviewee has some information about plans to construct a gasholder in Kosakowo and it would require dumping some waste to the Gdańsk Gulf. However, she doesn't say anything about the possible influence of this fact or some other non-marine environmental factors on the real estate market or on tourism in general.

Q9. Do you think XX has any impact on the marine environment?

"No. Even if some commercial estate investments are considered, they don't affect the environment. The industry in Pomerania isn't well developed (so it doesn't produce much pollution)." Some people may consider the refinery as an exception which causes much contamination, but the interviewee believes that this plant uses new technologies which reduce the pollution.

Q9a. Do you think your personal professional activity has any impact on the marine environment?

No.

Q9b. Do you think, that individual behaviour can reduce (at least a little) the impact on the marine environment?

Every action which may lead to the improvement, should be undertaken. Ms Łegowska, however, can't think of any activities of the estate agents.

Now we would like you to think even more about the future.

Q10a. In your opinion, what measures should Poland undertake to provide an increase in a marine environmental quality that would be the most beneficial to XX?

"The first and the most important step is to build a nuclear power plant. The ecologists fight against it, but it's a thinking error. The group of ecologists is probably supported by some lobby, maybe because thousands of households will not have to burn coal anymore." Secondly, the penalties for dumping waste are not effective and sometimes it is more profitable to pay the penalty than to utilize waste.

Q10b. Could any of the following factors matter for XX in the future? If so, how large the changes would have to be to influence XX and what would this influence be?

Q10b1. Climate change (resulting in a warmer climate in the Baltic Sea area and water lever rise)

It may be a real threat. It already happens and Gdańsk and the whole region of Żuławy can be flooded.

Q10b2. Increased eutrophication – more algae in the water and washed ashore, lower water visibility, possibility of toxic algae blooms making it impossible to bathe.

It has no impact and will not have any.

Q10b3. More petroleum products spilled to the Baltic Sea as a result of heavier sea traffic and oil products transport.

It has some impact, but nowadays the ships are being controlled more frequently. Only a serious accident could strongly influence tourism.

Q10b4. A decline in commercial coastal fishery, resulting in a reduced activity related to fishery in coastal villages/towns

The interviewee can't describe it, because she doesn't know the current situation in this industry. She says that the number of smacks has decreased, because fishing has become unprofitable and also that people buy fish in supermarkets.

QC1.2. What is the awareness of the pollution presence and its influence on health by the tourists?

The society is well educated and people have knowledge about legal and ecological issues.

Conclusions

The interviews with the representatives of the tourism industry at the Polish Baltic Sea coast allow for drawing some qualitative conclusions. The most frequent opinions given above are summarized and some generalizations of the views of the respondents are drawn.

- 1. The respondents generally seem not to understand the phenomenon of eutrophication its causes, character, mechanism, effects and impacts. The same holds for all the ecological processes taking place in the Baltic Sea. The interviewees seem to notice some of the most visible symptoms e.g. algae or oil stains on the beaches it can be seen from the discussion, however, that they do not realize the true causes and impacts of these phenomena, and thus underestimate their existence or identify wrong culprits (sometimes even considering them natural). This results in finding litter on the beaches the most serious environmental problem of the Baltic Sea. If eutrophication or some of natural ecosystem services were to be the target of a future quantitative study, it should be thoroughly explained to the respondents, including their causes, mechanisms and full impacts.
- 2. The opinion that seemed to prevail among the respondents was that there are hardly any serious environmental problems or threats to the Baltic Sea. In this context, as far as respondents' opinions are concerned, the survey was often found to suggest the existence of problems which were not really happening according to their experience (or were not at all as serious as indirectly suggested). This is yet another result of the problem described in conclusion 1 even if the respondents notice some symptoms or have some knowledge about environmental problems, it is rather superficial. For instance, people notice algae washed ashore, consider it however as a result of a natural balance, as taking place only in the most polluted beaches, only occasionally and only temporarily without the awareness of the whole mechanism of the problem. As a result, even if the respondents noticed some of the environmental problems of the Baltic Sea, they were considered negligible without any influence on their life, business or tourism industry in general.
- 3. As far as the changes in the Baltic Sea quality environment is concerned, it must be noted that the respondents do not seem to think about the Baltic Sea in general (the entire basin or coasts of other countries) they seem to perceive the problems locally, considering coastal waters at best, and usually simply local beach and water quality. This suggests that among the respondents the use value was dominant in the total value, and non-use values were neglected in their opinions. As far as water quality is concerned there seems to have been a U-shaped relationship, with its mini-

mum in the middle of the 1990-ties, caused by the process of transition of Polish economy. The deterioration of water quality was stopped by the fall of many big and environmentally burdensome companies, together with the gradual implementation of numerous EU directives. Ever since Poland started preparation for joining the EU, the pressure on the marine environment has been gradually reduced. Because of this relationship most of the respondents were under influence of the recent improvement trend. This is in addition, however, to the conclusion 2, that environmental problems of the Baltic Sea are hardly meaningful.

The positive changes most commonly noticed by the respondents are that the beaches are no longer closed due to 'some environmental problems' and occurrence of some fish species, which had not been seen ever since after the 2nd World War. It is also noticed that there are more and more new sewage treatment plants built in the area.

Finally, with regard to water quality, the respondents perceive a visible difference between the Gdańsk Bay and the open sea water quality.

4. The customers of the tourism industry at the Polish coast seem to come from the entire cross-section of the Polish society together with some foreign tourists, mostly from Germany and the Benelux countries. Most usually these are families with children, who spend most of the time on a beach. As far as recreational fishing is concerned it's worth noting that its importance for tourism industry in Poland is very small (although it has been dynamically increasing for the last 15 years). Its share in the tourism industry is much less than other water sports, such as windsurfing or kitesurfing. According to the respondents, the tourists are rather "resistant" to environmental changes and so is tourism industry in general. The factors which seem to have the strongest influence on tourism industry are the enrichment of the society and ... the weather. The most important environmental factor seems to be iodine inhalation.

It must be noted that tourism industry at the Polish coast has witnessed exponential growth in the last 10-20 years. This is mostly the result of enrichment of the society, and despite the rapid growth of infrastructure, the demand seems to exceed supply in such a way that prices of vacation at the Polish coast are almost comparable to organized vacation in the Mediterranean. This is one of the reasons why the respondents are not really interested in the competition among Baltic countries for tourists coming from the area (e.g. the Germans). What is more, in the respondents view, even if some tourists happen to complain about the environmental quality, they come again anyway (or get substituted by others). As a result, even if some of the tourists notice environmental problems and are less satisfied, this does not find any reflection in the demand for tourism services, due to other sources of limitations (e.g. infrastructure). Because of this, potential losses of environmental quality result in loss of consumers' surplus rather than losses in the tourism industry. Following this conclusion, in our opi-

nion, any potential quantitative study should be directed to the general public (tourists) in order to estimate welfare losses, rather than utilizing market approach, since the market does not seem to be in equilibrium.

5. One of the more surprising conclusions of the study is that there seems to be quite common acknowledgment of the fact that the responsibility for environmental changes lies with everyone. This statement was often denied by respondents of other studies conducted in Poland, who usually blamed someone else – the industry for instance. The interviewees of this study agreed that everyone is collectively responsible for the pressure on the environment, even though they perceived their own influence as negligible (also the pressure of tourism was considered small, if any). Industry was another responsible subject. It also seems clear that all the country contributes to polluting the Baltic Sea by polluting the two major rivers – Wisła and Odra. Interesting, however, was that none of the interviewees perceived agriculture as being responsible for environmental pressure on the sea, what supports our conclusion about lack of understanding for the process of eutrophication.

Bearing in mind that respondents did not find environmental problems serious and were at best concerned about local ecological problems, according to them the best way to improve quality of water in the sea are collective actions undertaken at the national level. These are administrative actions such as implementing appropriate regulations and building sewage treatment plants. The respondents pointed to the government as the one responsible for implementing the necessary steps – its role would be however usually restricted to preventing the deterioration rather than improving the current status. One of the other means commonly mentioned was ecological education, which would take place in schools.

- Climate changes were commonly considered beneficial to Poland, and especially to tourism. Only very drastic changes (such as very high water level rise) could lead to potential problems.
- 7. Increased sea traffic was not considered a serious threat. According to the respondents, the only problem connected with it was the increased risk of a major oil spill. Everyday oil leakages were not as important. An important factor to the environmental safety was the plan for building the Nord Stream gas pipeline on the bottom of the sea. Even though leakages are considered to be a small problem, there seem to be potential pressures happening during construction and maintenance.

Annex VIII. Russia

Prepared by: Natalia Volchkova, Centre for Economic and Financial research at New Economic School, Moscow, Russia

Introduction

In order to find the tourist firms with sufficient expertise in the fields of the interest to us we contacted St-Petersburg State Center of Information and Tourism. This Center was created in 2000 in order to facilitate the collection and exchange of information on tourist services of North West regions of Russia. Over time the large database on the firms that provide tourist services in the region was collected and classified in 51 fields according to the type of services and area of tourism.

We contacted the representative of this Center and they provided us with information on the oldest and largest firms in the region that provide services in the area of beach tourism, sea cruises, yachting and real estate. Unfortunately they were not able to find firms that provide services related to recreational fishing in Baltic Sea. While there are firms that organize fishing trips in the region they work mainly with destinations in Karelia and on Volga-river. Our subsequent search also did not reveal any firms that organize fishing tours in Baltic Sea.

Then we provided the list of firms with telephones and addresses to out subcontractor – Study of Regional Problems Fund. This firm has regional representatives across Russia and we works with them while conducting surveys in the past. The task was to perform up to 10 face-to-face interviews with the firms from the list according to the questionnaires we supplied them with.

Five interviews were conducted in St-Petersburg during May 28-30 and the last four interviews were conducted during May 12-13. All interviews were recorded and later on transcripts were delivered to us.

Out of nine interviews three were related to beach tourism, one dealt with real estate business, one – with cruise tourism and four were about cruises. Later on we found that one interview with respondent from beach tourism industry was irrelevant as was not concerned with beach tourism on Baltic Sea and we also discard one interview with cruise tourism representative as it dealt with river cruises.

Therefore we found seven interviews that were conducted with the representatives of six firms to be of relevance to our project.

Findings

Interviews with beach tourism representatives

Interview with Ms Marina Nikiforova, head of tourist firm "LENSEI", St-Petersburg 2008-04-28.

- How are you involved in beach tourism?

"Our firm provides services in sea beach tourism and other water tourism. We also started to organize eco trips but mainly in mountains"

- How long have you been active in beach tourism?
 "18 years"
- How would you characterize the type of tourists in beach tourism? "Clientele is very diverse. Ranges from families with children to newly married couples and students"
- In general, how has the activity in beach tourism developed during the last 30 years?

"Over last 18 years demand for tourism increases and demand for beach tourism especially"

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

"First of all, the quality of Baltic Sea water declines. Mass media, mainly the foreign one, informs about the leakages of poisonous substances from the ships sunk during WWII that affect the quality of the water. Emissions from nuclear power plants also threatens people"

- Has beach tourism been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

"Russian tourists do not worry about ecological problems because they are not well informed. Foreign tourists do worry about them"

By what problems was/is beach tourism affected?

"Tourists are afraid of water pollutions and the other ecological pollutions"

- How was/is beach tourism affected by these problems?

"As far as we work with Russian tourists we do not observe the effect of water quality on the flow of tourists."

- What is the trend during the last three decades for how beach tourism is affected by these problems? More before and less now? Less before and more now? About the same?

"Tourists are more demanding and cautious nowadays. If they have information about ecological problems in some place they will not go there. This depends on the degree of awareness."

- Can you give any number for how beach tourism is affected by these problems in the last few years?

"No, I do not know figures"

- What is the trend?

"Tourists become more discerning. If they know that there are ecological problems in some place they will chose safer place in the same price range. Turkey, for example."

Please rank the problems starting with the most severe one for beach tourism in the last few years.

"As for any type of tourism the hotel availability is important, the closeness of the hotel to the beach, availability of pools and beach infrastructure, ecological conditions, environmental conditions"

- Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in beach tourism due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

"We all are responsible. In each situation there is a particular responsible party. For example, if there was the ecological catastrophe last year on the Black Sea then I would sue the company responsible for the problem. Maybe the government. If there are the enterprises that threaten the ecological safety then the government authorities responsible for this should be accounted for"

- Has beach tourism been affected or not affected in the last 30 years by any marine environmental improvements? "No"
- Which are the most important factors for the growth of beach tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental. "The water is blooming but the beach infrastructure is improving which at-

tract the tourists. And people take risks and swim in this water. Therefore

many kids suffer from allergic reactions. I am not swimming as I know that the water probes are very poor."

- How do marine environmental factors rank in importance compared to other factors?

"It is the primary factor as people go to the sea to improve their health, to swim. And the water quality is the most important factor"

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"Yes, there are other factors as well. Economic development of the region. The level of safety. Quality of services and prices."

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be?

"I believe that people themselves have little effect on the marine environment. But hotel constructions along the beach affect it. All depends on the water treatment. The hotels have pools that are poor out in the sea."

- Are there any measures taken to alleviate these impacts? If yes, what are they?

"It depends on the country in question. In Russia - no."

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to beach tourism?

"First of all, improvement of waste water treatment. Improvement of beach cleaning. Prevention of water blooming. I do not know what needs to be done to prevent water blooming. Man caused effects are responsible for the environment. Many new technologies use the non-destructing substances that are accumulated in the sea water. Russian authorities make very little to prevent such delayed-action mine. People wash their cars on the beaches so the detrimental waste goes directly in the water."

- Does any of the following potential changes in the future matter for beach tourism? If so, how large changes are required for them to affect beach tourism? How would they affect beach tourism?
- Climate change, resulting in a warmer climate in the Baltic Sea area. "Tourists consider the Baltic Sea as a dirty sea. If there will be climate warming then the situation will become even worse."

- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities. "It will improve the situation."
- Increased eutrophication effects as a result of population growth in coastal cities, construction of new sea terminals and industrial plants. "I believe that the more people are around the more dirty is the water. But we cannot move people in other places. So new enterprises should be more safely ecologically".
- More oil spills due to heavier traffic on the seas.
 "It will have very severe effect on the marine environment."
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.
 "No. I believe that beach tourism and commercial fishery are not related at all."
- Compare the effects of filamentous algae and cyanobacterial blooms.
 Which one of these has the most severe effects on beach tourism and profits?

"Beaches need to be cleaned of any algae as people do not like them and will not swim in blooming waters"

Interview with Mr Yuri Aleksandrovich, director of tourist firm NAVIGATOR, St-Petersburg, 2008-04-29.

- How long have you been active in beach tourism?
 "I work in the firm that provides services related to beach tourism over 5 years"
- How would you describe the purpose of your organization?
 "We sell accommodations in the beach hotels along Baltic see in winter season"
- How would you characterize the type of tourists in beach tourism? "Working people, middle class"
- In general, how has the activity in beach tourism developed during the last 30 years?

"Tourists can choose from larger assortment of services. So demand and supply grow together."

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years?
 Which changes?

"Oil terminal was constructed in Primorsk. It has negative effect on the environment."

- Has beach tourism been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES go to O7. If NO go to O8.]

"No, we work only with the hotels and only in winter season so we are not affected by those changes"

- What is the trend during the last three decades for how beach tourism is affected by these problems? More before and less now? Less before and more now? About the same?

"Oil terminal was built 2 years ago. It worsen the quality of water"

- Can you give any number for how beach tourism is affected by these problems in the last few years?

"It had no effect on the beach tourism."

- Who do you think is mainly responsible for these environmental changes?

"This is the problem of the state."

- Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in beach tourism due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

"Our profits did not fall. We would not sue anyone."

Why has beach tourism not been affected?

"People paid no attention to the construction of terminal"

- Has beach tourism been affected or not affected in the last 30 years by any marine environmental improvements?

"There were no improvements"

- Which are the most important factors for the growth of beach tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

"State policy with respect to tourism"

- How do marine environmental factors rank in importance compared to other factors?

"One tenth"

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"State policy. People's mentality"

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"There is no impact of beach tourism in our region"

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to beach tourism?

"I cannot answer this question"

- Does any of the following potential changes in the future matter for beach tourism? If so, how large changes are required for them to affect beach tourism? How would they affect beach tourism?
- Climate change, resulting in a warmer climate in the Baltic Sea area.
 "I do not know"
- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities.
 "It will improve the situation."
- Increased eutrophication effects as a result of population growth in coastal cities, construction of new sea terminals and industrial plants. "It will worsen the situation."
- More oil spills due to heavier traffic on the seas.

"It will worsen the situation."

- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

"Probably it will have positive effect".

Compare the effects of filamentous algae and cyanobacterial blooms. Which one of these has the most severe effects on beach tourism and profits?

"I cannot answer"

Interviews with cruise tourism representatives

Interview with Ms Galina Igorevna, director of sales of the Central Bureau of tourism and excursions of St-Petersburg, 2008-05-13.

- How are you involved in cruise tourism?
 - "We provide services in various areas of tourism. We also sell cruise trips from Russia to Sweden."
- How would you characterize the type of tourists in cruise tourism? "Various income levels. From quite poor to rich people."
- Has cruise tourism been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. "No"
- Why has cruise tourism not been affected?

"Because people who choose cruises they want entertainment and comfort travel. They are not very interested in swimming and do not bother with what is going overboard"

- Was cruise tourism affected by any of these problems earlier than 30 years ago? If so, how?

"I do not know as I did not work in this area at that time"

- Has cruise tourism been affected or not affected in the last 30 years by any marine environmental improvements?

"There were no improvements in Baltic sea, only worsening."

- Which are the most important factors for the growth of cruise tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental. "Prices and quality of services."
- How do marine environmental factors rank in importance compared to other factors?

"Least of all for our clients. There are not bother themselves with this questions."

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"People are not worried if they do not have information. When we talk about Ukraine or Belarus people still remember about Chernobyl and they

are very cautious traveling there. But there were no such cataclysms in Baltic Sea so people are more patient when they choose to cruise there. If there would be information on nuclear wastes or something else then it would change situation."

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?
 - "Any human activities have negative effect on the environment. The more intensive is the sea transportation the more polluted is the water. I do not know of any measures to alleviate the problem"
- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to cruise tourism?

"There should be more regulations of transportation companies and other companies that exploit marine environment"

- Does any of the following potential changes in the future matter for cruise tourism? If so, how large changes are required for them to affect cruise tourism? How would they affect cruise tourism?
- Climate change, resulting in a warmer climate in the Baltic Sea area.
 "I believe it will worsen the situation as there will be more underfloodings. And the increase in the natural cataclysms will negatively affect the tourism."
- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities.
 "It will improve the situation and it is very important factor."
- Increased eutrophication effects as a result of population growth in coastal cities, construction of new sea terminals and industrial plants. "It will worsen the ecological situation. There is a need to increase control over waste water treatment."
- More oil spills due to heavier traffic on the seas.
 "Of course it will have negative effect"
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

"Probably it will improve the situation. There will be more fishes and the water will be cleaner"

- How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

"Ecological situation is important for people generally and when they go for vacations as well. However for those who choose cruises the travel itself is the first most important issue and the nature – of the second most importance. Many people on fancy ships spend all their time in the cabins, bars etc."

Interview with Ms Ekaterina, manager of tourism firm "BOHEMIA", 2008-05-13.

- How are you involved in cruise tourism?

"We provide services in various areas of tourism. We also sell cruise trips from Russia to Sweden."

How are you involved in cruise tourism?

"We provide services in sea cruises, fishing in Norway, and yachting in Adriatic."

- How long have you been active in cruise tourism? "Two years."
- How would you describe the purpose of your organization? "We provide all services related to trips."
- How would you characterize the type of tourists in cruise tourism?

 "This is usually people that already visited a lot of countries. They saw them from inside and now they want to look at them from the other side. The second category is those people who are afraid of other ways of transportation. For the most part this is well-to-do people but in short cruises there are also not very rich people."
- In general, how has the activity in cruise tourism developed during the last 30 years?

"Over my experience the level of tourism is quite stable."

Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

"We do not observe them"

- Has cruise tourism been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just

mentioned, or any other marine environmental problem. [If YES go to Q7. If NO go to Q8.]

"No, we do not observe the changes."

- Has cruise tourism been affected or not affected in the last 30 years by any marine environmental improvements?

"I do not know"

- Which are the most important factors for the growth of cruise tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental. "Income level and prices. Cognitive factor. Entertainment aspect."

- How do marine environmental factors rank in importance compared to other factors?

"It has no effect"

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"The purchasing power is the most important factor. When people have enough income they will want to travel. The quality of services is also very important"

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"I believe it has negative effect as there is pollution from boats."

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to cruise tourism?

"Boats need to be modernized"

- Does any of the following potential changes in the future matter for cruise tourism? If so, how large changes are required for them to affect cruise tourism? How would they affect cruise tourism?
- Climate change, resulting in a warmer climate in the Baltic Sea area. "The will be less cruises"
- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities.

"It will improve the situation but not substantially."

- Increased eutrophication effects as a result of population growth in coastal cities, construction of new sea terminals and industrial plants.

"Increase in number of terminals and marines will be very good for cruises. It will be bad for the ecology and marine environment."

- More oil spills due to heavier traffic on the seas. "Negative"
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.
 "Both negative and positive ones. There will be less fish available for consumption but it will improve ecology"
- How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

"May be people think about those issues but I was never asked about the marine environment when people buy cruise trips. They want comfort trip and the good views."

Interview with Ms. Zoya Snegereva, general manager of St-Petersburg tourist and information Center, 2008-05-13.

- How are you involved in cruise tourism?

"We provide services in various areas of tourism. We also sell cruise trips from Russia to Sweden."

- How long have you been active in cruise tourism?

"Ten years. I work in tourism from 1979."

- How would you describe the purpose of your organization?
 - "We also work in other areas of tourism in Leningrad oblast. We provide services for Russians and foreigners."
- How would you characterize the type of tourists in cruise tourism?
 - "It depends on the destinations. In close range (Finland, Sweden, Denmark, Norway) there are mostly students and pensioners. Middle income and wealthier people choose longer cruises in southern seas and fiords."
- In general, how has the activity in cruise tourism developed during the last 30 years?

"I started my job when there was mass tourism but there were mostly small boats that travel in inland waters. Large fleet was very limited. While small fleet is still popular in Russia the large fleet now expands" Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years?
 Which changes?

"Yes, there are negative changes."

- Has cruise tourism been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem.

"While there are negative changes in marine environment for example because the dam was constructed it has no effect on tourism. Tourism steadily increases."

- By what problems was/is cruise tourism affected?
 - "Before people were not allowed to leave the country so now when they can do this we observe sharp increase in the demand for large cruises"
- Can you give any number for how cruise tourism is affected by these problems in the last few years?

"I do not know figures. But the number of tourists increases very sharply so the profit as well."

- Please rank the problems starting with the most severe one for cruise tourism in the last few years.

"To get to the port where the cruise board stands many people need to take a plane. But the airfare is very high even for middle class tourists."

- Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action/no action which resulted in a decline of profits in cruise tourism due to these changes. Who would you sue and which amount would you claim for damage due to these environmental changes?

"It is very difficult question. May be the Soviet Union which does not exist anymore"

- Has cruise tourism been affected or not affected in the last 30 years by any marine environmental improvements?

"It is mostly political situation rather than environmental one that affected cruise tourism in Russia. People did not have opportunities before. Now they can travel so they are very interested in those new opportunities."

- Which are the most important factors for the growth of cruise tourism? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

"Now when the quality of services is very high cruise tourism will develop along with income increase. So it will depend on the economic development mostly"

- How do marine environmental factors rank in importance compared to other factors?

"It will have little effect in the next 5 years. Then it will have more effect as people will become aware of those problems"

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"Only economic development factor does matter."

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"I believe it has very little effect as the cruise boats are very advanced and have all treatment facilities"

Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to cruise tourism?

"It is very difficult question. As far as Russia is concerned then we need economic stability. Richer countries need to take more measures. It is global issue so we need to coordinate the efforts. Greenpeace is also very important"

- Does any of the following potential changes in the future matter for cruise tourism? If so, how large changes are required for them to affect cruise tourism? How would they affect cruise tourism?
- Climate change, resulting in a warmer climate in the Baltic Sea area. "There is a lot of uncertainty. Very difficult to judge"
- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities.

"It will improve the situation so government must regulate the fuel quality, waste treatment more extensively."

- More oil spills due to heavier traffic on the seas.

"This is really the tragedy. We need to prevent them."

- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

"I believe they are not related so there will be no effect."

- How important are environmental factors for your customers, compared to other factors? How would you rank "enjoyment of the nature" in comparison to ship-specific factors when it comes to attracting customers?

"Currently the environmental state is not important for our customers. Those who buy cruises they want to be on board and watch around. They do not worry about the quality of water."

Interviews with yachting tourism representative

Interview with Ms Natalia Kamilina, director of tourist firm CAPITAN, St-Petersburg, 2008-04-30.

- How are you involved in boating/yachting?
 We provide services related to yacht chartering in Russia and abroad
- How long have you been active in boating/yachting?
 "Over 10 years." We help in organizing competition participations and cruises"
- How would you describe the purpose of your organization? "We help in organizing competition participations and cruises"
- How would you characterize the type of tourists in boating/yachting? "This is young and middle age people, who likes extreme sports and who is bored of beach tourism"
- In general, how has the activity in boating/yachting developed during the last 30 years?

"Yachting started in Russia only in 1989. Before that we were not allowed to leave Russia and people can only sail in inland Russian waters. Starting from 1989 demand for yachting steadily increases and now is quite substantial."

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

"Since I am sailing a lot across the world I believe that Baltic Sea is the most polluted one as a lot of coastal industrial countries pour waste waters in it."

- Has boating/yachting been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we

just mentioned, or any other marine environmental problem. [If YES go to Q7. If NO go to Q8.]

"No. Yacht can sail even in polluted waters. The only problem you would not be able to swim. There are a lot of interesting places in Baltic Sea that worth sailing there. However much polluted places are not popular among our customers."

Why has boating/yachting not been affected?

This was of little importance before. It will be important in near future and people will stop sailing in polluted waters."

 Was boating/yachting affected by any of these problems earlier than 30 years ago? If so, how?

- Has boating/yachting been affected or not affected in the last 30 years by any marine environmental improvements?

"Yes but not in Baltic Sea. Yachting in the Mediterranean Sea improved a lot."

 How do marine environmental factors rank in importance compared to other factors?

"Those who sail wants to swim and fish as well. So marine environment is very important for good vacations. The way the water smells is important for people and the quality of water is important for the yacht itself"

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"The climate and seasonal variations are very important. People sail in Baltic sea only from June till August."

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"People throw the waste in the water. It worsens the water quality. There are regulations when the yacht stays in marine and people can be subject to large fines if they litters there."

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to boating/yachting?

"There is a need for more marines and coastal infrastructures. Baltic sea has very limited supply of them and in this it is less attractive than Croatia and other countries."

- Does any of the following potential changes in the future matter for boating/yachting? If so, how large changes are required for them to affect boating/yachting? How would they affect boating/yachting?
- Climate change, resulting in a warmer climate in the Baltic Sea area. "The water will worsens and flow of tourists will drop."
- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities.
 "It will somewhat improve the situation. However those on boats and yachts still litter in the sea when they move farther than two-three miles from the coast."
- Increased eutrophication effects as a result of population growth in coastal cities, construction of new sea terminals and industrial plants.
 "It will have negative effect as waste waters ultimately get to the sea"
- More oil spills due to heavier traffic on the seas.
 "Yes, it is really an important problem. Oil spills are very bad for tourism."
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

 "It will improve situation. It is very difficult to sail when there are a lot of fishermen and nets around."

Interviews with real estate business representative

Interview with Ms. Irina Gustova, general manager of real estate agency "ARKADA", St-Petersburg, 2008-04-29.

- How long have you been active in beach tourism?
 "I work in the firm that provides services related to beach tourism over 5 years"
- **How are you involved in real estate business?**"We provide consulting services for buyers and sellers of real estate located in St-Petersburg and the region"
- How long have you been active in real estate business?

"The company exists over 16 years and I work there over that period of time as well"

- How would you describe the purpose of your organization?

"We provide information and consultancies related to real estate. We are part of the larger holding that also provide brokerage services and consultancy in real estate management"

- How would you characterize the type of customers in real estate business?

"They are mostly Russians. There are a lot of housings in the coastal area of Finnish Gulf. This is the most expensive property so it is mostly for rich people. People buy the coastal property because they want to have status, good location and access to good infrastructure."

- In general, how has the activity in real estate business developed during the last 30 years?

"It was growing. There are various parts on the coastal region. Some of them are overrated. The other are underrated so they are growing very fast now. But it is not because of the coastal area. The property along Ladoga Lake is not less expensive that the one at Baltic Sea. We have a lot of lakes and rivers in the region. However people prefer coastal areas of Finnish Gulf because it is closer to St Petersburg. So many people now choose the property at the coast as a main dwelling. And ecological situation is better at the coast."

- Have you experienced any changes (continuous/temporary, positive/negative) in the Baltic Sea environment during the last 30 years? Which changes?

"Of course there are changes. The climate is changing. The dam was constructed. There were changes in the currents in the Baltic Sea. Bit it did not affect the willingness of people to buy coastal property and its price. People buy property at the coast not because they want to swim in the sea but because they want to live at the coast and to own the coast. It is prestigious property."

Has real estate business been affected or not affected in the last 30 years by any marine environmental problems? For example, by those we just mentioned, or any other marine environmental problem. [If YES go to Q7. If NO go to Q8.]

"No it was not affected. People sell their property without regard to ecological situation. I never heard that people complained about ecology when they decide to sell the property. They sell because they do not have enough money to maintain this property, to fight with storms. Or because the city expanded very close to them."

- Why has real estate business not been affected?

"People buy coastal property because they want to raise their status, their position in the society. No one worries that the Gulf is polluted."

- Was real estate business affected by any of these problems earlier than 30 years ago? If so, how?

"The ecology did not affect the real estate business. The proximity to the city and infrastructure do have effect. Now people buy expensive coastal property even in a much polluted places where recently the ports and terminals were."

- Has real estate business been affected or not affected in the last 30 years by any marine environmental improvements?
 "No"
- Which are the most important factors for the growth of real estate business? Think about all kind of factors that are important for the development of an industry, both environmental and non-environmental.

"Infrastructure, transport infrastructure, road quality, prestige and so on. And income of people because there are more risks associated with the coastal property"

- How do marine environmental factors rank in importance compared to other factors?

"It is not important at all. I faced with situations when people sold their coastal property because they did not want to live near the sea. But no one complained that they sold it because the sea was polluted."

- Are there any non-marine environmental factors that affect your industry? How do these factors rank in importance compared to other factors?

"First and major factor is location. All other factors play very little role."

- Do you think your industry has a positive/negative impact on the marine environment? What would this impact be? Are there any measures taken to alleviate these impacts? If yes, what are they?

"On one hand it has positive effect. Rich people try to establish order. They have demand and they are able to pay for better and cleaner environment. Therefore the supply also moves there. Due to this the beaches and forests become cleaner, sanitary control is establishing. Industrial plants are reallocated. On the other hand the traffic increases, new roads are built and it has negative effect on the environment."

- Now we would like you to think even more about the future. In your opinion, what are the most important measures to take in your country for having a marine environmental quality that is beneficial to real estate business?

"This is a very difficult question for me. The government should take care. The water reservoirs should be cleaned, oil spills need to be prevented."

- Does any of the following potential changes in the future matter for real estate business? If so, how large changes are required for them to affect XX? How would they affect real estate business?
- Climate change, resulting in a warmer climate in the Baltic Sea area. "It will not affect the price of coastal real estate."
- Reduced eutrophication effects such as the construction of waste water treatment plants by industrial and agricultural plants and cities. "Information campaigns around these events will have positive effect on the people. It would be easier to sell the property. It will not affect the price as this property is highly overrated. I forgot to mention the part of the coast near the nuclear plant in Sosnovyi bor. Despite the fact that specialists say that there are no pollutions and the waste treatment is very good people the property prices there are quite low and demand as well."
- Increased eutrophication effects as a result of population growth in coastal cities, construction of new sea terminals and industrial plants. "The real estate prices will fall around the industrial facilities. But it will not prevent the coastal expansion of real estate. Even around new industrial plants some property will raise cottages etc. that will be somewhat cheaper."
- More oil spills due to heavier traffic on the seas.
 "Yes, people do worry about this. So it will affect the prices as long as there will be information."
- A decline in commercial coastal fishery, resulting in less fishermen and reduced activity related to fishery in coastal villages/towns.

 "The more fisheries are around, the higher is the price of real estate. The

"The more fisheries are around, the higher is the price of real estate. The commercial fishery is not bad for real estate if it means that there is a fish around unless there are oil terminals."

- What are the most important environmental factors for the price of houses situated at the coast?

"The lack of industrial enterprises and wetlands. The ideal settings are bay, sand and pine-trees."

Conclusions

While we found somewhat different effect of worsening marine environment for various branches of sea tourism and coastal real estate business nevertheless there are some striking similarities that we believe could be country specific.

The first important similarity is the drastic growth in the demand for tourist services in all spheres of sea tourism that is hardly affected by the worsening quality of the water. We could explain this (and it was confirmed in several interviews) that this is due to transition nature of Russian economy where these kinds of services were either non-existed or were in a very limited supply. The collapse of planned economy and subsequent market reforms led to increase in the provision of such services and the growth of Russian economy starting from 1999 provoked a dramatic increase in the demand for them. Over last years the growth in real income in Russia was more around 15 % annually which explains the ability of Russian household to increase the share of income that goes to services. Nonsurprisingly that representatives of all types of tourism mentioned the country's economic development as a major force behind the growth of their business. As the extent of these economic changes is very big and the demand of people for the tourist services is not satisfied the effect of worsening marine environment is negligible in all areas of tourism.

Along with the previous observation goes the effect of infrastructure. One of the soviet heritages was the lack of modern infrastructure in all areas of life: quality of roads, marines, beaches, access to the sea, houses etc. were very poor. Therefore the improvement in the infrastructures that is observed in Russia nowadays (due to both state and private sectors investments) is one of the reasons that many people consume coastal tourist services despite the poor quality of water. Therefore we can conclude that coastal infrastructure and water quality are substitutes as far as the demand for tourist services in Russia is concerned.

Another feature mentioned in the interviews of several tourist firm representatives is the lack or insufficiency of information on ecological conditions that differentiate Russian tourists from the foreign counterpart. Lack of such knowledge on the part of Russian tourists makes them less careful while choosing the vacation destinations than tourists from other countries.

It worth mentioning that we consider the above three features of the current state of Russian tourist industry on Baltic Sea to be a transitory ones as all of them are mostly due to the soviet past of the Russian economy and will dissipate as people will become richer, more educated and used to consume a wide range of tourist services. This was also confirmed in number of interviews with the tourist firm representatives.

As far as the responsibility for the worsening marine environment is concerned it is also non-surprising that most of respondent attribute it to the state. This kind of attitude is very characteristic to the soviet past of most people in Russia and their poor understanding of the functioning of market mechanism. The current increase in the state paternalism does not help in this respect.

Below we also summarise some specific findings for the particular areas of tourism with regard to the role of marine environment in the development of their business.

Beach tourism

Consumers – mostly young people and couples with kids.

This is the only area of tourism we found to be very sensitive to the water quality. Moreover the lack of information on the quality of water on the part of consumers make them vulnerable to the quality of water as many water pollutant cannot be discovered without special analysis. Therefore any kind of waste water treatment, beach cleaning etc. would be very beneficial for the development of this area of tourism.

Sea cruises

Consumers – more experienced tourists, middle and above middle income group.

People do not worry a lot on the quality of the water while they go in sea cruises as their major concerns are the comfort and entertainment. Marine environment matters for them only as a source of pleasant views and the lack of smells. *Yachting tourism*

Consumers – extreme lovers, middle and above middle income group.

The sensitivity of these consumers to the water quality is somewhat above the ones of sea cruises but still much lower than of consumers of beach tourist services. Swimming and water enjoyment is more important for them than of those on cruise ships and the negative effect of the pollute water on the yacht itself could be very substantial.

Real estate

Consumers –above middle income group.

This business is the least affected by the water quality while the wetlands could be very harmful for it. People buy property at the coast not because they want to swim in the sea but because the ownership of the coastal property is a part of high social status in modern Russia.

Reading of the interviews allows us to believe that to a larger extent the respondents' views are representative ones. It worth mentioning that we found most of respondent to be not very aware of the ecological issues and this is consistent with the ecological knowledge of their customers.

Annex IX. Sweden

Prepared by: Linus Hasselström, Enveco Environmental Economics Consultancy Ltd.

Introduction

The interviewees were contacted by email and telephone in April and May 2008. Seven face-to-face interviews were performed between May 20 and June 17 2008 with representatives for the tourism, sport fishing and real estate sectors. More specifically, the following persons were interviewed (in the same order as they appear in the report below):

Mr Håkan Gusteus, quality manager, SCR; Sveriges Camping- och stugföretagares Riksorganisation [the Swedish national organization for cottage and camping entrepreneurs]

Mr Mats Jansson, development manager, Gotlands turistförening [Gotland's tourism association]

Mr Pigge Werkelin, managing director, Werkelinbolagen [operator of several camping grounds on the island of Gotland, as well as the airline flying to the island]

Mr Gustaf Öholm, managing director, Ölands Turist AB [Öland's Tourism association].

Mr Hans W. Berglund, secretary-general, Svenska Båtunionen [the Swedish Boating Union]

Mr Joakim Ollén, chairman board of directors, Sportfiskarna [the Swedish sport-fishing association]

Mr Håkan Hellström, managing director, Svensk Fastighetsförmedling Sydost [Sweden's largest real estate agency, dpt for southeast Sweden]

Also contacted were Svenska Turistföreningen [the Swedish tourism association] and Waxholmsbolaget and Strömma Kanalbåtar [two archipelago cruising companies]. Unfortunately, these three organizations did not want to participate in the interview study.

As the sample indicates, the sectors of beach tourism including camping and rental of summer houses, boating, recreational fishing and real estate, were covered. As a positive aspect, representatives from the tourism industry on both Gotland and

Öland [Sweden's two largest islands, representing a large share of the total Swedish tourism] could be interviewed. Unfortunately, no representative from the cruising sector could be interviewed.

The findings from the interviews are presented below, and in the last section, general conclusions are drawn.

Findings

Interview with Mr Håkan Gusteus, Quality Manager, SCR; Sveriges Camping- och stugföretagares Riksorganisation [the Swedish national organization for cottage and camping entrepreneurs], Gothenburg 2008-05-20.

Email: hakan.gusteus@scr.se

How would you describe the role of SCR?

"We are a branch organization", says Håkan. "Our role is to support the approximately 550 companies which are connected to us, and provide help and advice when they are in trouble for different reasons." "...but our main role is within marketing", he continues. "Our goal is to facilitate business in the companies connected to SCR".

How many of the camping and cottage rental companies in Sweden are connected to SCR?

"550 out of 725 commercial facilities in Sweden are connected to us. Then there are also about 350 practically non-commercial facilities which are not connected to us", says Håkan.

How would you describe the geographical coverage of the organizations' companies?

"We are distributed all over the country."

What is your role within the organization?

"I am a sounding board within the organization", says Håkan. "Since I have been in the organization for 22 years, I have been in many different situations. I'm in contact with authorities and I am also often the link between companies and institutions, since I have knowledge of decision processes and so on. I am also responsible for the quality systems and a new industry-wide environmental programme".

How would you characterize the tourists in the Swedish camping and cottagerental industry?

"They are looking for recreation and rest from every-day life. Typically, there are a lot of families with children. About 80 percent of the guests are Swedes, followed by Norwegians, Germans, Dutch...and the rest..."

For the Swedish tourists, what determines their choice of destination?

"The possibilities for sun and bathing is an important factor", says Håkan. He continues with stating that the possibilities to experience for example cities or the natural environment are also important. "Recreational fisheries is another reason for travelling, and combinations of all these factors are important for a camping ground", he concludes.

Generally, how has the industry developed during the last three decades?

"When I joined SCR, we had about 8 million guest-nights [per year]. Now the number is approximately 17 million." He continues by describing that the amount of cottages have increased, and the quality related to comfort services in the cottages, such as showers, dishwashers, heating etc. has exploded during the last three decades. Generally, he says that the industry as a whole is providing a lot more now than before in terms of comfort services and technology.

Have you experienced any changes in the Baltic Sea environment during the last three decades?

Håkan says that there has been a dramatic increase in the media flow on blue green algae-blooms. The news flow related to algae-blooms has direct effects on bookings, while "the inhabitants on Öland shake their heads and ask: where are those algae anyway?" The media reports seem, according to Håkan, to be one of the most important "environmental" factors for the tourism industry. "Purely environmentally", he however continues, "the water quality is a very important factor for us... As an example, camping ground owners have invested in beach-cleaning equipment to be able to remove algae from beaches." He says that the problems with filamentous algae on beaches have increased, and that the areas around the islands of Öland and Gotland and the west coast are afflicted by this problem.

Do you feel that the camping- and cottage rental industry has been influenced a lot by marine environmental problems during the last three decades?

"Yes, when there is presence of blue green algae, this has a clear influence on the industry."

Are there any other marine environmental problems which have affected the business during the last three decades?

"Well, maybe the storms, but this is during a limited time-period", he says. "Otherwise, we have been spared from environmental accidents".

What about oil spill?

Håkan says that the industry hasn't been affected, since the few accidents which have occurred have been off-season.

...and what about hazardous substances?

"In the general discussion about effluents from agriculture, I have been involved in different cases where there has been expressed anxiety about private drinking water wells, but there have not been any established truths, rather a general anxiety related to the drinking water quality".

How is the industry affected by marine debris and litter?

"This is a question about having enough people awake early enough to clean up... but of course, during the springs there is a lot of litter, which can be costly." Håkan says that litter and marine debris are indeed a problem for the industry, and that the financing of beach-cleaning is a tough issue. Is it the government, the municipalities or the stakeholders of the beaches who should finance this? In many cases, camping ground owners close to the beaches perform cleaning on their own. Håkan also says that the Swedish west coast seems to be more affected by this than the east coast, and that most of the debris can be traced back to England or Denmark.

Håkan continues:

"...and then, of course, there is the acidification issue..." Håkan describes this is a problem related to fish reproduction, which is important for fishing-tourism in the areas around rivers and lakes.

What is the trend regarding these problems during the last three decades?

Related to filamentous algae, Håkan mentions the importance of winds and weather for the local distribution. He also says that this problem has increased during the last ten years. Most of the problems seem to be on the east coast.

Related to blue-green algae, Håkan says that the problems with this are also mainly along the Swedish east coast, and that the problems with this have increased during the last decade. However, he mentions that there is a lot of variability from year to year.

Related to litter, Håkan says: "if you believe in the newspapers, it has increased". Also, he says that there seems to be consensus in the business that this is a problem which you have to accept and take care of. The amount of litter on beaches is directly related to winds, and with an increased frequency of storms, this problem is expected to increase.

Related to acidification, Håkan says that he has been very engaged in acidification issues during the years. During his time in Bergslagen [in the Swedish inlands], he was involved in lime treatment actions in lakes, in order to save populations of different fish species. "Seemingly, lime treatment actions have during the last decades evolved into a day-by-day natural sustaining measure. However, I am not the right person to ask about trends, since I haven't followed the development of this question since then".

Are you able to give any number to which the industry has been influenced by the above problems?

Håkan says that such an estimation would be too difficult.

Could you rank the problems, starting with the one with the most severe effects in the industry first?

"The worst problem is blue green algae. Then acidification in general is a more long term problem. This affects diversity and water quality", he says, and he mentions the effects of diversity for fishing tourism. He argues that algae-blooms is a short term problem, with direct effects for specific camping grounds, while acidification is affecting the industry more generally.

Regarding beach cleaning from filamentous algae compared to litter and marine debris, Håkan says that algae is a more stressing problem generally, but that this varies between locations. Along the west coast, for example, he says that cleaning from litter and debris might be a larger cost variable than cleaning from algae.

Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action or no action which resulted in a decline of profits in the camping industry. Who would you sue and which amount would you claim for damage due to these environmental changes?

"I can't answer this question", says Håkan. "We don't know what causes this...we can only suspect and have theories." He, though, mentions the Chernobyl accident, which caused dramatic reductions in bookings in certain areas the following years. In this case, there is a specific source, but generally, you can't hold one organization responsible. Also, the time-perspective is very broad, he says.

Has your industry been affected in the last 30 years by any marine environmental improvements?

"What would that be?", he asks... then he mentions a potential decrease in PCB and DDT. He also mentions improved technology in cars, which affects air quality. Otherwise, Håkan doesn't see any environmental improvements which affect the camping and cottage industries.

Which are the most important factors for the growth of the industry, both environmental- and non-environmental factors?

"1, that we provide what our customers want, 2, that we have the possibilities to travel within the country; roads are very important", says Håkan. "Also the energy prices are very important, which puts pressure on development in the vehicle industry". Håkan also mentions decisions on shore protection, and that the camping industry itself is positive for the access to shores.

How do marine environmental factors rank in importance compared to other factors?

"Mainly, the environmental factors, such as algae blooms, oil spill, litter etc. are short-term and local", he says. "In most cases, you can also do something about them. The other factors are more long term, which affects the business more generally."

Are there any non-marine environmental factors which affect the industry? How do these factors rank in importance compared to marine environmental problems?

Håkan mentions noise disturbances from traffic and the effluents of sulphites which cause acidification. To the second question, he says that this is very specific to who are the guests and where, and that such a ranking can't be done.

Do you think that your industry has an influence on the environment?

"Our ambition is that we don't influence the environment more than that we occupy space", Håkan says. "We live from the environment", he continues. "of course, the traffic from the tourism has an influence, but compare this to having people travelling to for example Thailand...". He argues that the camping industry has an important role in this, being able to give vacationists what they want. "And definitely...", he stresses, "...we have to make sure that we ourselves take our environmental responsibility, related to for example garbage handling and so on."

Which are the most important measures to take in order for the camping and cottage industries to alleviate its own impacts on the environment?

Håkan says that the energy issue is important, and that alternative energy sources should be a prioritized area in the near future.

What is the camping industry itself doing to alleviate its impacts on the environment?

Håkan says that the energy demand is the most important factor to which the industry itself influences the environment, and that most camping grounds today use energy from oil. However, he mentions that most of the new installations use solar energy as a source.

In your opinion, which are the most important measures to take in Sweden, in order to having a marine environmental quality which is beneficial to the industry?

"Act....and make sure to also get other countries in the game, so that we together can decrease the loads of nutrients". Håkan stresses that the effluents from agriculture and forestry have to decrease. He mentions an improvement in sewage treatment plants, which has given results, and suggest to the government to "use the right resources at the right time".

How would a change to a warmer climate with more rain affect the industry?

"A warmer climate would have a positive effect, given that we don't get too much rain..." Håkan says. He argues that a longer season would definitely be beneficial to the industry.

How would reduced eutrophication effects affect the industry?

"In a clearly positive way".

How do blue green algae bloom effects work... are they very direct, such that an algae bloom gives direct effects on bookings, or do they affect bookings for example next year?

"The effects are very direct. You can see the effects in bookings immediately. There are in principle no effects in next-year bookings. However, if there were algae-blooms in certain areas year after year repeatedly, this would have dramatic long-term effects".

What would happen if oil spill accidents were more frequent?

"This would cause people to choose inland vacations instead, but this would probably have to be a consequence of a very dramatic increase. Such an increase would probably not be allowed; in that case, the government would have to take actions".

How important is the preservation of old "fishery villages" for the industry?

Håkan says that in general, this is not a very important issue. He argues that some people put large emotional values on this, but on the whole this would not affect the camping industry very much.

Interview with Mr Mats Jansson, development manager, Gotlands turistförening [Gotland's tourism association]2005-05-21 Email:mats.jansson@gotland.info

How would you describe the purposes of your organization?

Mats explains that the organization basically leans on four pillars; tourist information, marketing, development and coordination. The organization has approximately 300 member companies in the tourism sector and related businesses on Gotland, and Mats says that this covers most of the all-year companies in the tourism sector.

What is your role within the organization?

Mats is development manager. "My role is to follow the development in the tourism industry on Gotland and generally. I also present this information to different stakeholders. I am also responsible for our own development projects related to the tourism industry." Mats says that he has been in the organization since 1991.

How would you characterize the typical visitors on Gotland?

"Well, there is no typical visitor", says Mats. He continues by explaining that Gotland has a good position since the island attracts a broad range of visitor-types. School classes visit not the least because of Gotland's ancient history. Young adults visit (among other things) for the nightlife in Visby. Families visit to enjoy (with high probability) good weather during the summers. There is a development to more weekend trips also "off-season", and the meeting and conference market is expanding. Also Gotland is a good alternative for "wealthy healthy older persons (whops)". "The marketing focus today..." says Mats ... "is on families, whops and meetings." Except from cruising visitors, 96 percent of the visitors are Swedes, and Mats explains this to be a consequence of the location of the island, since foreign visitors often have to travel an extra leg to get to Gotland.

What is your main argument to convince foreign visitors to come to Gotland?

"We often use the term *hidden treasure* when marketing ourselves abroad. We have a medieval well-preserved town, which is also flourishing today with not the least a good restaurant culture. The island has 92 medieval churches; the history is attracting visitors. Thirdly, we have a special natural environment with limestone, the fresh air, the light and the silence."

How has tourism on Gotland developed during the last decades?

"In numbers of guest nights, not that much has happened actually. What *has* happened, though, is that the turnover has increased, and we are now a more mature tourism destination compared to what we have been. For example, we have eight first class restaurants while [the nearby island] Öland has one, according to a recent article in one of the large national newspapers yesterday", Mats says. He also says that the off-season bookings have increased during the last five years.

Have you experienced any changes in the Baltic Sea environment during the last three decades?

Mats mentions, as a positive aspect, that oil spill has decreased during the last decades. As negative changes, he mentions a decreased cod stock and a decline in fisheries in general. Furthermore, there has been a trend towards a decline in bladder wrack and increased frequencies of blue green algae blooms. Regarding filamentous algae, he says that these have always been present sparsely around Gotland.

Is the tourism industry on Gotland affected by these or other environmental problems?

"We are affected by the reports in media concerning cyanobacterial blooms. In that aspect, it is a matter of information. During the last years, the situation has mostly been better near the coasts than offshore, and we try to inform our guest which places are affected or not affected. For people who want to bathe, there is always a beach available, which is free from algae blooms". He explains that the locations of algae blooms depend on weather and winds, and that this is often a very local phe-

nomenon. Also, he says that the tourists on Gotland are not very sensitive to this, not the least since Gotland offers a wide range of alternative vacation activities. However, he argues that if algae blooms would come back every year, rather than being sporadic, maybe due to a temperature increase in the Baltic Sea, the industry would suffer enormous losses, accounting to hundreds of millions SEK per year [1 EUR \approx 9 SEK] in reduced turnover.

Except from blue green algae, Mats mentions that good fishery is a missing piece in the travel experience to Gotland. He explains that improved possibilities to fish and more diversity would attract more fishing-tourists, "Today, we have approximately 1000 guest-nights per year related to sport-fishing. This could as well be 10 000 or 20 000 if the possibilities to catch fish would improve" he says. He also argues that improved fisheries would give the island cultural values and an improved restaurant and culinary life, which would gain the industry a lot.

Can you rank the importance of the marine environmental problems, with the most severe to the industry first?

"The algae bloom problem is the worst. Probably because this is a visible problem, which is very well related to the customers' purchase-decision" he says. "Another problem which might be as severe to us though is the supply of freshwater. These two problems are together the most threatening ones to us". He explains that limestone quarries and over usage, combined with a shortage of groundwater is what causes the problems.

A hypothetical question: Who do you think is mainly responsible for these environmental changes? Imagine your organization could sue some institution/company/government for action or no action which resulted in a decline of profits in the camping industry. Who would you sue and which amount would you claim for damage due to these environmental changes?

"We are many chefs in this soup", Mats says. He continues by explaining that a specific institution or country can't be pointed out, but we have all during a too long time had too much effluents of nutrients, which is causing problems now.

Earlier, you said that oil leakages have decreased... Have you experienced any other improvements in the environmental quality during the last decades?

"It is also warmer now", he says and laughs. Then he mentions a tougher policy towards hazardous substances, which we now can see as results in for example an increased seal population. You can also see an improvement in the population of eagles.

Is this something that affects the tourism industry?

Regarding the eagle population he says: "We are very dependent of satisfied customers, telling others about the travel experience. Spotting an eagle obviously gives an enormous value for the person who spotted it".

All in all, including also non-environmental factors which are the most important factors for growth of the tourism industry on Gotland?

"What has limited an expansion so far is carefulness from authorities to allow building of new installations. Also, this is not the least an issue about the attitude from the political system to the tourism industry in general." He explains that this attitude is very important for the investment climate. Mats also explains the importance of good communications to Gotland, an area which has improved a lot during the last decade. "And then, of course, we have the marine environment which has to improve, regarding fishery, algae blooms and dead bottoms." he says.

If you would compare marine environmental problems with other factors, where would you rank the marine issues in importance, in order for the industry to grow?

Mats explains that the industry could grow even through a deterioration of the marine environment, though this would be more difficult and it would demand adaptations to substitutes from beaches, such as swimming pools and further development of other activities.

Are you influenced by any non-marine environmental problems?

"Not really", he says. "But we have seen a decrease in bicycle-tourism, which is a consequence of increased road-traffic. However, the solution is not to decrease road traffic, it is rather to build more bicycle paths".

Is the tourism industry on Gotland itself affecting the environment in any positive or negative ways?

"Today, I would say that we do too little... I wouldn't say that we have a negative influence, but we could do more, for example with climate and air condition installations." Mats also says that transports to and from Gotland as well as on the island, energy consumption and garbage handling are negative aspects.

Looking to the future; which actions are the most important in your opinion in order to have a marine environment which is beneficial to the tourism industry on Gotland?

Mats says that international cooperation and action is crucial. Also, he mentions the need for new research, not the least on fisheries in order to find out which effects come from what. Thirdly, he says that being able to weigh different interests against each other, such as agriculture versus reduced nutrient loads is an important issue.

If there would be a change towards a warmer climate, how would this affect the industry?

Mats says that Gotland is predicted to be a "winner" from a potential climate change, with less rain as an effect. He adds that this, though, might imply problems with fresh water supply.

If there would be a situation with yearly major algae blooms like the situation two years ago, how would this affect the industry?

Mats explains that this scenario would have very serious consequences to the industry, with major losses in turnover. He says that it would be possible to have a tourism industry even with algae blooms, but this industry would be maybe half the size of today, focusing on tourists who are interested in other things than sun and bathing.

How would a scenario in which the oil-leakages increased affect the industry?

"This would depend on when, where and how", says Mats. "If an oil spill accident occurred, this would affect the business negatively in the specific area, but unless we don't have a huge accident, the situation would be manageable. Ecologically though, this would of course not be a good thing."

How important is coastal fishery and activity related to this in old fishery villages to the industry?

"This activity provides added value to visiting tourists" says Mats. "This activity is missing to a large extent today. You can see the fishery camps, but today they are used for other purposes." "A return of the activity would affect the industry positively", he concludes.

Interview with Mr Pigge Werkelin, managing director, Werkelinbolagen [operator of several camping grounds on the island of Gotland, as well as the airline flying to the island] 2005-05-21

Email: pigge@werkelinbolagen.se

How long have you been involved in the industry?

"I have been in the tourism business since I was fourteen, which is 33 years ago".

How would you characterize the typical tourists on Gotland?

"Mainly wealthy people from the Mälardalen area [the area around the major Swedish cities of Stockholm, Uppsala and Västerås]. The share of international tourists is probably less than five percent. More than 50 percent of the tourists during summer season are families with children, and maybe 25 percent young adults".

What is the typical tourist's main reason to come here?

Pigge explains that the main reason is the possibility to experience good weather and bathing, and that the island's exotic character combined with nature and cultural life are also important factors.

In your view, how has the industry developed generally during the last decades?

"People stay for shorter and shorter periods. We have less and less guest-nights, but people spend more now than before. Today, the tourists represents a more exclusive group with more resources", he says.

In your view, how has the Baltic Sea marine environment developed during the last decades?

"We have more and more of blue green algae blooms, which demands us to take actions such as building swimming pools. If there are problems with the water, we have to provide an alternative".

Is the algae bloom problem the sole reason for building swimming pools?

Pigge explains that this is indeed a reason, but that the main reason is to expand the season and make bathing possible also when the weather is bad. Furthermore, he says that algae blooms were also present when he was young, but this was considered a "natural" thing. He argues that media has a large role, and that the industry, when facing media reports on blue green algae blooms, has to show that it provides alternatives like swimming pools and information on where you can and can't bathe.

Do blue green algae blooms influence the business to a large extent?

Pigge says that since the business is characterized by under capacity, it is not such a big problem. "if 100 people want to go to Gotland, we can take 60. If we lose 25, we still have our bookings full", he explains.

What is causing this under capacity?

"A limiting factor is transports to the island", Pigge says. He also says that the boat traffic today is non-sustainable environmentally, since the boats operate with too high speed. "We desperately need to have an environmentally friendly alternative in boat traffic", he says.

What would happen if we had a situation with algae blooms every year?

"This is a threat to us", he says. "...people who travel here have to, when they get home, say that they had a good experience." In such a case, the industry would have to develop alternative possibilities to bathe, such as more swimming pools and infrastructure (toilets, parking spaces etc.) around lime stone quarries, which could be used more for bathing, he explains.

Have you noticed any other changes in the Baltic Sea environment during the last decades?

"Fish. There is practically no cod or pike anymore".

Does this have any consequences to the tourism industry?

Pigge says that the consequences of this are marginal, since the island has never been very dependent on fishing-tourism. He, though, adds that diversity is very important in itself.

What is the best case scenario in order to have an environment which is beneficial to the tourism industry on Gotland?

Pigge says that increased fuel prices would cause people to stay longer, which would be beneficial to the industry. This would also cause people to choose Gotland instead of travelling abroad. He also adds that a reduction of algae blooms would be beneficial.

Is marine debris and litter on beaches a problem for the industry?

"No. What we have to clean from is mainly red and brown algae. On the camping ground which is mostly affected by this, we put down a cleaning effort of maybe one to two hours a day with one person during the season" Pigge says.

Which factors, all in all, including the environment, are the most important for growth in the tourism industry on Gotland?

Pigge says, again that the most important factor is transports to and from the island, which today has a clear undercapacity. Also, he says that the infrastructure on Gotland would have to adapt to an increased number of tourists. This would though, in his opinion, be a natural consequence if the transport situation improved.

How is the industry itself affecting the environment?

Pigge says that "Gotland is the most *ungreen* destination in Sweden, since people have to fly here or take the high speed ferries. To the rest of the country, you can take the train. This obviously makes it hard to market ourselves as an environmentally friendly alternative". He says, further: "We can do a lot on Gotland, and this is of course important, but on the whole this has marginal effects anyway." He explains that what the industry really has to solve is transports, with a more environmentally-friendly ferry traffic.

Has oil spill influenced the industry?

"No, we have been spared from this... but it is indeed a major threat with the large tank boats in mind. If we could have pipelines instead, there would be no risk of a major collision. But in this situation, something *will* sooner or later happen." he says. "And this would of course be very negative for the industry".

Regarding fishery, do you think that the decreased activity in coastal fishery-villages is affecting the tourism industry negatively?

In the long run, Gotland has lost a "quality" of visiting, which might have influenced the industry, he explains. But Pigge says that on the whole, this activity has to a large extent been replaced by other activities related to tourism and the visiting industry.

Interview with Mr Gustaf Öholm, managing director, Ölands Turist AB [Öland's Tourism association], 2008-05-22

Email: gustaf.oholm@visitse.se

What are the roles of Ölands turist AB?

Gustaf says that the organization has a leading role in tourist information and booking, marketing and market research. But maybe most importantly, the organization has a responsibility in developing the destination. "During the last two years, the turnover has increased with approximately 150-200 million SEK (1 EUR \approx 9 SEK), with this more focused role, combining communication, marketing and a clear development vision…" Gustaf also explains that the organization has a tight connection with the local authorities.

What is your role within the organization?

"I have been here for 2.5 years, as the managing director of the organization" Gustaf says.

How would you characterize the typical tourists on Öland?

"We have four target groups", says Gustaf. He defines this as families with children, wealthy healthy older people, corporate meetings and *double income no kids*. Gustaf explains that traditionally, Öland has been a sun and bathing destination, combined with good possibilities for activity and entertainment. During the last years, there is a trend towards an expansion of the season, and an important step in the future is according to Gustaf to further bring forward for example the island's cultural and natural values, which are unique.

Have you experienced any changes in the Baltic Sea marine environment during the last decades?

"We are very well aware of the development of the marine environment, and we follow the development closely, not the least issues of water quality. We are incredibly sensitive to the water quality, and if we talk about a deterioration in the water quality or some kind of catastrophic events, this is directly and immediately connected with negative effects for the destination." Gustaf says. He also says that the blue green algae blooms seem to have increased during the last years.

Is the tourism industry on Öland affected by these or other marine environmental problems?

Regarding blue green algae, Gustaf describes this as being not only an environmental problem, but also a media reporting problem. He exemplifies with the situation in 2005, when there were a lot of media reports on algae problems on Öland, and the industry lost about 250 million SEK (1 EUR \approx 9.SEK) in turnover that year. In reality, he says, the problem is much more local than the media picture depicts. Even in a situation with major algae blooms like in 2005, most beaches are not affected. Gustaf tells about a newly launched information programme as a response

to this media reporting problem, in which water samples from all beaches on Öland are taken three times per day during the bathing seasons. The samples are sent to an analysis unit at the university in Kalmar, and the results are published on a website for the general public. It is also possible to get information via the telephone and by text message services. Gustaf also says that this service has indeed been extremely widely used by the visitors.

Imagine a scenario in which there were continuously algae blooms like the situation 2005, how would this affect the industry?

"This would indeed affect the industry negatively" Gustaf says. "But again, this is also an issue of information and communication, and such a scenario would demand another amount of communication effort from us".

Are red filamentous algae a problem?

Gustaf says that this demands cleaning efforts from camping ground owners, who have to invest in beach cleaning machines and put down human resources in performing cleaning.

What is the worst problem for the industry – having to clean beaches from drifting filamentous algae or facing blue green algae blooms?

Gustaf says that he thinks that the problem with blue green algae blooms is much worse. "No doubt, we are more sensitive to these kinds of catastrophic events - let it be algae blooms or oil spill accidents or whatever – than to cope with day by day operational issues like beach cleaning", he continues.

Has the tourism industry on Öland been affected by oil spill?

Gustaf says that this far, no major oil spill accidents have occurred which have affected Öland to a large extent. He though argues that the risk for oil spill demands that the organization is ready for action if or when a catastrophe occurs.

Is marine debris or litter from the sea a problem for the island?

"Not really", Gustaf says. "We have a good quality on our beaches through our work."

Rolf Edmark joins the interview. Rolf is the chairman of the board of directors in the organization.

Email: rolf.edmark@olandsturist.se

Rolf, how would you say that your organization works in a political perspective with environmental issues?

"To start with, the most important factor of all to us is the Baltic Sea marine environment. If the environment deteriorates, then this means goodnight and goodbye for us as the inhabitants and also for the tourism industry. For corporate gover-

nance, it is crucial that we bring these issues to the discussion tables". He explains that one specific action which is taken is the information activities related to water quality, [described above]. Another action which is taken is to inform policy makers locally and nationally about the importance of the marine environment for the industry, trying to promote action.

In your opinion, which is the most stressing environmental problem for the tourism industry on Öland?

"I would say algae blooms" says Rolf. Gustaf fills in: "With reservation for the fact that we wouldn't be the most popular destination in Sweden for sun and bathing vacations if the marine environment would be too bad today. Generally, we have a good quality. But the immediate threat in the future is indeed blue green algae blooms".

"Number two", Rolf continues "is the oil spill threat... If a tanker sinks outside the coast and x hundred cubic meters of oil drifts to the coast, then this is a total catastrophe. A whole year might be lost for us. And moreover, the tourism industry is the engine of the economy here, so the secondary effects would be extremely dramatic." He continues: "in a longer perspective, we can also see effects on fishery, which has decreased during the last decades..."

How important are fish stocks and species diversity for tourism on Öland?

"If you go back maybe twenty years, we had attractiveness in the activity in for example Böda, where I live. You could always buy new smoked fish from several fishermen...and now this business is practically gone...This is of course negative for tourism". Gustaf and Rolf explain that there are absolutely no volumes left in the fisheries on Öland, but that what is left is extremely important to keep. Rolf says: "If we wouldn't have life in the harbours of for example Kårehamn or Böda, this would be a total disaster for the tourism industry. I have argued politically that this must be preserved no matter what, maybe even for museal reasons." Gustaf and Rolf argue that this is an aspect of Öland which is as important as the windmills for the identity of the destination.

If we would have increased frequencies of algae blooms... could this be compensated in any way by alternative options? For example if you build swimming pools to still provide bathing opportunities.

"This would not be enough", says Rolf. "The beaches and bathing in the sea is a cornerstone for Öland." Gustaf fills in: "You can build how many swimming pools you want, and this might be a solution in the short perspective. ...but this is more an issue about having a longer season and an alternative when it rains... if you would have continuous algae blooms this would, just as Rolf says, be a total disaster for the destination".

What kind of actions would you like to see in order to have an environmental quality which is beneficial to the industry?

Rolf says: "We *have* to solve this problem. On highest political level, with international cooperation. Putin, Reinfeldt and all the other guys have to say to each other: If we don't solve this, then we can say goodbye to all the tourism industry around the Baltic Sea. We need political action. And this will be tough, not the least for the agricultural sector."

They conclude. Rolf says: "The sea has to be saved immediately, otherwise we can simply say goodbye to the tourism industry and all economy related to this". Gustaf says: "All analyses have already been made, what we need now is action".

Interview with Mr Hans W. Berglund, secretary-general, Svenska Båtunionen [the Swedish Boating Union] 2008-06-02

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What are the roles of your organization?

"We have three legs to stand on. We provide insurance to our members, both for boating clubs and on individual level, we have an information role, and we are deeply committed to environmental issues" says Hans.

What is your role in the organization?

Hans is the Secretary-General of the organization since 2002. Earlier, he has been a boating club chairman for seventeen years.

How would you characterize the typical boat-owners in Sweden?

"It's generally a man over 36 years with a good economy. Today we have a small share of women, but this share is increasing", Hans says. According to Hans, it is difficult to say how many of the boats in Sweden are motor boats and how many are sailing boats, respectively. The main reason for having a boat is to come in contact with nature, Hans explains.

Generally, how has the boating industry developed during the last decades?

"We had a major expansion during the seventies; Sweden had a good economic development during that period. As a consequence, there are a lot of boats today which are constructed during the seventies. Since then, we have had a slow expansion", Hans says.

Have you experienced any changes in the Baltic Sea marine environment during the last decades?

Hans explains that the sight depth has increased, which is probably a good thing, but algae blooms have also increased. He says that Sweden is the leading polluter of nutrients in the Baltic Sea, and that we have to do a lot ourselves within agricul-

ture and forestry. "A bad scenario would be if we don't decrease our nutrient loads, and eastern Baltic Sea countries increase their nutrient loads...then the Baltic Sea is in deep trouble. Furthermore, I think that we will have to accept the blue green algae blooms for a period now" he concludes.

Regarding sight depth improvements, since when have you noticed this change?

"Five to six years", Hans says.

Would you say that the boating industry is affected by environmental problems in the Baltic Sea?

"Yes, no doubt... The Baltic Sea environment definitely affects us." Hans explains that boating tourism to the Baltic Sea is very sensitive to reports on algae blooms. If there are reports, people take their boats somewhere else, for example to the Swedish west coast. Also, the outer archipelagos lose a lot from reports on algae blooms, since boaters choose to spend their vacations rather in the inner archipelagos, closer to harbors and availability of activities on land. "Also..." Hans continues "..the media reports are quite unbalanced". He explains that the reports describes the situation as if, for example, all the Stockholm archipelago is affected by algae blooms, when the situation is really much more local and variable depending on winds.

How do you face this fact?

"We don't have any own information channels to the public", Hans says. "However, we try to bring up a discussion about the problem and what we can do about it in different contexts." He also says that the organization prosecutes political lobbying in order to reduce the nutrient loads, but so far this has not been an area of focus for the organization.

Are there any other environmental quality aspects which affect boating?

Hans says that the possibility to enjoy a non-agitated natural environment is crucial to the boating industry, and that forestry and agriculture is a potential threat. However, he says: "You can of course have opinions regarding forestry- and agricultural methods, but on the other hand, we already have limitations regarding this".

Looking to the possibilities for recreation fishery...what is the general development regarding for example fish stocks?

"This is not a major issue for our organization", Hans says. "Of course, you can't catch the same species and the same amounts as when I was young.. but I am really not that involved in these kinds of issues".

Getting back to the algae bloom problem... You said that boating tourism is redirected from the east coast to the west coast... Do you have any idea how large this effect is?

"No, we don't have that sophisticated statistics unfortunately", says Hans.

What about daily boating-trips... are these affected by algae blooms?

Hans says that what is really affecting the amount of these kinds of boat trips today is the fuel price, since the algae blooms are in fact local.

What other factors influence the possibilities for boating activity?

"If the environment is at a level which boat owners think is ok, then the major factors are the access to moorings and harbor space on land, and also the operating costs. Today, this access is in shortage, especially on the west coast, but we also see it in the Stockholm area. This shortage will probably increase in the future", he concludes.

If you could set up the best-possible scenario, which would make the boating industry grow, what factors would be important?

Hans says that in order to attract new boat-owners, solving the problem with undersupply of moorings is crucial. Then there are the fuel prices, he says. Environmental improvements would rank as number three in this context. Of these factors, algae blooms and fouling from barnacles are two of the most important ones. Regarding barnacles, boat paints which prevent fouling are forbidden in Sweden, due to their toxic contents. However, Hans says that there might be extensive illegal use of forbidden paints.

Do you have any idea of how much extra fuel is demanded when a small boat is fouled by barnacles?

"Well, there have been discussions about this, where people have said that from a total ecologic perspective, it would be better to allow anti-fouling paints since fouling results in a higher fuel consumption, causing increased effluents of carbon-dioxide and nitrous gazes...I have heard these hypotheses and they may contain some truth...but I am not ready to say anything specific about this", says Hans.

Are there any non-marine environmental problems which affect the boating industry?

Hans mentions pollution from road traffic, which makes boats dirty. He also discusses the issue of fuel taxes, which are the same for car traffic and boat traffic, and he argues that the environmental impact from boat traffic is less, since much of the pollution from boat traffic does not reach the air, but are solved in the water. "Then you can always have a discussion on how much is solvable in the water, but these are definitely two different situations…" he concludes.

How would you say that the boating industry itself influences the environment?

Hans explains that one aspect is the boats themselves, which are a nuisance for some people and a picturesque detail for others. Moreover, there is the discussion about boat paints, which are definitely a negative influence. Mats also mentions fuel and energy consumption.

Which are the most actual actions that the industry is taking to reduce negative influence on the environment?

Hans says that information regarding harbor operations and other aspects is an important task for the organization.

If we would have a situation with more frequent algae blooms, how would this affect the boating industry?

"The number of stayovers in boats in the outer archipelagos are already decreasing, being replaced by harbor nights. This trend is a consequence from algae blooms. If we would have more frequent algae blooms, this trend might continue even further", Hans says.

Interview with Mr Joakim Ollén, chairman board of directors, Sportfiskarna [the Swedish sport-fishing association] 2008-06-05

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How would you describe your organization?

"We are a part of the environmental movement", says Joakim. "Mainly because we always make the priority that it is more important that there *are* fish than that you *catch* fish. With the present threats to the fish stocks, it is natural for us to focus on stock preservation, water quality issues and so on". Joakim continues by explaining that the organization also has a supportive umbrella role for the sport-fishing industry, which is a large industry in Sweden, with a turnover of several billion SEK (1 EUR \approx 9 SEK).

How do you work with these environmental issues practically?

Joakim says that the organization has an important role in influencing the public opinion. For example they have been leading in the discussion about the risks with exploiting more rivers in Sweden and issues concerning lime treatment of lakes. As another example, he mentions the fight to decrease industrial fishing on wild salmon in the Baltic Sea. "If the salmon is only caught by sport-fishing, then there is no risk for decreasing stocks", he says. "Also, this would be good from an economic point of view, since you then would use the resource rent in an as good as possible way... The resource rent is much higher for sport fishing than for industrial fishing. This is an example of how you combine environmental care with the economy", he continues.

Why is the resource rent higher for sport fishing than for industrial fishing, considering the Baltic Sea salmon?

"This is easy to explain. If you catch a kilo salmon and sell it, you get maybe 10 SEK per kilo (1 EUR \approx 9 SEK). If sport-fishers catch the same salmon instead,

then it is worth thousands of SEK, since this generates effects in the local communities in terms of tourism, sales of equipment, of fishing licenses and so on".

How would you characterize the typical sport-fisher?

Joakim says that this person is really anyone, since everybody is fishing sometimes. The very active sport fisher is typically a man, he adds. "No matter if you fish once a year or every day – this is a fantastic way of meeting the nature, physically and emotionally".

Generally, how has the industry developed during the last decades?

Joakim says that the industry is becoming more specialized in terms of equipment. He also says that another trend is that certain fish stocks, not the least cod, have decreased very dramatically lately. In terms of coastal sport fishing, pike and perch has also decreased, a fact which Joakim explains as being an important concern.

How is the situation with fishing tourism in Sweden?

"We have a lot, but we could have tremendously much more", Joakim says. He explains that this industry has an enormous economic potential if correctly managed. As an example, he brings up salmon in the Baltic Sea again, which is an issue of political priority. Having a good management of this would cause positive economic effects related to sport fishing amounting to hundreds of millions SEK (1 EUR \approx 9 SEK) per year.

Going back to cod... What happens with sport fishing when the stock decreases? Is the consequence that people fish less or that cod-fishing is replaced by fishing for other species?

People indeed fish for other species, for example mackerel, today, Joakim explains, but he also says that this might have caused reductions in sport-fishing in general. Most of all, he though argues that a recovery of the cod stock would have huge emotional and existence values.

Generally, how has the Baltic Sea environment developed during the last decades, in your opinion?

Joakim says, to start with, that a very positive aspect is improvements in water treatment, which has given positive effects for example for the sea trout stocks in many rivers. "On the other hand, we have indications of long-term problems such as eutrophication from diffuse sources, not the least from the east side of the sea", he continues. Joakim also mentions the risks with hazardous substances such as PCB.

Apart from fish stocks issues...are there any other marine environmental factors which influence the possibilities for sport-fishing?

Joakim says that for example algae blooms have a direct negative effect. "You simply don't go out fishing when the surface is covered by algae", he continues. He also exemplifies with the cod stock decrease, which causes an increase in the her-

ring stocks, which causes decreases in animal plankton, which is a problem for the food supply to juvenile pike and perch – which are two of the most important sport-fishing species in Sweden.

Are increased amounts of filamentous algae a problem for sport fishing?

"Well, this is not a good thing...we have a reduction in bladder wrack and eelgrass and this is being replaced by filamentous algae.. but I don't know if this has caused any consequences for sport fishing" Joakim says.

What development would you like to see in order to have an environment which is beneficial to sport fishing?

"We need an ecosystem in balance", Joakim says. "As I said, the existence of fish stocks itself is more important than the catches." He continues by exemplifying with the importance of a cod stock recovery. "Stopping cod fishery along the whole coast, together with having no industrial fishery on wild salmon would be two very important measures to take. As a bonus, this would also probably have positive effects for the pike and perch stocks." "An effect of a successful fishery management policy would of course also gain industrial fishery in the long run, which is a positive thing. Limiting industrial fishery is not a purpose of its own.", he concludes.

Interview with Mr Håkan Hellström, managing director, Svensk Fastighetsförmedling Sydost [Sweden's largest real estate agency, dpt for southeast Sweden] 2008-06-17.

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How would you describe Svensk Fastighetsförmedling?

"We are Sweden's largest real estate agent, and our role is to facilitate residence changes, in order help people fulfil their residence dreams" says Håkan. He explains that about twenty percent of the residence changes in Sweden go via Svensk Fastighetsförmedling. "Looking to coastal settlements, we are probably larger than that though".

What are your roles in the organization?

Håkan explains that he is the managing director of a franchise district with 14 agencies in southeast Sweden. He is also a real estate agent himself.

Generally, how has the real estate industry developed during the last few decades?

Håkan says that the number of sales has increased, but that there is a shortage of residences today. He also explains that there is a trend in which people want to move more often now than during for example the seventies, but this trend has been held back by the shortage. Regarding prices, they have constantly increased in

real terms during the last decades, and recently they have settled a bit. He says that this structural price increase can be explained by changes in interest rates and changes in attitudes to borrowing money.

How would you characterize people who buy houses in coastal settlements?

Håkan says that these people are represented by two "types". The first type having a seaside lot for status, the other type having a seaside lot due to a pure interest and enjoyment of the nature and the sea. The latter type is more represented by older people and families with children. ..."if the Baltic Sea would be a stinky algaepuddle, then these values would definitely be gone", he continues.

Have you experienced any changes in the Baltic sea marine environment during the last three decades?

"My experiences... are... there are no fish anymore, there are the algae blooms, there is overgrowth in creeks, and the bladder wrack is disappearing.. And also, I think that there are less marine bird species now, they have been replaced by for example cormorants.."

Do any of these factors affect the real estate industry?

"Absolutely", Håkan says. "What affects us the most is overgrowth in creeks and of course algae blooms." He explains that for a boat owner in a creek which has problems with algae blooms or overgrowth, this is very negative. Further, he says that people who want these kinds of natural experiences simply hesitate to move to such an area. On a more general scale, he argues that the sea is providing us with services which are extremely important. "If we would have a dead Baltic Sea, then this country would have five million inhabitants instead of nine. People would simply move to other countries", he concludes.

Does these kinds of problems affect property values?

"A house in an area with much of these kinds of problems might well lose half its value", Håkan says.

Generally over the last few decades...what share of the properties would you say are affected by these kinds of problems?

"This is hard to say. But since the demand is much higher than the supply today, these effects are probably small. With a higher supply, providing more alternatives, this would indeed affect values more."

What is your opinion regarding the continuity in these kinds of problems. ..is it always the same areas which are affected, or is this very variable?

"There is a variability in locations for these problems from year to year. Generally, though, the problem has increased during the last few years".

How large share of the property values depend on "an algae-free environment"?

"An algae-free environment versus a lot of algae for five years in a row... then the value is reduced to 50 percent", Håkan says. He adds that this is given that we have a continuous problem. "Little algae might reduce the value with say 10 or 20 percent".

Have you experienced any improvements in the Baltic sea environment?

"Not directly", Håkan says. "However, the fact that we *can* do something about the environment gives hope". He says that the general awareness about the marine environment has increased a lot lately, and this is a good thing for the future.

Looking to the fact that coastal fishery seems to have decreased during the last decades... This has a logical consequence that fishery-related activities in "fishery villages" are reduced. Does this have an effect on property values? "You lose genuinity. On the other hand, other ways can be found in order to keep the attractiveness". He says that it is important to be able to attract tourists, and that preservation of what is left is very important for this purpose.

Regarding shore protection, how do you as real estate agents work with these issues? [in Sweden, there is a general prohibition of building closer than 100 meters from the shore of lakes, rivers and the sea.] Håkan says that he has been very involved in these kinds of issues, and that the organization is constantly active in the political discussion. Generally, he has the opinion that shore protection has to be more adapted to the situations in the specific areas. In some areas, exceptions from the general shore protection are motivated whereas in other areas, we could be even stricter.

How would you like to see the practical politics regarding exceptions... Is it about making general exceptions for large areas or is it more local; about making detailed exceptions for smaller areas or individual buildings?

"Both of these", Håkan says. "...but what is definitely wrong is making an exception for a two kilometer beach strip, and then fill this area with as many houses as possible." He argues that it would be much better to have the houses sparsely distributed, allowing for people to pass by. "This would be just a pleasant element, and it is natural for us", he argues. He also says that in certain exploited areas, you have to have a very strict shore protection policy, while in other areas you can loosen it up a bit. "What I am very much against is a trend that everything that is beautiful should be a protected area", he says. He continues by arguing that this beauty should instead be available to people by making it possible to live in the area. He concludes: "If we handle the shore protection issue right, we will have more activity in sparsely populated regions, good protection in the exploited areas, and we will also create an increased respect for the nature and the environment if people are allowed to live *in* it. This would be maybe the best environmental-improving action there is".

Conclusions

Regarding representativeness of the interviewees' opinions, not much can be said but that this is unknown. However, key actors within each sector of the industry have been interviewed and this gathering of their opinions is a very important result in itself.

A general result is that the tourism industry is heavily dependent on a good state of the Baltic Sea. The eutrophication status seems to be the most important environmental factor for the industries, and blue green algae blooms seem to be the most threatening eutrophication effect.

Another general result from the interviews is an indication that until now, the environment has not been considered one of the most important factor for the industries. The reason for this is that the environment today seems to be somewhat "ok". However, there are also strong indications that a further deterioration of the Baltic Sea environment might cause major harm to the industry, not the least on the islands of Gotland and Öland, whose economies are also strongly dependent on tourism. Rolf Edmark on Öland says: "The sea has to be saved immediately, otherwise we can say goodbye to the tourism industry and all economy related to this". If the judgments of the interviewees have any truth, this is a signal to the political sphere that the environmental policies the next years are crucial for the future of the Swedish marine tourism industry.

Catastrophic events, such as major blue green algae blooms or an oil spill disaster seem to be the greatest fear. Furthermore; continuous algae blooms seem to be a huge threat. Algae blooms which come back year after year are a frightening scenario, and Mats Jansson on Gotland says that this may reduce tourism to half of today's level. An interesting aspect related to the present is that, according to the interviewees, the media flow regarding blue green algae has been a problem just as important as the algae blooms themselves, since the media gives the picture that e.g. the whole Baltic Sea is affected, while the blooms are in fact local and very dependent on winds and weather. Mats Jansson on Gotland says: "For people who want to bathe, there is always a beach available, which is free from algae blooms". The response to this from the tourism industry has been to set up own information channels regarding water quality on different locations.

Regarding suggested actions, eutrophication is generally in the center and the interviewees suggest immediate political action against eutrophication in the Baltic Sea countries, not the least within the Swedish agricultural sector and within water treatment in the eastern Baltic Sea countries. Gustaf Öholm on Öland says: "All analyses have already been made, what we need now is action".

In recreation fishery, the diminishment of the cod stock is an obvious environmental change during the last decades, which has affected the possibilities to fish along the coasts. Also, the Baltic Sea wild salmon stock seems to be important for sport-fishing and there is competition for the salmon with industrial fishery. The sport fishing interviewee says that the resource rent is much higher in sport fishing compared to industrial fishing, and he suggests further actions limiting the industrial fishing in order for the Baltic Sea wild salmon stock to recover.