

THE IMPACT OF CARBON DISCHARGE LEGISLATION ON FUTURE DEVELOPMENT OF MARITIME TOURISM AND CRUISING

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In 2008 the U.N. International Maritime Organisation set up new rules for sulphurous content in maritime fuel. That decision will also have consequences for shipping and trade in, inter alia, the Baltic Sea. From the 1st of July 2010, ships sailing in the Baltic Sea are allowed to have only 1, 5 % sulphurous content in the fuel of the ships and only 0, 1 % in 2015-01-01. Is this a threat to the tourism industry? Will there be fewer cruising ships in the Baltic Sea? Will the ferry traffic between the harbours in the Baltic Sea decrease due to higher fuel price, because of less sulphurous content in the fuel?

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INTRODUCTION

Travelling around the globe will affect the environment, causing severe problems for the humanity in the future. What to do with the carbon emission from different transport means, the tourists' unwillingness to pay a climate offset, how will today's tour operators, destinations and long haul destinations be affected?

At the Climate Summit in Copenhagen, December 2009, it was discussed how to protect the environment from the carbon emission and how to reduce the greenhouse effect globally.

From a touristic point of view one has to ask oneself how the tourist industry will in general deal with the environmental problems. What kind of costs will be related to their work in improving the environment? Will there be higher costs for the tourists and are they willing to pay the higher price for their holiday? In the worst case it will be a decrease of incoming tourists to tourist destinations located at remote areas and how will they handle a substantial decrease of incoming tourists in the future. Now,



looking back to what happened in Copenhagen it is realistic to say it was a failure and a step backwards globally. For the tourism industry, as well, there was no decision taxation on carbon emission. The industry will not have any support from governments, worldwide, to charge tourists on a fee for CO² emissions.

As Richins and Scarinci (2009) writes in a case study and confirm the above is that one of the key industries that may be affected by global warming and climate change is the tourism industry.

World tourism is the fastest growing source of discharge to air pollution and the greenhouse effects, mainly via carbon dioxide. The discharge is estimated to increase with more than 150 percentages until the year of 2035. If the trend with increased air transportation does not change for the better, tourism until 2060 will cause a bigger deterioration in the climate than all other industry sectors in a global perspective predict the researchers Gössling, Upham, Dubois and Hall (2009).

In between 2001 and 2009, the greenhouse effects on the globe have been discussed by the EU, the UN Intergovernmental Panel on Climate Change, UNIPCC, as well as by the World Bank in order to find different solutions, but very little or nothing have happened so far.

CARBON DISCHARGE FROM THE TOURISM INDUSTRY

At the moment the tourism industry produces 5 % of the world's total carbon discharge. Half of the discharge comes from aircrafts flying on high altitude, which affects the climate, much more than short distance flights on lower altitudes.

According to the tourism industry's own calculations, international travelling will be doubled until 2020, and the destinations will be much more far away. The travellers will stay for shorter times than before and they will stay at high standard establishments. All this will consume a tremendous amount of energy.

In 2008 the U.N. International Maritime Organisation made up new rules for sulphurous content in maritime fuel. That decision will also have consequences for shipping and trade in the Baltic Sea. In 2010, the Swedish Transport Agency took a decision that from the 1st of July 2010, for ships sailing in the Baltic Sea. The allowed sulphurous content in the fuel of the ships will be reduced from 1, 5 % at 2010-07-01 to 0, and 1 % at 2015-01-01. This reduction will be taken stepwise over the time period. The rules will be somewhat different for vessels sailing the North Sea comparing to the Baltic Sea. A higher percentage of the sulphurous content will be allowed for the North Sea vessels.

So one can probably expect a higher oil price due to cleaner oil, and it is not a too bold guess that the cruising passengers have to pay a higher price due to the higher oil price!

According to Michael Castanius, Branch Manager Ports of Sweden, the shipping costs might increase by up to 45 percent in; inter alia, the Baltic Sea. This is an increase as the rest of world not will have (Dagens Industri 2011).

In a speech at the United Nations Climate Change Conference 7-18 of December 2009, Copenhagen it was said;

“International shipping emits 870 million tons of CO₂ each year. That’s more than total emissions from countries like the UK or Canada. Shipping emissions have grown by more than 85% since 1990, the base year of the Kyoto Protocol. Aviation contributes 4.9% to climate change and emits over 730 million tonnes of CO₂ every year. The lion’s share is from international aviation, which emits more than France or Australia. These emissions have grown by well over 45% since 1990. Left unmitigated, emissions from aviation and shipping will double or triple by 2050, forming by then a very significant proportion of a global carbon budget consistent with keeping warming below 2° C”. (Ulla Rasmussen, 2009).

Probably, all countries around the Baltic Sea will come to the same decision as the Swedish government in this issue. Therefore, it will be of great interest for the tourist industry all around the Baltic Sea to find out what the consequences of that decision will be. Will there still be a cruising industry in the Baltic? Will there be fewer cruising ships in the Baltic Sea? Will the ferry traffic between the harbours in the Baltic Sea decrease due to higher fuel price, because of less sulphurous content in the fuel. If so, both the tourism industry and state revenues will be affected by less income from the tourists.

Will the stronger rules about sulphurous content for the Baltic Sea comparing to the North Sea have a negative affect for the Baltic region in the competition to attract cruising ships into the Baltic Sea?

Probably James Leigh (2011) is right when he writes;

Mass international tourism has thrived on the abundant and cheap supply of energy, and this may about to change as the world moves towards `Peak Oil`. The resultant scarcity and high price of all energy fuels will produce changes in human activities across the board, and specifically in tourism.

TOURISM AND ECONOMY

Just to give us an idea how the cruising ships arrivals in Stockholm have increased the last ten years the Webb site of Stockholm harbour, www.stockholmshamn.se, shows the following statistics from 2009:

Table 1 Statistical figures concerning ports of Stockholm 2009

Statistical box: Ports of Stockholm 2009

447 000 cruising passengers came to Stockholm comparing to 363 000, last year.

These travellers spend between SEK 450 and SEK 500 million in the city; approximately SEK 1 100 per person.

293 cruising ships arrived comparing to 262, last year.

85 000 turnaround-passengers went on and off the ships comparing to 40 000 the last year.

Ferry passengers spend a total of approximately SEK 5.1 thousand million annually when they visit Stockholm – which equates to employment for 4200 people annually.

Approximately 12 million passengers travelled via ports of Stockholm during 2009.

30 million people travelled to/from Sweden by ferry in 2008. This is in comparison to approximately 20 million people who travelled using international flights.

The above figures show how important cruising ships as well as ferry lines are for a port like Stockholm, and the tables below show how the importance has increased over time.

Table 2 Cruising ships arrivals in Stockholm during 2000-2009

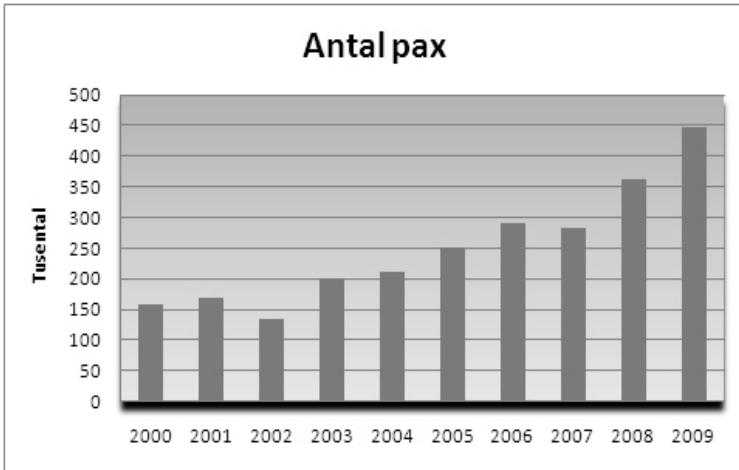
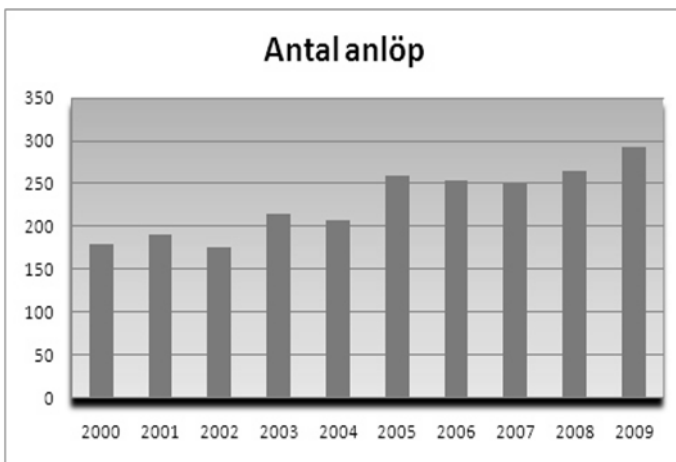


Table 3 Cruising-passengers arrivals in Stockholm during 2000-2009, in -000s



As the tables show, cruising ships and their passengers are of increasing importance to Stockholm as a tourist destination. When a

cruising ship goes into the Baltic Sea they also visit other harbours before they are heading to the North Sea again.

Table 4 Vessel calls to different ports in the Baltic Sea

Port	Calls 2009	Calls 2008	Calls 2007
Copenhagen	331	300	291
St. Petersburg	323	318	274
Helsinki	263	270	238
Tallinn	305	298	268
Gdynia	96	89	87
Stockholm	293	265	252

Source: *Cruise Euro, Port Statistics, 2010*. www.cruiseurope.com

Table 5 Passengers to different ports in the Baltic Sea

Port	Passengers 2009	2008	2007
Copenhagen	675 000	560 119	502 000
St. Petersburg	428 550	394 644	299 288
Helsinki	360 000	360 000	260 000
Tallinn	415 575	375 578	292 158
Gdynia	134 884	123 521	89 088
Stockholm	447 000	363 276	281 000

Source: *Cruise Euro, Port Statistics, 2010*. www.cruiseurope.com

The increasing arrivals of cruising ships have a huge importance of the tourism industry on the destination. Especially if we assume that the cruising passengers spend, more or less, the same amount as they are doing in Stockholm – 1100SEK per person or 120€ per person per day.

The cruising industry has a considerable effect on the local economy for all harbours and cities, when ships with cruising tourists are arriving. Furthermore, we also have to take into account the ferry traffic between the Nordic countries. A huge amount of the passengers are using the ferries as an excursion trip, and they just take a ferry trip for recreation and relaxation and spend a lot of money during their trip.

So it obvious that tourism generates important economic activity globally and is a major source of foreign exchange income in many countries (Simpson et al., 2008).

From a case study by Mustafa Akal (2010) the above is supported, that international tourism contributes to the economic growth and development of Turkey, as well as in many other countries too.

In many ways tourists want to have their holidays and can accept some modest rise in price, as long as they have the feeling that they can afford the higher price.

Let us take an example from the airline industry. The airline passengers are to a great extent people on tours and vacation, travelling to remote destinations. During the 1990s we have seen remarkable 'time-space compression' as people across the globe have been brought closer through various technologies. Many places, far away, are being put into play due to the increasingly global character of this contemporary mobility (Sheller & Urry, 2004). People want to see as much as possible during their free time or holiday and therefore use fast transportation means like air crafts.

At the same time very few persons who are flying pay some kind of climate fee, most of them are not making any climate compensation at all.

As tourists, they want to visit and discover these 'newly discovered parts of the globe' and do things they are not able to do in their ordinary life. People on package tours want to have flexibility, like more free time, more shopping and more opportunities to explore sites on their own.

Today's tourists are demanding persons who know what they want and are looking for operators who can fulfil their demands, as mentioned above. But at the same time the tourists are not willing to pay for something they cannot see the benefit of for themselves, like paying for carbon emission when flying to long haul destinations.

FEWER TOURISTS LESS INCOME FOR THE TOURISM INDUSTRY

Too high prices, for a holiday trip, will probably cause that fewer tourists can afford to go for holidays as they have done before. They will very likely look for other options and cheaper ones, which will affect the destinations in some ways.

Below in Table 6 is an example from a report the author made 6 months ago concerning incoming tourists to the Canary Islands, which are almost exclusively dependent on tourist coming with air lines. According to statistics from Eurostat the year 2008 the numbers of arrivals to the Canaries were approximately 8 million tourists. On package tours for one week, each tourist generates 7 guest nights resulting in an average of 56 million guest nights per year. What happens if the influx of tourists will

decrease, with – due to tax on air fuel - in the worst case, 25 per cent, or in figures 14 million guest nights less, or in the best case a decrease around 7 million guest nights? How many of the local tourism industry suppliers will survive that kind of decline? How to survive as business during these conditions?

Let's exercise an arithmetical problem with figures from Steene (2009, 1991), saying that one holiday maker spends on an average 270 € during a holiday week or 38, 6 € per day. The figures are adjusted upwards due to inflation and increase in prices in general.

So, at the moment, from above figures, 56 million guest nights multiplied with 39 € gives 2, 1 billions € a year, spent by the tourists in the Canaries tourism industry.

A decrease of incoming tourists with 7 million, gives 49 million guest nights multiplied with 39 € which gives 1, 9 billion € to the Canaries tourism industry.

Or in the worst case, 14 million less incoming tourists will cause the Canaries tourism industry a loss of 546 million € and only gives the tourism industry 1, 7 billion € from the tourists. Compared with today's figure of 2, 1 billions € a year. To this, we have to add what the tourist pay for the accommodation via the tour operator, which is around 50 % of the total price of the package tour, according to the Swedish Tourist Delegation and WTO. That means that the calculation is very modest.

Table 6 Summary of “Incoming tourists to the Gran Canaries and their spending”

	Tourist arrivals	Average stays	Guest nights per year	Average spending per week or day		Tourists spending per year
2008 ¹ Figures	8 millions	7 days	56 millions	270€	39€	2.1 billion €
Taxes on air fuel with aprox. 10% billion € will cause less Tourist arrivals ²	6, 4 – 6 millions	7 days	45 – 50 millions	270€	39€	1.7 – 1.9

From the above table some economic consequences can be drawn like what Baros and David (2007) mention about economic elements of sustainable development within tourism.

CONCLUDING REMARKS

Destinations which are depending, mostly, on air traffic or cruising ships and ferry traffic will face a future problem, because of coming regulations of CO₂ and environmental pollution.

Once again, will there be fewer tourists coming with cruising ships and ferries, due to the regulations about less sulphurous content in the maritime fuel for ships sailing in the Baltic Sea and North Sea,? How will that influence the tourist industries in the future? Will other transportation means – trains, buses etc – be developed as new products? Will the same questions rise within a near future for the air traffic as well?

As a consequence of the above, cruising and ferry companies and their tourists will probably have to adapt a new kind of holiday and travel habits. The question is if all parts are aware of the consequences, like more expensive travels and higher costs for accommodation, shortage of and expensive transport means etc.

Bouzon and Devillard (2011) claim that new tourist products enters into an uncertainty and it concerns the product development and its later use.

What kind of sustainable strategies will be seen in the future to handle these new threats?

Who will adopt to these new trends first and how will they act to make the best out of it?

The above will be questions to think about for the tourism industry as well as for governments around the Baltic Sea, and last but not least researchers in the field of tourism.

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