Excise taxation to protect our planet: a point of view from students in the global North

A case from Södertörn University, Sweden

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Title: Excise taxation to protect our planet: a point of view from students in the global North. A case from Södertörn University, Sweden.

Background: Flying is a mode of travel used mainly by the wealthier part of the planets’ inhabitants, while it is the poor parts of the world that suffer the consequences from climate change the most. Coping with climate change is one of the largest challenges of the century, especially for low-income developing countries. Important stakeholders have realized that it’s a global responsibility to lower the anthropogenic impact on the climate. Political ecology will be used to place the problem with unequal distribution of consequences in a larger context, while environmental economics will be used to examine the flight tax implemented in Sweden on April 1st 2018.

Purpose: To examine student’s attitudes towards excise taxation as an incentive to reduce emissions from air traffic, and whether there was a difference in attitudes between students from different disciplines.

Research question: What are Swedish students’ attitudes towards excise tax on flights to reduce emissions? Is there a difference in attitude towards the flight tax depending on the students’ field of studies?

Method: Quantitative approach with questionnaire responses as the main empirical data material for analysis.

Conclusion: A majority of students participating were positive towards the newly implemented flight tax. Students from an environmental discipline were positive to a greater extent than other students.

Keywords: Flight tax, Swedish excise tax, Anthropogenic climate change, Political Ecology Theory, Environmental economics.
Foreword

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1.0 Introduction

1.1 Global flying patterns

Flying is a mode of travel used mainly by the wealthier part of the planets inhabitants, while the negative environmental effects primarily emerge elsewhere (Naturskyddsföreningen n.d.). The United States of America (USA) is the country with the highest number of air passengers, followed by China and the United Kingdom (UK). This is explained by factors such as the USA having a relatively high income per capita and a powerful economy, China being an attractive place for business, and the UK being electronically innovative, encouraging people to choose the flight when travelling. Other European countries and Japan are also high up on the list of the number of air travellers (Khushboo 2017). No database keeps track of the number of individual discrete travellers. The airlines might have numbers on it without sharing them. Nevertheless, evident by estimates it is clear that the number of air trips are not evenly spread out among the world’s inhabitants (Negroni 2016). Approximately 3,5 billion air trips were carried out in 2015, increase in percent illustrated in figure 1 (International Civil Aviation Organization [ICAO] 2015b). Europe made up the largest share of that number, with 37% of the trips. Africa made up the smallest share with only 3% of the trips, and was also the continent with the smallest increase in air travelling that year. Both North America and China have a large share of domestic air travel, which also increased in 2015 (ICAO 2015a). However, it is not in the wealthier countries, where most of the flying is anticipated, that the environmental consequences are the most apparent. Instead it is in the poor parts of the world where the consequences are the greatest, leading to droughts, storms and floods to name a few consequences (Naturskyddsföreningen n.d.).
Air travel thus illustrate the uneven distribution between those mainly causing emissions and those mainly being affected by its consequences. This type of inequality is a key feature in political ecology which will be used to place this problem in a larger context. Peet, Robbins and Watts (2011) state that capitalism has led to the price of products not reflecting their true cost (e.g. pollution and environmental degradation from production and use). While this line of thinking is normally applied to products rather than services, it can also be used to understand the problem with air travelling since the basic criteria are the same. Wealthy people are through their consumption responsible for a large share of environmental degradation and, in extension, climate change. The environmental consequences however affect poor people to a much greater extent. Escobar (2006) notes that the increase in environmental degradation correlates with the increase of neo-liberal globalization, where transboundary pollution from aviation is only one example.

1.2 Environmental effects of flying

Records of the climate from the last 1000 years indicate that climate change naturally occur over time due to factors such as solar and volcanic activity, also called forcings. Through models of the full climate system it is possible to study past, present and future climate forcings. These forcings can both have the effect to heat and cool the planet. Comparing all
the models, as seen in figure 2 (International Panel on Climate Change [IPCC] 2013, referenced in National Centers for Environmental Information n.d.), the conclusion is that the warmth of the 20th century has been unprecedented. Solar and volcanic forcings alone cannot explain the extreme temperature rise of the 20th century, but human-caused increase in greenhouse gas concentration must be added to explain the unprecedented warmth (National Centers for Environmental Information n.d.).

Figure 2
Temperature anomalies

“Comparisons of simulated and reconstructed Northern Hemisphere temperature changes. Simulations are shown by colored lines, thick lines showing the mean of multiple model simulations (using, e.g., models such as ECHAM and CSIRO) and thin lines showing the 90% confidence range of this mean. Red lines show models forced by stronger solar variability and blue lines show models forced by weaker solar variability. Reconstructed temperatures are shown by grey shading. All data are expressed as anomalies from their 1500–1850 mean.” (IPCC 2013, referenced in National Centers for Environmental Information n.d.)

Airplanes emit a number of substances (mainly due to aircraft fuel), carbon dioxide (CO₂) and water vapour (H₂O) being the main ones. These emissions lead to CO₂ surpluses in the atmosphere, disturbing the natural balance. This, as well as emissions of nitric oxide, contributes to the raise of the atmospheres’ temperature, leading to climate change. When the hot combustion gases are mixed with the cold surrounding air, condensation trails (‘contrails’) also appear, which are suggested to contribute to global warming as well. The water vapour might be an additional contributor, but ends up mainly as rain (Transportstyrelsen n.d.).
The impacts of climate change include warming temperatures, changes in precipitation, increases in the frequency or intensity of some extreme weather events, and rising sea levels. These impacts threaten our health by affecting the food we eat, the water we drink, the air we breathe, and the weather we experience.

United States Environmental Protection Agency (EPA), n.d.

In worst cases climate change may trigger, except natural disasters, famines and more frequent epidemics (International Monetary Fund [IMF] 2017). The severity of all these effects mentioned, depends on the society’s preparedness for the changes. Personal factors such as age and economic status also play a role (EPA n.d.). High likelihood of exposure and/or low adaptive capacity make certain groups of people more vulnerable to climate change health risks. Children for example are vulnerable due to biological sensitivities, and different occupational groups such as outdoor workers are vulnerable due to exposure to vector borne diseases and extreme heat (Crimmins et.al. 2016). Hence, the level of preparedness of the society that a person lives in, and how sensitive that person is to health risks, will play an important role in the potential risk (EPA n.d.). Coping with climate change is one of the largest challenges of the century, especially for low-income developing economies. These countries do not only tend to be in some of the hottest parts of the world, but are also considered to be disproportionately susceptible to macroeconomic effects since a rise in temperature in already hot countries lowers the per capita output. The raised temperatures in already hot areas reduce agricultural output, lower productivity of workers exposed to the heat, and damage health. This leads to a slower rate of capital accumulation. Poor households are to a larger extent reliable on an agricultural income, spend a higher percentage of the income on food, and have limited access to savings which make them more vulnerable to weather fluctuations (IMF 2017). The rise in temperature has been extraordinary over the past century as illustrated by figure 2 (IPCC 2013, referenced in National Centers for Environmental Information n.d), and depending on the actions of the global community, that path might continue to evolve (IMF 2017).

A big problem is that low-income countries often lack finance, institutions and policies to cope with climate change, which creates the need for other countries to provide financial, as well as non-financial, support (IMF, 2017). Important stakeholders have also realised that it’s a global responsibility to lower the anthropogenic impact on the climate. Today’s climate politics has its roots in the United Nations (UN) climate panel International Panel on Climate
Change (IPPC). Their first report was published in 1990 and constituted of the foundation for the United Nations Framework Convention on Climate Change (UNFCCC), with the overall goal to stabilize the levels of greenhouse gases in the atmosphere to a level where human impact on the climate system is not dangerous. The UNFCCC, together with the belonging Kyoto protocol, focus on reduction of greenhouse gases to stop global warming (Uggla and Elander 2009). Management control measures concerning climate politics come in many forms but are generally divided into three groups; economical (such as carbon dioxide taxes and emission trade), juridical (such as laws and statutes) and informative (such as environmental labelling) (Klimatkontot n.d.). Examples of economic management control measures will be described in greater detail in the theoretical framework (section “Environmental economics”), one example being taxation to prevent environmental problems caused by economic actions. Environmental economics will be used in this thesis to examine taxation as policy to reduce greenhouse gas emissions.

Previous research show that people generally are aware of the environmental impact from flying, but that this knowledge is not translated into action (Hares, Dickinson and Wilke 2010; Higham, Reis and Cohen 2016; Cohen and Higham 2011; Cohen, Higham and Reis 2013; Higham and Cohen 2011). Research additionally show that people are more positive towards policies that aim to change behaviour through voluntary measures rather than by force (Rhodes, Axson and Jaccard 2017; Hares et.al. 2010). Nevertheless, forcing measures such as taxes are accentuated to be more efficient. The purpose of this thesis is to study Swedish students’ perceptions of flight taxes, an economic management control measure, as a way to protect the climate.

1.3 Flight taxes

In Sweden it is being reported time after time how aircraft transportation is becoming more and more popular (Svenska Dagbladet [SvD] 2016; Atallah 2017; Zetterdahl 2018), as illustrated by figure 3 (SOU2016:83). It is an important mode of transportation due to distances within the country, as well as to other countries (Prop. 2017/18:1). The Swedish parliament is currently working on an environmental goal that has been set up in accordance with the UNFCCC. Specifically the goal is to stabilise the levels of greenhouse gases in the atmosphere, to a level where human impact on the climate system is not dangerous (SOU 2016:83). The entire Swedish transport sector is responsible for merely 0.1% of global
greenhouse gas emissions – consequently, the possible Swedish contributions to global emission reduction is limited. Nevertheless, Sweden together with the other OECD countries (Organization for Economic Co-operation and Development) have a very high emission rate per capita when compared to other countries globally (Hammar and Jagers 2006). As a reaction to the trend of increasing air travel, and with the objective to protect the environment, a new tax on flights was implemented in Sweden on April 1st 2018 (Miljöpartiet de gröna 2017). The tax involves all commercial domestic and international flights leaving a Swedish airport (Sveriges Riksdag 2017). The purpose is to lower the impact of air traffic on the climate in accordance with the national environmental goal “reduced environmental impact”. Furthermore, the new tax is expected to set an example for other countries and to indirectly influence towards a more “correct” price setting on flight tickets in the future – that is, a price setting that to a greater extent reflect the true cost of air traffic (SOU 2016:83). The idea that prices on products and services should reflect the monetary as well as the environmental costs of production is central in political ecology. The theory states that capitalism has spurred a price setting in which the consequences of production are transferred to vulnerable people, rather than the actual polluters (Escobar 2006; Peet, Robbins and Watts 2011).

**Figure 3**

*Number of air trips per inhabitant from Swedish airports 1980-2015*

[Graph showing the number of air trips per inhabitant from Swedish airports from 1980 to 2015. The graph indicates a consistent increase in trips over time, with a distinction between domestic and international flights.]
An analysis carried out in 2016 by the flight ticker reseller Kiwi (2016), calculated that Sweden during that time was the 10th cheapest country to fly from when the 75 most frequently visited countries in the world were compared. Several other countries currently have a flight tax, for example Germany, Norway and South Africa. Other countries have had it but decided to abrogate it, such as Denmark and the Netherlands (SOU 2016:83).

Flight taxes in Sweden are not a new phenomenon. The first one was implemented in 1978 and regarded charter trips. In 1989 the tax was raised, and the same year a tax on domestic flights was implemented as well. In 1993 the charter trip tax was abrogated as it was thought to be discriminating towards the aircraft industry and specifically the charter trip aircraft industry. Three years later the tax on domestic flights was also abrogated when the airline company Braathens Sverige AB won a case that confirmed that the tax went against an at the time prevailing commission forbidding flight taxes on fuel. In 2006 the parliament formed a new law which stated that a tax had to be paid for every flying passenger, but due to opposition from the government the law was never implemented (SOU 2016:83). The Swedish Green Party (Miljöpartiet de gröna) have been the biggest driving force for such taxes since the party was formed in 19811 (Frisk 2018). They became a part of the parliament for the first time in 1998 (Miljöpartiet de gröna n.d.).

On the 5th of November 2015 the Swedish parliament decided that an investigation would be executed on how a new flight tax preferably could be formulated. One year later the investigation was complete and a proposition to the parliament was written; A Swedish aviation tax (En svensk flygskatt) (SOU 2016:83). The proposition was approved in 2017 and came into force in 2018. The flight tax consists of a set price of 5.6, 24.2 or 38.8 EUR (European Central Bank 2018) for each ticket, depending on the destination of the flight (Sveriges Riksdag 2017). It is the airline company that is liable for the payment, but up to 100 % of the tax fee is expected to be transferred to the customer by being added to the ticket price. According to the investigation, the consequences of the tax will be a 3,6 – 4,8 % decrease in demand on domestic flights and a decrease of 1,4 – 2,1 % on international flights. The total number of people flying from a Swedish airport is still expected to increase though, which means that the decrease will only lessen the actual increase. In 40 % of the cases that

1 Alm Ericson, Janine; Member of Parliament and economic-political spokesperson for the Swedish Green Party. 2018. E-mail interview May 2nd 2018.
the flight will be dismissed, another type of transportation will be chosen instead, mainly the car (SOU 2016:83).

In the proposition it is written that it is important to create acceptance of the new system (in other words, how the tax is designed and how to implement it) amongst the many stakeholders involved. It is added however that this might not be possible concerning all aspects listed below:

- The main purpose (to lower air travels’ impact on the environment by encouraging passengers to choose more environmental transportation options) should be reflected in the system.
- The system should be easy to understand and follow.
- The system should be efficient and trustworthy.
- The system should be fair.
- Handling costs connected to the system should be plausible (SOU 2016:83).

Swedes attitudes towards a flight tax are growing more positive, and at the writing of this thesis more people are positive towards it than negative (Dagens Nyheter [DN] 2018). According to a poll made in March 2018 about the Swedish population’s attitudes towards taxation on flights, 48 % of respondents turned out to be positive, 33 % were negative and 18 % picked neither of those sides (Suni 2018). Out of the eight Swedish parties currently in the Swedish parliament however, only three stand behind the new tax (Winberg 2018).

When the government presented the proposition, a number of important stakeholders critiqued it. Pål Jonsson (2017) from the Moderate Party2 responded to the new flight tax resolution by calling it highly lamentable. The reasons being that the environmental advantages will be marginal and that it will distort Sweden’s competitiveness (cases of flight taxes from adjacent countries resulted in negative economic effects). His suggestion is that the parliament ought to push for international agreements instead.

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2 The Moderate Party is currently the leading opposition party. The leading side consists of the Social Democratic Party together with the Swedish Green Party.
Swedish Regional Airports (Svenska Regionala Flygplatser [SRF] 2017), a joint committee for non-governmental airports in Sweden, have also responded to the resolution. Like Jonsson, they write that the effect on the environment will be minimal and that the national economy will be harmed by the proposed law. Because of this, SRF feel that the tax loses its purpose and they further point out that it will highly threaten individual airports. SRF agree with the government that the aircraft industry should continue working towards increased sustainability, but believe that the new tax will be contra productive in all three aspects of sustainability; socially, environmentally and economically. What they propose instead is international agreements that are not affecting the country’s competitiveness negatively, and for cooperation among the aircraft industrys’ actors to eventually change into fossil free fuel. SRF remarks that the regional airports are already under hard pressure and that this tax will only make it worse.

Johansson, CEO of retail employer organization Swedish Trade (Svensk Handel) and Östling, CEO for the employer organization for the Swedish hospitality sector Visita, also point out the tax’s insignificant environmental effect (Johansson and Östling 2016). They write that the tax will hit hard on tourism and trade companies, especially in sparsely populated parts of the country.

Other countries have had flight taxes before and experienced negative effect on the economy. Following are a few examples:

- Denmark: the tax was quite similar to the one that Sweden has just implemented, in the sense that it was a fee added to each ticket on domestic or international flights leaving Denmark (SOU 2016:83). However, effects such as travellers choosing to fly from Sweden instead, decreasing tourism and, by extension, negative effects on the economy, lead to a rescission of the tax (Gordijn & Kolkman 2011).

- Ireland: this tax was also similar to the Swedish tax, but was abrogated as in the Danish case because the negative effects of the tax on the economy was thought to be too significant (SOU 2016:83).

- Norway: this country has a history of several different flight taxes just as Sweden (SOU 2016:83). In 2016 they again implemented a flight tax and a result thus far has been that an airport decided to quit all their commercial air services (Tandberg 2016).
1.4 Problem formulation

Swedish greenhouse gas emissions per capita are among the highest in the world (Hammar and Jagers 2006). This has prompted the Swedish government to take action to reduce the Swedish impact on anthropogenic climate change, the Swedish flight tax being one action point³ (Regeringskansliet 2017). One aim of the tax is to encourage Swedes to choose other modes of transport through an increase in airline ticket prices (SOU 2016:83). This could be facilitated by the fact that both the political arena and the population of Sweden are considered to be very environmentally conscious in relation to a majority of other countries (Jagers 2009). With this in mind it’s relevant to examine Swedes’ attitudes towards the tax, as this will indicate how well the purpose of the tax will be met. A poll examining the attitudes towards taxation of air travel among the general Swedish population has shown that a majority are positive towards it (Suni 2018). That being said, a one question poll cannot tell of any motives behind the attitudes nor how a person will act, and should therefore be complemented with questions regarding behaviour. Youths are the consumers and travellers of tomorrow and it is significant to investigate their perceptions of the tax. For this, young adults mainly between 18-30 years old at Södertörn University, Stockholm, have been chosen. If the Swedish population, not least the young part, is not willing to change their flying habits in spite of the new tax, the feasibility of the tax may be questioned and other climate reducing strategies might be preferred.

1.5 Purpose and research questions

The main purpose of this thesis was to examine students’ attitudes towards excise taxation as an incentive to reduce emissions from air traffic. The perceptions of students were chosen for examination since previous studies show that young and well-educated people, as well as women, are more positive towards climate policies than the general population (Elliott, Seldon and Regens 1997; Klineberg, McKeever and Rothenbach 1998). This formed one of two hypotheses for this thesis: “students are more positive towards the flight tax than the Swedish population in general”. A secondary purpose of the thesis was to find out whether there is a difference in attitudes between students with environment as their main field of studies and students from other disciplines. By comparing the results from these two groups, possible differences in attitudes depending on the students’ field of studies could be

³ Alm Ericson, Janine; Member of Parliament and economic-political spokesperson for the Swedish Green Party. 2018. E-mail interview May 2nd 2018.
identified. The second hypothesis was “there is a difference in attitude towards the flight tax between students with environment as their main field of studies and students from other disciplines”. The authors believe that students that choose to study environmental issues are more positive towards interventions protecting the climate because of their presumed interest within the area, compared to students in general. Additionally, this interest and positive attitude is thought to be strengthened while studying the subject. With the specific case of Södertörn University, the aim was to fill a gap in existing research and identify attitudes towards excise taxes on air travel. This led to the following research questions:

1. What are Swedish students’ attitudes towards excise tax on flights to reduce emissions?

2. Is there a difference in attitude towards the flight tax depending on the students’ field of studies?

2.0 Previous research and theoretical framework

2.1 Previous research on attitudes towards climate mitigating policies

Research on flight taxes has primarily been focused on the effects of the tax on emissions as well as how it affects peoples’ travel choices, rather than how this type of environmental policy is perceived by the population (Mayor and Tol 2007; Seetaram, Song and Page 2014). The understanding of anthropogenic climate change and air travels’ contribution to this type of climate change is generally increasing (Hares et.al. 2010), yet the global number of people flying is estimated to rise by around 5% annually until 2023 (Gössling and Peeters 2007). Several authors have attempted to understand and explain this apparent gap between being aware of the problem and acting to prevent it. Rhodes, Axson and Jaccard (2017) explored citizens’ attitudes towards various climate mitigation policies to identify what types of policies and strategies were the most and the least respected. They found that policies that aim to change people’s behaviour through voluntary measures (such as price premiums on electric cars) were supported to a greater extent than policies that entail some sort of force (i.e. carbon taxes). This was noted by Hares et.al. (2010) as well. Respondents in the study of Higham, Reis and Cohen (2016) however felt that it was structural changes such as taxes and laws, rather than voluntary behaviour changes among individuals, that would have the greatest effect on reducing aviation emissions.
While many respondents reported high understanding of the impact aviation has on anthropogenic climate change, the majority of respondents from a variety of studies did not translate this awareness into action. That is, while most claimed to be aware of the fact that flying contributes to anthropogenic greenhouse gas emissions, most did not let this influence their decisions on where to travel or how much (Hares et al. 2010; Higham, Reis and Cohen 2016; Cohen and Higham 2011; Cohen, Higham and Reis 2013; Higham and Cohen 2011).

As evident in several studies, travelling (especially to far away destinations) was seen as a luxury and too important to give up, despite its consequences for the environment (Higham and Cohen 2011; Cohen and Higham 2011). Other reasons for not flying less, despite knowledge of its consequences included price, comfort and the sense of responsibility. Some respondents demonstrated a sense of guilt about their flying habits (Higham and Cohen 2011) and, in some examples, also acted accordingly (by limiting their flying for example) (Cohen and Higham 2011; Gössling, Haglund, Kallgren, Revahl and Hultman 2009; Kroesen 2013). Several studies however reported that respondents felt that climate change was the responsibility of governments and companies, not individuals. This allowed them to justify their flying practices, despite being aware of the impact this has on the environment (Hares, Dickinson and Wilkes 2010; Kroesen 2013).

2.2 Introduction to the theoretical framework

In this thesis the theoretical framework consists of political ecology and environmental economics: political ecology helps put air traffic in a global context and describes it as a phenomenon, and environmental economics is the lens through which taxation on flights is viewed. Political ecology shows how the availability of this mode of transportation is unjust depending on where you live, but also how its consequences are unequally distributed. Political ecologists see environmental degradation as an inevitable consequence of capitalism, and the only way to stop this is a total reformation of our economic system (Peet, Robbins and Watts 2011). Environmental economists on the other hand mean that environmental issues can be dealt with within the current system, by commodifying the degradation.

2.3 Environmental economics

Traditional neo-classical economics view the economy as a closed system, with firms as the main actors making up this system, and the environment as something external bounding the
economic activity (Munda 1997). The term environmental economics has its roots in the United States of America and the 1950’s when Resources for the Future (RFF) was established in Washington DC. RFF is an independent research organisation that connects economics to environmental issues and focused in their early days on natural resource scarcity (Pearce 2002). The subject has also been broached by scholars from various disciplines for over two centuries, but it was not until the 1960s that the term started being used in books and magazines, making it a relatively new field of specialisation in economics. The growth of environmental economics has been dependant on the more general development of economic theory and many different factors could explain the increasing attention to environmental issues. A major factor is the environmental harm that have been caused by increased industrialisation and energy use. Another important explanation are the increasing standards of living, particularly in the industrialised world, creating a demand for environmental quality. However, already in the early stages of industrialisation, environmental problems must have pressured societies but without drawing the same amount of attention to it as of today. In other words, the field was lacking attention among economists for a long time. A reason for this is likely the widely held view at the time, that environmental issues is not a part of the core of economic discipline (Sandmo 2015). But an opposite notion of this has grown, evident by examples of important stakeholders with an economical interest also caring for environmental issues, which have been mentioned previously. Some of these are the United Nations and the Swedish government (Uggla and Elander 2009; SOU 2016:83).

In a market economy the prices of natural recourses mainly reflect short-term values, while depletion and environmental costs are not considered. Environmental economics presents an in-depth understanding and description of environmental consequences from different actions and choices made within the economy. It also gives the basis for introducing “externality adders” into public policy-making, meaning that taxes and charges are added to the market price to reveal the true situation by the price (Andersen 2006). An externality is said to occur when the production or consumption of something unintentionally have an impact on another agent, without any compensation or payment made from the one causing the impact to the affected agent. Since the externalities can occur without feedback or consequences in return, there will be too much of them and this leads to market failure according to the theory (Perman, Ma, McGilvray and Common 2003). The environment is naturally valuable itself, but in the environmental economics theory an anthropogenic approach is applied, where the environments’ utility for humans is emphasize and measured in economic terms. To estimate
the optimal level of environmental control, the costs of interventions need to be known, together with an idea of the magnitude of external effects that has to be reduced, and for this reason environmental consequences must be quantified. Once this is done, relevant environmental taxes (externality adders) can be introduced (Andersen 2006). This is a way to deal with market failure, since a key factor is to create a system which puts in place the missing feedback or consequences so that the effects are no longer unintentional (Perman et.al. 2003). Seen through the lens of this theory, an externality adder is exactly what the Swedish government have implemented through the new flight tax (SOU 2016:83).

2.4 Political ecology

Like environmental economics, political ecology is connected to classic economic theory. Unlike environmental economics however, political ecology is a resistance to the entire economic system whereas environmental economics wants to integrate environmental issues into the economy. The field of political ecology sees environmental degradation as the inevitable consequence of globalism due to neoliberalism and capitalism. To understand the causes and effects of climate change there must be awareness of how politics, economics and social factors all play their part in perhaps the greatest threat to mankind in modern times (Peet, Robbins and Watts 2011). Political ecology recognizes the relations between the global North and the global South as main causes to the unequal distribution of environmental degradation. That is, because those who cause the degradation are not those who suffer its consequences. (Warlenius 2016; Eden 2011; Bumpus and Liverman 2011).

The 1970’s saw the dawn of political ecology as a reaction to neoliberal visions of letting the “free” market be the decisive agent in managing consequences from anthropogenic emissions. Political ecology opposes the so-called free market as they believe that if the market was truly free, prices would also include environmental consequences which they usually do not (Peet, Robbins and Watts 2011). These neoliberal ideas gained new momentum after the Kyoto protocol of 1997 when different carbon offset schemes saw light of day (Bumpus and Liverman 2011). The aim of these schemes was to make it easier for nations and companies to follow through on their dedications to reduce emissions, and they are a form of internalization of consequences promoted by environmental economists (Escobar 2006). Examples of carbon offset schemes include emission or carbon trading (where nations and companies can purchase emission rights from other countries) and voluntary markets of compensation where
private actors and companies can compensate for their emissions by investing in reduction projects in the global South. While environmental economists calls the marketization of environmental degradation externality adders, its viewed as commodification of nature by political economists, who mean that it contributes to maintaining the unjust relationship between the global North and the global South (Bumpus and Liverman 2011). Furthermore, as climate change often has far worse consequences than purely economic ones (loss of human, animal and plant life and eradication of entire species for example), Martinez-Alier and Rodríguez-Labajos (2013) means that the best way to re-pay those who suffer the consequences of climate change is not through economic compensation, but rather to stop polluting all together.

Applying the concepts of ecological debt and climate justice, the unequal distribution of aviation traffic and its consequences can be understood within the framework of political ecology. Rice and Martinez-Alier, two prominent thinkers in the field of political ecology, describes ecological debt as the unjust utilization and appropriation of environmental space in countries in the global South by countries in the global North. As the aircraft is used by more wealthy people, many of whom live in the global North (ICAO 2015), but it’s emissions are evenly distributed in the atmosphere around the globe (and affect inhabitants of the global South to a greater extent) (Warlenius 2016), this could be seen as an ecological debt owed by the global North to the global South.

The concept of climate justice entails the recognition that countries in the global North both historically and today have been the main causing agents of emissions that have spurred climate change. Those mainly affected by climate change are those least responsible for these emissions (Warlenius 2017). Both ecological debt and climate justice adds an aspect of ethics to the debate on climate change and who is responsible, as the global North have been “dumping carbon for 200 years” (Peet, Robbins and Watts 2011).

The impact of the Swedish flight tax on global emissions will, as previously stated, be very limited. One aim of the tax, however, is to inspire and push other countries to follow Swedens’ example (SOU 2016:83). Should this happen, the flight tax could be viewed as a way of making the price of flight tickets better reflect the true cost of flying (including emissions and, in extension, climate change) (Peet, Robbins and Watts 2011). Another aim of the tax is to reduce the amount of people flying, which would correspond with Martinez-Alier
and Rodríguez-Labajos (2013) suggestion that the best way of compensating for the ecological damage done by the global North is to stop the further accumulation of emissions. In accordance with political ecology, this would take the global North one step closer to achieving climate justice and paying off their ecological debt.

3.0 Method

This thesis was based on questionnaires which formed the primary data for this study. A pilot study was first executed, and the revised version of the questionnaire was then distributed to students at Södertörn University over the course of two weekdays in April 2018. The thesis was complemented with an e-mail interview with Janine Alm Ericson, Member of Parliament and economic-political spokesperson for the Swedish Green Party (see Appendix B). The purpose of the e-mail interview was to generate background information about the Swedish flight tax from a key informant, information that was not to be found elsewhere.

3.1 Quantitative approach

The approach of this thesis was quantitative in the sense that the units for analysis were almost exclusively numbers and not words or visual images. In quantitative research the focus is usually on specific variables, either in isolation or in some cases a few variables combined. However, Denscombe (2014) notes that the difference between quantitative and qualitative approaches rarely is as clear as it’s made out to be in theory, and that the two approaches may very well be combined or overlap. To answer the research questions of the thesis, closed-ended questions were suitable to provide answers based on specific variables which made them easier to interpret (Körner and Wahlgren 2015). As the subject of the thesis demands a certain amount of prior knowledge to have an opinion about it, closed-ended questions may have made the questionnaire easier to answer for those without a previous opinion. One open-ended question was included to provide information that to some degree could offer deeper insight. This gave room for a qualitative feature to the analysis as a purely quantitative approach risks missing out on important reasons and motivations behind students’ attitudes (Mayoux 2006). The gathered numbers of answers to the different questions made up the main units for analysis. The numbers were analysed both individually and in relation to each other. The gathered numbers could be defined as “objective” due to the fact that they exist independently of the researchers and were not a result of unreasonable influence from them. As opposed to qualitative research, the data analysis is clearly separated from the data.
collection when conducting quantitative research. When the data have been collected it is subjected to statistical tests (ibid.). In this case a number of $\chi^2$ tests were carried out in the program Past 3.20 to test the significance of the results. Tests of significance provide an estimate of the probability that any connections between two or more variables is just found by chance rather than an actual connection that would be found in other occasions as well (Denscombe 2014). A 95% confidence interval have been used in all tests, but in some instances the confidence has been even higher. For accurate results, it is recommended to use randomised sampling when conducting quantitative methods (Körner and Wahlgren 2015). Respondents for this thesis were recruited through convenience sampling which inevitably flaws the certainty of the statistical results (see section 3.5 Method critique). Nevertheless, the authors concluded that testing the significance would generate more accurate results than not testing it at all.

3.2 Respondents

As the main purpose of the thesis was to examine students’ attitudes towards excise taxation, a convenience sample was made using Södertörn University as case. Convenience sampling means recruiting participants on the basis that they are easily available, for example when researchers position themselves in an area where potential respondents fulfilling the inclusion criteria of the study will likely be. For researchers recruiting participants to a medical study this could be the lobby of a hospital (Sedgwick 2013) – in the case of this thesis the campus of Södertörn University was most suitable. Convenience sampling is cheap and quick and therefore a rather common method of choosing respondents, as researchers often have limited financial resources and time (Denscombe 2014; Bornstein, Jager and Putnick 2013). Taking this into consideration it’s only rational that the researchers, when choosing between possible, equally valid, groups of respondents, choose the most convenient one.

90 students participated in total, 23 of who identified as men and 67 who identified as women, and the majority were aged between 21 and 30 years old. Nyberg and Tidström (2012) mean that 40 respondents should be a minimum which was followed as a criteria for this research. As the number of completed questionnaires reached more than double of that, the significance of the result could be further strengthened statistically. 45 respondents were from the environmental scientific program “Environment and Development” and 45 students from
other fields of studies. Those who were not environmental students came from a wide range of fields: economics, media and teaching to name a few.

In order to get in touch with respondents with an environmental field of studies, some of them were located in connection to their classes and then asked directly to participate. Students both from grade 1, 2 and 3 (the final grade) participated. By asking other students passing by in the hallways, students studying in the school library and students sitting in one of the school cafeterias to participate, respondents from other fields of studies could be reached. In the questionnaire there was a question about the students’ main field of studies. This was included for the researchers to make sure that the students came from a wide range of programs and courses. As the questionnaires were completed at different times and places the risk of approaching students from the same classes and/or social circles was believed to be minimized.

3.3 Questionnaire

A research questionnaire should meet the following three criteria; be designed to collect information which can be used as data for analysis, consist of a written list of questions and gather information directly by asking people. It is a good method when information that is relatively uncontroversial needs to be gathered for a standardised data collection without personal interaction (Denscombe 2014). As the subject of the thesis was considered to be rather uncontroversial a questionnaire was a fitting choice of instrument.

Initially a pilot study was executed where nine friends and family members were asked to fill in the questionnaire and to provide feedback, so that possible flaws of the framing could be discovered (Simon 2006; Tidström and Nyberg 2012). Thereafter the real questionnaire (Appendix A) was distributed at Södertörn University. Approaching students directly in the school was considered the best option as the chance that they would respond was thought to be bigger than compared to if the questionnaire had been sent to the students (Körner and Wahlgren 2015). This was important for two reasons; a high frequency is desirable and the number of students with environment as their main field of study was limited, hence a high neglect rate from them could result in fewer respondents than intended for the thesis. The character of the questionnaire was a self-completion one, meaning that the respondents answered by reading and typing in their answer on their own and in their own pace, without
influence from the researcher. With this method the “interviewer effect” (discussed in more
detail in section 3.5) was reduced (Denscombe 2014).

Apart from basic factual questions concerning age, sex and field of studies, respondents were
asked about their flying habits, attitudes towards the tax and if (and how) the tax had affected
how they view their own behaviour. Even though anthropogenic climate change is an
essential part of this thesis, that specific term was chosen to be excluded from the
questionnaire, except in the introduction of it where a quote from Isabella Lövin
(spokesperson from the Swedish Green Party) is used which concerns air traffic’s effect on
climate change. Instead, solely emissions were mentioned, the reason being the discussion
about if anthropogenic climate change is real and the change of respondents not believing that
it is real. Nevertheless, emissions have been assumed to be conducted to anthropogenic
climate change in this thesis. To avoid respondents losing their interest throughout the
questionnaire and stop answering thoughtfully, the questionnaire was designed to take no
more than five minutes to answer (Simon 2006). Any redundant questions were therefore
eliminated from the questionnaire beforehand. After completing the data collection the
questionnaires were sorted by field of study and then compared and analysed.

3.4 Reliability and validity

The credibility of quantitative data depends on the methods ability to produce data that are
accurate and consistent. The methods must be “reliable”, and the data valid, meaning that it
should be accurate and precise. Based on that premise, asking the “right” questions to
respondents is crucial, taking the relation to theories and knowledge within the research area
into consideration (Denscombe 2014). When designing the questionnaire, broad views and
concepts from the theoretical framework were considered, while also identifying desirable
information missing from the reviewed research that this thesis could complement with.
Questions highly similar to the research questions were integrated to assure the core of the
thesis would not be missed out on in the questionnaire (Heale and Twycross 2015). Reliability
refers to the chosen research instruments, in this case the questionnaire, being neutral in its
effects and consistent if used in multiple different occasions (Denscombe 2014). In detail, an
instrument may be considered reliable when different observers to a high degree would give
consistent answers, when consistency would be found if the test was made at different times,
if a test constructed the same way and from the same content would give a similar answer,
and if there’s a consistency of results across items (Biddix, n.d.). The authors believe that another researcher might have found further aspects for analysis, but that the central parts of importance have been brought up. If carried out at another time but at a the same place, it is thought that the responds collected would have been similar. As the validity have been taken into concern, a test constructed the same way and from the same content, would most likely be similar to the current design of the questionnaire, with slight differences. Finally, a consistency of the items, the answers from respondents of the same group, have been found.

3.5 Method critique

The success of a questionnaire is dependent on the response rate, the completion rate and the validity of responses (Denscombe 2014; Mayoux 2006). As the questionnaires were handed out directly to the respondents and then collected by the researchers right after, the two first factors were not an issue. Concerning the validity of the responses, the interviewer effect could play a role: what respondents choose to share and how honest their answers are has been shown to depend on how they perceive the interviewer, particularly in regards to sex, age and ethnic origin. The sensitivity of the topic will also have an impact. The interviewer effect, while more prominent in face-to-face interviews, can also be noticed in surveys, and can thus not be eliminated as a factor in this thesis (Denscombe 2014). There is a risk that the respondents felt stressed by the authors waiting next to them while filling in the questionnaire, resulting in less thought through answers. Another possible source of error is that respondents didn’t answer completely honest since they were not anonymous to the researchers, although they were in the analysis. The names of the students were not at any point asked for. The students with environment as their main field of study might have felt an expectation to act “environmentally friendly”, especially in comparison to other students. This form of interviewer effect is called prestige bias and can appear when asking about subjects perceived to be prestigious (Körner and Wahlgren 2015). Even though environmental concern could be connected to prestige to some people, the interviewer effect is thought to be minimized by the fact that the subject studied is considered quite uncontroversial. However, the interviewer effect was attempted to be avoided as much as possible by limiting personal contact (e.g. not explaining certain questions or discussing the topic with the respondents). As mentioned earlier, the subject was thought to be rather uncontroversial, and to keep the questionnaires as anonymous as possible they were not given serial numbers. This further reduced the risk of the interviewer effect.
The questionnaire included questions about previous knowledge and behaviour in which the telescoping might have been an issue. Telescoping is described by Körner and Wahlgren (2015) as misplacing an event in time. When asked if the respondents flying habits had changed, the question regarded a time frame of two years. This is an example of how the authors tried to minimize the telescope effect, as a longer time frame would increase the risk of placing an event wrong in time. A time span shorter than two years was believed to be too short, as behavioural changes in flying habits was less likely to have appeared significant in that amount of time. In spite of this, there have probably occurred some telescoping. The impact of the telescope effect would have been more crucial if the thesis had been based on interviews where individual answers are more important than general patterns.

Convenience sampling, while a common sampling method, is widely critiqued as the generalizability is impaired (Bornstein, Jager and Putnick 2013). Denscombe (2014) warns that a sample should never be chosen solely on the basis of what is most convenient to the researcher, but rather on the research questions and purpose of the thesis. As the purposes of this thesis was to examine attitudes towards the Swedish flight tax in the case Södertörn University, this was not thought to be an overwhelming defect and is discussed in more detail in section 4.2. Regardless of the degree of generalizability, the information collected about the specific thoughts of students at Södertörn University is considered valuable in itself.

4.0 Results and conclusions

4.1 Results

This section presents the main results from the questionnaire. For a complete presentation of the results, see appendix C. Students from the program Environment and Development will from now on be referred to as ED-students, and students from other fields of studies will be referred to as OD-students (Other Disciplines). All results claimed to be significant have been subjected to a $\chi^2$ tests in Past 3.20.

The purpose of this thesis was to examine students’ attitudes towards the Swedish flight tax. As evident by figure 4, the results show that a majority of the students participating were positive towards the new tax. According to the poll made by Sifo (SvD 2018), amongst the general population, slightly fewer were positive towards a tax, but still close to a majority
This result goes in line with studies by Elliott, Seldon and Regens (1997) and Klineberg, McKeever and Rothenbach (1998) who found that young and well-educated people were positive to climate policies to a greater extent than the general population. Only 11% out of the students expressed that they were negative towards the tax, compared to 33% of the general population.

Figure 4 and 5
Students’ attitudes towards the new tax

![Pie chart of students' attitudes to new tax]

Populations’ attitudes towards a flight tax

![Pie chart of populations' attitudes to flight tax]

A secondary purpose of the thesis was to examine any potential differences in attitudes between students from different disciplines. As figures 6 and 7 show, almost twice as many ED-students as OD-students were positive towards the tax, and almost three times as many OD-students as ED-students were negative towards the tax. A considerable number of OD-students expressed that they didn’t know what they thought about the flight tax, whereas amongst the ED-students most respondents had an opinion, whether positive, negative or indifferent.

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4 Pie chart based on numbers from the poll by Sifo/SvD (2018)
That being said, the research questions have been answered, and the second hypothesis, “there is a difference in attitude towards the flight tax between students with environment as their main field of studies and students from other disciplines”, could be verified with a $\chi^2$ test. The first hypothesis, “students are more positive towards the flight tax than the Swedish population in general”, could not be verified even though the results show that the respondents were more positive than the general population. The significance was too small to draw any conclusions.

4.2 Analysis and discussion
As mentioned before, convenience sampling flaws the possibility for generalization. However, the researchers have approached the respondents at different places and different times while making sure that the sample was representative for the general population regarding personal attributes. Factors such as Swedes being among the most environmentally conscious peoples of the world (Jagers and Matti 2010; RobecoSAM 2015; The Gallup Organisation 2009) could be assumed to prevail regionally in the country. With this being said, the results presented in this thesis are considered to be generalizable to a limited degree.
to students of other Swedish universities. Even though different schools attract different types of people, students in general could be considered a homogenous group.

4.2.1 Relation to the theoretical framework

The increasing flying habits discussed in this thesis is proof of the unequal distribution of polluting agents and sufferers, and can be seen through the lens of political ecology. Citizens of the global North are generally less restricted economically than the citizens of the global South. The economic situation in the global North enables people to fly more, which in turn results in more pollution. A majority of the respondents were positive towards the flight tax. Moreover, many respondents expressed opinions that the tax is too low. In the words of one particular student to the question “Do you think that there are other, more efficient, methods to lower the aviation emission?”: “Higher tax! This is a joke.”. The authors see this as corresponding with political ecology’s idea of the flaws of the free market, in that it is not sufficient as a decisive agent for setting market prices (Peet, Robbins and Watts 2011). Some students mentioned ceilings for how much one person is allowed to fly as a possible and more efficient solution than the flight tax. Inequality between those who cause pollution and those who suffer its consequences are present within nations, as well as between them. For example, in Sweden 20% of the inhabitants make up more than half of all air trips (Larsson, Nässén and Andersson 2013). One student went as far as writing that a ban on flying would be the best solution to the problem with emissions from air traffic, which could be connected to Martínez-Alier and Rodríguez-Labajos (2013) who mean that the best way of repaying the ecological debt is to stop polluting altogether. In that context, a ban could be viewed as an expression of the concept of climate justice.

The increased standard of living, particularly in the global North, has enabled the flying habits of today while at the same time consequentially creating a demand for environmental quality (Sandmo 2015). The recently implemented flight tax clearly illustrates the connection between economics and environmental issues, as discussed in the theory of environmental economics (Pearce 2002). By creating an externality adder (the flight tax), the “true” cost of a flight ticket is revealed (Andersen 2006). In that respect, the polluters are prompted to recognize the environmental effects of their actions (SOU 2016:83). A couple of respondents who were positive towards the tax highlighted the importance of consumers being informed about the consequences of their actions. In contrast, one respondent who was negative towards the tax wrote “No, [the tax] is probably the only way [to reduce emissions from
airline traffic] but I don’t want to pay more” which is a good example of how externalities can occur without feedback or consequence. It is quite clear in this case that the student is aware of the negative effects of flying and that they neither want to nor have been paying the “true” cost of flying.

4.2.2 Relation to personal attributes

The age and sex ratio between the two respondent groups were quite similar, which minimizes the possibility that difference in answers depend on these personal attributes rather than field of studies. As 74 % of the respondents to the questionnaire identified as women and 70 % of students at Södertörn University are women, this makes the respondents relatively representative of the school population in regards to sex (Södertörns Högskola 2017). The results can not be considered representative for the population in general though, as the Swedish sex ratio is more even. However, as recent studies from 2017 show that women are overrepresented at Swedish universities (Statistiska Centralbyrå n.d.), the results might reflect the attitudes of Swedish students in general.

As the results show, young and well-educated people are more positive towards the flight tax than the population in general. This is in accordance with previous studies (Elliott, Seldon and Regens 1997; Klineberg, McKeever and Rothenbach 1998). In these studies a difference in attitude between men and women could be noticed as well. In this thesis however, a \( \chi^2 \) test showed that the difference in attitude towards the tax between gender was not significant even though a small difference favouring women was identified. The reason behind the lack of difference could mean that the opinions between men and women at Södertörn University are quite similar. Another possible explanation is that there is a significant difference but that is was not identified in this thesis as the the sample size of male respondents was quite small.

Question 10 (Would you fly more if it didn’t lead to emissions such as carbon dioxide?) gives an idea of the degree of importance of environmental aspects when choosing mode of transport. No significant difference in answers could be seen when both groups of students were combined. However, when OD-students’ responses were separated, it was found that only 10 % of men responded that they would fly more, while 29 % of women responded the same. This indicates that men who did not study environment were less sensitive to environmental aspects in this case.
4.2.3 Relation to behaviour

ED-students were to a greater extent aware of the flight tax before completing the questionnaire compared to OD-students, as illustrated by figures 8 and 9. ED-students previous knowledge of the tax might have influenced their attitude towards the tax, which in turn could have affected the results regarding attitude. This indicates that environmental policies are of a greater interest to ED-students than to OD-students. As one purpose of the thesis was to examine any potential differences in attitudes towards the tax between students from different disciplines, this result is highly relevant in answering the secondary research questions.

Figure 8 and 9
Is this the first time you hear of the tax?

This being said, knowledge of something does not automatically translate into action. The attitude-behaviour gap is the discord between what a person feel about something and how they act. This gap has been noted to be quite prevalent in connection to environmental awareness in previous studies (Juvan and Dolnicar 2014). For this reason, questions about previous and planned behaviour were included in the questionnaire. Even though a majority of the students expressed positive sentiments towards the tax, less than 20 % of respondents, from both groups, responded “yes” to the question “Has the new flight tax caused you to reflect on your own flying habits?” It was also found that the more respondents flew, the less positive they were towards the tax (Figure 10). The OD-students flew slightly more than ED-students. This could be correlated to the fact that they were a bit more negative towards the...

26
tax. However, a substantial amount of respondents who flew twice a year or more expressed positive sentiments towards the tax. 38% of these respondents answered that they were positive towards the tax. These results witness of an attitude-behaviour gap, but the results gathered from this thesis are not enough to make any definitive statements on the subject. There are many possible reasons behind the respondents’ attitudes towards the flight tax. Whether someone is positive or negative towards the flight tax does not necessarily need to be connected to their degree of environmental concern. For example, attitude towards excise taxation in general could be a contributing factor. Another reason could be misconceptions regarding the character of the tax. As the tax is presented as a management control measure to reduce Swedes air travelling, it would not be unreasonable to assume that the revenue would be used in a manner similar to how revenue from carbon offset schemes is used. This however is not the case, and the revenue will primarily be used to lower the employment tax for one-person companies\(^5\). In a discussion with one of the participants from the pilot study, it emerged that she thought that the flight tax would work as a climate compensation policy. For this reason she viewed the tax positively, and in addition felt that her effect on the climate when flying indirectly would be lowered due to the tax.

**Figure 10**

*Attitude towards the tax\(^6\)*

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\(^5\) Alm Ericson, Janine; Member of Parliament and economic-political spokesperson for the Swedish Green Party. 2018. E-mail interview May 2\(^{nd}\) 2018.

\(^6\) The response categories “2-4” and “5+” have been combined as there were only three respondents choosing the latter category.
As mentioned several times in the thesis, global flying has been increasing for quite some time and is expected to continue doing so (ICAO 2015; SOU 2016:83; Gössling and Peeters 2007), despite increasing knowledge of the environmental effects of air travel (Hares, Dickinson and Wilkes 2010). The results from this thesis show that more than a third of OD-students answered “yes” to the question “Has your air travelling increased during the last two years?” (Figure 12). This witness of students following the global trend. An important note is that the way that the question was formulated makes it impossible to know whether the remaining part have kept their flying constant or even lowered it. Among ED-students, less than 20% of respondents said their flying had increased in the past two years (Figure 11) which shows a significant difference between the two groups of students. A majority of ED-students are in addition planning to decrease their flying due to environmental reasons, even though they already fly less than OD-students for whom that number was just over 10%.

Among the general population, a recent poll (DN 2018) found that only one in ten had abstained from flying due to environmental concern in the last 12 months, but there can of course be other reasons why people refrain from flying as well.

Figure 11 and 12

**Has your air travelling increased during the last two years?**

<table>
<thead>
<tr>
<th></th>
<th>ED-students</th>
<th>OD-students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>No</td>
<td>58%</td>
<td>40%</td>
</tr>
<tr>
<td>Don't know</td>
<td>82%</td>
<td>58%</td>
</tr>
</tbody>
</table>

4.2.4 Remaining areas of analysis

When designing the tax, the Swedish government aimed at creating acceptance for the tax among stakeholders. This was to be done according to five aspects presented earlier (section 1.5). In the proposition, uncertainty if this would be fully possible was expressed. One of
these aspects was to create acceptance by implementing a tax that was efficient and trustworthy. When respondents of the questionnaire were asked “Do you consider the newly inserted flight tax to be an efficient method to reduce emissions?” the responses were highly equally distributed between the different options (Figure 12). Whether this acceptance includes the general population and their personal perceptions or not, is not made clear in the proposition. However, the authors believe that this should be considered as it is private persons, rather than more powerful stakeholders, that will indirectly pay the tax.

**Figure 12**

*Do you consider the newly inserted flight tax to be an efficient method to reduce emissions?*

![Bar chart showing distribution of responses to the question.*](chart.png)

Another aspect of creating acceptance was that the main purpose (to lower air travels’ impact on the environment by encouraging passengers to choose more environmental transportation options) should be reflected in the system. This was also highlighted by the Swedish Green Party’s economic-political spokesperson Janine Alm Ericson, who meant that the flight tax could contribute to more equal terms of competition between different modes of transport. A relatively large number of respondents expressed that putting efforts into improving alternative modes of transport or lowering the price on the use of them would be a more efficient way of reducing emissions rather than having a flight tax. Trains were the mode of transport mostly discussed, but other examples were given as well. The comments concerned

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7 Alm Ericson, Janine; Member of Parliament and economic-political spokesperson for the Swedish Green Party. 2018. E-mail interview May 2nd 2018.
everything from domestic and international routes, to increased traffic and more efficient trains. The most common remark regarding alternatives to air travelling concerned ticket prices of these alternatives. To the question “Do you think that there are other, more efficient, methods to lower the aviation emission?”, one respondent replied “More alternative routes that are cheaper. Taking the train is for example more expensive than flying.”. This type of argument is anchored in research as well: one study mentioned earlier (Hares et al. 2010), pointed out that the relatively low price of flying could be a contributing factor for choosing the flight despite knowledge of its consequences. This indicates that the flight tax is not perceived as incentive enough to choose other modes of transport over the flight. According to this, the main purpose of the tax is not clearly reflected in the system. The fact that many respondents felt that the tax is too low to make a difference also supports this argument. A couple of students pointed out that as long as the tax is not higher than it is at the moment, they thought that it would not make a difference since people will continue to fly anyway. This aspect was mentioned in previous research that found that travelling (by plane) was seen as a luxury and thus too important to give up (Higham and Cohen 2011; Cohen and Higham 2011).

4.3 Concluding remarks
The purpose of this thesis was to examine Swedish students’ attitudes towards the newly implemented flight tax, and to find out if there was any difference in attitude between students from different disciplines. The thesis has offered insights into Swedish students’ perceptions towards taxation as policy to reduce emissions from air traffic. It was found that a majority of the students participating in the questionnaire were positive towards the newly implemented flight tax. Some major differences could be found in the responses between students with an environmental field of studies and students from other disciplines, not least when asked about their attitude towards the tax. Students from other disciplines were less positive. When students’ answers were compared with the results from a poll made on the attitudes towards a flight tax among the general population (Figure 5), students were found to be positive to a slightly larger extent. This thesis can however not draw the conclusion that this difference is significant.

As described in the theoretical framework, externalities can occur with no feedback or consequences. The externality in this case is when one agent is flying, another agent will be affected by the consequences without repercussions for the former. Considering that Swedes
are among the most environmentally conscious peoples of the world (Jagers and Matti 2010; RobecoSAM 2015; The Gallup Organisation 2009), it could be assumed that respondents to the questionnaire are aware of the externalities caused by flying. Irrespective of this, an interesting finding was that the more the respondent flew, the less positive they were towards the tax, regardless of field of study. Through the externality adder, a type of solution to the externality is created. In this case, the government has implemented a flight tax through which attention is drawn to the problems with flying, while simultaneously contributing to creating consequences. This could be done in various ways, for example through environmental compensation. Compensating for environmental degradation is a key feature in political ecology as well. Political ecology is however a lot more critical towards the markets’ involvement in mitigating environmental degradation, and a couple of political ecologists have suggested that the best method of compensation is to stop polluting altogether (Martínez-Alier and Rodríguez-Labajos 2013). The authors believe that none of the schools of thought expressed in the theoretical framework are enough to cover all aspects of the problems illustrated in the thesis. In spite of this, both provide useful insights and ideas for the understanding of the problems.

The results in this thesis have been subjected to statistical tests as well as qualitative analysis, but could benefit from more in depth statistical analysis to strengthen its reliability and noticed patterns. More research in the area, taking other attributes and aspects into consideration as well, is necessary to contribute to a wider understanding of what climate mitigating policies are suitable. Many students expressed opinions that other modes of transport were too expensive in comparison to flying, which indicates that a flight tax (at least in the way it’s designed now) might not be the most efficient method. Alternatively, the tax might need to be complemented with other policies or measures, to actually be able to make a difference on a larger scale than just local. Another point not to be forgotten is that the climate change being experienced today is unprecedented and on-going, making continuously new and improved research urgently relevant.

As evident from the results of this thesis, as well as from polls of the general population, there is support for the flight tax among Swedes which indicate that there is a will to act environmentally friendly. In spite of this, the expected effect of the tax is that the decrease in demand of air trips will be less than 5%, which means that a large number of environmentally conscious people are still going to use the flight. Thus, their consciousness has not been
translated into action in this case. The authors therefore view the tax as partly inefficient under the premises that the main goal of the tax was to encourage people to dismiss the flight in favour of other modes of transport.

As the results from this thesis indicate that previous knowledge and/or interest of environmental issues correlate with positivity towards climate mitigating strategies and policies (such as taxation), the authors recommend policy makers to include environmental education for school children as early as possible. The authors would optimistically like to encourage future policy makers to keep the following question in mind: how can people’s environmental interests and concerns best be translated into action.
Sources


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Viewed: 2018-05-26


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Accessed: 2018-04-29


Accessed: 2018-03-30


Appendix A

Svenska studenters attityder till flygskatt

Den 1 april 2018 trädde en flygskatt i kraft i Sverige. Flygskatten är avståndsbaserad och innebär i praktiken att priserna på flygbiljetter för konsumenter kommer att öka med 60, 250 eller 400 kronor, beroende på resans längd.

"Skattens syfte är att dämpa flygets klimatpåverkan till följd av ett kraftigt ökande flygresande" – Isabella Lövin (MP), språkrör.

Enkäten kommer att delas ut på Södertörns Högskola och ligga till grund för den empiriska delen i en C-uppsats som undersöker studenters attityder till flygskatt. Svaren kommer analyseras men inte värderas, och behandlas anonymt.

Enkäten tar ca 5 minuter att besvara. Ringa in det svarsalternativ du känner stämmer bäst överens med dina åsikter.

Tack för din medverkan!

1. Hur gammal är du?

≤ 20  21-25  26-30  ≥ 31

2. Vilket kön identifierar du dig som?

Man  Kvinna  Annat/Vill inte svara

4. Nu när du svarar på denna enkät, är det första gången du hör talas om flygskatten?
   Ja    Nej    Vet inte

5. Vad är din inställning till den nya flygskatten?
   Positiv    Negativ    Vet inte    Likgiltig

6. Hur många gånger per år flyger du (tur och retur räknas som en resa)?
   < 1 gång    1 gång    2-4 gånger    ≥ 5 gånger

7. Har ditt flygresande ökat under de senaste två åren?
   Ja    Nej    Vet inte

8. Anser du att den nyligen införda flygskatten är en effektiv metod för att minska utsläppen?
   Ja    Nej    Vet inte


10. Skulle du flyga mer om det inte bidrog till utsläpp av bland annat koldioxid?
    Ja    Nej    Vet inte

11. Har den nya skatten gjort att du reflekterat över dina egna flygvanor?
    Ja    Nej    Vet inte

12. Planerar du att minska ditt flygande framöver av miljöskäl?
    Ja    Nej    Vet inte
The 1st of April 2018 a flight tax came into force in Sweden. The flight tax is distance-based and implicates in effect that the prices of flight tickets will raise, for the customers, with 60, 250 or 500 SEK, depending on the distance of the trip.

"The purpose with the tax is to lower the aviations climatic effects as a result of a heavily increasing air travelling" — Isabella Lövin (Swedish Green Party), spokesperson.

The questionnaire will be handed out at Södertörn University and make the base for the empirical part of a bachelor thesis examining students attitudes towards a flight tax. The answers will be analysed but not valued, and they will be anonymous.

It takes approximately 5 minutes to complete the questionnaire. Circle the answer which fits best with your opinion.

Thank you for participating!

1. How old are you?
   - ≤20
   - 21-25
   - 26-30
   - ≥31

2. What gender do you identify with?
   - Man
   - Woman
   - Other/Don’t want to answer

3. What programme are you studying? (Write the course name if you’re taking an individual course. If you’re designing your own major, state your main field of studies).
   ____________________________________________
4. At the time of completing this questionnaire, is it the first time you hear about the flight tax?
   Yes       No       Don’t know

5. What is your attitude towards the new flight tax?
   Positive  Negative  Don’t know  Indifferent

6. How many times per year do you fly? (A round trip counts as one trip)
   <1 time  1 time  2-4 times  ≥5 times

7. Has your air travelling increased during the last two years?
   Yes       No       Don’t know

8. Do you consider the newly inserted flight tax to be an efficient method to reduce emissions?
   Yes       No       Don’t know

9. Do you think that there are other, more efficient, methods to lower the aviation emission?
   

10. Would you fly more if it didn’t lead to emissions such as carbon dioxide?
    Yes       No       Don’t know

11. Has the new flight tax caused you to reflect on your own flying habits?
    Yes       No       Don’t know

12. Are you planning to fly less further on because of environmental concern?
    Yes       No       Don’t know
Appendix B

1. For how long have MP (Miljöpartiet/The Swedish Green Party, authors note) been working for a flight tax?

2. A flight tax can entail several benefits, but what was the main reason for your desire to implement a flight tax?

3. What will the generated tax income be used for?

4. Several other parties in the parliament are against the flight tax, why do you think this is?

5. Other countries such as Denmark and Ireland have had flight taxes that they have later abolished as it has been shown to have a negative impact on the country’s economy. Isn’t the risk the same in Sweden, that we lose money that in practice could have been used for environmental work? Why would a Swedish flight tax, that in many aspects is similar to other countries’ flight taxes, succeed when others have not?

6. In SOU2016:83 and MP’s Climate Road Map (Klimafärdplanen, author’s note) it’s noted that the largest amount of emissions from the transport sector comes from road traffic, aviation traffic accounts for approximately 10% of Swedish emissions (globally, aviation accounts for 2-14% of climate impact). Why does MP choose to focus on aviation traffic when it’s not the main culprit? The All Party Committee on Environmental Objectives expect a large increase in emissions from aircraft in the near future, but won’t road traffic still be the major cause of emissions?

7. If it’s the individual traveller, rather than airline companies, that will pay for the tax in practice, isn’t there a risk that the availability of flying will become even more of a class question? What are the Green Party’s thoughts on this?
Appendix C

Graphs that illustrate the responses to the questionnaire. Each question is followed by two graphs; the graphs on the left side represent all the answers from students studying Environment and Development (ED-students), the graphs to the right represent all answers from students from other disciplines (OD-students). Questions 3 and 9 from the questionnaire are not included as they were open-ended questions. They have been mentioned in relevant parts of the thesis.

How old are you?

<table>
<thead>
<tr>
<th></th>
<th>ED-students</th>
<th>OD-students</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤20</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>21-25</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>26-30</td>
<td>4%</td>
<td>16%</td>
</tr>
<tr>
<td>≥31</td>
<td>53%</td>
<td>49%</td>
</tr>
</tbody>
</table>

What gender do you identify with?

<table>
<thead>
<tr>
<th></th>
<th>ED-students</th>
<th>OD-students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>29%</td>
<td>22%</td>
</tr>
<tr>
<td>Women</td>
<td>71%</td>
<td>78%</td>
</tr>
</tbody>
</table>
At the time of completing this questionnaire, is it the first time you hear about the flight tax?

What is your attitude towards the new flight tax?
How many times per year do you fly? (A round trip counts as one trip)

### ED-students
- <1: 2%  
- 1: 36%  
- 2-4: 33%  
- ≥5: 29%

### OD-students
- <1: 4%  
- 1: 49%  
- 2-4: 29%  
- ≥5: 18%

Has your air travelling increased during the last two years?

### ED-students
- Yes: 82%  
- No: 16%  
- Don't know: 2%

### OD-students
- Yes: 58%  
- No: 2%  
- Don't know: 40%
Do you consider the newly inserted flight tax to be an efficient method to reduce aviation emission?

Would you fly more if it didn’t lead to emissions such as carbon dioxide?
Has the new flight tax caused you to reflect on your own flying habits?

ED-students: 69% Yes, 20% No, 11% Don't know
OD-students: 67% Yes, 15% No, 18% Don't know

Are you planning to fly less further on because of environmental concern?

ED-students: 61% Yes, 23% No, 16% Don't know
OD-students: 69% Yes, 11% No, 20% Don't know
Appendix D

The first week was mostly spent with getting to know the subject more deeply and discussing how we wanted to dispose the thesis. A time plan for approximately the first half of the time/parts of the essay was set. Angelique initially got the responsibility of reading and writing about exactly how the new tax was formed and what different stakeholders had to say about it, while Amanda got the responsibility of reading and writing about previous research in the field. Angelique’s research lead to writing the introduction and background. She also started to form a questionnaire and Amanda came up with suggestions for research questions. Both of these parts were later on completed by the other person and discussed together. An email interview was made with a representative from the Swedish Green Party which has an important part of the thesis. Into week 3 of working with the essay Amanda wrote the problem statement. Angelique started writing on the method. A pilot study of the questionnaire was made followed by work with improving and updating it as flaws had appeared. Amanda wrote an initial purpose which later was updated a few times. In the beginning of week 5 a time plan for the remaining time was made. The theory part, which had been though of earlier but not written about was divided up between the two of us; Amanda being responsible for the part about political ecology and Angelique for the part about environmental economics. Angelique also wrote keywords and a preliminary title. The official questionnaires was handed out. During week 7 the method was updated by Amanda. After this the final parts of the thesis (results, discussion and conclusion) was written. The whole thesis have also been reviewed and discussed by the two of us together a couple of times. Throughout the whole working period plenty of time has been spent on improving the thesis according to feedback from our supervisor and other students in our class.