

Climate change from the perspective of tourism geography

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Abstract: Climate change has without doubt emerged as one of the most prominent issues attracting the world's attention. The phenomenon has been addressed also in tourism research since 1980s, with tourism geographers in the front line. In Finland, however, little attention was devoted to climate change-related tourism research until the 21st century, which may seem odd considering the importance of climate-dependent nature-based tourism in the country. At present, there are, nevertheless, several research projects addressing climate change from the standpoint of tourism. The interactive nature and complexity of the interrelationship between tourism and climate change force researchers to consider a quantity of issues and to define their roles carefully in pursuit of an ideal and objective study design. One of the most problematic issues in tourism – climate change research is undoubtedly the balancing act between the two phenomena – is the emphasis put on the vulnerability of tourism to climatic changes or on the contribution of tourism to climate change in the form of greenhouse gas emissions.

Introduction

It has often been claimed that, at present, climate change is one of the hottest (literally!) issues attracting the society's attention, including the scientific society. This may well hold true for most of the scientific society but in Finland, there has, nevertheless, been a certain gap in climate change research related to tourism. This dearth of scientific attention seems odd, recognising

that nature-based tourism – the most climate-dependent and sensitive form of tourism – has an important role in Finland, and especially in the peripheral regions of the country. Internationally, however, the lateness of climate change-related awakening in tourism is nothing exceptional. First tourism studies that presented a focus on climate change were published in 1986, but it took several years for the subject to start to attract wider attention and interest among

tourism researchers (see Scott & al. 2005; Tervo 2008) and it was not until beginning of the 21st century that this field of study gained “maturation”, as Scott et al. (2005) refer to the present research period.

Besides the late penetration of climate change -related issues in tourism, some other issues may have affected to the development of research in Finland. Nature-based tourism in Finland – with nature-based I refer to all kinds of tourism activities that have their origin in the nature, in natural settings or that are dependent on natural elements of nature such as snow or ice, or water, or some animals such as seals or reindeer – is a very fragmented industry. It consists of a wide variety of operators and activities, with diverse customer groups and individual motivations, and the relationship with other livelihoods or industries in the region may vary from synergy and cooperation to territorial disputes. Considering this, a study setting that aims at presenting a comprehensive picture about this highly differentiated industry in the light of climate change is not easy to execute.

Nevertheless, the often place-bound tourism industry with its products is very susceptible to changes in climate. Tourism operators are often in a close interrelationship with their surrounding environments and dependent on climate. Climate change is predicted to affect tourism, not only individual tourist products, but to reorganise the regional patterns of tourism, including supply and demand. A wide variety of tourism activities may go through radical changes, which will be reflected, among others, in other activities, regions and tourist preferences. The present flows of tourists may change their direction or, in the worst case scenario for tourism, drain completely, even though this option seems unlikely considering the human curiosity towards distant or unfamiliar places. On the other hand, tourism operations often modify environments where they take place, the impacts of which may be reflected globally and contribute to the global environmental change. Most importantly, from the viewpoint of climate change, tourism industry as a whole is one of the main contributors to the climate change phenomenon.

Considering the abovementioned, a “vicious circle”, as among others Patterson et al. (2006) refer to tourism and its impacts in relation to climate change, illustrates the interrelationship well (figure 1). In reference to the viciousness of the interrelationship it is justified to ask what kind of role the scientific society has in tourism research related to climate change? There certainly is need for thorough studies on the relationship between climate change and tourism, but what is the purpose in searching for solutions to secure the future of this climate-sensitive complexity of tourism operators, activities and tourists, if tourism is one of the main contributors to the

phenomenon that jeopardises tourism’s future? Even more important question – from my point of view – is where do I, as a geographer, stand in this picture and where do I aim with my study? Is the main object to produce purely “scientific” data and results for the scientific community, or are some parts of my study targeted towards applied geography, an approach which has, besides illuminating the nature and causes of problems, potential to propose appropriate responses (see Pacione, 1999), that is, results that may ease adaptation processes and mitigation of climate change among tourism stakeholders?

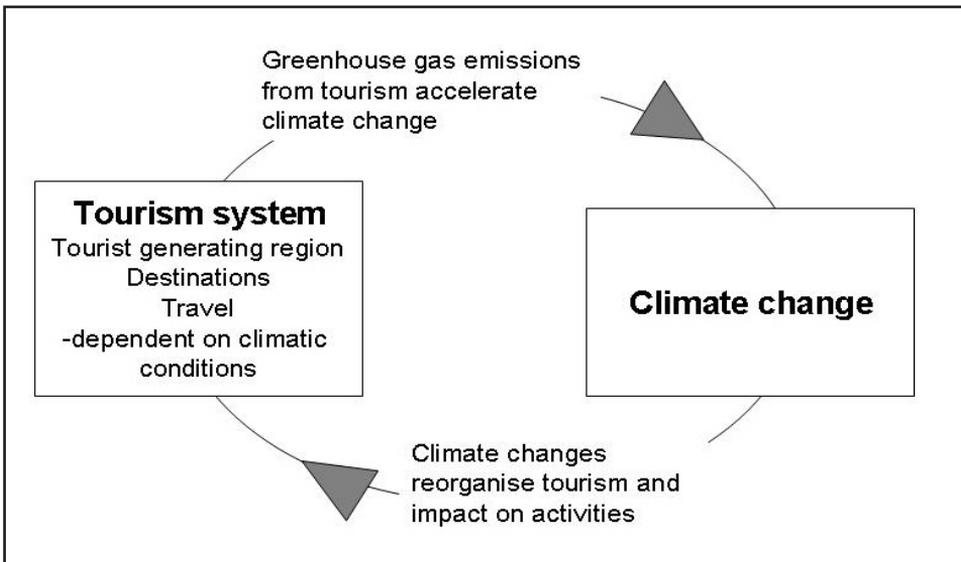


Figure 1. Tourism and climate change -relationship illustrated as a “vicious circle”.

Tourism geographers in climate change research

Tourism offers a fruitful study ground for geographers representing various fields. The role of geography in tourism studies has been discussed in many contexts; and little by little tourism geography as a discipline has gained an independent position alongside other fields of geography (see Mieczkowski 1978, Pearce 1987). Vuoristo (2002), for example, underlines the regional nature of tourism, and Järviluoma (2006) accentuates the suitability of geography's scientific basis for the study of the interaction between tourism and nature. Also Robinson (1976), Mieczkowski (1978) and Saarinen (2002) have emphasised the role of geography in tourism studies. According to them, geographers may hold a central role in analyses of the localisation of tourism destinations and the movement of people between diverse areas and regions. Hall and Page (2002) for their part praise the suitability of geographical approaches for studies that focus on the social, political and environmental relations that are formed and exist between tourists and those operating on the supply side of tourism, and form the foundations for tourism as a phenomenon.

Geographers have excelled, among others, in studies on tourism development, on economic, social and environmental impacts and importance of tourism in regional economies, on tourist decision making, tourist behaviour, on urban and rural tourism, on the placelessness in tourism and on the spatial structures of tourism (see Hall & Page 2002, Kauppila 2004). Since 1980s, tourism geographers have – in the vanguard of the researchers – participated in climate change related research analysing the impacts of change on tourism destinations and their structures, on tourists' and tourism planners' decision-making processes and perceptions, and on attitudes of tourism entrepreneurs. Lately, the attention has been directed towards assessing the (greenhouse gas) emissions from tourism and the potential and possibilities to reduce them.

Also my research considers the abovementioned issues related with climate change, with a special focus on the providers of nature-based tourism in Finland. Considering my background; the “lifelong” focus on environmental issues and interest in tourism as a subject, clinging to this topic has not been purely accidental. A conjunction of events, neverthe-

less, took place before and during the process. Climate change -related research was given a kick-start in 2004 in the FINADAPT research project in which the emphasis was on adaptation strategies of the diverse industries and fields of the Finnish society. My appointment as a research assistant in the FINADAPT work group focusing on (nature-based) tourism and recreation (see Sievänen et. al. 2005) gave me an opportunity to be among the first Finnish researchers assessing the phenomenon from the standpoint of tourism geography. A craving for a more thorough understanding of tourism – climate change -relations has kept me busy with the subject since then.

Changing reality, changing perceptions

Nature-based tourism as an industry that takes place in natural environment or is dependent on natural elements cannot, in my opinion, be discussed in isolation from the physical environment (e.g. climate) even though the role of meanings, perceptions and images (of tourists, but often produced and propagated by tourism developers and marketers) is enormous. In this sense it is

hardly a surprise that I have built the theoretical foundations of my study on the basis of realism. The natural environment represents the reality that exists in a certain form regardless of the perceptions of tourism stakeholders or tourists. Climate is one part of this reality, a character that has for a long time been considered as taken for granted resource in tourism (see de Freitas 2001). The presence of climate change has, however, forced tourism stakeholders to reconsider this conception.

Some ideas of the so-called behavioural geography have also influenced my thinking. As my original way of conceptualising the term perception derives from the mid-twentieth century's behavioural approaches in geography, it is difficult to bypass the corner stones of behavioural studies. Tourism stakeholders – who in this context refer to people who operate on the supply side of tourism, to travel agencies and, more importantly, to tourism entrepreneurs and tourism developers – operate on the basis of the perceptions they have on the surrounding environment and climate. Successful operations are possibly manifested as good understanding of the climatic “reality”, while failures reflect situations where

perceptions have not corresponded to reality.

One research question in my study focuses on climate change perceptions and their construction among tourism stakeholders, while less emphasis is placed on the climate change remoulded reality as an environment for tourism operations. The future conditions of the climatic environment where tourism takes place cannot, however, be ignored. An important challenge in the future will be the adjustment of current tourism products and operations into new conditions, where knowledge of both the future climate and the understandings of climate change among tourism stakeholders is crucial.

Drawing the lines

Another issue that cannot be bypassed relates to ethics. One would not necessarily consider climate change related tourism research ethically questionable, as individuals and their personal characteristics are not the focus of the study. Nonetheless, there are, in my opinion, several issues that call for thorough consideration. To begin with, the whole idea of climate change -related tourism

research that focuses on adaptation and vulnerability can be impugned. An approach that takes cognisance of the role of tourism as a contributor to the global change supports this challenge. In short, it has been estimated that tourism contributes between 4 to 10 percent of all greenhouse gas emissions in the world (see Peeters 2007a). Of these emissions, travel is without doubt the biggest contributor – according to Peeters (2007a) 87 percent of greenhouse gas emissions in tourism originate from travel to and from the destination and from travel within the destination. In this light, accommodation and activities are much less of a problem with 9 percent of emissions originating from accommodation and 4 percent from activities. So far, the share of tourism of greenhouse gas emissions has not demonstrated any signs of decreasing, and as the international regulation on aviation fuels is somewhere waiting to be enacted and put into action, the remarkable reduction of emission remains unlikely.

Considering the abovementioned, one may justly ask whether the study settings which mainly focus on adaptation and vulnerability of tourism to changing climate are lacking the

ethical and societal responsibility that is sometimes claimed from scientific work. In pursue of sustainability, research effort should be directed at mitigation measures in tourism. The problematic nature of the interdependency between tourism and climate change is maybe the most difficult one to ignore, especially when travel between places is so important factor for successful tourism. Accessibility is crucial in tourism, and especially in peripheral tourism regions such as Finnish Lapland. Located in the “periphery” of Northern Europe, a great part of international tourists probably arrive to Lapland by plane or by rental cars, as the public transport network (train or bus connections) may be considered ineffective relative to high prices and comparative slowness of travel. Even though some tourism activities realised at the destination can be close to carbon neutral, the travel to these peripheral regions remains a problem. As tourism often has an extremely important role as a source of income and provider of services, the abandonment of tourism in these areas seems unlikely. Fortunately, other resolutions for greenhouse gas emission reductions from travel to peripheries have been proposed (e.g.

Peeters 2007b).

Other ethical issues relate, among others, with the role and responsibilities of the researcher and the methods used. Is there a need to treat diverse tourism activities and destinations equally? Should climate change research emphasise and focus on, for example, carbon neutral destinations and forms of tourism and leave more harmful greenhouse gas producers on their own, or the contrary? Moreover, I am, among others, interested in attitudes and perceptions of tourism stakeholders and tourists towards climate change. To illustrate potential changes to these groups, I use future climate scenarios produced by climatologists and meteorologists. Even the choice of scenarios is problematic: should I present the worst case scenarios or more optimistic versions, or something between these two options? I am aware of the shortcomings of the climatic models that are being utilised to produce climate scenarios, and of the incompleteness of the scenarios, but these issues may, despite my attempts to report these shortcomings to tourism stakeholders, remain unclear to study participants. Tourism stakeholders are eager to receive precise informa-

tion about the future conditions as this may give them some kind of competitive advantage; and due to their reliance on climatic conditions, eager to take these scenarios seriously. What are my responsibilities as a researcher if these scenarios never fulfil, or turn out completely wrong and misleading?

Reporting is still another stage where the risk of malpractice is concrete, and where the researcher has to make ethical decisions, unless the aim is to take an active role as a tourism developer. It is not insignificant which results are published using which communication channels. Scientific publications are hardly a problem, as their audience mainly consists of other scientists. Some other forums such as national or regional reports and newspapers may be more problematic since a wider group of people including tourism stakeholders and tourists have access to them. Considering this, the potential for destabilising the balance between competitive tourism regions with certain results is great, especially if one region is given competitive advantage at the expense of other regions. Reporting, for example, snow deficiency in Rovaniemi region may lead to tourist loss in the region

and give competing winter tourism regions tools for attracting potential tourists from Rovaniemi region. Another sensitive issue is adaptation, as the methods developed and used by tourism entrepreneurs are sometimes business secrets that give competitive advantage to the developers. On the other hand, use of certain methods may have consequences in the surrounding environment and people, such as snowmaking if it affects the water resources of the tourism destination.

At present, when the idea of climate change and its impacts are penetrating all sectors of the society, people are forced to confront climate change and its consequences. Each individual does, however, address climate change on the basis of his or her understanding of the phenomenon. In this light, there certainly is need for knowledge of people's ways to construct perceptions and images of climate change. Even though my study will not lead to a comprehensive understanding of human perceptions on climate change, it yields information about tourism stakeholders' ways to come to terms with their physical environment and changes taking place in it. This kind of knowledge may help the plan-

ning and execution of adaptation and mitigation procedures globally, and not only in tourism industry, as other livelihoods are often in a close relationship with tourism. Knowledge of tourism industry's ways to react to changing climate may also help to avoid increasing disputes over resources such as water, forests and landscapes between tourism and other livelihoods.

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