

# From sustainable mobility to sustainable tourism

K. G. Høyer

*Head of Research, Western Norway Research Institute,  
N-6851 Sogndal, Norway*

## Abstract

The paper consists of four main parts. The first part gives an analysis of the sustainable tourism discourse. Two main axes of understanding are presented; intensity problems versus volume problems on one axis, and stationary activities versus mobile activities on the other. The prevailing understanding of the concept of sustainable tourism mostly as a matter of *stationary activities* and *intensity problems* raises several issues for further analysis and discussion. One is that there is no tourism without travel and transport - or mobility and mobile activities as are the terms applied. This of course also requires a focus on the mobile activities in tourism, not least as transport is a major cause of the most serious *environmental problems*, both as intensity and volume problems. The second part of the paper elucidates – with Norway as a case – how transport on the one hand and leisure time activities and tourism on the other have grown like Siamese twins all through modern history. The main aspects in the European discourse on *sustainable mobility* are presented in the third part. Some of the aspects highlighted are the needs to develop public transport in general and *rail transport* in particular, thus also tourism based on these transport systems. The last part gives a *typology* of how sustainable transport may become a road to sustainable tourism, and some examples of how this has been carried out in some European countries.

*Keywords:* *sustainable mobility, sustainable tourism, transport and tourism, transport and sustainability, volume problems, intensity problems, mobile activities, stationary activities.*



## 1 The sustainable tourism discourse

In 2000 I published in the *Journal of Sustainable Tourism* an article titled *Sustainable Tourism or Sustainable Mobility?* [1]. It was mainly conceptually oriented, and gave an analysis of several theoretical articles about the concept of *Sustainable Tourism* published in the journal during the 1990's.

The dominating use of the concept *sustainable tourism* was found to be somewhat of a paradox, in several ways. Sustainable tourism of course originates in the discourse on sustainable development, basically a global concept, and not the least a concept that puts into focus the need to solve environmental problems in the global commons. But the articles mostly conveyed a purely local understanding, applying terms like local carrying capacity.

According to a work by Butler [2] for instance, sustainable tourism is tourism of a type that makes it sustain its viability in *one area* for an indefinite period of time. A similar definition was given by Squire [3]. In several of these former studies attempts were made at applying the concept of *carrying capacity*. This refers to the maximum number of people who can use *an area* without an unacceptable reduction in the quality of the experiences that visitors may gain [4]. Conditions for sustainable tourism were very much the same as the core indicators of such tourism developed by *WTO* in the first half of the 1990's [5]. All these works in addition excluded transport-related problems from their analytical framework.

These are perspectives which however were met with criticism by some. Hunter notably [6], underlined the fact that sustainable tourism must primarily be developed in the point of intersection between tourism as a global phenomenon and sustainable development as a global task. In his opinion, the focusing on defined destination areas by trying to implement policies and measures for a sustainable tourism implies a danger by ignoring the further connections the area is a part of.

In my article I particularly emphasised the basic links between tourism and transport, but then also found that most of the conceptually oriented contributions about sustainable tourism were written as if transport was a non-topic, as if one could have tourism without travels. Surprisingly enough not even tourism-related transport locally - for instance in major tourism-cities - were included in the analytical framework, even though it is known to be the cause of substantial local environmental problems connected to air-pollution, noise, and traffic jams. It should then not come as a surprise that I found no mentioning of any relations to the concept of *sustainable mobility*, a highly focused topic both in politics and science during the same period. A conclusion drawn from my analysis was that the two concepts - sustainable tourism and sustainable mobility - needed to be united. This was considered a larger challenge for the tourism side, as tourism and leisure time issues already were integrated in the sustainable mobility discourse.

In connection with the writing of an article to a forthcoming international book [7] I carried out a renewed analysis of the more conceptually oriented



contributions published in the same journal (Journal of Sustainable Tourism) after my first article. Included in this analysis were newer contributions by Sharpley [8], Hardy and Beeton [9], Teo [10], and Hardy et al [11]. It was surprising to find that the above conclusions largely still were valid. Several articles have of course put into focus the sustainability issues related to transport - also global transport - as a crucial part of tourism, and then of the issue of sustainable tourism. But only to a minor extent were such perspectives included in the more theoretical and conceptually oriented contributions.

## 2 A sustainable tourism typology

The limited application of the concept of sustainable tourism of course appears particularly paradoxical in view of the understanding of *sustainable development* expressed in the *Brundtland Commission report* [12]. After all it was this UN-report - and the follow-up global conferences in Rio (1992) and Johannesburg (2002) - which really launched and highlighted the sustainability concept. The major conventions from this process - in particular related to climate change and biological diversity - consider these to be global issues and a matter of global agreements. Key characteristics of the sustainable development concept applied are ecological sustainability, globality, and fair distribution over time and in space. The distribution aspect is linked both to benefits and burdens.

In a historical perspective, there is nothing new in the fact that limits of ecological sustainability are exceeded, locally and even regionally. The crucial challenge drawn up by the UN-report and processes is that this now also needs to be considered as *a global phenomenon*. The sum of the man-made encroachments has become too big, even when what happens locally - within the local context - is not. This may be referred to as “the sum-tyranny of the small decisions” and expressed as a *volume problem*. And it emphasises the need to consider local decisions - also in tourism - within such global contexts.

We may then talk of volume problems and a *volume perspective* when our prime focus is on the danger of exceeding global sustainability limits. In the other end we may talk of *problems of intensity* and an *intensity perspective* when it is the local/regional limits we focus on. Above they were mentioned as problems within *one area*, and also connected to the concept of *local carrying capacity*. This - volume problems on the one side and intensity problems on the other - is one of two axes in my typology, as it is illustrated in Figure 1. And as already outlined the intensity perspective forms the basis of an internationally prevailing understanding of the concept of *sustainable tourism*.

But even if we have an intensity perspective we may consider problems caused by transport to be important. After all transport is the cause of serious local/regional environmental problems, and is not only related to problems of global reach and importance. We apply the term mobility - or *mobile activities* - as an expression of transport in this context. In the other end we may talk of *stationary activities*. They are for instance the hotels and destinations use of energy and natural resources for their ordinary daily activities, including the loads put on these resources by various tourist activities. Even though golfers



move around on the golfing fields, they represent a stationary activity. The stationary activities thus comprise all the other activities that are not covering how tourists transport themselves or are transported to, from and between destinations. In Figure 1 this is represented by the second axis with mobile activities in the one end and stationary activities in the other. I have outlined that stationary activities - as the intensity perspective - are focused in the prevailing understanding of the concept of sustainable tourism, at least as it has been addressed in the more conceptually oriented works.

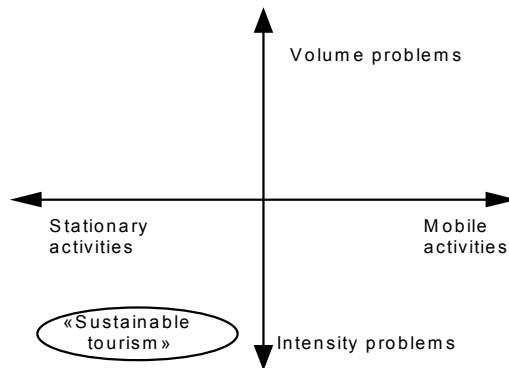


Figure 1: The internationally prevailing understanding of sustainable tourism (from [1]).

The prevailing understanding of the concept of *Sustainable Tourism* mostly as a matter of *stationary activities* and *problems of intensity* raises several issues for further analysis and discussion. With Norway as a case I shall below in particular elucidate the fundamental relations between transport development on the one hand and leisure time and tourism development on the other.

### 3 Transport and tourism - the Siamese twins

The first automobiles – in Norway in the early 1900`s – were met by large opposition, both among politicians and common people. In order to increase its use extensive marketing efforts were needed. Most people did not need cars in their daily lives; they walked or bicycled to work and nearby shops. New urban rail systems gave the opportunities for longer travels. Thus, cars were neither needed for *production* nor *reproduction* related mobilities. Close links were on the other hand made between the car and a third category of mobility: *leisure time mobility*. Car use so to speak started as a purely leisure time activity, and this link has later been fairly prominent during the whole car-age history. Early advertisements presented cars as means to come out in the fresh country air and landscapes, and away from the industrialised and polluted cities.



Similar emphases on the links between cars and leisure time are given in historical works from many countries and continents [13,14].

The car has ever since kept its firm grip on leisure time, and vice-versa. Not the least is this due to the development of car-based tourism. The first cars with *caravans* popped up on Norwegian roads in the 1960's. Later this type of tourism has vastly expanded, and taken a variety of new forms; caravans with ever increasing sizes, camping sites with caravans as permanent summer houses, and the later large motor-caravans which travel everywhere, domestic as abroad. And as these are examples of tourism completely formed by the car, other types of tourism have changed with the car and become totally dependent on it in their current form and size.

Also through their whole history Norwegian *airways* have been tightly connected to leisure time. Just as for automobiles this is actually where the airplanes started. Sports played a particularly important role. Through several decades airplanes were almost completely a matter of breaking speed limits, breathtaking air acrobatics and adventurous travels across seas and continents.

As they became collective transport means airplanes have in an incredible way managed to keep their association to unlimited individual freedom and mobility. It is for airways as for highways, but very much in contrast to railways. The *institutional system* developed to foster the individual mobilities is an impressive story.

Not the least is tourism an integral part of this system. Already in the 1960's the first charter flights started to transport Norwegians to the sun and warm beaches in Southern Europe. The growth has been exceptional all the years since, not only in numbers but also through a continuous increase in distances. This has made really long distance travels an opportunity for all social groups, a type of travels which to day takes a large share of the total mobilities for many households. As it in countries like Greece, Spain and Portugal has caused fundamental changes in thousands of local communities and their populations, the changes in Norwegians' mobility patterns and extents have been no less. One of the changes is the development of a new form of *dwelling-tourism*; where Norwegians settle in Southern Europe for large parts of the year to travel to and fro with plane, in some cases in the form of sheer plane-commuting. This has now become the largest settlements of Norwegians abroad since the large migration to America some hundred years ago.

Norway has thus become a society of *aeromobility*, just as it is a society of automobility. This is a global mobility which in extent and type has the aeroplane as a fundamental precondition. Aeromobility – as automobility – plays a major role in structuring the late-modern societies, where leisure time and tourism are particularly important components [14].

Norwegian *railways* have never played a similar role in forming tourism. This is somewhat different from the situation in England where railways were built to bring people from main industrial cities to beach areas along the coasts. Whole new towns – as Blackpool – were developed solely to serve this *railway-tourism*. It is actually one of the major forms of mass-tourism through history.



Trains – the *iron horses* - were first of all transport means for the earlier forms of modernization, the industrial production society. Railways were primarily a matter of developing the national economy, actually of building the whole nation. They did not as automobiles inspire to individual mobility. Connections were to work and not to sports and leisure time. When car-use really took off in the 1970's railways should soon become a symbol of a sunset-society. Cars and airplanes were the symbols of the new modern times with expectations of unlimited individual mobilities.

#### 4 The sustainable mobility discourse

In a report from the EU joint research centre in Seville the importance of a sustainable mobility is emphasised in this way:

*"No road toward a sustainable society can avoid a redesign of the entire mobility sector, involving both the installation of a transport system following the dictates of ecological considerations and a modification of our overall mobility behaviour".*

Two things are emphasised in this citation. Firstly, the crucial role of transport - for good and for bad - in a sustainable development. Secondly, that not only is it a matter of restructuring of transport systems, but also a modification of our overall mobility behaviour.

The concept of *Sustainable Transport* was launched already in 1990. Two years later - in 1992 and the same year as the Rio-conference - EU for the first time applied the concept *Sustainable Mobility* as an overriding term for its common transport policy [14]. Later both concepts have been used extensively not only in Europe, but in many parts of the world. When the basic term is *transport*, focus is on changes required in transport means and the wider transport systems they are part of. With *mobility* as the basic term, it is movement patterns and movement volumes that are put on the agenda. For our purpose here we consider the two - sustainable transport and sustainable mobility - to be parts of the same overall discourse on relations between sustainability and transport.

Regarding policies to achieve sustainable transport and mobility, they are of three different types as illustrated in table 1: *Efficiency - Pattern - Volume*. To put it simply: we can either *travel more efficiently*, that is with less energy used and with less polluting emissions per kilometre. Or: we can *travel differently*, especially change to transport means that are more ecologically sustainable. Or: we can *travel less*, that is reduce our total number of kilometres travelled. All three are included in the overall discourse, and all three are necessary to achieve a sufficient degree of sustainability.

From Table 1 I shall in particular draw attention to the importance given to public transport, other than airways. Sustainable mobility is in this context seen as *synonymous* with *buses and rail*, and just as much for urban as for long distance transport. *Modal shift* is then mainly about enforcing substantial



transfers from cars and planes to buses and rail. *Intermodality* is about creating efficient interconnections so that buses and rail can take much larger shares of the total distances travelled, and similarly to reduce the distances covered by cars and planes. A measure along this line is to place the cars on trains, and let them take the large part of the total distance travelled.

Table 1: Sustainable transport and mobility. A typology of policies in passenger transport.

Efficiency	Pattern	Volume
<ul style="list-style-type: none"> <li>- Energy efficiency</li> <li>- Alternative energy</li> <li>- Emission efficiency</li> <li>- Load factor efficiency, increased load factors</li> </ul>	<ul style="list-style-type: none"> <li>Modal shifts;</li> <li>- From cars to walking/cycling</li> <li>- From cars to public transport, buses and rail</li> <li>- From cars to urban rail transport</li> <li>- From cars and planes to long distance rail transport</li> <li>Intermodality;</li> <li>- Larger share of buses and rail transport of total transport chains</li> <li>- Better interconnections between walking/cycling, buses and rail transport</li> </ul>	<ul style="list-style-type: none"> <li>- Sustainable Urban Development with public transport as a core</li> <li>- Car-free city areas</li> <li>- Spatial localising and restructuring to reduce mobility demands</li> <li>- Coordinated land-use and transport planning to reduce mobility demands</li> </ul>

The change in understanding of the role of long distance rail transport is remarkable. I have formerly emphasised that this type of rail transport in the 1970's and 80's to a large extent was considered as a transport system for the sunset-society. This was subject to a radical change in the early 1990's. Railways in general were then presented as transport systems for the future *sustainable society* and crucial means to reduce climate-gas emissions from transport. But to the extent that there have been any real changes railways have strengthened their role as transport means for urban and inter-city commuting. This has served to further cement rail transport to the production society, as was very much the original history of rail development. It is my thesis that it never will become a real tool for sustainable mobility before it takes on a completely new role to serve *leisure time mobilities*. And one of the main problems in this context is that railways never have been able to form their own tourism to the same degree as highways and airways.



## 5 With sustainable mobility to sustainable tourism

Even though the hegemonic discourse on sustainable tourism is not related to the sustainable mobility discourse, there are several examples where sustainable transport and mobility constitute crucial parts of tourism. Table 2 below presents a *typology* of such current examples. Some of them have long historical links, but it is still reasonable to place them within an overall context of sustainable transport.

Table 2: Sustainable transport and sustainable tourism connections. A typology of current examples

Sustainable Transport as Aims in Tourism	Sustainable Transport as Means in Tourism	Sustainable Transport as Means to Sustainable Tourism
<ul style="list-style-type: none"> <li>- Soft Mobility Destinations</li> <li>- Sustainable Transport means as Destinations</li> <li>- Soft Transport Tourism</li> </ul>	<ul style="list-style-type: none"> <li>- Public Transport for Tourism travels</li> <li>- Public Transport in Event tourism</li> <li>- Intermodal Transport for Tourism travels</li> </ul>	<ul style="list-style-type: none"> <li>- Spectacular Rail Tourism</li> <li>- Sustainable Cities as Sustainable Tourism</li> <li>- Sustainable travels as parts of Sustainable Tourism</li> </ul>

**Category I – Sustainable Transport as Aims.** In *soft mobility destinations* soft forms of mobility are the prime or very important attractions of the destinations. Examples are car-free towns in Switzerland (GAST-network) and some Greek islands, notably Hydra where all forms of motorized transport is prohibited. Networks of car-free towns and areas are also found in Austria and Bavaria. *Sustainable transport means* may be the *destinations* in themselves. Examples from my own country are a very spectacular railway line from sea level and high up into the mountains. It is actually one of the largest tourism destinations in Norway. Other examples, also known from many other countries, are steam boat travels on canals and lakes. The most important aspect is the transport mean itself and its connections to the natural landscape and not the length of the travel. Cycle tourism is the most common example of *soft transport tourism*. It is a form of tourism that one will find in most European countries today.

**Category II – Sustainable Transport as Means.** Examples of *public transport as tourism travels* are charter bus transport for long distance travels and not the least *inter-rail*. The later years however inter-air travels have become more popular among youngsters than inter-rail. This represents a rather dramatic change from sustainable to unsustainable tourism travels. There are many examples of systematic use of *public transport* – buses and rail – in *event tourism*. During the winter Olympics in Norway in 1994 for one such transport systems were an integrated part of the event, and was highlighted as an important





part of something they called “Environmental Olympics”. An important example of *intermodal transport for tourism travels* is the German system whereby private cars are placed on trains and transported for long distances, even to the extent that most of the total transport distance is covered by rail. Other examples are combining cycle tourism with rail, where particular rail routes and wagons are set up to transport the cycles on trains for the longer parts of the travels.

**Category III – Sustainable Transport as Means to Sustainable Tourism.** *Spectacular long distance rail travels* may be placed within this category. The most known examples are travels with the Transsiberian railway and the Orient-express railway. In these cases the rail system is both the attraction and may take a very large part of the total transport distance for the individual tourists. There are many European examples of *sustainable city development* and where sustainable transport in particular is an important part. There are also some – but much fewer – examples where this also has been linked to sustainable tourism within the city context. I do not however know of any examples where the sustainable city relation is used as a superior context for marketing of the sustainable tourism attractions. The NAP – the Netherlands Alpine Platform – is an example of an initiative where *a sustainable way of travelling to and fro destinations* is an integral part of a complete sustainable tourism package for Dutch tourists travelling to the Swiss and Austrian Alps.

I have earlier presented the sustainable transport typology – *efficiency, pattern, volume*. A limitation in the above examples is that they only to a minor extent address the serious volume-issues in car and plane transport; they are mostly about efficiency and pattern. It would however demand too much of sustainable tourism if we in every singular case expect them to address the volume issues. But it is not too much to demand that even such issues should be an integral part of the *discourse and concept* of sustainable tourism. Not the least do the above examples illustrate the need to include the other transport issues in the sustainable tourism discourse. Sustainable transport – and soft mobility – may in themselves form crucial parts of sustainable tourism attractions, in addition to strengthening such attractions. There is thus the evident need to interconnect the two concepts: *sustainable mobility and sustainable tourism*.

## References

- [1] Høyer, K.G. (2000) Sustainable Tourism or Sustainable Mobility? The Norwegian Case. *Journal of Sustainable Tourism* 8 (2), 147-161.
- [2] Butler, R.W. (1993) Tourism: An evolutionary perspective. In: Nelson, J.G., Butler, R.W. & Wall, G. (eds) *Tourism and Sustainable Development: Monitoring, Planning, Managing*. Waterloo, Ontario: Heritage Resources Centre, University of Waterloo
- [3] Squire, S.J. (1996) Literary Tourism and Sustainable Tourism: Promoting “Anne of Green Gables” in Prince Edward Island. *Journal of Sustainable Tourism* 4 (3), 119-134



- [4] Williams, P.W. & Gill, A. (1994) Tourism carrying capacity management issues. In: Theobald, W. (ed) *Global Tourism. The next decade*. Oxford: Butterworth-Heinemann
- [5] World Tourism Organisation (WTO) (1995) *What Tourism Managers Need to Know : A Practical Guide to the Development and Use of Indicators of Sustainable Tourism*. Ottawa : Consulting and Audit Canada
- [6] Hunter, C.J. (1995) On the Need to Re-Conceptualise Sustainable Tourism Development. *Journal of Sustainable Tourism* 3 (3), 155-165
- [7] Høyer, K.G. & Aall, C. (2004) Sustainable Mobility and Sustainable Tourism. In: Hall, M.C. & Higham, J. (eds) *Tourism, Recreation and Climate Change: International Perspectives*. London: Routledge (forthcoming)
- [8] Sharpley, R. (2000) Tourism and Sustainable Development: Exploring the Theoretical Divide. *Journal of Sustainable Tourism* 8 (1), 1-20.
- [9] Hardy, A.L. & Beeton, R.J.S. (2001) Sustainable Tourism or Maintainable Tourism: Managing Resources for More than Average Outcomes. *Journal of Sustainable Tourism* 9 (3), 168-193.
- [10] Teo, P. (2002) Striking a Balance for Sustainable Tourism: Implications of the Discourse on Globalisation. *Journal of Sustainable Tourism* 10 (6), 459-475.
- [11] Hardy, A.L., Beeton, R.J.S. & Pearson, L. (2002) Sustainable Tourism: An Overview of the Concept and its Position in Relation to Conceptualisations of Tourism. *Journal of Sustainable Tourism* 10 (6), 475-497.
- [12] WCED (1987) *Our Common Future*. World Commission on Environment and Development. Oslo: Tiden (Norwegian edition)
- [13] Belasco, W. (1984) Commercialized Nostalgia: the Origins of the Roadside Strip. In: Lewis, B.L. & Goldstein, L. (eds). *The Automobile and American Culture*. USA: Ann Arbor
- [14] Høyer, K.G. (1999) Sustainable Mobility – the Concept and its Implications. Ph.D. thesis. Roskilde, Denmark: Roskilde University, Department of Environment, Technology and Social Studies.

