Tourism Under Climate Change: Will Slow Travel Supersede Short Breaks?

Ralf Buckley

Received: 27 September 2010 / Accepted: 29 September 2010 / Published online: 20 October 2010

This synopsis was not peer reviewed.

Climate change is affecting the tourism industry through many different mechanisms (Weaver 2011; Gössling, 2002, 2007; Berrittella et al. 2005; Hall and Higham 2005; Peeters 2005; Dubois and Ceron 2006; Becken and Hay 2007; Buckley 2008; UNWTO-UNEP-WMO 2008; Gössling et al. 2009). These include: environmental changes and human responses at tourist destinations and countries of origin (Koenig and Abegg 1997; Harrison et al. 1999; Maddison 2001; Elsasser and Buerki 2002; Lise and Tol 2002; Scott et al. 2006, 2008; Buckley 2008; Wolfsegger et al. 2008; Moore 2010; Eugenio-Martin and Campos-Soria 2010); mitigation and offset measures (Gössling et al. 2007; Tol 2007; Brouwer et al. 2008; Hall 2008; Broderick 2009; Ceron and Dubois 2009; Gössling 2009, 2010; Haites 2009; Peeters et al. 2009; Scott et al. 2010); and changes in travel patterns due to increased financial and social costs of travel (Oum et al. 1992, 1993; Sykes and Thomas 2006; Amelung et al. 2007; Mayor and Tol 2007; Hares et al. 2010; Nawijn and Peeters 2010). This contribution reports on direct interview approaches used to examine a question previously addressed only through economic modelling: namely, how tourists will respond to expected increases in the costs of longhaul travel associated with measures to mitigate climate change. It concludes that a change from short-break to slow-travel patterns in human mobility is at least a realistic possibility.

Air travel currently contributes 14% of effective greenhouse gas emissions (Scott et al. 2008). There is limited scope to reduce fuel consumption through more efficient routing, design or fuel substitution (Scott et al. 2010); fuel is the major recurrent cost for airlines, which

already pursue opportunities for savings. Carbon offsets are currently ineffective, firstly since very few passengers buy them (Gössling et al. 2007; Eijgelaar et al. 2010); and secondly since at present, they merely reflect marginal adjustments between land uses which are strongly influenced by historical subsidies in the farming, forestry and energy sectors. Social considerations of climate change do not currently affect holidaymakers' travel plans (Hares et al. 2010), even for people visiting attractions at high risk from climate change (Eijgelaar et al. 2010; Dawson et al. 2010); and even though most air travellers acknowledge that flying contributes to climate change (Becken 2007; Hares et al. 2010; McKercher et al. 2010). Under current social systems, therefore, the only effective option to reduce greenhouse gas emissions from air travel is to increase the cost of travel through carbon taxes or emission trading systems.

Demand for holiday travel, however, is inelastic to price (Nawijn and Peeters 2010). Price elasticities of demand are around -0.8 within individual nations and -0.6 internationally (Oum et al. 1992, 1993; Brons et al. 2002; Pearce 2008; Fageda and Fernández-Villadangos 2009). Elasticities are lower for business travel. Income elasticities of demand are around $+1.5$ in developed and $+2.0$ in developing nations (Njegovan 2006; Pearce 2008). Air travel costs constitute about a quarter of total price for shorthaul package holidays within Europe (Pearce 2008) but significantly higher proportions for travel to most southern and developing nations. Estimates of the impacts of carbon taxes differ widely. Michaelis (1997) suggested that a tax of \$125 per tonne CO₂ equivalent would reduce demand for air travel by 4.4–13.3%. Olsthoorn (2001) concluded that a tax of \$1500 per tonne would double airfares and reduce air travel dramatically; but Tol (2007)

concluded that a tax of \$1000 per tonne would only reduce international travel by 0.8%.

Econometric approaches examine only the population-scale responses to marginal changes in prices and income, including substitution between existing behaviours. They do not consider potential new patterns of behaviour. One possible effect of higher air travel costs, however, is that people may restructure their entire leisure activities. In recent decades, the combination of cheap air travel and heavy work commitments has given rise to short-break vacations, where people take multiple brief holidays spread throughout the year (Pike and Ryan 2004). More expensive air travel coupled with improved global communications, in contrast, may generate the opposite effect: people may travel less often but for longer periods, continuing to work at least part-time whilst travelling. To examine the potential for new behavioural patterns under substantially altered and unfamiliar circumstances, qualitative interview approaches may be more reliable, or at least complementary, to quantitative economic modelling. This is therefore the approach adopted here.

There does not appear to be any pre-existing term which means ‘travelling to fewer destinations but staying longer at each’. I therefore refer to it here as slow travel, by analogy with the “slow” movement more generally (Honoré 2004). This is the meaning ascribed to “slow travel” in popular travel literature such as newspaper articles. In academic publication, the term slow travel has been used with a literal meaning within the fields of engineering and biology. In the field of human mobility, there are several related but clearly distinct concepts. Slow leisure means taking one’s time during local activities (Woehler 2004). Slow transport or soft mobility means using energy-efficient local transport (Hoyer 2000; Hall and Higham 2005; Verbeek and Barge-man 2008; Straadas 2009). Slow tourism means taking fewer holidays overall (Matos 2004; Dubois and Ceron 2008). The term slow travel has been mentioned either in an undefined sense (Gössling et al. 2008; Scott and Becken 2010); or as synonymous with slow transport (Molz 2009), which is not the popular meaning as above. Given the shortage of appropriate terms, and the lack of any formal prior definition, it is appropriate to coopt the term for the concept considered here.

To assess whether slow travel in this sense is a likely scenario, I interviewed travellers in two main categories: cash-rich time-poor, and time-rich cash-poor. The former were clients of upmarket commercial wildlife and adventure tours in Africa, Latin America, Asia and Oceania (Buckley 2006, 2010a, b). Most of this group were wealthy professionals from Europe, the Americas, the Middle East, East and Central Asia, Australia and New Zealand. The latter were largely university students, studying in Australia but originating worldwide. Mean age, as well as

mean wealth, was lower for students than for professionals. All of the professionals, and a similar number of students, were consulted through one or more semi-structured interviews following several days of more general intermittent conversations to establish rapport. The interviews were conducted both face-to-face, and via the social networking site Facebook®.

Interviews were carried out during 2008, 2009 and 2010, periods when actual airfares fluctuated quite substantially. They examined interviewees’ likely responses to a doubling of current airfares, corresponding to the highest carbon tax yet considered (Olsthoorn 2001). The interviews aimed first to establish two comparative baseline scenarios in the minds of the respondents, namely: (a) their current travel patterns; and (b) a substantial reduction in overall travel, either in time or distance. They then lead the interviewees to consider other options, notably that of slow travel as defined here—i.e., the same maximum distance and total time, but fewer destinations and longer at each. Responses were subsequently coded as Same, Less or Slow, respectively. This is a very broad, simplified and hence robust coding from a rich and detailed set of interview responses. This robust coding, and also the time taken to establish prior rapport with interviewees and the widely varying interview circumstances and pathways, are standard techniques to improve the reliability of semi-structured interviews. The results are summarised in Table 1.

More of the professionals (22%) than the students (9%) expected to continue travelling as currently, but the overall differences between the two groups are not statistically significant. The key result is that over half of the interviewees identified a slow travel pattern as a likely response to doubled airfare costs. This indicates that modified patterns of mobility corresponding to the slow travel suggestion are at least worthy of more detailed consideration in forward planning by tourism destinations, tour operators, transport and accommodation providers, and policy makers attempting to address concerns over climate change. This is a different conclusion than that reached by Hares et al. (2010).

If slow travel becomes commonplace, it would also affect tourist accommodation, restaurant and activity sub-sectors. If tourists want to spend a month or two in one place instead of a day or two each in many places, they are

Table 1 Stated future travel patterns

Group	Stated travel expectations under doubled airfares			
	Same	Less	Slow	Total
Professionals	12	14	29	55
Students	4	13	28	45
Total	16	27	57	100

less likely to look for a hotel, and more likely to look for furnished accommodation or homestays, up or downmarket according to their economic circumstances. They are also more likely to explore a wider range of local activities and restaurants.

At the same time, few people who are wealthy enough to travel at all can now afford, or want, to be without access to electronic communications for more than a few days: and many jobs can now be conducted as well from anywhere with internet access as from a fixed office in a single town. It is already commonplace that people conduct business by phone or email at home, in hotels, trains, restaurants or on beaches or other leisure environments. As a *New Yorker* cartoon puts it (Mankoff 2008), (mis)quoting Masfield (1902): “Look, if you must go down to the seas again, to the lonely seas and the sky, then go! But take your BlackBerry.”

We can thus envision that slow travel, if it does indeed become a major trend, will produce a class of travelling professionals who move from place to place every few months, perhaps with regular seasonal patterns, and continue to work as they do so; and a class of people who specialise in providing them with accommodation, food, communications and living amenities for periods which are neither as brief as a hotel stay, nor as long as a typical residential lease. If so, slow travel could well become a significant social phenomenon, linked to patterns of human mobility more generally.

REFERENCES

- Amelung, B., S. Nicholls, and D. Viner. 2007. Implications of global climate change for tourist flows and seasonality. *Journal of Travel Research* 45: 285–296.
- Becken, S. 2007. Tourists’ perception of international air travel’s impact on the global climate and potential climate change policies. *Journal of Sustainable Tourism* 15: 351–368.
- Becken, S., and J. Hay. 2007. *Tourism and climate change*, 329. Clevedon: Channel View.
- Berritella, M., A. Bigano, R. Roson, and R. Tol. 2005. A general equilibrium analysis of climate change impacts on tourism. *Tourism Management* 27: 913–924.
- Broderick, J. 2009. Voluntary carbon offsets: a contribution to sustainable tourism? In *Sustainable tourism futures*, ed. S. Gössling, C. Hall, and D. Weaver, 169–199. New York: Routledge.
- Brons, M., E. Pels, P. Nijkamp, and P. Rietveld. 2002. Price elasticities of demand for passenger air travel: a meta-analysis. *Journal of Air Transport Management* 8: 165–175.
- Brouwer, R., L. Brander, and P. Van Beukering. 2008. A convenient truth: Air travel passengers’ willingness to pay to offset their CO₂ emissions. *Climate Change* 90: 299–313.
- Buckley, R.C. 2006. *Adventure tourism*. Oxford: CABI.
- Buckley, R. 2008. Climate change: tourism destination dynamics. *Tourism Recreation Research* 33: 354–355.
- Buckley, R.C. 2010a. *Adventure tourism management*. Oxford: Elsevier.
- Buckley, R.C. 2010b. *Conservation tourism*. Oxford: CABI.
- Ceron, J., and G. Dubois. 2009. Tourism and climate change mitigation: Which data is needed for what use? In *Sustainable tourism futures*, ed. S. Gössling, C. Hall, and D. Weaver, 84–101. New York: Routledge.
- Dawson, J., E.J. Stewart, H. Lemelin, and D. Scott. 2010. The carbon cost of polar bear viewing tourism in Churchill, Canada. *Journal of Sustainable Tourism* 18: 319–336.
- Dubois, G., and J. Ceron. 2006. Tourism and climate change: Proposals for a research agenda. *Journal of Sustainable Tourism* 14: 399–415.
- Dubois, G., and J. Ceron. 2008. *How heavy will the burden be? Using scenario analysis to assess future tourism greenhouse gas emissions*, 19. Marseille: Territoires Environnement Conseil. Available at http://www.tec-conseil.com/IMG/pdf/AS_5_20_PROOF_01.pdf. Accessed 15 Jan 2009.
- Eijgelaar, E., C. Thaper, and P.M. Peeters. 2010. Antarctic cruise tourism: The paradoxes of ambassadorship, “last chance tourism” and greenhouse gas emissions. *Journal of Sustainable Tourism* 18: 337–354.
- Elsasser, H., and R. Buerki. 2002. Climate change as a threat to tourism in the Alps. *Climate Research* 20: 253–257.
- Eugenio-Martin, J.L., and J.A. Campos-Soria. 2010. Climate in the region of origin and destination choice in outbound tourism demand. *Tourism Management* 31: 744–753.
- Fageda, X., and L. Fernández-Villadangos. 2009. Triggering competition in the Spanish airline market: The role of airport capacity and low-cost carriers. *Journal of Air Transport Management* 15: 36–40.
- Gössling, S. 2002. Global environmental consequences of tourism. *Global Environmental Change* 12: 283–302.
- Gössling, S. 2007. It does not harm the environment! An analysis of industry discourses on tourism, air travel and the environment. *Journal of Sustainable Tourism* 15: 402–417.
- Gössling, S. 2009. Carbon neutral destinations: A conceptual analysis. *Journal of Sustainable Tourism* 17: 17–37.
- Gössling, S. 2010. Sustainable tourism development in developing countries: Some aspects of energy use. *Journal of Sustainable Tourism* 8: 410–425.
- Gössling, S., J. Broderick, P. Upham, P. Peeters, W. Strasdas, and J.P. Ceron. 2007. Voluntary carbon offsetting schemes for aviation: Efficiency and credibility. *Journal of Sustainable Tourism* 15: 223–248.
- Gössling, S., M. Hall, B. Lane, and D. Weaver. 2008. The helsingborg statement on sustainable tourism. *Journal of Sustainable Tourism* 16: 122–124.
- Gössling, S., C. Hall, and D. Weaver, eds. 2009. *Sustainable tourism futures*, 319. New York: Routledge.
- Haïtes, E. 2009. Linking emissions trading schemes for international aviation and shipping emissions. *Climate Policy* 9: 415–430.
- Hall, C. 2008. Tourism and climate change: Knowledge gaps and issues. *Tourism Recreation Research* 33: 339–350.
- Hall, C., and J. Higham. 2005. *Tourism, recreation and climate change*, 309. Clevedon: Channel View.
- Hares, A., J. Dickinson, and K. Wilkes. 2010. Climate change and the air travel decisions of UK tourists. *Journal of Transport Geography* 18: 466–473.
- Harrison, S.J., S.J. Winterbottom, and C. Sheppard. 1999. The potential effects of climate change on the Scottish tourist industry. *Tourism Management* 20: 203–211.
- Honoré, C. 2004. *In praise of slowness: How a worldwide movement is challenging the cult of speed*, 310. New York: Harper.
- Hoyer, K. 2000. Sustainable tourism or sustainable mobility? The Norwegian case. *Journal of Sustainable Tourism* 8: 147–160.
- Koenig, U., and B. Abegg. 1997. Impacts of climate change on winter tourism in the Swiss Alps. *Journal of Sustainable Tourism* 5: 46–58.

- Lise, W., and R.S.J. Tol. 2002. Impact of climate on tourist demand. *Climatic Change* 55: 429–449.
- Maddison, D. 2001. In search of warmer climes? The impact of climate change on flows of British tourists. *Climate Change* 49: 1–2.
- Mankoff, R. 2008. *Untitled Cartoon. The New Yorker Magazine, Cartoons from the New Yorker 2009 Calendar*, 246. Kansas City: Andrews McMeel.
- Masefield, J. 1902. Sea fever. In *Salt-Water Ballads*. Republished in Errington, P.W. ed., 2005. *Sea fever—Selected poem of John Masefield*, 9. London: Fyfield.
- Matos, R. 2004. Can slow tourism bring new life to alpine regions? In *The tourism and leisure industry*, ed. K. Weiermair, and C. Mathies, 93–103. New York: Haworth Press.
- Mayor, K., and R.S.J. Tol. 2007. The impact of the UK aviation tax on carbon dioxide emissions and visitor numbers. *Transport Policy* 14: 507–513.
- McKercher, B., B. Prideaux, C. Cheung, and R. Law. 2010. Achieving voluntary reductions in the carbon footprint of tourism and climate change. *Journal of Sustainable Tourism* 18: 297–317.
- Michaelis, L. 1997. Special Issues in Carbon/Energy Taxation: Carbon Charges on Aviation Fuels—Annex 1 Export Group on the United Nations Framework Convention on Climate Change, Working Paper no. 12. Paris: Organization for Economic Cooperation and Development.
- Molz, J.G. 2009. Representing pace in tourism mobilities: staycations, Slow Travel and The Amazing Race. *Journal of Tourism and Cultural Change* 7: 270–286.
- Moore, W.R. 2010. The impact of climate change on Caribbean tourism demand. *Current Issues in Tourism* 13: 495–505.
- Nawijn, J., and P.M. Peeters. 2010. Travelling “green”: Is tourists’ happiness at stake? *Current Issues in Tourism* 13: 381–392.
- Njegovan, N. 2006. Elasticities of demand for leisure air travel: A system modelling approach. *Journal of Air Transport Management* 12: 33–39.
- Olsthoorn, A.A. 2001. Carbon dioxide emissions from international aviation: 1950–2050. *Journal of Air Transport Management* 7: 87–93.
- Oum, T.H., W.G. Waters, and J.S. Yong. 1992. Concepts of price elasticities of transport demand and recent empirical estimates. *Journal of Transport Economics and Policy* 26: 139–154.
- Oum, T.H., A. Zhang, and Y. Zhang. 1993. Interfirm rivalry and firm-specific price elasticities in deregulated airline markets. *Journal of Transport Economics and Policy* 27: 171–192.
- Pearce, B. 2008. What is driving travel demand? Managing travel’s climate impacts. *The Travel & Tourism Competitiveness Report*. 2008 World Economic Forum.
- Peeters, P. 2005. Climate change, leisure-related tourism and global transport. In *Tourism, recreation and climate change*, ed. C. Hall, and J. Higham, 247–259. Clevedon: Channel View Publications.
- Peeters, P., S. Gössling, and B. Lane. 2009. Moving towards low-carbon tourism: New opportunities for destinations and tour operators. In *Sustainable tourism futures*, ed. S. Gössling, C. Hall, and D. Weaver, 240–257. New York: Routledge.
- Pike, S., and C. Ryan. 2004. Destination positioning analysis through a comparison of cognitive, affective and conative perceptions. *Journal of Travel Research* 42: 333–342.
- Scott, D., and S. Becken. 2010. Adapting to climate change and climate policy: Progress, problems and potentials. *Journal of Sustainable Tourism* 18: 283–295.
- Scott, D., S. Gössling, and C. de Freitas. 2008. Preferred climate for tourism: Case studies from Canada, New Zealand and Sweden. *Climate Research* 38: 61–73.
- Scott, D., G. McBoyle, A. Minogue, and B. Mills. 2006. Climate change and the sustainability of ski-based tourism in eastern North America: A reassessment. *Journal of Sustainable Tourism* 14: 376–398.
- Scott, D., P. Peeters, and S. Gössling. 2010. Can tourism deliver its “aspirational” greenhouse gas emission reduction targets. *Journal of Sustainable Tourism* 18: 393–408.
- Straadas, W. 2009. Sustainable transportation guidelines for nature-based tour operators. In *Sustainable tourism futures*, ed. S. Gössling, C. Hall, and D. Weaver, 258–281. New York: Routledge.
- Sykes, S., and C. Thomas. 2006. Social and cultural dimensions of air travel demand: Hypermobility in the UK? *Journal of Sustainable Tourism* 14: 209–215.
- Tol, R.S.J. 2007. The impact of a carbon tax on international tourism. *Transportation Research Part D* 12: 129–142.
- UNWTO-UNEP-WMO. 2008. *Climate change and tourism: Responding to global challenges*. Madrid: UNWTO.
- Verbeek, D., and B. Bargeman. 2008. The sustainability chain is as strong as its weakest link. In *Sustainable consumption and production: a framework for action*, ed. T. Ken, A. Tukker, C. Vezzoli, and F. Ceschin, 135–148. Brussels: Flemish Institute for Technological Research.
- Weaver, D. 2011. Can sustainable tourism survive climate change? *Journal of Sustainable Tourism* 19(1) (in press).
- Woehler, K.H. 2004. The rediscovery of slowness, or leisure time as one’s own and as self-aggrandizement. In *The tourism and leisure industry*, ed. K. Weiermair, and C. Mathies, 83–92. New York: Haworth Press.
- Wolfsegger, C., S. Gössling, and D. Scott. 2008. Climate change risk appraisal in the Austrian ski industry. *Tourism Review International* 12: 13–23.

Ralf Buckley (✉)

Address: International Centre for Ecotourism Research, Griffith University, Gold Coast, QLD 4222, Australia.

e-mail: r.buckley@griffith.edu.au