




Chapter
05

**PROPOSED AGENDA FOR
FURTHER RESEARCH
AND DEVELOPMENT**



A number of key policy actions seem to emerge from the findings in this report. Strong growth in emissions from aviation is unavoidable if no stronger regulatory environment is implemented. Aviation industry groups and tourism organisations maintain that emission reduction strategies need to consider “social and economic” dimensions, as well as the principle of “common but differentiated responsibilities” (CBDR). It is unclear whether growth in tourism emissions can be compensated for by greater emission reductions in other sectors - maintaining a 2°C objective - and whether further growth is possible even under the CBDR principle, given that for instance many tourism-dependent island states already exceed sustainable per capita emission levels (Gössling, 2010). Policy development and research will need to address both the ethical and economic implications of exceeding the 2°C objective, based on i) the argument of poverty alleviation, and ii) burden sharing between sectors, based in part on the argument that aviation’s options for reducing emissions will be better in the longer-term future.

It has been argued that an open trading scheme for aviation could lead to a situation where there is a risk of economic disruptions (Scott *et al.*, 2010). This is because, in a system such as that currently envisaged by the European Union, aviation could continue to grow due to cheaply available credits in global (uncapped) carbon markets. Further research on modelling would be needed to understand whether a global agreement on caps could lead to rather rapid increases in prices of carbon permits in the medium-term future, which could add to world market price rises of aviation fuels. This research should also consider various scenarios for biofuels, which may or may not be able to make a significant contribution to meeting fuel demand. Conversely, research on modelling is needed to show how emissions from aviation might grow in the absence of capped carbon markets, and how emission growth and aviation would be affected under the alternative scenarios of a closed aviation trading scheme, or an open trading scheme with limited options for aviation to buy permits from other sectors.

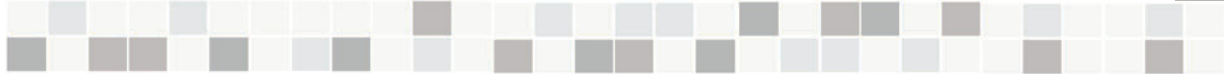
Tourism and airline organisations have called for funds raised from levies to be earmarked for green investments. Usually, this has focused on the development on biofuels or technology more generally. As it is unclear whether biofuels will be able to make a significant contribution to meeting future fuel demands, it should be investigated whether part of the funds could be used to develop alternative transport systems, such as high-speed rail.

Knowledge of transport policies, as a key strategy to reduce tourism-related emissions, needs to improve. In particular, this would include a review of local and regional policies that have sought to reduce emissions related to mobility. Based on this review, more strategic decisions could be made as to which policies have proved to be successful in reducing emissions and these could then be implemented on a wider basis.

Most studies of changing transport systems have focused on industrialised countries, discussing, for instance, how politics should be designed to reduce emissions from air travel, foster purchases of fuel-efficient cars, achieve modal shift, or create preconditions for low-carbon transport systems more generally. There is a notable absence of research, however, with regard to developments in India, China and other countries, where largely sustainable transport systems that have existed for long periods of time are currently being transformed in favour of individual motorised transport (predominantly by car) and mass participation in air travel. Paradoxically, China and India may thus be engaged in converting the very transport systems that urban planners seek to establish in European cities, *i.e.* systems with a high share of bicycle traffic and efficient public transport. A question that deserves discussion is what the preconditions would be, under which sustainable transport systems in China and India could be maintained.

More generally, there should be further research into and exploration of perceptions and understanding of climate change and climate change mitigation, the identification

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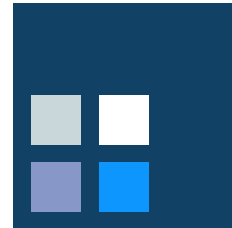
of best practice approaches to mitigation and adaptation, and the challenges of mitigation and adaptation for tourism. There should be a focus on Asia and India, regions that will dominate world tourism in the medium-term future (Mayor and Tol, 2010a), but also on so far under-researched regions such as Africa and South America.

More strategic research is needed to address adaptation-related research gaps, for instance with regard to tourist perceptions of changing environments. Very little is known in this regard, but these insights would constitute an important basis for developing strategic adaptation plans for destinations.

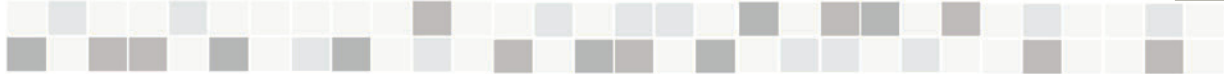




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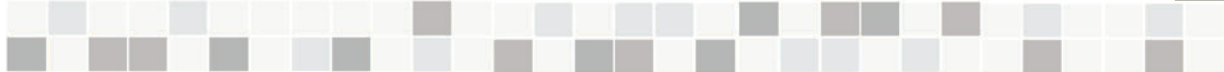


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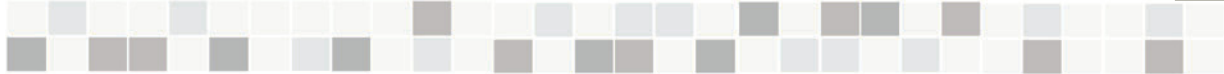
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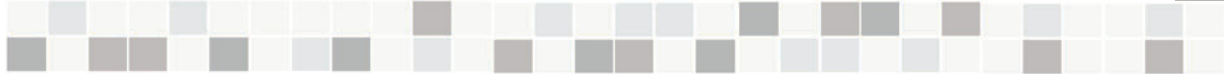
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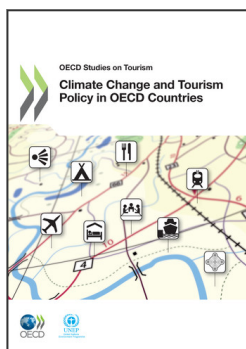
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