

Disappearing Destinations - the consequences of climate change: contemporary debates for adapting to change at tourism destinations.

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INTRODUCTION

This paper will discuss contemporary threats to, and consequences of, current climate predictions and impacts upon predicted tourism growth and assess predicted changes and implications for management and policy options for threatened destinations. From recent research, local impacts of erosion on coastal tourism development are evaluated and consequences for tourism development outlined. The validity and practicality of management options to tackle the complex nature and juxtaposition between tourism growth, climate change and tourism destination management are considered, including an evaluation of management responses and consequent policy options and choices. The research methodology is primarily focussed upon an evaluation of case studies from different regions of the world. These will be used to highlight and illustrate particular sensitive issues and points for contention. Conclusions from the research will aim to demonstrate and raise debate on how coastal protection measures should be linked to stronger strategic policy responses. In this respect the paper aims to highlight that public perception and policy implementation often ignore this imperative, resulting in inappropriate or weak management responses. In conclusion strategic and integrated management strategies are considered and advocated for managing coastal tourism destinations and for addressing increasing demands from the industry. More lateral options regarding coastal destinations and their relationship with associated hinterlands, which can often provide new opportunities for sustained tourism development, are also considered.

THE GLOBAL CONTEXT

Coastal tourism destinations now form a well documented account of the historical development of modern day tourism and our basic understanding of it. However, one of the key issues confronting coastal environments is the continued growth of tourism development and the impact of such on coastal zones. In the mid 1990s organisations such as the United Nations began to highlight such issues, particularly in developing tourist regions such as the Caribbean (UNEP, 1997). More recently the consequences of such development measured against predicted climate change on coastal belts and fringes has become a contemporary topic of debate (Phillips and Jones, 2005).

The consulting firm KPMG (2009) claims that tourism is among the industries least prepared and the most vulnerable to climate change. It suggests that the tourism industry has yet to come to terms with the risk and associated costs it is facing as threats from heat waves, droughts and rising sea levels are some factors that will directly impact the industry especially in terms of social conflict and economic stability (KPMG, 2009).

As a consequence a new paradox has emerged between coastal tourism destinations and climate, with climate now threatening to destroy the very nature of tourism that, in the past, it has so successfully encouraged. It has been suggested that concern particularly regarding erosion, poses a threat to all stakeholders, especially tourism infrastructure as the ever growing demands for recreational and tourism facilities along coastal fringes increases. This will also be further complicated by ever increasing concerns and debates over the continued need and merits for remedial actions to offset such problems and the need to protect such facilities. Who takes responsibility for the implementation and funding of such measures is also a key question (Argawal and Shaw, 2007).

A recent review by the United Nations Environment Programme (2009) in association with the French Government and the United Nations World Tourism Organisation has also highlighted growing concerns between the need for better integrated coastal management and the need to adapt coastal tourism destinations for climate change

(UNEP, 2009). The media stunt of hosting an undersea cabinet meeting by the Maldives Government in the Autumn 2009 to emphasis climate change threats to the island nation is also a case in point.

It is only recently through such august organisations as the Intergovernmental Panel on Climate Change (IPCC,2007) and The Stern Review (MH Treasury-Cabinet Office, 2005) that climate change is believed to be affecting the planet in a potentially far reaching way. The IPCC has confirmed that the Earth's surface average temperature is increasing, leading to many potentially adverse impacts around the globe. For example heat waves are becoming more frequent, glaciers and ice caps are melting at more rapid rates, and sea levels are predicted to rise leading to coastal flooding. Droughts and fires are happening more frequently, as well as unpredicted rains, heavy snowfalls and flooding (IPCC, 2007). The impacts on tourism are also predicted to be far reaching as Hall and Higham (2005) and Becken and Hay (2007) suggest in their recent assessments of climate change and its predicted impacts on tourism.

In October 2007, the second International Conference on Climate Change took place in Davos, Switzerland. The conference agreed that the tourism sector must rapidly respond to climate change, within the evolving UN framework and progressively reduce its Greenhouse Gas (GHG) contribution especially if it is to grow in a sustainable manner. This, it suggested, will require action to mitigate its GHG emissions, derived especially from transport and accommodation activities; adapt tourism businesses and destinations to changing climate conditions; apply existing and new technology to improve energy efficiency and secure financial resources to help poor regions and developing countries (UNWTO, 2007). As a response to the United Nations Copenhagen Climate Change Conference in December 2009 there has been much speculation and debate concerning real outcomes and actions. It is still unclear how these will manifest themselves but it is quite clear that emergency actions will be required sooner than later and Copenhagen was not a positive start to this process.

Climate change is thus increasingly seen as one of the major long-term threats facing

nation states and for those reliant on tourism, their tourism industries. Predicted threats could potentially lead to the loss of many tourist destinations whose appeal depends on their natural environment, particularly coastlines. Many low-lying coastal regions are at risk from rising sea levels - as is already evident in examples such as Venice, highlighted in a recent UNESCO research assessment of impacts of climate change on world heritage (UNESCO, 2007). The report suggests that many of the world's greatest wonders may be under threat from climate change. It predicts that rising sea levels, increased flooding risks and depleted marine and land biodiversity could have disastrous effects on the 830 designated UNESCO world heritage sites.

A recent report by The World Wild Life Fund (WWF, 2007) has also suggested that the tourism industry's heavy reliance on the local environment and climate to sell holidays means that it could face serious challenges as a result of climate change. Global and regional temperatures are rising. An increase in extreme weather events such as floods and storms is also expected. Such critical processes are predicted to have serious if not disastrous consequences for tourism destinations. According to the report, climate change is also going to affect destinations in other ways. It is expected to increase the risk of illness in several parts of the world and this may lead to a 'falling-off' of tourism. (WWF, 2007).

The European Travel Commission have also evaluated social and economic impacts of climate change. They claim that local service providers and tour operators will have to carry out assessments of the threat to their businesses from environmental changes and changes in tourism flows. In particular the cost of maintaining basic 'natural' resources for tourism, such as beaches and other coastal amenities, lakes and rivers will need to be addressed more seriously and effectively (ETC, 2006).

Research by Epaedia (2005) the European Union's Environmental Agency also suggests that the biggest driver of development in the European coastal zone in recent years has been the demand for tourism. Its research states that Europe is still the world's largest holiday destination, with 60% of all international tourists and a continued growth of

approximately 3.8 % per annum. Evidence from Epaedia's research shows that the Mediterranean coasts of France, Spain and Italy are currently respectively receiving approximately 75 million, 59 million and 40 million visitors a year. An increase of between 40% and 60% since 1990. Obvious concerns are raised regarding such growth and further concerns are now raised on growth along the Eastern Mediterranean including the Greek islands, Cyprus and Malta (Epaedia, 2005). In the United States, Houston (2002) reported that travel and tourism had become the US largest industry, employer, and earner of foreign exchange and that beaches were the major factor in this tourism market. He further identified beach erosion as the number one concern of Americans who visit beaches. More recent assessment of beaches to national economies has also been assessed by Williams and Micallef (2009).

The UK based Churchill Insurance group in their 2006 assessment highlighted that some of the world's most famous tourist attractions, such as Australia's Great Barrier Reef and Italy's Amalfi coast, could be closed to visitors within a few years because of worries about environmental damage and climate change. The report suggested that some destinations could be permanently closed to tourists by 2020 or face severe restrictions on visitor numbers and sharp increases in admission prices. Evidence from the report goes on to warn that in twenty to forty years' time the Great Barrier Reef could be severely damaged, forcing its closure, while other parts of Australia would be off-limits because of a rise in bushfires and insect-borne diseases. Other highlighted destinations at risk included the Taj coral reef in the Maldives, Goa in India, Florida's Everglades and Croatia's Dalmatian coastline (Smithers, 2006). The report also suggests that coastal attractions are particularly vulnerable and comments that many resorts will run the risk of damage severe enough to put their long-term viability as destinations in doubt.

One of Britain's leading climatologists, David Viner, senior research scientist at the University of East Anglia, has also supported such notions and has advocated that climate change will have a profound impact on tourism in the coming decades (Agnew and Viner, 2001; Viner, 2006). Becken and Hay's recent review of climate change and its impact on tourism destinations has also raised a keen and growing awareness of such issues (Becken and Hay, 2007).

Greenpeace (2007) issued a stark warning of this by illustrating a hypothetical future Spain if steps are not taken to stop the effects of climate change. The highly controversial warning was illustrated in a publication presented by the organization in Madrid in November 2007. Entitled 'Photoclima – Photoclimate,' Viewed at: <http://www.greenpeace.org/espana/footer/search?q=photoclima>

THE SOLUTIONS

Clearly threats derived from climate change will ultimately impact upon the long term future of coastal tourism environments and, of course, their continued survival. From such debates there seems growing evidence that coastal tourism and its relationship with the coastal zone are now significant topics of research, increasingly discussed within international policy contexts. It is therefore, becoming increasingly critical to identify management strategies that on the one hand recognize climatic threats and on the other protect tourism infrastructure and coastal resources, especially in areas significantly reliant on the industry for their economy.

Over the last decade two factors have clearly emerged. One suggests that tourism is having a major environmental impact on many coastal areas and the second suggests that potential threats from climate change are likely to create considerable adverse impacts unless managed effectively. Thus we find an increasingly clear juxtaposition and paradox emerging between, on the one hand, tourism, itself, creating many undesirable impacts on the coastal zone and on the other, climate change threatening to adversely impact on coastal tourism infrastructure, ultimately threatening the very nature, character and socio-economic well being of many tourist coastal destinations.

Climate and tourism are thus increasingly in conflict with one another and consequently, the point at issue is one of how to balance the protection and management our coastal resources and to accommodate growing pressures for recreation and tourism developments. All this, of course, is set within the context of safeguarding and balancing the often crucial socio-economic development issues within such zones. Critical to this are escalating concerns for climate change and mounting pressure to take effective

ameliorative actions such as hard and soft engineering responses and the need to advocate strategies for the effective and sustainable management of tourism infrastructure. Wider arguments relating to how such threats are recognized and accepted, who takes responsibility for enacting ameliorative measures and who ultimately pays the bill all contribute to the increasing complex debate on these emerging concerns. Who takes responsibility appears to be an emerging theme all round.

As a consequence there are a number of growing complex interactive relationships now evolving between several dynamic forces. These will ultimately determine the future sustainability of many coastal tourism destinations. Such forces can be classified into seven key processes which include a dynamic and possible cyclic relationship between the following :

- i) **IDENTIFYING KEY THREATS:** The extent to which problems and threats are accurately identified and hazards predicted and recognized
- ii) **MEDIA RESPONSIBILITY:** The impact of the media on correctly interpreting key issues and threats from climate change
- iii) **ROLES OF GOVERNMENT:** The role of local governance and public policy making vis a vis local and strategic planning actions in combating perceived and actual threats by ensuring forward and long term planning strategies
- iv) **ECONOMIC AND FINANCIAL RESPONSIBILITY:** Accountability and partnership between alternative funding options and the roles and responsibilities between public and private funding streams
- v) **TECHNOLOGICAL EXPERTISE:** Making informed choices and decisions between ameliorative protective and /or adaptive measures : hard-soft-non response alternatives in this context
- vi) **RESPONDING TO HEALTH, RISK AND SAFETY:** Recognising and ensuring compliance with growing legal frameworks , legal litigation threats, insurance hazard and risk adverse management strategies
- vii) **SOCIO-ECONOMIC RESPONSIBILITY AND SUSTAINABILITY:** Maintaining the economic, social and environmental well being of coastal tourism communities

The relationship between these factors are, by their very nature, symbiotic. Thus it has become increasingly important to put in place a strategic overview (perhaps dare we say it even a strategic long term plan) that effectively manages such forces to the benefit and needs of each destination.

A FINAL NOTE

The potential demise of coastal tourism destinations through predicted climate change impacts will undoubtedly pose a significant threat to both natural ecosystems and tourism infrastructures and consequently the tourist 'communities' at such destinations. Evidence from the discussion illustrate that perceived and actual threats are indeed real, although accurate predictions and current assessments remain at best ambiguous and at worst remain a guessing game. The discussions present a variety and varied set of local destinations experiences.

In summary it seems fair to say that there remains uncertainty regarding climate change and the validity of current predictions. However, general perceptions amongst professional tourism managers demonstrates that there is recognition of increased incidence of storm surges and a general rise in sea level. Perceptions also recognise predicted, erosion and loss issues but mixed responses and knowledge of options for ameliorative actions appears to be a norm. In essence there remains a complex relationship of concurrent processes or continuums that combine at differing levels and stages of the tourism destination management life cycle. These continuums address processes associated with coastal tourism destination management, and associated dynamic processes of problem recognition, balancing strategies or meeting stakeholder expectations and providing solutions to the key issues, problems and threats at hand. At many destinations this still remains a pipe dream. On a last note it will certainly be the most innovative, coordinated, efficient and technological savvy destinations that will survive long term in this respect.

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