

LOCAL SUSTAINABLE TOURISM INDICATOR

David James*

I. INTRODUCTION

At the Fourth International Forum on Sustainable Tourism Statistics, Copenhagen 1998, the final plenary session discussed the need for more work on Sustainable Tourism Indicators and discussion of resulting papers at subsequent forums. This paper is one such contribution and consists of four parts:

1. LOCAL SUSTAINABLE TOURISM INDICATOR
2. THE ISSUE AND PRINCIPLES OF SUSTAINABILITY
3. THE NEED FOR LOCAL SUSTAINABLE TOURISM INDICATORS
4. THE EUROPEAN LOCAL AREA SUSTAINABLE TOURISM INDICATORS PROJECT

II. BACKGROUND

In 1997, the British Resorts Association assembled a working group of persons and organisations concerned and engaged in the

issues of sustainable development within the tourism sector, The British Resorts Association Sustainable Tourism Working Group (BRASTWG).

Its mission statement is:

“To develop tourism opportunities that leave the visitor, the visited and the environment, (whether natural, built or cultural), enriched by the experience.”

To support this, the BRASTWG has adopted evolving three-year work plans reflecting the following strategy statement:

“The Working Group, in collaboration with a broad range of partners, will work to develop a synergetic effort between governments, destinations and the travel and tourism industries to identify and encourage good sustainable tourism practice and action.”

The strategy is supported by five strands of action, of which one is:

“To develop appropriate benchmarking programmes locally, nationally and internationally.”

* Global Tourism Solutions, UK. The authorship of this paper draws on, and presents and colleagues of the British Resorts Association Sustainable Tourism Working Group, together with its related Indicators Group, and also the European Local Area Sustainable Tourism Indicators Consortium.

In considering this it became quickly clear that for benchmarking to happen effectively, such a process required to be underpinned by Local Sustainable Tourism Indicators (LSTI) which could demonstrate the relationships and interplay of tourism impacts as measured in respect of the economic effects, environmental effects and social effects for the local community.

This approach was adopted because National/International Sustainable Tourism Indicators would, of necessity, be broad and could not fully inform the myriad of local destination typologies. Because of the wide range of destination typologies, a need for an array of LSTI exists coupled with their linkage to clear, locally developed policies and strategy outcomes.

In June 1999, the attention of BRASTWG was drawn to the 5th Framework Research Programme of the European Union (FP5). The purpose of this programme is to develop and demonstrate new statistical tasks and methods in application and to develop indicators in the "New Economy". Subsequently, the European Local Area Statistics Consortium (ELASTIC) was formed and in January 2000 a project proposal was submitted within the 5th Framework Research Programme.

III. LOCAL SUSTAINABLE TOURISM INDICATORS

What? Why? Who? Where? When?

III.1. The Vision

In the Tourism sector, tourism indicators have been developed primarily at the macro

level driven by the needs of central governments to have quantitative data in respect of the value and volume impacts to drive central policy formulation. At the local level these needs have been less well served historically. With the advent of new technology, the needs of the "New Economy" and the greater ability and need for Small to Medium Enterprises to interface constructively and effectively with governments, agencies and macro enterprises, greater opportunities exist for innovative programmes to be introduced. Whether by new methods of work, new tools and methods, making old tasks lighter, using old data and methodology differently, the demand for more information is a growing and accelerating imperative.

With the abundance and immediacy of new information becoming available, there are growing needs to use the new technology to simplify tasks, not further complicate them. The transition from an industrial economy to an information based economy exacts the challenge to examine whether existing statistics and surrounding methodologies remain chained to past thinking or will benefit from new concepts; for example, can the "New Economy" itself be the new data source? The project will explore to what extent the new data emanating from the Digital Economy can be exploited.

It is vital to investigate and provide answers and solutions to these changes and needs in an economic sector that is relevant to most economies: Tourism - an economic sector which, more than most, demands sustainable development and the means to track such development consistently across political barriers and through time.

BRASTWG, associated with ELASTIC seek, by virtue of a multi-skilled partnership drawn internationally from government, academia and practitioners, to create new approaches to old and new problems/opportunities in the Tourism Sector.

The primary objectives adopted for the project are:

- 1. To create an array of Local Sustainable Tourism Indicators (LSTI).**
- 2. To ensure that the concepts of Sustainable Tourism Indicators are applicable to a wide range of local environments.**
- 3. To identify the linkage between Local Sustainable Tourism Indicators and those that are applicable regionally, nationally and internationally.**

The supporting objectives are:

- 1. To survey the available literature and experience to decide on the most appropriate themes and the issues emerging from them, and to undertake qualitative interviews with experts in the field.**
- 2. To test the created array of LSTI's internationally in a variety of destination types.**
- 3. To create appropriate user-oriented software to ensure effective skills improvement and transfers to the local level.**

- 4. By use of an interactive web site, create an open international forum to engage the expertise of an array of international experts, local destination practitioners, and all levels of government, academia and the tourism industry.**

The establishment of the project's primary and supporting objectives derive from a number of unrelated, yet linked, initiatives. These initiatives have had at their heart the need to establish macro-Sustainable Tourism Indicators but, in each case, have concluded in questioning how the development of LSTI (5) might serve the needs of the future and a broader international audience, both simply and affordably.

To do this effectively, senior academics, government officials and senior tourism practitioners of six countries, will be working in partnership with a variety of destination types necessary and willing to assist the development and testing of an array of LSTI. Initially, the destination types include at least two examples of each drawn from six countries. They are: major cities; urban tourist destinations; urban non-tourist destinations; rural tourist destinations; rural non-tourist destinations; National Parks, seaside and island destinations.

III.2. Description of the Partnership

The partnership referred to above is made up of the following organisations listed below:

- 1. Global Tourism Solutions UK Ltd (GTS).**

2. **Geoff Broom Associates (GB) from the UK.**
3. **Research Centre of Bornholm (RCB) from Denmark.**
4. **Centro Internazionale di Studi e ricerche sull'Economia Turistica (CISET) from Italy.**
5. **Central Office of Statistics of Malta (COS).**
6. **Department for Culture, Media and Sport (DCMS) from the UK.**

GTS is a UK company specialising in tourism planning and the modelling of tourism flows at the local authority level. Its directors have both theoretical and applied expertise in tourism development and the operational Management of tourism projects. **GB** is a consultancy partnership, which has similar aims and objectives as **GTS**, and has a long track record in local tourism planning. The **RCB** is a state funded research institute specialising in regional development with a particular emphasis on tourism in Northern European destinations. **CISET** is part of the University of Venice and is primarily involved with the economics of tourism, but in the broader sense, so as to encompass issues of sustainability.

COS and **DCMS** are government departments, which have the responsibility for the provision of tourism statistics and have a direct interest in the production of LSTI for managing the development outcomes of the "New Economy".

IV. THE ISSUE AND PRINCIPLES OF SUSTAINABILITY

IV.1. The Issue of Sustainability

The issue of sustainability (1) is one that is relevant to all economic systems and even more so as our economy moves from an industrial one towards the "New Economy" in the next millennium. This fact is particularly pertinent to the tourism sector in the European Communities. Much interest and work has started to be dressed to sustainable tourism at the European (2) and International level (3) over the past years. The Amsterdam Treaty puts sustainable development at the core of EU's objectives.

Many countries and local authorities (4) are starting to reflect on the meaning of sustainable tourism and to seek indicators. They investigate how the existing statistical data can be better exploited, and what new data sources are becoming or will be available in the future due to the fast developments in the "New Economy". Indeed the UK has been particularly active. Various local and regional authorities across Europe and beyond Europe are developing initiatives alone that would better come to fruition if this complementary know-how is shared. Pooling resources and knowledge to develop these indicators at European level will add value to the existing initiatives undertaken in the individual European countries and by taking a harmonised approach will lead to comparable results.

One of the main intentions of the project is to contribute to developing a set of Local

Sustainable Tourism Indicators (LSTI) that can be applied across regions and across nations. Because there is a general need to analyse the significance and sustainability of tourism, developing a set of standardised indicators is an important tool to assist the decision-making process. Such decision-making will be of major concern to policy makers and enterprises working in a local, regional, national, Community and international context. Among many considerations, LSTI will be useful to:

- Community policies related to regional and tourism related issues (e.g. structural funds, Community tourism initiatives);
- National policies to compare and contrast the development and performance of their regions with other regions of the EEA and other countries such as CECs and Mediterranean countries;
- Regional actors concerned with comparing tourism with other regions within their own country and with other regions of the EEA and other countries such as CECs and Mediterranean countries;
- Businesses, particularly those related to the tourism sector.

The EU Directive 95/57/EC (5) on tourism statistics provides for basic statistical information that can be used as input to developing sustainable tourism indicators. Moreover, there exists in most countries a wealth of data on tourism or related to tourism that should be further explored and exploited at European level.

The 1997 report of the Strategic Advisory Group on the 5th Framework Programme on Information Society applications for transport and associated services on "Information Society Technologies for Tourism" (6) clean, outlines the importance of tourism for Europe and its R&TD need. The report defines data base mining statistics, and analysis as enabling technology and methodology for capacity management (at local and regional level) and for monitoring, planning and forecasting. Moreover, the report recognises that advanced levels of research and technology required in the tourism sector cannot be afforded by European regions separately and must be supported as well as co-ordinated at European level through European co-operation.

IV.2. Principles for the Sustainable Development of Tourism

- **The environment has an intrinsic value which outweighs its value as a tourism asset. Its enjoyment by future generations and its long-term survival must not be prejudiced by short-term considerations.**
- Sustainable Tourism should be recognised as a positive activity with the potential to benefit the community and the place, as well as the visitor.
- The relationship between tourism and the environment must be managed so that it is sustainable in the long term. Tourism must not be allowed to damage the resource, prejudice its future enjoyment or bring unacceptable impacts.

- Tourism activities and developments should respect the scale, nature and character of the place in which they are sited.
- In any location, harmony must be sought between the needs of the visitor, the place and the host community.
- In a dynamic world some change is inevitable, and change can often be beneficial. Adaptation to change, however, should not be at the expense of any of these principles.
- The tourism industry, local authorities and environmental agencies all have a duty to respect the above principles and to work together to achieve their practical realisation.

V. THE NEED FOR LOCAL SUSTAINABLE TOURISM INDICATORS

V.1. Introduction

The fundamental need for LSTI is to demonstrate change that has occurred over a period of time, whether engineered or by chance. Given that the majority of decision making in tourism is at the micro or local level, it is necessary that an array of LSTI are created which have local meaning but wider comparison. For this to happen, multi-disciplined and multi-focus partnerships need to work in a defined structure and relationship is fundamental to success because no one player has the ability to deliver all the necessary programmes to achieve the necessary sustainability goals and objectives.

The process of policy determination, objective setting, programme delivery and performance evaluation will require a global framework encompassing National, Regional and Local spheres of influence, so that all stakeholders will have a sense of ownership and greater commitment. Equally it is important that the consumer, however defined, is involved in the process. Applicable to all of the issues is the need to answer a general question, "What's in it for me?", and for that answer to be given simply and positively with good humour.

It is important to note that, at its meeting, 6-7 June 1995, in Madrid, the WTO Environment Committee considered a paper on Tourism and Environment Indicators. Two sets of indicators were identified' "Core indicators of Sustainable Tourism", and "Destination - Specific Indicators".

The required Core Indicators of Sustainable Tourism: Site Protection; Stress; Use Intensity; Social Impact; Development Control; Waste Management, Planning Process; Critical Ecosystems; Consumer Satisfaction; and, Tourism Contribution to the Local Economy.

The "Destination Specific" indices identified were: Carrying Capacity; Site Stress; and, Attractivity.

These indicators were coupled to other "building blocks" in the process, which included: Planning Framework for Tourism; Monitoring; Standards Accountability; and, Reporting.

There is widespread agreement that tourism as an activity is unlikely ever to be

wholly sustainable in the strict sense of the term. We bear in mind that the total volume of day and staying visits defined as tourism by WTO/UN cannot be measured accurately in any country at the present time and that commitment to tourism growth is typically a Government objective for economic and social reasons. There is equally widespread agreement, however, that the activities engaged in by visitors and the businesses and public sector agencies that supply services to them, can be conducted in future in ways that are significantly more sustainable - or less sustainable - than at present.

We adopt the broad view of sustainable development set out in the UK Department for the Environment, Transport and the Regions, (DETR), consultation paper which embraces indicators for the economic, social and physical environment and stresses the linkages. Conceptually we believe that more sustainable tourism either at a given destination or nationally - *means managing the cumulative effect of visitor activities together with the activities of the servicing businesses in ways that can continue into the foreseeable future without damaging the quality of the environment on which the activities are based.* (Middleton & Hawkins: 1998). Such a definition can accommodate developments in science and technology that will ameliorate negative effects, and in visitor management that will also help harness the beneficial effects.

V.2. Background

In tourism terms, the World Tourism Organisation defines sustainability in this manner: "*Sustainable tourism development*

meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future (W'TO, 1995). It is envisaged as leading to the management of all resources in such a way that the economic, social, and aesthetic needs can be fulfilled, while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems. Much has been written on the concepts of sustainable tourism and detailed reviews and perspectives can be found in Stabler (1997), Garrod and Fyall (1999) and Pearce and Butler (1999). However, interest is now turning towards the practical implementation of the various concepts and ideas (Stabler, 1997; Garrod and Fyall, 1999; Swarbrooke, 1999; Williams and Montari, 1999).

In general, the practical reaction of governments has been to use legislative controls (which in economic terms correspond to infinite taxes) to manage any negative aspects of tourism development and market incentives to encourage the positive elements. The use of legal regulations necessitates the construction of indicators and the provision of agents to monitor whether codes of practice and the required standards are being met, so that action can be taken to ensure compliance with the ideals of sustainability. The positive side of regulation is the absorption of the ideals of sustainability by the industry and the tourists themselves, so as to generate responsible tourism development. While the former often focuses on restrictions and limits, the latter is about beneficial actions, including developing opportunities for new sustainable tourism products.

The EU 5th Environmental Action Plan

took tourism as one of the key sectors, which it felt was placing pressure on the European environment. Therefore, the European Environment Agency has attempted to include tourism measures in their annual reports, but have had little success in arriving at meaningful indicators, because those that are available simply reflect the size of the activity and do not provide a measure of the impact of tourism on the environment. It proved impossible because of the absence of national data, so they are now looking at the potential for measuring tourism impacts at the local level and aggregating them to arrive at nationally comparable indicators. The thrust of this project is to move this research forward along sustainable tourism lines in order to advance the state of the art, which, by definition, involves much wider considerations than just the environment.

V.3. Tourism Indicators

Viewed in terms of the environment alone, sustainability can be perceived as a qualitative shift in the nature of the production process to improve resource efficiency, particularly in the case of non-renewable resources, and preservation of the appropriate life cycle of renewable resources so as to allow recovery (Hjalager, 1996). Because the definition of sustainable tourism is much broader than this, the first innovative aspect of the research will be to identify and relate indicators of the actions of tourism as a phenomenon, with the impacts of these actions. It might well be suggested that there is no such thing as sustainable tourism; there is less unsustainable or more sustainable, which might be more practical targets (Middleton and Hawkins, 1998).

Broadly speaking the tourist visit involves:

- Access: transport to and from the destination and within the destination;
- Accommodation: through a variety of establishments;
- Activities and attractions: facilitated through the provision of infrastructure;
- Social, physical and economic impacts.

These actions can be categorised by the size of the visitor population, the production technology, the size and nature of the industry, and environmental and community impacts. What is envisaged at the first stage is the cross-tabulation of tourists' actions by impacts to produce a matrix of indicators, which reflect, either by the nature of the data collected or the level of activity, some aspect of sustainability. The cells will also contain indicators that are available at both the national and local level thus providing a direct link in some instances while others will be candidates for aggregation from the local to the national and some just of local relevance, for example, the percentage of local employment provided by the tourist industry.

There is a further overlay that can be imposed on the matrix: a standard way of ordering indicators, first introduced by the OECD, is to look at state, pressure and response. Thus a state indicator could be the level of energy consumed by tourist facilities. Pressure indicators reflect activities that contribute to the trend, such as the volume of tourist arrivals. Response indicators indicate action to relieve pressure, such as the take up

of “green” codes of conduct by tourist enterprises. While some of the data required to generate such indicators are not available at present, the potential to exploit digital information generated by new technologies is there.

VI. THE EUROPEAN LOCAL SUSTAINABLE TOURISM INDICATORS PROJECT

VI.1. Creation of practical LSTI

It is intended to develop and test the broadest array of LST possible without loss of comparability and compatibility. To do this, a number of theories must be tested so as to create theorems that may be simply understood and demonstrable. It has long been accepted, if not fully understood, that tourism policies strategies, programmes, marketing, research and development are driven by the balance of four imperatives, the needs and impacts upon: the economy; the environment; the communities; and, politics. The ultimate decisions that are made are based upon both quantitative and qualitative inputs regardless of whether evidence exists or is purely theoretical or, worse, “seat of the pants” based on individual bias. In effect, a series of cost/benefit ratio decisions are made, even if not expressed as such. The project will seek to establish a series of sustainable relationships whereby both quantitative and qualitative ratios can be established. It is vital that, whatever array of LSTI are created, they must be essentially neutral. Having said that, generally when indicators are established it is in the context of proving an output. Therefore, the LSTI must be in their bias, but capable of establishing target outcomes

which can, over a period of time, be proved as either a positive or negative achievement. For purposes of compatibility and comparability, it may emerge that a given LSTI may be measured in terms of percentage achievement of a set objective for each ratio adopted.

Given the three main strands of sustainability: Economic Impacts; Environmental Impacts; and, Social Impacts, the core LSTI will be devised so as to illustrate selected relationships, e.g. to establish for a given period: Tourist Days v. Population; or, Tourist Days v. Area; or, Local Employment v. Tourist Days; or, Overseas Visitor Nights v. Total Tourist Days; and so on.

The purpose will be to create an array of core LSTI, and the methods for deriving them, where the local destination may select, in each of the three main strands, 3-4 core LSTI out of a selection of, say, 10-15 core LSTI. In addition, secondary LSTI will be provided purely for local circumstances and use. As indicated earlier, a variety of matrices can be established which relate the three key components of: Access; Accommodation; and, Activity, with a range of indicators in respect of production: Natural Resources; Host Communities; and, the Visitor.

It is also vital to ensure that the project serves the needs of all of the potential users in the destinations and, also, is able to export both the tools and skill sets to use the LSTI for comparison and benchmarking to establish measures of actual and comparative success. To do this, a thorough issues identification process must be put in place in each destination so as to ensure the LSTI can evolve within a controlled scientific network.

The user needs must be the core driving force and the process must encourage local ownership and involvement rather than being part of the imposition of nationally driven research needs. It may not surprise many that the communication between governments, academia and tourism practitioner has been historically poor. With the immediacy of communications and given computer power and literacy at all levels, the opportunity has never been greater to create new exciting and productive linkages whereby internationally the needs of many can be served provided they are prepared to be more open and trusting, without which the challenges of the present and future will remain beyond our reach. The LSTI partnership is persuaded that, by its own example, it will be catalytic in achieving both philosophical and practical acceptance that multidisciplinary approaches will better serve the growing needs of the New Economy, across sectors and across political borders.

VI.2. Workplan Framework and Methodology Summary

a) Workplan Framework

The work will take account of and further develop existing national and international concepts set out in existing publications as well as drawing on interviews with experts and practitioners in the field. It will also identify opportunities to take advantage of the developing use by tourism businesses of information and communication technologies to generate additional data for common benefit, as well as exploiting those technologies in collecting, collating, analysing, and generating indicator measures.

Phase 1 of the work will conceive, identify, define and field-test an initial array of Local Sustainable Tourism Indicators which:

- Measure the actions of tourism as part of the New Economy;
- Measure the dynamic impact of these activities on the local economy, communities and environment;
- Prioritise themes between core and additional indicators;
- Identify existing and potential sources of data;
- Develop innovative approaches to capturing and manipulating the data to deliver appropriate measures for each indicator.

Phase 2 will provide an extended demonstration at further destinations in a wider number of countries which have already been approached and agreements to participate obtained in principle. Following the extended demonstration, the Scientific Committee will review the reports from the various destination user groups and create an array of primary and secondary LSTI.

Concurrent with the above, appropriate software packages will be tested and at the conclusion of the project an LSTI software package will be made available on an affordable commercial basis.

b) Workplan Methodology

- Review of available scientific papers,

- Establishment of: Themes; Topics; Indicators; Data Sets.
- Establishment of the initial array of LSTI.
- Development of commercial software package to encourage skills transfer.
- Field testing of LSTI in pilot areas.
- Review of Pilot Field Tests to establish selected LSTI and secondary LSTI.
- Field testing for practical evaluation in extended demonstration areas.
- Review of Demonstration Field Tests to conclude LSTI and secondary LSTI.
- To prepare a final paper for peer group review and consideration by the EU.

c) Value Added Programme

- Development of website for use by partners and as a forum to invite peer group participation.
- To create a European/International debate on LSTI using 5th International Forum on Tourism Statistics and similar forums created by EU/OECD/WTO, other International/National agencies and academia generally.
- To create a permanent website where a forum can continue beyond the project's completion.
- To have established a network of

International LSTI partnerships with a common method, structure and relationship package to ensure benchmarking and the sharing of examples of good practice.

REFERENCES

- Beyond the Green Horizon : A Discussion Paper on Principles for Sustainable Tourism*, Tourism Concern and WWF, 1992.
- Environment and Tourism in then Context of Sustainable Development*, European Commission DGXI, 1993.
- Indicators of Sustainable Development: Framework and Methodologies*, UN Commission on Sustainable Development, 1996.
- Local Agenda 21 Round Table Guidance 17 Sustainable Tourism*, LGMB 1999.
- OECD Core Set of Indicators for Environmental Performance Reviews*, OECD 1993.
- Opportunities for Change - Consultation Paper on a Revised UK Strategy for Sustainable Development*, DETR 1998. (Tourism is discussed on p 15.)
- Planning for Tourism*, National Planning Forum, 1998
- Sustainable Tourism : Moving from Theory to Practice*, Tourism Concern and WWF, 1996.
- The State of the Environment in the European Community*, European Commission 1992.
- Tomorrows Tourism*, DCMS 1999.
- Tourism and Environment Indicators*, Report to

the World Tourism Organisation Environment Committee, 1995.

Tourism and the Environment at European Level, VTC Middleton & W Siebber for the European. Environment Agency, 1999.

Tourism - Towards Sustainability: A Consultation Paper on Sustainable Tourism in the UK, DCMS 1998.

Towards Sustainability : A European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development. (The Fifth Environmental Action Plan). European Commission 1992

NOTES

(1) The European Community "Fifth Environmental Action Programme" define sustainable development as a harmonious and balanced economic and social development without detriment to the natural resources on the quality of which human activity and further development depend 1993.

(2) European Commission, Towards sustainability, ISBN 92-827-9471-7

(3) United Nations, Agenda 21, Chapter 36 "Promoting education, public awareness and training", Paragraph 10: *Countries should promote, as appropriate, environmentally sound leisure and tourism activities, building on The Hague Declaration of Tourism (1989) and the current programmes of the World Tourism Organization and UNEP.*

(4) Agenda 21 Chapter 28 on Local Authorities paragraph 1: "As the level of governance closest to the people, Local Authorities play a vital role in educating, mobilising and responding to public to promote sustainable development."

(5) OJ L 291, page 32 of 06.12.95.

(6) "Think Tank on IST for Tourism". V. 5.1 final, 08.12.97.