

# Defining Marine Ecotourism: A Delphi Study

Brian Garrod<sup>1</sup>

Julie C. Wilson<sup>2</sup>

David M. Bruce<sup>3</sup>

## **Abstract:**

The term 'marine ecotourism' evidently means different things to different people. The purpose of this paper is to explore those different perceptions, using the results of a Delphi study involving a panel of experts drawn from three EU Atlantic Area countries. This study examined participants' perspectives of what the term should be taken to mean in the context of planning and managing marine ecotourism, as well as their opinions on the desirability or otherwise of achieving and applying an agreed definition of marine ecotourism.

The paper begins by outlining the Delphi method and by discussing some of the proposed advantages of the Delphi method as a means of bringing expert opinion to bear on a issue that is highly contested and controversial, such as the meaning of the term 'marine ecotourism'. In doing so, the paper comments on some of the uses to which the method has been put in the tourism planning and management context. The design and implementation of the Delphi method in the present context is then discussed, followed by a presentation of the main findings of the study. This includes a discussion of the content analysis of the panel member's responses to the Delphi questionnaires using QSR N-Vivo.

Most of the preferred definitions emphasised the need for appropriate management to ensure that the quality of the natural environment in which marine ecotourism takes place is not compromised, and the requirement for local people to benefit from ecotourism. The issue of whether or not local people should be encouraged to participate in the planning and management processes was not, however, so clear-cut. Most of the preferred definitions also emphasised the

---

<sup>1</sup> Faculty of Economics and Social Science, University of the West of England, Bristol.

<sup>2</sup> Bristol Group for Tourism Research, University of the West of England, Bristol.

<sup>3</sup> Bristol Business School, University of the West of England, Bristol.

educational component of ecotourism and the need to interpret the natural environment for ecotourists. The majority of the preferred definitions were neither strongly oriented toward description or prescription, suggesting that a balance between ethical considerations and flexibility of application was deemed important. Meanwhile, relatively few of the preferred definitions made explicit reference to related cultural aspects of ecotourism.

The final section of the paper then presents some concluding observations, including the recommendation of a definition of marine ecotourism, based on a synthesis of the expert opinions collected and analysed in this study.

**Keywords:** Marine Ecotourism, Definition, Delphi Method, Planning, Management.

## **1. Introduction**

The United Nations has designated 2002 the International Year of Ecotourism (IYE2002). A year of intense discussion both about the conceptual and practical aspects of ecotourism is anticipated. Yet with the first warning shots of the contest having already been fired, it is rapidly becoming clear to all those involved that there is a fundamental problem – participants simply do not agree about what they believe ecotourism to be. The lack of a widely agreed or accepted definition of ecotourism must surely render it next to impossible for those involved in the IYE2002 to come to a workable common view on what ecotourism is, let alone how it should be designed and what it should be attempting to achieve. In such circumstances, it is probable that the outcome of the IYE2002 will be much heat but little light.

That those involved in ecotourism at the highest levels of government fail to have a common view on how it should be defined will come as no surprise whatsoever to academics and practitioners, who have long recognised that there is a problem in defining ecotourism. Particular areas of contention include whether ecotourism should be based conceptually on relatively ‘weak’ or relatively ‘strong’ versions of sustainability, whether ecotourism should be seen as a subset of ‘nature-based tourism’, ‘sustainable tourism’ or even ‘wildlife tourism’, and whether its application should be restricted to activities that are deemed ‘non-consumptive’. Useful reviews of such issues are to be found in Orams (1995), Blamey (1997), Wall (1997), Burton (1998) and Tremblay (2001). Diamantis (1999), meanwhile, presents some fifteen proposed definitions of the term ‘ecotourism’, dating from between 1987 and 1997.

One important reason why academics and practitioners have been so keen to develop commonly agreed definitions of ecotourism is to establish a means by which genuine ecotourism can be distinguished from activities that employ the term (perhaps cynically) merely as a marketing buzzword. The existence and growth of such counterfeit ecotourism holds two main dangers. Firstly the irresponsible and unsustainable practices involved may, if they become more widely known, tarnish the hard-fought reputation of the ecotourism ‘brand’. Secondly such activities may damage the natural resources that genuinely sustainable ecotourism depends upon and is trying to maintain.

This paper outlines the findings of survey of experts from a range of backgrounds and located across the EU Atlantic Area, based on a technique known as the ‘Delphi method’. The survey was part of a larger project, funded by the EU Interreg IIc Programme and entitled ‘Marine Ecotourism for the

Atlantic Area' (META-). The focus of the Delphi study was on how ecotourism might best be defined in the marine context – if indeed closer definition of the concept was considered to be a helpful in terms of achieving its practical objectives. By initiating and coordinating the deliberations of a panel of experts from across the EU Atlantic Area, and by drawing lessons from this work, the project aimed to identify a transnational view of what marine ecotourism is considered to be in principle. This, it was hoped, would lead to a better understanding of what needs to be done in practice in order to achieve genuinely sustainable marine ecotourism in the EU Atlantic Area context.

## **2. What is the Delphi Technique?**

The Delphi technique has been defined as:

“A systematic method of collecting opinions from a group of experts through a series of questionnaires, in which feedback on the group’s opinion distribution is provided between question rounds while preserving the anonymity of the respondent’s responses.” (Helmer, 1972; cited in Masser and Foley, 1987)

The basic rationale of the Delphi technique is to elicit expert judgement on issues or problems that are highly complex and essentially subjective in nature, requiring the use of a substantial degree of expertise on the part of those addressing them. Such issues or problems cannot easily be dealt with using conventional questionnaire or interview-based survey techniques. Indeed, past experience has shown that simply asking experts for their opinions about complex issues or problems tends to yield unreliable results. One reason is that complex questions invariably have complex answers, yet experts do not necessarily have (or take) the time to cogitate at length on the issues raised in the survey, to think deeply about the problem under consideration, or to develop their answers thoroughly. Nor do they necessarily test their ideas out by exposing them to rigorous peer evaluation. This can lead to unreliable judgements being made about the issues covered in the survey. In short, conventional survey techniques have a tendency to collect ‘snap judgements’ on the complex issues the researcher is trying to study, rather than the carefully considered, in-depth, peer-evaluated expert opinions that are required if such complex problems are to be meaningfully tackled.

One possible means of addressing the shortcoming of conventional surveys when dealing with expert subjects might be to hold a seminar or symposium, to which a range of experts would be invited and

encouraged to address the issues at hand in a more interactive arena. Relevant questions could be sent to the participants in advance, so that on the day of the event the experts would be able to air their views, think them through in relation to those put forward by their peers, and make a deeply-considered final response. This final response may even be solicited through a follow-up questionnaire administered shortly after the event has taken place, giving the participants further time for thought and reflection.

The major problem with the above approach, however, is that in attempting to address the inherent problems of conventional survey instruments, even more serious concerns about reliability are encountered. A particular concern would be the potential influences of personality, institutional allegiances and peer pressure on the experts' expressed views. Some participants may, for example, be unwilling to depart from the conventional wisdom of their discipline or profession. Others may be reluctant to adopt an opposing stance to the official view of the organisation that employs or sponsors them. Others again may feel unhappy about expressing views that might leave them isolated in a polarised public debate. There may even be a tendency for participants to court controversy where none really exists, simply because that is what the organisers expect and the nature of the event demands.

The Delphi technique attempts to avoid – or at least to minimise – these potential biases by allowing a small but carefully chosen panel of expert participants to address the issues at hand in a structured, deep and anonymous way. Based on a description of the technique by Richey, Mar and Horner (1985), Table 1 identifies the basic steps involved in a Delphi study.

Firstly, the technique uses a small panel of experts, selected purposively on the basis of their expertise in subjects related to the issues that are to be addressed through the Delphi study. The size of the panel is not considered to be a critical issue (see Smith, 1995); what is more important is that the Delphi panel needs to be suitably balanced in terms of the background, interests and expertise of its members. Secondly, the technique is iterative, with questioning of panel members taking place over a number of 'rounds'. This enables participants to suggest a tentative response to the first round and to refine it in the course of subsequent rounds. Thirdly, the technique involves indirect, rather than direct, interaction between the panel members. Rather than to meet face to face, participants meet 'virtually' through the cyclical circulation of the responses of each panel member to all of the others. In this way, participants can learn how others have answered the questions at hand, understand why they have done so, build wider considerations into their answers, and adapt them

accordingly. Fourthly, the interaction process is anonymous, thereby minimising the potential for interpersonal or group biases to creep into participants' responses. Fifthly, the technique takes place over an extended period of time, giving participants the opportunity to think deeply about their responses and to shape them as the study progresses through successive rounds.

**Table 1: Basic Steps in the Delphi Technique**

1. Choose the members of the coordinating group.
2. Develop criteria for evaluating potential candidates for the expert panel.
3. Identify potential candidates.
4. Request their participation (perhaps in person by a prestigious individual).
5. Finalise panel composition and set criteria for the acceptable balance of the panel membership.
6. Identify issues to be considered and develop the initial (scoping) questionnaire.
7. Send the first questionnaire.
8. Collate the responses and check for balance of the panel (if the panel becomes unacceptably unbalanced the study should not continue further).
9. Develop the second (convergence) questionnaire, incorporating all new input. Use a numerical scale or ranking system to calibrate responses.
10. Send the second questionnaire.
11. Collate the responses and check for panel balance.
12. Undertake further rounds as deemed necessary (e.g. until an acceptable degree of consensus is achieved).
13. Send summary of final results to all respondents.
14. Apply the resulting judgement(s) to solve the problem(s) being addressed through the Delphi study.

The Delphi technique was developed by the RAND Corporation in the 1950s, finding its earliest application in the field of military strategy (see Dalkey and Helmer, 1962). However, it was not until the 1960s and 1970s that the Delphi technique became more widely recognised, being applied particularly in an area of analysis known as 'technological forecasting' (see for example, the forecasts of technological advances in medical science by the 1990s by Teeling-Smith, 1971).

In the field of tourism, the Delphi technique has most also often been used to forecast demand (see, for example, Kaynak and Macaulay, 1984; Liu, 1988). Indeed, during the 1970s and 1980s this was the predominant use of the Delphi technique in the tourism context. In the 1990s, however, the Delphi technique began to be used in more qualitative ways. A study by Green, Hunter and Moore (1990), for example, attempted to use Delphi to identify the range and extent of the potential environmental impacts of the development of a new tourism attraction. Similarly, a set of three studies published by Pan *et al.* (1995) considered a range of qualitative issues relating to destination marketing. Garrod and Fyall (2000) applied the Delphi technique to investigate a number of qualitative issues relating to the sustainable management and funding of heritage tourism attractions in the UK. Miller (2001), meanwhile, employed the Delphi technique to generate and develop a series of indicators for sustainable tourism.

An important feature of these more qualitative applications of the Delphi technique is that they do not necessarily seek consensus on a particular issue or problem. Indeed, if experts' views widen as a result of the Delphi process, this may be a valid and helpful result in itself. The Delphi technique is seen more as a means of creating a productive 'think tank' within which problems can be mulled over, developed and thought about creatively. A final group consensus is neither sought nor considered appropriate given the fundamentally qualitative nature of the issues being considered. As Miller (2001) remarks: "it is perhaps symptomatic of tourism's multidisciplinary nature, that even with no ego involvement ... respondents may not feel able to achieve ... agreement." (p.356)

Another important feature of many of these more qualitative uses of the Delphi technique is that the study is not generally seen as an end in itself; rather it is seen as a useful supplement to other, perhaps more statistically rigorous techniques. Hence a Delphi study might be used to follow up on the results of largely a quantitative survey with a subset of respondents in a more qualitative manner.

The Delphi technique is undoubtedly controversial, and has attracted a great deal of academic debate since it was first applied. Among the best known critiques of the Delphi technique are those by Hill and Fowles (1975) and Sackman (1975), while Linstone and Turoff (1975) set out some of the strengths of the technique. A more rounded review of the Delphi technique, meanwhile, can be found in Rotundi and Gustafson (1996).

### **3. Design of the META-Delphi Project**

The main elements of the design of the META-Delphi Project were determined as follows:

#### **a) Formation of the coordinating group**

The Delphi project was run by a small group of researchers based at the University of the West of England, Bristol, under the general guidance of the coordinating committee of the META- project. All of the decisions about the design of the Delphi project, along with the work of forming the expert panel, were done jointly by the META- project team.

#### **b) Composition of the panel**

A panel comprising 15 members was considered appropriate, as this would make the panel large enough for differing views to emerge among the panel members, while keeping it small enough to enable the research team to administer the project and turn the questionnaires around in a timely manner.

In order to achieve a transnational perspective on the issues to be addressed in the Delphi study, it was decided that the panel should comprise members from all three of the partner countries (the UK, Ireland, and the Canary Islands). Unlike conventional surveys that seek responses from the general public, an advantage of the Delphi method is that it employs experts to answer the questions. Experts typically work in an international context and tend to be highly educated, making it possible for the project to use English as a common working language.

#### **c) Contacting and remunerating the experts**

Having a well-balanced panel is considered to be especially important to the success of any Delphi exercise (see, for example, Wheeler, Hart and Whysall, 1990). Any Delphi panel should therefore be able to demonstrate a good balance of professional and academic backgrounds, personal and professional interests, and national locations. META- project partners were asked to make initial contact with four experts from their location. So as to ensure that the panel was appropriately balanced, partners were asked to choose experts drawn from a range of backgrounds. This would also ensure that panel members were able to utilise a range of expert skills in addressing the

questions set before them. The remaining three members of the Delphi panel were approached by the UWE research team, drawing from the associate partners of the project and other supporting groups.

It is widely recognised that panel members must be presented with appropriate incentives to remain part of the iterative Delphi process, otherwise they may fail to respond to one of the questionnaires and drop out of the panel (see Hill and Fowles, 1975). This is important because panel attrition will invariably lead to the panel becoming unbalanced in terms of the interests and areas of expertise of the panel members, generating results that are biased in favour of those who remain. In the case of the present study, panel members were offered modest financial remuneration (equivalent to 500 Euros for completion of all of the questionnaires). At the same time, the coordinating group took great care to select experts who had a demonstrable stake in the outcome of the project. It was hoped that this combination of incentives would secure the commitment of the panel members to engage with the issues involved in the Delphi exercise, and remain with the process until its completion.

#### **d) Verifying panel member' expertise**

In order to ensure that the experts were well versed in ecotourism issues and possessed the kinds of knowledge and skills that would be required in order to answer the questions set out in the Delphi questionnaires, proposed panel members were asked to fill in a confidential personal profile. This provided details of their educational background, professional qualifications, career experience, marine ecotourism interests, and their particular areas of expertise related to marine ecotourism.

The following criteria were then used to judge the suitability of the experts to sit on the panel:

- practical experience of developing marine ecotourism, or a demonstrated interest in doing so
- at least five years professional experience in a relevant field
- good knowledge either of a parallel project location or a particular type of marine ecotourism (cetacean watching, sea bird watching, Scuba diving, etc).

It was decided in advance that candidates who were considered not to meet at least one of these criteria would be thanked for their interest but not be invited to sit on the panel.

#### **e) Criteria for maintaining balance of the panel**

Three criteria were set for maintaining balance of the panel:

- The panel should comprise no more than 15 members
- The panel should include no more than one third of the members sharing the same profession, academic background or national location
- The panel should have as little duplication of members' fields of interest and expertise as possible.

It was decided that if at any stage the expert panel should fail to meet these criteria for balance, no further rounds of the project would be attempted.

#### **f) Medium of communication**

Hill and Fowles (1975) argue that face-to-face interviews should always be used in preference to mail-shots as this enables experts to use their expertise in a more meaningful way. However, given the financial constraints of the project, and the spatial distribution of the panel members, it was decided that this would not be possible and that the project would be conducted by e-mail instead. This was felt to be a suitably fast and efficient medium of exchange, capable of transferring the possibly sizable documents required in the course of the Delphi exercise. For those panel members without access to e-mail, the questionnaires would be sent by personal fax.

### **4. The First Round**

The first round of the Delphi study presented the participants with a wide range of possible working definitions of ecotourism (see Table 2). It was hoped that this would help focus their minds on the differences and similarities in fundamental thinking on what ecotourism should be considered to be in principle – and therefore what it should be aiming to achieve in practice. The definitions were drawn from the academic and professional literature to illustrate a range of possibilities, with the definitions included varying in length, style and content. Some were adapted slightly so that they made more sense as 'stand alone' definitions.

**Table 2: Initial Ten Definitions of Ecotourism**

1. "Any form of tourism which is based on the natural ecological attraction of a country, ranging from snorkelling off coral reefs to game viewing in savanna grasslands." (Cater, 1992)
2. "Nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable." (Commonwealth Department of Tourism, 1992)
3. "Tourism that consists of travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations." (Ceballos-Lascurain, 1987)
4. "Purposeful travel to natural areas to understand the culture and natural history of the environment, taking care not to alter the integrity of the ecosystem, while producing opportunities that make the conservation of natural resources beneficial to local people." (Ecotourism Society, 1994)
5. "A sustainable form of natural resource based tourism that focuses primarily on experiencing and learning about nature, and which is ethically managed to be low impact, non-consumptive, and locally orientated (control, benefits and scale). It typically occurs in natural areas, and should contribute to the conservation and preservation of such areas." (Fennell, 1999)
6. "Ecotourism can contribute to both conservation and development and involves, as a minimum, positive synergistic relationships between tourism, biodiversity and local people, facilitated by appropriate management." (Ross and Wall, 1999)
7. "That kind of tourism which is: (a) based on relatively undisturbed natural areas, (b) non-damaging, non-degrading, (c) a direct contributor to the continued protection and management of the natural areas used, (d) subject to an adequate and appropriate management regime." (Valentine, 1993)
8. "Ecotourism consists of three core criteria: the primary attraction is nature-based (such as flora and fauna, geological features), with cultural features constituting a secondary component; the emphasis is on the study and/or appreciation of the resource in its own right; and the activities of the tourists and other participants are benign with respect to their impact upon the physical and cultural environment of the destination. Ecotourism ... should be coherent with the notion of sustainable tourism by adhering to the carrying capacities of the destination and being acceptable to, and supportive of, host communities." (Weaver, 1999)
9. "The planned practice of tourism in which the enjoyment of nature and learning about living beings and their relationship with the environment are brought together; it is an activity which does not result in a deterioration of the environment and which promotes and supports the conservation of natural resources, thereby producing economic benefits which reach most social strata of the population in such a way that a sustainable horizontal development is achieved. Moreover, real ecotourism promotes justice for people and for nature." (Evans-Pritchard and Salazar, 1992)
10. "Where an individual travels to what he or she considers to be a relatively undisturbed natural area than is more than 40km from home. The primary intention being to study, admire, or appreciate the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas." (Blamey, 1997)

The first round questionnaire had three main sections. In the first, panel members were asked to choose the definition with which they felt most comfortable in the context of marine ecotourism in the EU Atlantic Area. Fourteen responses were received following a reminder sent by e-mail two weeks after the deadline for responses. Respondents were also asked to provide a brief written justification for their choice.. Table 3 presents the initial choices of the 14 respondents:

**Table 3: Initial Choices of the Panel**

Definition	No. Choosing
1	1
2	2
3	0
4	1
5	4
6	3
7	0
8	1
9	2
10	0
Total	14

Secondly, panel members were asked how, if at all, they would improve upon the definition that had chosen. Space was provided on the questionnaire to allow respondents either to amend an existing definition or suggest their own. Panel members were then asked to explain briefly what changes they made, why, and what the sources of any additional material were.

Ten panel members chose to provide new or adapted definitions, the other four stating that they were content with their chosen definition from the original list of ten. These additional definitions were collected together and numbered 11 to 20, so that panel members could be presented with an expanded list of 20 definitions from which to choose in the second round (see Table 4).

**Table 4: Additional Definitions Provided by Panel Members**

11. "Any form of tourism that is based on the ecology of natural environments"
12. "Nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable while producing opportunities that help to make the conservation of natural resources beneficial to local people."
13. "Nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable. Secondary considerations, refining the principal definition may include: ethically managed, local control and economic benefit and respect for minority/indigenous cultures, but are not necessarily part of the definition. Eco-tourism should also reflect the potential for other ways of learning/respecting the natural environment and promoting tourism such as through music, poetry and art."
14. "Responsible travel to natural areas to understand admire and enjoy the culture and natural history of the environment taking care not to alter the integrity of the ecosystem, while producing opportunities that make the conservation of natural resources beneficial to local people."
15. "A form of natural resource based tourism that focuses primarily on experiencing or learning about nature, and is therefore ideally managed to be environmentally sustainable. It typically occurs in relatively undeveloped (natural) areas, and should contribute to the conservation and preservation of such areas while supporting the development of the region's economy."
16. "The development and use of a natural resource to enhance local culture and tourism in a long term sustainable way through education and together with prudent and sensible management of the asset for future generations."
17. "A sustainable form of natural resource based tourism that focuses primarily on experiencing and learning about nature, and which is ethically managed to be low impact, non-consumptive, and locally orientated (control, benefits and scale). It typically occurs in natural areas, and should contribute to the conservation, preservation, reclamation and restoration of such areas."
18. "Ecotourism can be defined as a low impact travelling, lodging and respectful moving in a foreign (known or unknown) territory. The tour operators are supposed to control that those tourists don't get off the beaten track and wisely guide and educate in order to make people more aware and sensitive towards mother nature."
19. "Ecotourism can contribute to both conservation and development and involves as a minimum positive synergistic relationships between tourism, biodiversity and local people facilitated by appropriate management and education."
20. "Nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable."

Thirdly, panel members were asked for their views on the value of definitions of ecotourism, in particular the reasons why defining ecotourism might be considered either helpful or unhelpful in achieving its objectives. A box was provided for respondents to write text comments, which were to be collated for return to the panel for further consideration in the second round. These comments are presented in Table 5:

**Table 5: Comments on the Value of Definitions of Ecotourism**

*Reasons why definitions of ecotourism can be HELPFUL:*

1. As a basis for further debates about the ethics and applications of the term.
2. As a means of putting the idea of ecotourism across to local people.
3. To guide in discussions that can assist in effective planning and policy making.
4. To help those working in ecotourism to put their work into context.
5. As a means of communicating the objectives of ecotourism projects.
6. As a means of focusing the input of disparate bodies, helping them to work toward a common aim.
7. To assist in the initial audit of an ecotourism project that is going to be launched.
8. As a reference point to ensure the relevance of efforts in making ecotourism happen.
9. As a constant reminder for everyone of the reasons for creating ecotourism projects.

*Reasons why definitions of ecotourism can be UNHELPFUL:*

1. As the concept becomes more widely known and fashionable there is a danger that large organisations will use it merely as a 'green label' for their existing activities, cynically exploiting people's good will toward the idea.
2. Obsession with finding the best definition of ecotourism can obscure the practical side of ecotourism.
3. The appropriate definition of ecotourism may depend on circumstances, according to people's priorities.
4. Too narrow a definition of ecotourism can be unhelpful if it does not allow the concept to be applied in certain situations or if certain stakeholder groups are excluded by it.

Following standard procedure in Delphi studies, the panel member who did not respond to the first round questionnaire was not invited to take part in further rounds.

## **5. The Second Round**

The second round questionnaire was sent out as soon as the last first round questionnaire was returned. The questionnaire was accompanied by a feedback document, which set out the responses from the first round questionnaire. This was to enable panel members to see how other panel members had responded to the first round questionnaire and to identify where their own responses fitted within the overall distribution. In this way, panel members could judge where (and, to some extent, why) their responses differed from others, and to amend their second round responses accordingly.

Eleven responses were received to the second round questionnaire. However, while the criteria for balance relating to the education of panel members, national location, and areas of panel member interest and expertise were all met, the criterion relating to the panel members' career background was not (there were proportionally too many ecotourism providers). It was decided that if this situation persisted after the third round had been administered, the Delphi exercise would be terminated from that point and only the data from the first two rounds would be used in any analysis of the survey results.

With regard to the definition of ecotourism in the context of marine ecotourism in the EU Atlantic Area, the second round questionnaire asked the panel members to think again about their preferred definition of ecotourism and to choose again from the expanded list of 20 definitions. Panel members were reminded that they were entitled to stick to their original choice, but that they had to provide a brief justification for whatever choice they took. Table 6 presents the new distribution of preferred choices after the second Delphi round:

**Table 6: Choice of Definition in Second Round**

Definition	No. Choosing	Definition	No. Choosing
1	0	11	1
2	0	12	1
3	0	13	0
4	1	14	1
5	0	15	1
6	1	16	0
7	0	17	1
8	0	18	1
9	2	19	1
10	0	20	0
		Total	11

In respect of the question about the value of definitions in the context of planning and managing for genuinely sustainable marine ecotourism in the EU Atlantic Area, panel members were asked to select two factors which they felt to be the first and second most important from each list. They were also given a further opportunity to add to each list should that be what they wish to do. Table 7 presents the results of this exercise.

The third Delphi round achieved only ten responses and the criteria for balance of the panel continued not to be met. It was therefore considered appropriate to abandon the study at this point and to include only the data collected in the first two rounds in any further analysis.

## **6. Content Analysis of the Definition Sets**

In order to learn more about the characteristics of those definitions favoured by the Delphi panel, and to understand why they were preferred to others that were not, a simple content analysis of the four definition sets collated in the course of the two Delphi rounds was conducted. QSR N-Vivo, a text-handling software package, was used to assist in this process. The four definition sets were as follows:

**Table 7: Reasons why Definitions of Ecotourism can be Helpful and Unhelpful**

No.	Explanation	First Choice	Second Choice
<i>Reasons why Definitions of Ecotourism can be Helpful</i>			
1.	As a basis for further debates about the ethics and applications of the term.	0	0
2.	As a means of putting the idea of ecotourism across to local people.	4	1
3.	To guide in discussions that can assist in effective planning and policy making.	0	2
4.	To help those working in ecotourism to put their work into context.	1	0
5.	As a means of communicating the objectives of ecotourism projects.	0	0
6.	As a means of focusing the input of disparate bodies, helping them to work toward a common aim.	1	3
7.	To assist in the initial audit of an ecotourism project that is going to be launched.	0	1
8.	As a reference point to ensure the relevance of efforts in making ecotourism happen.	1	2
9.	As a constant reminder for everyone of the reasons for creating ecotourism projects.	2	2
10.	Have an exact and accepted definition.	1	0
11.	Promotes justice for people and nature.	1	0
	Total:	11	11

*Reasons why Definitions of Ecotourism can be Unhelpful*

1	As the concept becomes more widely known and fashionable there is a danger that large organisations will use it merely as a 'green label' for their existing activities, cynically exploiting people's goodwill toward the idea.	2	3
2	Obsession with finding the best definition of ecotourism can obscure the practical side of ecotourism.	3	0
3.	The appropriate definition of ecotourism may depend on circumstances, according to people's priorities.	0	3
4.	Too narrow a definition of ecotourism can be unhelpful if it does not allow the concept to be applied in certain situations or if certain stakeholder groups are excluded by it.	6	4
5.	If they don't promote justice for nature and people.	0	1
	Total:	11	11

- Set 1 – the initial set of ten definitions chosen by the research team (n=10)
- Set 2 – the panel members’ preferred choice from these ten definitions in the first round (n=14)
- Set 3 – the panel members’ preferred choice from the expanded list of 20 definitions in the first round (n=14)
- Set 4 – the revised set, accounting for any changes panel members wished to make in the second round (n=11)

For the purposes of the determining the characteristics of each definition set, a definition that was chosen by two panel members was included twice in the counting process, a definition chosen by three panel members was included three times, and so on.

The following characteristics were used to classify the content of the definitions:

- Whether or not the definition recognised a need for interpretation and/or education as a component of the ecotourism experience (node = ‘education’).
- Whether or not the definition recognised a need to manage ecotourism (node = ‘management’), suggesting that ecotourism, if poorly managed, might actually harm the things that the ecotourists are paying to see.
- Whether or not the definition argued that ecotourism must be sustainable (node = ‘sustainable’), implying that ecotourism is to be viewed as a subset of ‘sustainable tourism’.
- Whether or not the definition identified the natural areas and species that are the subject of marine ecotourism as tourist ‘attractions’ (node = ‘attraction’), suggesting an instrumental use of nature as a tourism ‘resource’.
- Whether the definition recognised the need for marine ecotourism (simply) to benefit locals (node = ‘benefits to locals’) or whether the definition went further to recognise the need for

local stakeholders to have an active participation in the planning and management of marine ecotourism (node = 'involving locals').

- Whether or not the definition focused on ecotourism primarily as a tool of conservation (node = 'conservation') as opposed to, for example, primarily an instrument of economic development.
- Whether the definition recognised a cultural component to ecotourism (node = 'cultural'), as opposed to viewing ecotourism as being essentially nature-based (node = 'nature-based').
- Whether or not the definition considered ecotourism only to be possible in (relatively) undisturbed areas (node = 'undisturbed'), as opposed to heavily human-influenced environments such as forested or urban areas.
- The word length of the definition (nodes = 'size 0-30', 'size 31-60', and 'size 61+'), reflecting possible preferences for 'short and snappy' definitions or longer, more detailed definitions.
- The style in which the definition is written, ranging from the generally prescriptive (node = 'style 1') to the heavily criteria-based (node = 'style 5')

All of these nodes except for those relating to style could be analysed objectively by examining the definition – key terms were either mentioned or they were not; length was assessed by means of word counts, which were carried out using Word. The set of nodes relating to style was analysed by two researchers attempting the classification independently, then coming together to discuss areas of similarity and difference, ultimately to decide on a mutually agreed distribution of definitions among the five possible nodes. Table 8 presents the results of this content analysis.

<b>Table 8: Analysis of the Content of Definition Sets</b>								
<b>Node</b>	<b>Set 1</b>	<b>Set 2</b>	<b>Set 3</b>	<b>Set 4</b>	<b>Set 1 (%)</b>	<b>Set 2 (%)</b>	<b>Set 3 (%)</b>	<b>Set 4 (%)</b>
Education	7	11	12	9	70.0	78.6	85.7	81.8
Management	6	12	12	8	60.0	85.7	85.7	72.7
Sustainable	7	13	11	9	70.0	92.9	78.6	81.8
Attraction	3	3	4	3	30.0	21.4	28.6	27.3
Benefits to locals	5	11	10	9	50.0	78.6	71.4	81.8
Involving locals	2	7	5	3	20.0	50.0	35.7	27.3
Conservation	6	11	8	9	60.0	78.6	57.1	81.8
Cultural	4	3	4	2	40.0	21.4	28.6	18.2
Nature-based	5	8	9	4	50.0	57.1	64.3	36.4
Undisturbed	3	1	1	1	30.0	7.1	7.1	9.1
Size 0-30	3	6	3	3	30.0	42.9	21.4	27.3
Size 31-60	5	6	8	6	50.0	42.9	57.1	54.5
Size 61+	2	3	3	2	20.0	21.4	21.4	18.2
Style 1	1	1	1	1	10.0	7.1	7.1	9.1
Style 2	2	1	2	1	20.0	7.1	14.3	9.1
Style 3	2	5	5	4	20.0	35.7	35.7	36.4
Style 4	2	1	1	2	20.0	7.1	7.1	18.2
Style 5	3	7	5	3	30.0	50.0	35.7	27.3
<b>n =</b>	<b>10</b>	<b>14</b>	<b>14</b>	<b>11</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The first three criteria – whether ecotourism should include interpretation and education of the environments in which it takes place, whether it should be subject to a management regime, and whether it should aim to be sustainable – all received strong support from the panel members. These criteria are probably the most widely accepted in the literature (see Garrod, forthcoming), so that the panel should strongly support these criteria should really come as no surprise. However, it is particularly significant that, in all three cases, by the end of the second round the panel indicated an even stronger preference for those criteria to be included in their chosen definition than was evident in the starting set of ten definitions.

Meanwhile, the panel members were reasonably noncommittal in respect of whether the definition portrayed the natural areas and species involved in ecotourism as ‘attractions’ for instrumental use by the tourism industry or as having intrinsic value in their own right. Three of the original ten definitions included this aspect, the figure falling slightly to just over 27% by the end of the second round. Panel members were evidently neither strongly attracted to this aspect of possible definitions of ecotourism, nor particularly keen to avoid it.

With regard to the issue of whether locals should benefit directly from ecotourism, more clarity is apparent from the content analysis. While half of the definitions in the original set acknowledged the need for locals to share in the economic benefits of ecotourism, by the end of the second round this figure had risen to over 80%. The argument would seem to be that local people must receive appropriate economic benefits from ecotourism if it is to win their commitment, both as a principle and operationally (for example, in terms of encouraging them to abide by whatever management structures are put in place). There is indeed a great deal of evidence to support this view. Drake (1991), for example, recounts the case of the Amboseli National Park in Kenya, where local Masai people became tired of not receiving the economic benefits promised to them in return for abiding by strict regulations on hunting and the grazing of animals. The result was defiant and purposeful encroachment on the reserve in order to hunt its wildlife and to allow their cattle to drink at the water source. Meanwhile Inskip (1999) argues that making local people direct beneficiaries of ecotourism has had an important enabling effect on the development of ecotourism in many parts of the world, including the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe and the Administrative Management Design for Game Management (ADMADe) project in Zambia.

The opinion of the panel was rather less clear cut with regard to whether local people should also be directly involved in the processes of developing, planning and managing ecotourism. While only two of the original ten definitions made explicit reference to this aspect, by the end of the second round only just over 27% of the definition set included the precondition that ecotourism should actively seek the participation of local people. While this figure has evidently risen over the course of the study, it is nevertheless surprisingly low given the importance accorded to local participation in the literature. Indeed, Brandon (1993), Drake (1991) and Paul (1987) all make strong cases for local participation going beyond simply making locals into economic beneficiaries of ecotourism, involving local people fully in all aspects and at all stages of the development, planning and management of ecotourism. One possible explanation might lie in the nature of the Delphi process, which is to involve experts involved in the practice of ecotourism. The positions or influence of these individuals might be felt to be threatened if more local participation were to be encouraged in the planning and management of the projects for which they are responsible (see Drake, 1991).

An issue still unresolved in the above debate, however, is the extent to which economic benefits are considered to be of value in themselves, or merely as a method for encouraging local people

to commit to the conservation goals of ecotourism. A central proposition of the META- Project is that ecotourism can represent a viable means of economic diversification for coastal peripheral locations in the EU Atlantic Area, many of which are suffering economic decline in their traditional industries (such as commercial sea fishing, agriculture and conventional seaside tourism). Such areas typically have few other economic resources available on which they can base their livelihoods. In such circumstances, marine ecotourism can represent a means of exploiting the marine environment – a resource in which many peripheral areas have a distinct comparative advantage in terms of the provision of the kind of high quality marine environment that will be prized by ecotourists. It is often relatively easy for local communities with a maritime heritage to diversify into marine ecotourism, which can directly employ some of the resources previously engaged in the fishing industry or already in place serving the conventional tourism sector. Marine ecotourism can also have significant multiplier effects, making a strong contribution to local income and employment (MacLellan, 1999). Of course, such economic benefits are only going to be genuinely sustainable if ecotourism serves to protect and enhance the natural resource base, rather than to deplete or degrade it. Hence, unlike many other economic activities that have achieved only a temporary increase in the prosperity of the locations to which they are introduced, marine ecotourism can be a potential vehicle for the sustainable regeneration of peripheral areas.

While the foregoing discussion might be taken to imply that the panel members believed the rationale for ecotourism to be primarily an economic one – emphasising the benefits to local people rather than to nature conservation – such a conclusion would not be a valid one. Indeed, while six of the ten definitions in the original set claimed conservation as a major rationale for ecotourism, this figure increased to just over 80% by the end of the second round. This would tend to suggest that the predominant view is in fact that ecotourism must achieve both ends simultaneously, in other words that it must both benefit local people and be an effective tool of conservation.

Another finding of the above analysis is that the panel members evidently did not feel that the cultural component of ecotourism was essential to its definition. Cultural features associated with ecotourism, such as local customs, languages, arts and crafts, and food, were explicitly included in some of the earliest and best-known definitions of ecotourism (see, for example, Ceballos-Lascurain, 1987). Indeed, while four of the initial set of ten definitions included reference to cultural features, only just over 18% of the definition set achieved by the end of the second round

included explicit reference to associated cultural features. This might suggest that the panel members preferred to view ecotourism as being based primarily on the natural environment. This view, however, is not supported by the data on the 'nature-based' node – while five of the original ten definitions included reference to ecotourism being nature based, by the end of the second round this figure had fallen to just over 36%. Meanwhile, the view that ecotourism should be expected to take place only in relatively undisturbed natural areas was not widely supported by the panel members. While three of the original ten definitions included this criterion, by the end of the second round this figure had fallen to only 9.1%. These three findings would appear to be mutually contradictory. One possible explanation might be that the panel members simply believed that definitions of ecotourism do not need to restrict themselves by stating what kind of resources are to be employed or where ecotourism can legitimately exist.

Meanwhile the content analysis showed little movement in the distribution of preferences between the three size groups between the initial definition set and the set achieved by the end of the second round. While 30% of the initial definition set were 30 words or fewer in length, 50% between 31 and 60 words, and the remaining 20% more than 60 words long, by the end of the second round these figures had changed only slightly to around 27%, 54% and 18% respectively. This might be taken to suggest that, on the whole, panel members were happiest with medium-length definitions. The reason might be that these are considered short enough to be reasonably clear cut and memorable, yet long enough to capture the various subtleties of what distinguishes 'true' ecotourism from 'counterfeit' ecotourism. Such imposters are typically attempting to capture the marketing benefits from employing the ecotourism 'brand' (which can be considerable) without having to abide by the ethics of ecotourism, which implies adopting measures that might limit the market potential of their 'product' (see Wight, 1993; Weaver, 1998).

Finally, with regard to the preferred style of definition, the findings of the content analysis would tend to suggest that prescriptive rather than descriptive definitions were generally preferred. Definitions that only described what practical form ecotourism might take or what activities it might involve (Styles 1 and 2) were not preferred. While 10% and 20% of the initial definition set were classified as Styles 1 and 2 respectively, by the end of the second round these figures had both fallen to only around 9%. Definitions that were highly prescriptive, sometimes to the extent of setting out criteria for candidates to fulfil if they are to consider themselves to be ecotourism (Styles 4 and 5), were neither strongly accepted nor rejected. While 20% and 30% of the initial

definition set were considered to be written in Styles 4 and 5 respectively, by the end of the study these figures had both fallen slightly to around 18% and 27% respectively, denoting little overall change. Definitions occupying the middle ground (Style 3), meanwhile, actually increased in acceptance in the course of the study, with the proportion of definitions in the chosen sets rising from 20% at the beginning of the study to over 36% at the end.

## **8. Discussion and Conclusions**

This paper aimed to explore what ecotourism means to the experts who are involved either in setting the agenda for its development, planning and management, or directly involved in such activities. By exploring what ecotourism means to such influential people – what they conceive it to be and how, therefore, they intend to go about achieving it – the paper seeks to draw together a number of useful lessons for ecotourism developers, planners and managers more generally.

The main findings of the content analysis suggest that while the key components of the ecotourism concept are widely appreciated – the need for suitable education and interpretation, the need to manage ecotourism appropriately, and the aim of genuine sustainability – other aspects remain contested. For example, there would seem to be a significant difference of opinion as to whether ensuring that the economic benefits of ecotourism remain in the hands of local people should be seen as an end in itself, a means of ensuring that local people commit to the conservation objectives of the ecotourism project, or a combination of both. Similarly, the issue of whether local people should be directly involved in the development, planning and management of ecotourism is emphasised by some yet seen as relatively unimportant by others. Such differences of view are important, since the way in which the critical issues involved in ecotourism are perceived by decision makers can have critical implications for the way in which it is carried out in a particular location.

With regard to the definitions themselves, a number of interesting lessons flow from the analysis. Firstly, medium-sized definitions would appear to draw the most support from the experts, suggesting that a favourable balance between tightness of definition and content needs to be drawn. Ecotourism is clearly a complex subject and we should not expect to be able to communicate the intricacies of its true meaning in a ‘short and snappy’ definition. Yet, at the same time, the importance of keeping any proposed definition short enough to be accessible to

those it is intended to influence is also highlighted by this analysis. Clearly there is a fine line to be drawn between completeness and depth on the one hand, and tightness and accessibility on the other.

Meanwhile, the content analysis would tend to suggest that there is also a fundamental balance to be drawn between description and prescription. While a definition of ecotourism should clearly prescribe the kinds of activity, location and market the ecotourism experience should be oriented towards, it is important not to limit the definition too narrowly. Indeed, if it is believed that ecotourism is best seen as a process rather than a form of tourism, then it would be unwise to exclude certain instances of tourism simply because they do not fit within one's normal conception of what form ecotourism should take (be it only in 'wilderness' areas, entirely based on viewing wildlife, 'non-consumptive', or whatever). This argument would tend to suggest that while strict criteria-based definitions of ecotourism may be attractive to academics, they may be seen as less useful in the practical context of developing, planning and managing ecotourism.

The study also raised some interesting issues with respect to the advantages and disadvantages of defining ecotourism. Table 7 presents the results of the opinions of the expert panel using a two-stage Delphi approach. In the first round, the panel members were requested to write briefly what they believed the main issues to be. The second round then asked the panel members to rank these issues by order of importance. From the above analysis, the main advantages would appear to be that definitions are useful in order to communicate the objectives of ecotourism to local people and as a means of reminding everyone involved in developing, planning and managing ecotourism of the ethical underpinnings of the ecotourism concept. Another widely supported advantage was thought to be that defining ecotourism helps to focus the input of the disparate bodies that are typically involved in ecotourism towards a common aim. On the other hand, the major disadvantage of defining ecotourism was considered to be that too narrow a definition of ecotourism would not allow the concept to be applied in certain circumstance or would make certain stakeholder groups feel excluded or marginalised. Another widely supported disadvantage was that as the concept becomes more widely known and fashionable there is a danger that it may be used as a 'green label' for existing or potential operators to use as marketing tool, cynically exploiting people's goodwill towards the concept. The overall lesson to be learned would therefore seem to be that a common definition of ecotourism would be valuable provided that it is used responsibly by those developing, planning and managing such activities.

In view of the findings of this study, the following synthetic definition of ecotourism (particularly as it applies in the marine context) is offered:

‘Ecotourism is focused on the enjoyment and appreciation of nature, involving: (a) local participation in planning and management; (b) management aimed at maximising sustainability, with environmental protection a key priority; (c) appropriate interpretation and education about the environment; (d) a judicious mix of formal and voluntary measures; (e) collaboration among stakeholders; (f) responsible marketing; and (g) appropriate monitoring and evaluation.’

This definition is based on the preferred characteristics of the panel insofar as it is medium-sized, prescriptive about what ecotourism aims to achieve but not about the context in which it can take place, and includes the central concepts of management, sustainability and interpretation. Also included is the condition that local participation in the development, planning and management of ecotourism should be encouraged. The possible cultural component of an ecotourism experience is not explicitly referred to. The remaining characteristics, which relate to the use of a mix of formal and voluntary management measures, collaboration among stakeholders, responsible marketing, and appropriate monitoring and evaluation, flow from the findings of the wider META- Project (see META-, 2001; also Wilson, Garrod and Bruce, 2001).

## References:

- Blamey, R.K. (1997), "Ecotourism: The Search for an Operational Definition", *Journal of Sustainable Tourism*, Vol.5, No.2, pp.109-130.
- Brandon, K. (1993), "Basic Steps Toward Encouraging Local Participation in Nature Tourism Projects", in K. Lindberg and D.E. Hawkins (eds.), *Ecotourism: A Guide for Local Planners*, 1993, The Ecotourism Society, North Bennington.
- Burton, F. (1998), "Can ecotourism objectives be achieved?", *Annals of Tourism Research*, Vol.25, No.3, pp.755-758.
- Cater, E. (1992), "Profits from Paradise", *Geographical Magazine*, March.
- Ceballos-Lascurain, H. (1987), "The Future of Ecotourism", *Mexico Journal*, Jan., pp.13-14.
- Commonwealth Department of Tourism (1992), *Australian National Ecotourism Strategy*, Canberra.
- Dalkey, N. and Helmer, O. (1962), "An Experimental Application of the Delphi Method to the Use of Experts", *Management Science*, Vol.9, pp.458-467.
- Diamantis, D. (1999), "The Concept of Ecotourism: Evolution and Trends", *Current Issues in Tourism*, Vol.2, No.2&3, pp.93-122.
- Drake, S.P. (1991), "Local Participation in Ecotourism Projects", in Whelan, T. (ed.), *Nature Tourism: Managing for the Environment*, Island Press, Washington DC.
- Ecotourism Society (1994), <http://www.ecotourism.org>.
- Evans-Pritchard, D. and Salazar, S. (1992), *What is Ecotourism?*, Eco Institute of Costa Rica and ULACIT.
- Fennell, D.A. (1999), *Ecotourism: An Introduction*, Routledge, London.

Garrod, B. (forthcoming), "Preface", *International Journal of Sustainable Development*, special edition on ecotourism.

Garrod, B., and Fyall, A. (2000), "Managing Heritage Tourism", *Annals of Tourism Research*, Vol.27, No.3, pp.682-708.

Green, C., Hunter, C. and Moore, B. (1990), "Assessing the Environmental Impact of Tourism Development: Use of the Delphi Technique", *Tourism Management*, Vol.11, No.2, pp.111-120.

Helmer, O. (1972), *On the Future State of the Union*, Report 12-2, Institute for the Future, Menlo Park, California.

Hill, K.Q. and Fowles, J. (1975), "The Methodological Worth of the Delphi Technique", *Technological Forecasting and Social Change*, Vol.7, pp.179-192.

Inskip, E. (1999), *Guide for Local Authorities on Developing Sustainable Tourism: Supplementary Volume on Sub-Saharan Africa*, World Tourism Organization, Madrid.

Kaynak, E. and Macaulay, J.A. (1984), "The Delphi Technique in the Measurement of Tourism Market Potential: The Case of Nova Scotia", *Tourism Management*, Vol.5, No.2, pp.87-101.

Linstone, H.L. and Turoff, M. (eds) (1975), *The Delphi Methods: Techniques and Applications*, Addison-Wesley, Reading.

Liu, J.C. (1988), "Hawaii Tourism to the Year 2000: A Delphi Forecast", *Tourism Management*, Vol.9, No.4, pp.279-290.

MacLellan, L.R. (1999), "An Examination of Wildlife Tourism as a Sustainable Form of Tourism Development in North West Scotland", *International Journal of Tourism Research*, Vol.1, No.5, pp.375-387.

Masser, I. And Foley, P. (1987), "Delphi Revisited: Expert Opinion in Urban Analysis", *Urban Studies*, Vol.24, No.2, pp.217-225.

META- (2001), *Planning for Marine Ecotourism in the EU Atlantic Area: Good Practice Guidance*, University of the West of England, Bristol.

Miller, G. (2001), "The Development of Indicators for Sustainable Tourism: Results of a Delphi Survey of Tourism Researchers", *Tourism Management*, Vol.22, No.4, pp.351-361.

Orams, M.B. (1995), "Towards a More Desirable Form of Ecotourism", *Tourism Management*, Vol.16, No.1, pp.3-8.

Pan, S.Q., Vega, M., Vella, A.J., Archer, B.H. and Parlett, G. (1995), "A Mini-Delphi Approach: An Improvement on Single Round Techniques", *Progress in Tourism and Hospitality Research*, Vol.2, No.1, pp.27-39.

Paul, S. (1987), *Community Participation in Development Projects: The World Bank Experience*, World Bank, Washington DC.

Richey, J.S., Mar, B.W. and Horner, R.R. (1985), "The Delphi Technique in Environmental Assessment I: Implementation and Effectiveness", *Journal of Environmental Management*, Vol.21, No.1, pp.135-146.

Ross, S. and Wall, G. (1999), "Evaluating Ecotourism: The Case of North Sulawesi, Indonesia", *Tourism Management*, Vol.20, No.6, pp.673-682.

Rotundi, A. and Gustafson, D. (1996), "Theoretical, Methodological and Practical Issues Arising out of the Delphi Method", in Adler, M. and Zigler, E. (eds.), *Gazing into the Oracle: The Delphi Method and its Application to Social Policy and Public Health*, 1996, Jessica Kingsley, London.

Smith, S.L.J. (1995), *Tourism Analysis: A Handbook*, 2<sup>nd</sup> ed., Longman, Harlow.

Teeling-Smith, G. (1971), "Medicines in the 1990's: Experience with a Delphi Forecast", *Long Range Planning*, Vol.3, No.4, pp.69-74.

Tremblay, P. (2001), "Wildlife tourism consumption: consumptive or non-consumptive", *International Journal of Tourism Research*, Vol.3, No.1, pp.215-218.

Valentine, P.S. (1993), "Ecotourism and Nature Conservation: A Definition with Some Recent Developments in Micronesia", *Tourism Management*, Vol.14, No.2, pp.107-115.

Wall, G. (197), "Is ecotourism sustainable?", *Environmental Management*, Vol.21, No.4, pp.483-491.

Weaver, D. (1998), *Ecotourism in the Less Developed World*, CAB International, Wallingford.

Weaver, D. (1999), "Magnitude of Ecotourism in Costa Rica and Kenya", *Annals of Tourism Research*, Vol.26, No.4, pp. 792-816.

Wheeller, B., Hart, T. and Whysall, P. (1990), "Application of the Delphi Technique: A Reply to Green, Hunter and Moore", *Tourism Management*, Vol.11, No.2, pp.121-122.

Wight, P. (1993), "Ecotourism: Ethics or Eco-Sell?", *Journal of Travel Research*, Vol.31, No.3, pp.3-9.

Wilson, J.C., Garrod, B. and Bruce, D.M. (2001), "Developing Planning Policies for Genuinely Sustainable Marine Ecotourism: Experiences from the EU Atlantic Area", paper presented at *People and the Sea: Maritime Research in the Social Sciences – An Agenda for the 21<sup>st</sup> Century*, University of Amsterdam, August.