Perceptions of Heritage Eco-tourism by Micronesian Decision Makers

by
Dirk H.R. Spennemann
David W. Look
Kristy Graham

ALBURY 2001
INTRODUCTION .................................................................................... 1
Micronesia ........................................................................................ 1
THE SYMPOSIUM .................................................................................. 3
THE SAMPLE POPULATION ......................................................................... 5
PRE-SYMPOSIUM QUESTIONNAIRE ......................................................... 6
The Respondents ............................................................................... 6
Who are the expected visitors? .......................................................... 7
Profiling the ecotourism industry ....................................................... 9
The impacts of ecotourism .............................................................. 11
How ecotourism will affect the host community ......................... 12
Ranking Heritage-Ecotourism Opportunities .................................. 15
Priorities for Eco-tourism ............................................................... 16
Discussion ...................................................................................... 18
POST-SYMPOSIUM QUESTIONNAIRE .................................................. 19
The symposium ............................................................................... 19
Site visits ....................................................................................... 19
Representativeness ........................................................................... 21
Who are the expected visitors now? ................................................ 21
Profiling the ecotourism industry ....................................................... 22
The impacts of ecotourism .............................................................. 24
Effects on the host community ......................................................... 26
Ranking of Heritage-Ecotourism Opportunities ................................ 27
Priorities for Eco-tourism ............................................................... 27
Relative ranking of cultural heritage sites ..................................... 30
LEARNING OUTCOMES ........................................................................ 32
BIBLIOGRAPHY .................................................................................... 35
APPENDICES ......................................................................................... 39
Appendix 1. Addresses of the authors ............................................. 40
Appendix 2. Questionnaire .............................................................. 41
Appendix 3. Symposium Programme ................................................ 44
LIST OF FIGURES

Figure 1. The Symposium in progress.................................................................4
Figure 2. The wrap-up session (Photo David Look)............................................4
Figure 3. The origin of the Participants (n = 85)..................................................5
Figure 4. Professional background of the participants (n=94).............................5
Figure 5. Country of origin of the respondees (n=45)...........................................6
Figure 6. Breakdown of the employment of the respondees to the pre-Symposium Questionnaire (n =41)......................................................7
Figure 7. Demographics of the prospective ecotourist (pre-Symposium Questionnaire) (n =41)..........................................................8
Figure 8. Responses to the question “Which (annual) income bracket do you believe most ecotourists belong to (US$)” (n=45)..............8
Figure 9. Responses to the assertion “I understand the concept of eco-tourism” (n=47)........................................................................9
Figure 10. Responses to the assertion “Eco-tourism is not a ‘bona fide’ industry in its own right, but merely a small part of the overall tourism industry” (n=47) ......................................................9
Figure 11. Responses to the assertion “Eco-tourism’ is just a fashionable term for general tourism which capitalises on the natural and cultural heritage” (n=48) .................................................................10
Figure 12. Responses to the assertion “Eco-tourism is a short-lived phenomenon” (n=48) .................................................................10
Figure 13. Responses to the assertion “Large-scale’ Nature-based’ resort developments violate the concept of eco-tourism” (n=48) ............10
Figure 14. Responses to the assertion “We can ‘pull back’ from eco-tourism development if environmental problems occur. Nature will heal itself” (n=48).....................................................................11
Figure 15. Responses to the assertion “All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage” (n=44)......................................................................11
Figure 16. Responses to the assertion “It is better to have more tourists in a less fragile area than fewer tourists in a fragile area” (n=44) ......12
Figure 17. Responses to the assertion “There is much potential to increase the number of visitors to my country without increasing the problems they pose” (n=46)..........................................................12
Figure 18. Responses to the assertion “Eco-tourism will not have a social impact on our communities” (n=46) .................................................13
Figure 19. Responses to the assertion “Outer island communities will be receptive to the development of cultural or nature-based tourism” (n=46) ...............................................................13
Figure 20. Responses to the assertion “Eco-tourism will pose fewer negative impacts on my country/state than mainstream tourism” (n=49) .................................................................................15
Figure 21. Pre-Symposium mean response ranking of ten heritage eco-tourism opportunities..............................................................15
Figure 22. Pre-Symposium – response rankings of priorities for eco-tourism.............................................................................................17

Figure 23 Participant activities at As Nieves Latte Quarry, Rota (Photo David Look).....................................................................................20

Figure 24. Field discussion at Mochong, Rota (Photo David Look).....................................................................................20

Figure 25 Changes in the Responses to the assertion “Which age group do you believe most ecotourists belong to?” (n=41).......................21

Figure 26 Changes in the Responses to the assertion “Which (annual) income bracket do you believe most ecotourists belong to (US$)?” (n=41) ..............................................................................22

Figure 27. Responses to the assertion “I understand the concept of eco-tourism” (n=44) ..............................................................................22

Figure 28. Responses to the assertion “Eco-tourism is not a ‘bona fide’ industry in its own right, but merely a small part of the overall tourism industry” (n=44) ..............................................................................23

Figure 29. Responses to the assertion “Eco-tourism’ is just a fashionable term for general tourism which capitalises on the natural and cultural heritage” (n=44) ..............................................................................23

Figure 30. Responses to the assertion “Eco-tourism is a short-lived phenomenon” (n=44) ..........................................................24

Figure 31. Responses to the assertion “Large-scale’ Nature-based’ resort developments violate the concept of eco-tourism” (n=44) ..............................................................................24

Figure 32. Responses to the assertion “We can ‘pull back’ from eco-tourism development if environmental problems occur. Nature will heal itself” (n=44) ..............................................................................24

Figure 33. Responses to the assertion “All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage” (n=38) ..............................................................................25

Figure 34. Responses to the assertion “It is better to have more tourists in a less fragile area than fewer tourists in a fragile area” (n=39) ....25

Figure 35. Responses to the assertion “There is much potential to increase the number of visitors to my country without increasing the problems they pose” (n=40) ..............................................................................26

Figure 36. Responses to the assertion “Eco-tourism will pose fewer negative impacts on my country/state than mainstream tourism” (n=43) ..............................................................................26

Figure 37. Responses to the assertion “Eco-tourism will not have a social impact on our communities” (n=40) ..........................................................27

Figure 38. Responses to the assertion “Outer island communities will be receptive to the development of cultural or nature-based tourism” (n=40) ..............................................................................27

Figure 39. Response ranking of ten opportunities for ecotourism.............28

Figure 40. Post symposium ranking of ten result priorities for ecotourism ......28

Figure 41. Pre-Symposium Ranking of Cultural Heritage Places as ecotourism opportunities (n=31) ..........................................................31

Figure 42. Post-Symposium Ranking of Cultural Heritage Places as ecotourism opportunities (n=23) ..........................................................31
LIST OF TABLES

Table 1. Pre-symposium responses (in %) to various assertions.......................14
Table 2. Post-symposium responses to various assertions ...............................29
Table 3 Average Importance Rating to a number of assertions before and after the symposium (coded as strongly agree=7, strongly disagree=1)..........................................................................................33
Table 4 Changes in Average Rank of opportunities and priorities before and after the symposium.................................................................34
INTRODUCTION

Cultural tourism has always been high on the agenda of the truly cultured as well as the nouveau riche. The ‘Grand Tour’ of upper class Americans (Stowe 1994) and Europeans, particularly British (Black 1992), springs to mind. Cultural heritage tourism is on the increase world-wide, focusing on sites, sights, museums and cultural experiences such as festivals and traditional communities (Herbert et al. 1989; Prohaska 1995; Richards 1996).

Cultural tourism has been regarded as the panacea to cure the economic troubles of the Pacific Island communities, particularly of the Pacific micro-states. Tourism to Hawaii and Tahiti started early (Douglas and Douglas 1996a), followed by other destinations. General tourism was advocated in the 1960s and 1970s (Lockart & Chandra 1997) leading to resort developments in many countries (cf. Lockart & Chandra 1997 for Fiji; Burns & Cleverdon 1995 for the Cook Islands); special interest tourism followed in the 1980s (Milne 1997; Harron & Weiler 1992; Zeppel 1992; Zeppel and Hall 1992; Howard 1999).

Large tourism developments were shown to diminish the real cultural experience provided (Burns 1995; Douglas & Douglas 1996b). At the same time, cultural heritage places were seen as an asset by various decision makers (cf Spennemann & Meyenn 1996), and studies were undertaken to assess the feasibility of using such sites as attractions (cf. Spennemann 1987). Heritage sites have the potential to allow communities to express their political aspirations through directed interpretation (Spennemann 1989).

Eco-tourism as a concept developed dramatically in the 1990s, creating a new vision of an economic panacea without the negative impacts of mass tourism (Rudkin and Hall 1996).

The development of eco-tourism opportunities in the heritage arena has created increased demand, particularly in Australia, but also in New Zealand and South East Asia (cf. Hall & Macarthur 1996). Pacific Island countries have followed suit, with Micronesia the last largely unassessed region.

MICRONESIA

Mass tourism, particularly from Japan, has long reached Guam (Page & Lawton 1996; Iversen 1997), but also, more recently, Saipan (Page & Lawton 1996) and Palau (Page & Lawton 1996). Intrepid visitors have always gone beyond, but several states of the Federated States on Micronesia and the Republic of the Marshall Islands are not major destinations (Page & Lawton 1996). Unspoilt from mass tourism, however, they have become real or perceived eco-tourism destinations.
Cultural tourism, namely heritage tourism, has existed for some time in Micronesia. Individual visitors, such as yachties, have always been interested in experiencing the local culture first hand (cf. Jennings 1997), but tend to have little economic impact.

Larger heritage tourism mainly focussed on the visitation of spectacular underwater sites such as the sunken fleet of Japanese World War II-era ships in Chuuk Lagoon (Rosenberg 1981; Lindemann 1982), and more recently Palau (Lindemann 1988), as well as Kwajalein (Bailey 1982), and Bikini Atolls in the Marshall Islands (Delgado et al. 1991). Above water remains of the same era have been promoted in Melanesia (De Burlo 1988); Guam and the Commonwealth of the Northern Marianas (cf. Lotz 1994; 1998), as well as in the Marshall Islands (Spennemann 1991a-b; Christiansen 1994).

If cultural and heritage eco-tourism is to succeed, co-ordination and planning is required. This begs the question: What are the attitudes of Micronesian Government officials toward ecotourism and towards cultural heritage sites?

A recent symposium organised in March 2000 by the Mayor of Rota, the CNMI HPO and the US NPS provided the opportunity to poll participant decision makers. This report summarises the findings of two polls administered before and after the symposium.
The US National Park Service provides a variety of training to various historic preservation organisations and professionals both on the US Mainland as well as for its possessions and for the Freely Associated States in Micronesia.

Rota, Commonwealth of the Northern Mariana Islands, is a clean, beautiful, and friendly tropical paradise rich in cultural and natural resources. The Honourable Benjamin T. Manglona, Mayor of Rota, Commonwealth of the Northern Mariana Islands (CNMI), requested that the National Park Service (NPS) provide training in heritage eco-tourism. David Look, Dr. Milton Parsons (USDA Forest Service), Joseph P. DeLeon Guerrero (CNMI Historic Preservation Officer), along with other potential speakers, and co-sponsors developed and submitted a Cultural Resource Training Initiative (CRTI) 2000 application for ‘Heritage Eco-Tourism Symposium: The Best of Both Worlds.’ Unfortunately, in mid-January 2000 the NPS announced that there would be no grants for CRTI since the funds were taken to cover other budget shortages. The Mayor of Rota was successful in applying for a grant from the U.S. Department of Interior Office of Insular Affairs to avoid cancelling the symposium.

The objective of the symposium was to bring together all of the stakeholders in the tourism industry in the American Pacific, owners and stewards of heritage ecotourism sites, and resource specialists to present and discuss how to ensure resource protection and preservation, encourage and foster greater cooperation and coordination, enhance visitor experience, provide public education, and promote economic growth in a responsible and sustainable manner. The goal was to look at ways to guide the planning of resources development sensitive to the continued health and well being of these resources while providing a quality experience for the visitor. The symposium format was selected to encourage dialogue.

Attended by approximately one hundred participants from the CNMI, Guam, Republic of Palau, Republic of the Marshall Islands, Federated States of Micronesia, Hawaii, United States, and Australia, the international symposium was intended to make a substantial contribution to the management of cultural and natural resources in Micronesia while encouraging ways to develop heritage ecotourism that is responsible and sustainable.

---

1 The symposium was co-sponsored by the Mayor of Rota, Rota Historic Preservation Coordinator, CNMI HPO, CNMI Council on the Humanities, Marianas Visitor authority (MVA), Northern Marinas College, CNMI Department of Land and Natural Resources, NPS (Pacific West Region and Office of Tourism), American Memorial Park (AMME, Saipan), War in the Pacific National Historical Park (WAPA, Guam), USDA Forest Service Region 5, University of Guam (UoG) International Tourism School, Pacific Asia Travel Association Foundation, National Trust for Historic Preservation (Western Region and Heritage Tourism Program), and the Micronesian Endowment for Historic Preservation.
Perceptions of Heritage Eco-tourism by Micronesian Decision Makers

Figure 1. The Symposium in progress (Photo David Look).

Figure 2. The wrap-up session (Photo David Look).
THE SAMPLE POPULATION

The heritage ecotourism symposium conducted from 28 February to 3 March 2000 provided an opportunity to assess the attitudes of Micronesian decision makers. The primary aim of the survey was a qualitative exercise to measure the success of the symposium. The secondary aim was to ascertain the concepts and understanding held by the participants. To this end the same questionnaire (Appendix 2) was distributed on the first and last day of the symposium. Based on the symposium registration list the sample population available for polling comprised 97 individuals three of whom were presenters and were thus excluded, as they had not been issued a questionnaire. The sample population thus polled comprised 94 persons.

Figure 3. The origin of the Participants (n = 85).

Figure 4. Professional background of the participants (n=94).
Perceptions of Heritage Eco-tourism by Micronesian Decision Makers

**Pre-Symposium Questionnaire**

The questionnaire (see Appendix 2) was administered at the beginning of the symposium on 28 February 2000. A questionnaire placed on the chair of each participant (to also cater for those participants who chose not to sit at one of the tables). No questionnaires were handed to the presenters. All participants were asked to fill out the questionnaire and to place it in a centrally located submission box no later than the end of the same day. The questionnaire contained some demographic questions and a number of attitudinal questions to which participants were asked to respond (with a 7 point Lickert scale using ‘strongly agree,’ ‘agree,’ ‘somewhat agree,’ ‘don’t know,’ ‘disagree,’ ‘somewhat disagree’ and ‘strongly disagree’). One of the problems encountered for some of the questions was that multiple answers were given, where single answers were required. In part this stemmed from the fact that the questionnaire could not be pretested. Likewise, the composition of the sample population was unknown at the time the survey was designed: a much lower percentage of participants had been expected from Rota. Otherwise some of the questions would have been phrased in a way to assess a potential attitudinal difference to a number of issues between Saipan/Guam and Rota.

**The Respondents**

The bulk of the respondents were between 36 and 50 years of age (61.7%) with 17% older than 50 years. Given the general age of government personnel in Micronesia (observations by Dirk Spennemann and David Look), the views...
expressed here represent the majority of the government work force and decision makers.

The overall response rate was 52.2%, with responses to some individual questions as low as 43%. The attitudinal questions at the heart of the study had response rates ranging from 46.8 to 52.1%. A comparison between the country of origin of the total attendees and those responding to the questionnaire shows that the CNMI participants are less well represented in the questionnaire (figure 5). This, however, is not statistically significant.

The breakdown of the nature of employment of the respondents is important (figure 4). All too often, symposia such as this are only attended by a specialised, self nominating minority. At the Rota heritage eco-tourism symposium the key stakeholders of heritage managers, parks and wildlife staff, and people involved in the tourism businesses (both government and private enterprise) made up 56%, with one third of the attendees (34%) coming from other government agencies (Finance, Public Works etc.). The remaining 10% were students and others (figure 6).

**WHO ARE THE EXPECTED VISITORS?**

An integral aspect of any ecotourism development is the ability to identify the potential market. By understanding who the expected ecotourists are, offerings can be tailored to ensure market needs are met. By ascertaining who the perceived visitors are expected to be, it is possible to understand the various attitudes of the government parties involved in the survey. Clearly, ecotourism is seen as a privilege of the wealthy. Prior to the symposium ecotourists were perceived to be adults between the ages of 36 and 50 (figure 7) with a substantial income in excess of fifty thousand dollars per annum (figure 8). Although all age groups could be considered clientele, the survey results indicated that the respondents did...
not assume those between the ages of 18 and 25 as potential clientele, nor those with an income below fifteen thousand per annum (figure 8).

It is intriguing that the age profile of the expected ecotourist roughly resembles that of the respondents themselves, with the difference that fewer people over 50 were deemed a prime audience.

Ecotourism is a specialised industry, with its own market niche. Identifying this niche is essential to establish an operational industry. Previously, situational studies have been conducted to identify the demographics of both international and domestic ecotourists worldwide. In Australia, studies profiling ecotourists have been conducted by authors such as Blamey and Hatch (1998) and Blamey, (1995). In North America reports have been produced by Wight (1996) and in Canada by Ballantine and Eagles (1994). However, these studies are just that, site specific. Therefore transferring existing data to the socio-cultural situation of Rota is very problematic. It would be necessary for preliminary surveys to be conducted to investigate the demographic profile of the market to provide an accurate representation.
PROFILING THE ECOTOURISM INDUSTRY

The ecotourism industry does not benefit from a standardised definition. The conceptual definition of sustainability, environmental awareness, economic benefits to local communities, education through interpretation, and socially and culturally sensitivity, can be somewhat different to the operational situation. Allock et al. (1994, p. 17) define ecotourism as ‘nature based tourism which involves education and interpretation of the natural environment and is managed to be ecologically sustainable.’ There are currently no industry controls over the application of the term ‘ecotourism’ to a businesses enterprise. As a result not all operators applying the term are committed to the concept.

Do the Micronesian decision makers understand the concept of eco-tourism?

Prior to the commencement of the symposium only 1% of the respondents considered they did not possess some understanding of the concept of ecotourism (figure 9). The remaining respondents already held views and perceptions on the concept of ecotourism or claimed to do so. On face value this could be regarded as a positive sign, as one might assume that the participants were well prepared for the symposium. On the other hand, it could be interpreted as misplaced confidence coupled with the desire not to appear ignorant.

An individual’s perception of the concept of ecotourism will greatly influence the ability to differentiate it from other forms of tourism, that is, whether that individual believes it to be different. It has been posited that ecotourism does not exist as a *bona fide* industry, but rather it is just a small segment of the overall tourism industry. Prior to the symposium almost 64% of respondents agreed with this statement (figure 10). Some 8.5% reserved judgement on the issue. Some 8.5% reserved judgement on the issue.
The opinion was more polarised with respect to the assertion that ecotourism is just a fashionable term for general tourism, which capitalises on natural and cultural heritage (figure 11). In that case 43.8% agreed and 56.2% disagreed, with no one undecided on the matter. If the participants truly understood the conceptual description of eco-tourism—as their responses to a previous assertion would have us believe (figure 9)—the response should have been decidedly more towards disagreement. As it stands, the responses to this assertion demonstrate the symposium participants’ propensity to overstate their prior knowledge.

Although ecotourism was not perceived to be a *bona fide* industry, the overwhelming majority of respondents (91.6%) agreed with the assertion that ecotourism is not a short lived phenomenon (figure 12), indicating that they believe ecotourism is more than just a trend and will continue to have a future.

All forms of tourism capitalise on the natural and cultural resource base of a destination—two integral factors in formulating a place into a primary destination. The concept of ecotourism is to go beyond this and inspire an appreciation of a destination and to educate people about its value. 23% of the survey respondents
felt that “large scale” nature based, resort developments did not violate the concept of ecotourism. Inversely, 21% of respondents indicated that it was a violation of the ecotourism concept (figure 13). These two opposing views may prove valuable in ascertaining which styles of building development are an acceptable option. It is interesting to consider which aspect respondents felt violated the concept, was it the large scale or resort component?

**THE IMPACTS OF ECOTOURISM**

Any form of tourism results in some form of impact, both positively and negatively. Ecotourism is often perceived as ‘softer’ on both the natural and the cultural environment. Ecotourists are often attracted to those sites of particular rarity and of cultural and natural significance. Hence, the threat of impacts to these sites may be greater due to the fragility or significance of such sites. Even if we do pull back from ecotourism, the impacts will still exist as some impact may not be mitigated and reversed. If left unmanaged, however, the potential of the severity of these impacts could increase dramatically to the point of effectively destroying sites. The survey demonstrated that a large majority of respondents (71%) disagreed that we can pull back from ecotourism development if environmental problems occur, indicating their belief that nature will not heal itself (figure 14). What has could not be assessed in the context of the symposium is the extent of knowledge among the participants as to what extent revegetation of environments could mitigate some or all of the impact.

The decision makers polled were even more decided on the question whether ‘damage done by tourists to cultural heritage places can be repaired without detriment to our heritage.’ 86% of the respondents disagreed with this statement (figure 15). If we combine the responses to the two questions it becomes clear that the symposium participants had some idea about the fragility of the natural and cultural environment and the lasting effects of any damage done.

---

**Figure 14.** Responses to the assertion “We can ‘pull back’ from eco-tourism development if environmental problems occur. Nature will heal itself” (n=48).

**Figure 15.** Responses to the assertion “All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage” (n=44).
Given this, the question has to be posed: how can that be achieved? The use of a sacrificial area is one of the common strategies. When assessing the attitudes towards the fragility of sites it was found that 52% of respondents agreed that it is better to have more tourists in a less fragile area than fewer tourists in a fragile area (figure 16). This indicates that respondents believe it to be better to sacrifice a resource of lesser fragility in order to ensure the conservation of those more fragile areas. However, 43% of respondents disagreed with this statement, demonstrating that opinions were well divided, possibly due to lack of information on the matter.

**HOW ECOTOURISM WILL AFFECT THE HOST COMMUNITY**

Ecotourism was perceived to possess the potential to increase visitor numbers to the country without increasing the problems they pose (figure 17). By increasing the number of visitors, the potential of impacts to occur also increases. However, it is easier to manage a place than its visitors. Pending effective planning and management, a place can be designed in such a way as to manage the visitors, their behaviour and thus the impacts they cause.

Social impacts affect not only the primary destination but also the surrounding communities. Host communities can benefit from ecotourism through aspects such as the provision of education, economic returns, supplementing traditional primary industries and improved services. Inversely, there are also negative effects such as crowding, the use of communal resources without benefits to the local community, social change and commodification of culture. About 80% of respondents believed that there would be social impacts upon the local community with the development of an ecotourism industry (figure 18).

In hindsight it is unclear, whether the respondents distinguished between social and economic impact, and also whether the respondents perceive an impact to be
negative (as intended in the formulation of the question). The reason for the caution becomes evident in the responses to the assertion that the outer island communities would be receptive to the development of ecotourism. Outer island communities are usually much more conservative in their attitudes and also much more determined to keep their cultural identity. With the high anticipation of social impact of ecotourism one wonders why the respondents believe that the outer island communities would be receptive to the development of ecotourism, unless the perception was that social impact was change for the better.

The majority of participants (82.6%) perceived that the outer island communities would be receptive to the development of ecotourism, whereas only 10.8% questioned that assumption—and none of them strongly (figure 19). This is of particular interest when we consider the origin of the participants. Given that over 40% of the attendees (but not necessarily 40% of the respondents) came from Rota (figure 5), it is possible that there is an actual convergence between the two groups.

Prior to the symposium 63% of respondents perceived that ecotourism would pose fewer negative impacts than mainstream tourism on the individual’s country/state (figure 20), indicating that ecotourism is a preferred option to mainstream tourism.

An individual’s country of origin may influence the response. Those individuals from islands where mainstream tourism is highly developed, such as Guam or Saipan, may see ecotourism as a better alternative. In a country where mainstream tourism does not exist, ecotourism may pose exactly the same threats to traditional society at large. As observed earlier, respondents felt that ecotourism is mainstream tourism, which capitalises on cultural and natural resources.
Table 1. Pre-symposium responses (in %) to various assertions. 
AGR—Agree; DIS—Disagree; DK—Don’t Know; RR—Response rate (%); STA—Strongly agree; STD—Strongly Disagree; SWA—Somewhat Agree; SWD—Somewhat disagree

<table>
<thead>
<tr>
<th>RR</th>
<th>n</th>
<th>STA</th>
<th>AGR</th>
<th>SWA</th>
<th>DK</th>
<th>SWD</th>
<th>DIS</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I understand the concept of eco-tourism</td>
<td>50.00</td>
<td>47</td>
<td>31.91</td>
<td>38.30</td>
<td>27.66</td>
<td>0.00</td>
<td>2.13</td>
<td>0.00</td>
</tr>
<tr>
<td>Eco-tourism is not a ‘bona fide’ industry in its own right, but merely a small part of the overall tourism industry</td>
<td>50.00</td>
<td>47</td>
<td>19.15</td>
<td>25.53</td>
<td>19.15</td>
<td>8.51</td>
<td>2.13</td>
<td>19.15</td>
</tr>
<tr>
<td>We can ‘pull back’ from eco-tourism development if environmental problems occur. Nature will heal itself</td>
<td>51.06</td>
<td>48</td>
<td>10.42</td>
<td>10.42</td>
<td>6.25</td>
<td>2.08</td>
<td>20.83</td>
<td>29.17</td>
</tr>
<tr>
<td>Eco-tourism is a short-lived phenomenon</td>
<td>51.06</td>
<td>48</td>
<td>2.08</td>
<td>0.00</td>
<td>2.08</td>
<td>4.17</td>
<td>20.83</td>
<td>29.17</td>
</tr>
<tr>
<td>‘Eco-tourism’ is just a fashionable term for general tourism which capitalises on the natural and cultural heritage</td>
<td>51.06</td>
<td>48</td>
<td>12.50</td>
<td>16.67</td>
<td>14.58</td>
<td>0.00</td>
<td>8.33</td>
<td>29.17</td>
</tr>
<tr>
<td>Eco-tourism will pose fewer negative impacts on my country/state than mainstream tourism</td>
<td>52.13</td>
<td>49</td>
<td>14.29</td>
<td>36.73</td>
<td>12.24</td>
<td>2.04</td>
<td>10.20</td>
<td>14.29</td>
</tr>
<tr>
<td>‘Large-scale’ Nature-based resort developments violate the concept of eco-tourism</td>
<td>51.06</td>
<td>48</td>
<td>12.50</td>
<td>12.50</td>
<td>20.83</td>
<td>10.42</td>
<td>22.92</td>
<td>20.83</td>
</tr>
<tr>
<td>It is better to have more tourists in a less fragile area than fewer tourists in a fragile area</td>
<td>46.81</td>
<td>44</td>
<td>9.09</td>
<td>34.09</td>
<td>9.09</td>
<td>4.55</td>
<td>11.36</td>
<td>27.27</td>
</tr>
<tr>
<td>All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage</td>
<td>46.81</td>
<td>44</td>
<td>2.27</td>
<td>2.27</td>
<td>9.09</td>
<td>0.00</td>
<td>18.18</td>
<td>43.18</td>
</tr>
<tr>
<td>Eco-tourism will not have a social impact on our communities</td>
<td>48.94</td>
<td>46</td>
<td>4.35</td>
<td>6.52</td>
<td>4.35</td>
<td>6.52</td>
<td>21.74</td>
<td>34.78</td>
</tr>
<tr>
<td>There is much potential to increase the number of visitors to my country without increasing the problems they pose</td>
<td>48.94</td>
<td>46</td>
<td>8.70</td>
<td>30.43</td>
<td>21.74</td>
<td>4.35</td>
<td>8.70</td>
<td>17.39</td>
</tr>
<tr>
<td>Outer island communities will be receptive to the development of cultural or nature-based tourism</td>
<td>48.94</td>
<td>46</td>
<td>19.57</td>
<td>45.65</td>
<td>17.39</td>
<td>6.52</td>
<td>6.52</td>
<td>4.35</td>
</tr>
</tbody>
</table>
**RANKING HERITAGE-ECOTOURISM OPPORTUNITIES**

Ecotourism opportunities arise in many aspects of the natural and cultural environment. By assessing the responses, it is possible to identify the perceptions and values of various ecotourism opportunities. In keeping with the training opportunities of the symposium ten options were chosen. Participants were asked to rank these, according to their perceived potential (1 being the most important and 10 being the least important). The lack of pretesting opportunity resulted in an unexpected problem: A number of respondents did not rank the responses properly and assigned the same number, (commonly the top rank) to a number of options. These multiple responses were excluded in the analysis. Figure 21 shows the mean rank and its standard deviation. The narrower the bar, the smaller the standard deviation and thus the more homogeneous the response. For all responses the standard deviation is quite large, indicating a diversity of opinions on the matter. The results group into four conceptual clusters.

![Figure 21. Pre-Symposium mean response ranking of ten heritage ecotourism opportunities: showing the mean and standard deviation (bars).](image)
From the ten options provided the most prominent response in ranking was archaeological sites, closely followed by natural landscapes. Both responses could be expected given the theme of the symposium and the general knowledge build up before the symposium. This also is an interesting result when we consider that heritage managers constituted 22% and Parks and Wildlife staff only 17% (figure 5).

The second cluster comprises local bird life and local plants. The means of both responses were very close together. This ranking is possibly biased by the high percentage of participants from Rota (figure 1). The fact that local bird life outranks local plants, has most likely come about because the symbol of Rota is the Marianas Fruit dove (*Ptilinopus roseicapilla*; Chamorro: *tototi*), which is also the national bird of the Mariana Islands and features predominantly in a local environmental education campaign.

The third conceptual cluster comprises the social aspects of island life, preferring traditional skills and traditional fishing. The mean of the two are over one ranking unit apart, and the standard deviations are quite large. The transition from traditional fishing to shipwrecks and diving opportunities (part of the next cluster) is not that clear cut.

The fourth cluster comprises the non-indigenous heritage locations. These ranked poorly, with an average rank of 6.5 and less. Of these, WWII sites ranked the poorest, a full rank value lower than the others.

Overall, the rankings indicated that indigenous past was seen as the most important aspect of ecotourism followed by the local environment. Traditional cultural values are then much less important, while the tangible heritage places associated with colonial administration ranked last.

**PRIORITIES FOR ECO-TOURISM**

As the survey sample primarily constituted the decision makers of Micronesia, the results indicate the perceived priorities for ecotourism as identified by these decision makers. The assessment of these priorities enables the goals of ecotourism to be identified. This is of particular interest when we consider that it is these decision makers who will influence the writing and development of ecotourism strategies and policies. It will be their policies and strategies which will reflect these priorities. In Australia the priorities for ecotourism were incorporated into the National Ecotourism Strategy (Allock *et al.* 1994) which incorporated four integral concepts. These four main concepts are generally accepted within the ecotourism industry as the priorities, or desired outcomes of an ecotourism experience. The underlying focus of the four concepts is sustainability (Allock *et al.* 1994):

1. the conservation of natural areas and resources;
2. ecological and cultural sustainability;
3. education through interpretation; and
4. local and regional benefits.

The individual components of this definition as well as some similar options (‘preserve cultural heritage sites’, ‘ability to showcase my own culture’) and contrast ideas (‘large visitor numbers’) were included. Again, participants were
asked to rank the options from 1 to 10. The results are shown in figure 22, again as the means of the ranking and the standard deviations for that mean. Unlike the responses to the ecotourism opportunities (figure 21) some priorities exhibit narrow error bars indicating agreement on the relative ranking of the issue (figure 22). The best example for this is the response to ‘large visitor numbers’ as a priority which not only ranks a distant last, but which also has small standard deviation. As demonstrated in previous questions throughout the survey, the preservation of sites remains a high priority ranking first closely followed by the ability to showcase one’s own culture. The latter high ranking is in contrast with the comparatively low ranking of traditional skills and fishing as an ecotourism opportunity (figure 21). The need to preserve local plants and animals demonstrated the least amount of variation ranking third, which is important when we consider that plants and animals were perceived to be a high ranking ecotourism opportunity (figure 21).

The need for education through interpretation was also recognised, ranking fourth. One of the key conceptual components of ecotourism is the need for sustainable development. Sustainable development demonstrated the greatest amount of variation in participant responses. It is interesting to consider that to achieve sustainability, ecotourism needs to achieve all of the listed options, except large visitor numbers. It is quite likely that the participants had different views on the concept of ‘sustainability’ which then interfered and clouded the responses. Environmentally aware tourism was ranked ahead of all forms of economic benefits. However the need for economic benefits was more important than sensitive visitors. Although the survey previously identified that it was the perception of the participants that ecotourism has the potential to increase visitor numbers without increasing the problems they pose, large visitor numbers were not a priority.
DISCUSSION

The questionnaire provided a good insight into the attitudes of Micronesian decision makers. The lack of opportunity to pretest the questionnaire resulted in two questions returning ambiguous answers.

Tourism and ecotourism have become a major source of income in Guam, Saipan and the Federated States of Micronesia. The dependence on tourism income is more pronounced in Guam than in the Commonwealth of the Northern Marianas. Given that 75% of the respondents to the questionnaire came from there, the questionnaire provides a snapshot of the attitudes of the countries tempered by the attitudes of the smaller number of representatives for Palau, the Federated States of Micronesia and the Marshall Islands.

The responses to a number of attitudinal questions showed that the decision makers attending the symposium had a limited understanding of the concepts of ecotourism, despite their initial claim that they did (figure 9). The opinions were divided whether ecotourism was a *bona fide* industry, or whether it was simply general tourism focussing on the natural and cultural heritage. Overwhelming agreement existed on the assertion that ecotourism was *not* a short-lived phenomenon. Overall, ecotourism was perceived to have fewer negative impacts than mainstream tourism. The respondents expressed awareness that the development of ecotourism may have impact on the natural and cultural environment, as well as social impacts on the community, and that these may not be easily mitigated—if at all.

Yet at the same time the participants expressed the opinion that there was much potential to increase the number of visitors without increasing the problem they cause and that other island communities would be receptive to the development of ecotourism. The respondents saw archaeological and natural landscapes as the main ecotourism opportunity, while attractions relating to the colonial periods were perceived to be much less significant.

The fact that non-indigenous heritage sites, and in particular World War II sites ranked so low may be due to the negative perception of the war by the local population (Spennemann 1992 a). Alternatively the low ten ranking of World War II sites may be based on the assumption that tourism is a recreational and predominantly relaxing activity. It may be perceived that ecotourists may not want to be faced with the more negative aspects of human society whilst on holiday. Those with a particular interest in war sites often present their own market niche (Christiansen 1993) and local tour operators cater for this niche (Spennemann 1991a-b; Lindemann 1982, 1988; Lotz 1988).
POST-SYMPOSIUM QUESTIONNAIRE

THE SYMPOSIUM

David W. Look and Joseph De Leon Guerrero co-chaired the Symposium. The Honourable Jesus R. Sablan, Lt. Governor, welcomed participants and James Shevock, Associate Regional Director for Resource Stewardship and Partnerships, provided opening comments for the Department of the Interior and National Park Service. Perry Tenorio, (Executive Director, Marianas Visitors Authority), gave an assessment of tourism in the CNMI in the wake of the Asian Economic Crisis. Mit Parsons (US Forest Service) and Amy Webb (National Trust for Historic Preservation) introduced the audience to ecotourism and heritage tourism, respectively. Dirk Spennemann (Charles Sturt University) presented the identification and assessment of resources and Mark Rudo, Archaeologist (NPS), discussed resource protection and preservation. Humanities’ role in education and interpretation was stressed by William Barrineau. Bill Hocog and Isaac Calvo explained the RARE Education Campaign. Dirk Spennemann addressed visitor impact to sites and the ‘cultural baggage’ visitors bring with them. Ms. Webb cited many examples of how to bring sites alive, finding the fit between community and tourism, and to fulfil visitors’ needs. Case studies were used to illustrate resource protection (Truk Lagoon Micronesian Resources Study Video), planning for interpretation (Karen Gustin, Superintendent, War in the Pacific National Park), and balancing visitor needs and impacts (Dirk Spennemann on Willandra Lakes World Heritage Area). Mit Parsons instructed the participants on how to do rapid SWOT (strength, weaknesses, opportunity, and threats) assessment of sites. The symposium programme is reproduced as Appendix 3.

SITE VISITS

A number of sites for site visits and additional instruction had been chosen by the CNMI HPO in consultation with the Mayor of Rota. These sites represent in the main sites that were easily accessible or that had clearly become part of the (eco) tourist circuit. Participants, guided by symposium presenters, conducted afternoon SWOT Assessments of the:

1. As Nieves Taga Stone Quarry
2. Mochong Latte Village
3. Chiugai Pictograph Cave and nature trail
4. Saguagahga Bird Sanctuary
Different staff members gave presentations at the various sites. The SWOT Assessments of the sites were discussed the following morning.

Figure 23 Participant activities at As Nieves Latte Quarry, Rota (Photo David Look).

Figure 24 Field discussion at Mochong, Rota (Photo David Look).
The follow-up questionnaire was administered on the morning of the last day (3 March 2000). As before, each participant found a copy on his/her chair.

**REPRESENTATIVENESS**

The representativeness of the sample is similar to that of the pre-survey questionnaire. However, the representation of the country of origin changed between the pre- and post-symposium questionnaire because a number of the overseas participants had left the final plenary session early to catch a flight out. As a result, the proportion of respondents from the CNMI rose from 55.6% to 75.4%. In total 55% of the registered participants attended the plenary session. Of these 44 returned a completed questionnaire (80% response rate). In terms of the total number of symposium attendees the total response rate is still 45% and thus acceptable. When comparing the results of the second questionnaire with the pre-symposium questionnaire, it is important to note that the composition with the employment status of the respondents had changed only very marginally. Thus, in that regard, the attitudes represented in the results can be deemed to be representative of the total population of all attendees.

**WHO ARE THE EXPECTED VISITORS NOW?**

The reapplication of the survey identified a shift in the demographics of the expected ecotourist. While at the completion of the symposium the average age of ecotourists was still perceived to be the 36 to 50 age group (figure 25), the proportion of expected visitors over 50 years of age increased tenfold (from 2.4 to 21.4%).

Their economic profile changed markedly. The post-symposium questionnaire identified a shift in income levels, with the majority of respondents now believing that the average annual income of an ecotourist would be between $35,000 and
US $50,000, rather than over US $50,000 per annum. The completion of the post symposium survey also identified an increase in the potential market, with 7% of respondents considering those with an annual income of below $15,000 also as a potential market segment (figure 26). The results indicate that after the symposium, ecotourism is no longer perceived as such an elitist product.

PROFILING THE ECOTOURISM INDUSTRY

The completion of the symposium demonstrated an increase in those who strongly agreed (13%) that they understood, or claimed to understand, the concepts of ecotourism (figure 25). However, this increase in understanding was contrasted by an increase of 6% in those who did not feel that they understood the concept of ecotourism. The results indicate that the symposium was successful in challenging and changing an individual’s perception of the concept of ecotourism although it did not necessarily result in a greater understanding for some.
The concept of ecotourism as a legitimate separate industry was challenged further by participant’s responses. After the symposium 32% of respondents agreed that ecotourism is not a *bona fide* industry in its own right, but merely a small part of the overall tourism industry. This is in line with the thrust of presentations, which argued that ecotourism was part of the overall spectrum, although a different market, but also, and importantly, a market espousing different ethical views.

The polarisation of the participants continued for the question whether ecotourism was just a fashionable term for general tourism which capitalises on natural and cultural heritage. There was an increase of 9% in the number of respondents who perceived that ecotourism is just a fashionable term. The attitudes of those who disagreed decreased by 8% as did those who strongly disagreed (6% decrease, figure 30), challenging the existence of the concept of ecotourism.

The long-term future of the ecotourism industry however was perceived to be secure. 83.5% of the respondents believe that the industry would not be a short-lived phenomenon (figure 30). Significantly, not only did the total number of people concerned indicate a belief that it is a short-lived phenomenon increase to 14% (up 4%), but also many who expressed a belief in the long-term future were less certain. For example, the percentage of people strongly agreeing with the assertion declined by 10% (figure 30).

This change in attitudes is most likely brought about by the fact that the respondents had a clearer understanding of what eco-tourism actually involves. It can be speculated that some of the constraints posed by the political and social environment, such as a lack of coordination and increased internal competition for similar projects may have added concern.
The perception that large-scale nature-based resort development does violate the concept of ecotourism increased marginally (figure 31). The majority of respondents (45%) perceived that large-scale nature-based resort developments complied with the concept of ecotourism. Of these, the bulk (27.3%) were ‘somewhat’ certain of their views. Very few (2.7%) strongly believed in this view. Again, the results showed an increased polarisation on the issue.

THE IMPACTS OF ECOTOURISM

The experience of ecotourism is intangible, but the impacts are not. As the majority of respondents believed that ecotourism is really just mainstream tourism which capitalises on our cultural and heritage resources (figure 29), their responses also reflect their attitudes and perceptions in response to the fragility of site. 36% of respondents perceived that we cannot pull back from ecotourism if environmental problems occur, and nature will not heal itself (figure 32).

Overall the number of people agreeing with the statement increased at the end of the symposium (compared to 26% at the beginning). It is difficult to interpret this
increase as the symposium stressed the nature of the impacts—but also indicated that with good monitoring the impacts can be reduced, if not alleviated if action is taken in a timely and swift manner.

In contrast, the opinion of the respondents that heritage places cannot be repaired without detriment to our heritage increased (figure 33). Though the overall disagreement to this question increased (18%, up 4%), the opinions had become more polarised.

![Figure 33. Responses to the assertion “All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage” (n=38).](image)

Concern over the protection of natural and cultural resources grew. The majority of respondents (64%) agreed that it is better to have more tourists in a less fragile area than fewer tourists in a fragile area (up 12%; figure 34). While this increase was across the spectrum, it is worth noting that 5% of the respondents chose the ‘don’t know’ option.’ In addition there was also increased support for the protection of the cultural heritage resources, heritage resources are finite and unrenewable.

![Figure 34. Responses to the assertion “It is better to have more tourists in a less fragile area than fewer tourists in a fragile area” (n=39).](image)

One of the main discussion points of the afternoon field trips had been the development of general and site specific strategies regarding strategies for the minimisation of visitor impacts. The emphasis on the impact management left a number of participants (55%) with the view that there was potential to increase the number of visitors to the country without increasing the problems they pose (figure 35). The symposium was successful in alerting the audience to the nexus between visitor numbers and the possible level of impact. Those who disagreed with the assertion increased from 35% to 45%. It is likely that this is causes by those previously choosing the ‘don’t know’ answer now making an educated decision.

Ecotourism may not be as impact free as first perceived by respondents. The symposium seems to have been successful in identifying impacts, leaving respondents with a greater understanding of the implications. It is interesting to
consider whether the perception of potential for the ecotourism industry has reduced or the understanding of the potential impacts increased.

**EFFECTS ON THE HOST COMMUNITY**

The impacts associated with ecotourism were recognised by respondents, as were the effects on the local community. Although, the impacts of the ecotourism industry have been acknowledged, the majority of respondents (63%) perceived ecotourism would pose fewer negative impacts on the individual’s state/country than mainstream tourism (figure 36). In that, the overall response is the same as that given for the pre-symposium questionnaire. Similar to the assertion that cultural heritage places can be repaired, the main shift seems to have been a polarisation of opinion. The number of people who somewhat agreed with the notion that ecotourism will pose fewer negative impacts than mainstream tourism has decreased dramatically.

However, the participants also perceived that ecotourism will have a social impact on the local communities (figure 37). An increased polarisation also occurred in response to the assertion that ecotourism will not have a social impact on our communities. The percentage of people agreeing that no impact would occur increased by 12% (to 27.55), while of the ‘don’t know’ answers decreased. At the same time the percentage of those who ‘somewhat disagreed’ with the assertion declined and the more firms opinions increased. In short, the symposium was successful in identifying social impacts and created a greater awareness among respondents.
The perception that outer island communities will be receptive to ecotourism had been strongly held at the beginning of the symposium, with the majority of respondents (82.6%) expressing this view (figure 19). After the symposium the majority of respondents still held that view (72.9%), with 15% commenting that they were not certain. The percentage of disagreeing increased marginally (to 12.5%, up 1.7%), but the strength of disagreement shifted to more strongly held views (figure 38).

**RANKING OF HERITAGE-ECOTOURISM OPPORTUNITIES**

Overall, the participants demonstrated an increased variation in response (expressed in large standard variations), which reflected a wide variety of attitudes and perceptions towards the ranking of heritage ecotourism opportunities (figure 39). When compared to the pre-symposium results, there are a few minor movements in the overall ranking of opportunities, with the greatest shift being that ‘Spanish and German Places’ rose from number 9 to 7. The results remained clumped in categories of natural (natural landscapes, local plant life and its role in traditional society and local bird life in traditional society) and social and cultural (Shipwrecks and diving, Japanese places, Spanish and German places and World War II sites).

**PRIORITIES FOR ECO-TOURISM**

In comparison to the pre-symposium results, the participants demonstrated a greater degree of variation in their responses to the ranking of priorities for ecotourism. The need to protect the resources, which provide the essence of ecotourism experience were perceived to be the most important.
The highest priority as perceived by the respondents was the preservation of cultural heritage sites (figure 40), which also coincides with the ranking of archaeological sites (figure 39). The need to preserve local plants and animals increased, now ranking second, however there was also an increase in variance in the respondent’s responses. The ability to show case my own culture slid to third. When examining the ranking of heritage ecotourism opportunities it is evident that the sharing of indigenous culture is a priority.
Table 2. Post-symposium responses to various assertions

<table>
<thead>
<tr>
<th>Assertion</th>
<th>Response rate (%)</th>
<th>n</th>
<th>STA</th>
<th>AGR</th>
<th>SWA</th>
<th>DK</th>
<th>SWD</th>
<th>DIS</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I understand the concept of eco-tourism</td>
<td>80.00</td>
<td>44</td>
<td>54.55</td>
<td>31.82</td>
<td>6.82</td>
<td>0.00</td>
<td>2.27</td>
<td>2.27</td>
<td>2.27</td>
</tr>
<tr>
<td>Eco-tourism is not a ‘bona fide’ industry in its own right, but merely a small part of the overall tourism industry</td>
<td>80.00</td>
<td>44</td>
<td>20.45</td>
<td>38.64</td>
<td>6.82</td>
<td>2.27</td>
<td>11.36</td>
<td>9.09</td>
<td>11.36</td>
</tr>
<tr>
<td>We can ‘pull back’ from eco-tourism development if environmental problems occur. Nature will heal itself</td>
<td>80.00</td>
<td>44</td>
<td>9.09</td>
<td>9.09</td>
<td>18.18</td>
<td>0.00</td>
<td>11.36</td>
<td>27.27</td>
<td>25.00</td>
</tr>
<tr>
<td>Eco-tourism is a short-lived phenomenon</td>
<td>80.00</td>
<td>44</td>
<td>2.27</td>
<td>2.27</td>
<td>9.09</td>
<td>2.27</td>
<td>11.36</td>
<td>40.91</td>
<td>31.82</td>
</tr>
<tr>
<td>Eco-tourism’ is just a fashionable term for general tourism which capitalises on the natural and cultural heritage</td>
<td>80.00</td>
<td>44</td>
<td>13.64</td>
<td>25.00</td>
<td>18.18</td>
<td>0.00</td>
<td>11.36</td>
<td>20.45</td>
<td>11.36</td>
</tr>
<tr>
<td>Eco-tourism will pose fewer negative impacts on my country/state than mainstream tourism</td>
<td>78.18</td>
<td>43</td>
<td>25.58</td>
<td>34.88</td>
<td>2.33</td>
<td>6.98</td>
<td>9.30</td>
<td>9.30</td>
<td>11.63</td>
</tr>
<tr>
<td>Large-scale’ Nature-based’ resort developments violate the concept of eco-tourism</td>
<td>80.00</td>
<td>44</td>
<td>20.45</td>
<td>18.18</td>
<td>9.09</td>
<td>6.82</td>
<td>27.27</td>
<td>15.91</td>
<td>2.27</td>
</tr>
<tr>
<td>It is better to have more tourists in a less fragile area than fewer tourists in a fragile area</td>
<td>70.91</td>
<td>39</td>
<td>23.08</td>
<td>38.46</td>
<td>2.56</td>
<td>5.13</td>
<td>10.26</td>
<td>12.82</td>
<td>7.69</td>
</tr>
<tr>
<td>All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage</td>
<td>69.09</td>
<td>38</td>
<td>2.63</td>
<td>10.53</td>
<td>5.26</td>
<td>0.00</td>
<td>7.89</td>
<td>34.21</td>
<td>39.47</td>
</tr>
<tr>
<td>Eco-tourism will not have a social impact on our communities</td>
<td>72.73</td>
<td>40</td>
<td>5.00</td>
<td>20.00</td>
<td>2.50</td>
<td>0.00</td>
<td>12.50</td>
<td>32.50</td>
<td>27.50</td>
</tr>
<tr>
<td>There is much potential to increase the number of visitors to my country without increasing the problems they pose</td>
<td>72.73</td>
<td>40</td>
<td>17.50</td>
<td>22.50</td>
<td>15.00</td>
<td>0.00</td>
<td>12.50</td>
<td>20.00</td>
<td>12.50</td>
</tr>
<tr>
<td>Outer island communities will be receptive to the development of cultural or nature-based tourism</td>
<td>72.73</td>
<td>40</td>
<td>20.00</td>
<td>45.00</td>
<td>7.50</td>
<td>15.00</td>
<td>2.50</td>
<td>5.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>
The need for environmentally aware tourism increased from a ranking of 6th to 4th place, with a decrease in standard deviation. The need for education through interpretation moved down one placing, and also experienced an increase in variance. The need for socially and culturally sensitive visitors is now perceived to be more important than economic benefits, a definite shift in perceptions. Although economic benefits moved down a ranking, the importance of ecotourism as an alternative income source increased. As before, large visitor numbers ranked last.

**RELATIVE RANKING OF CULTURAL HERITAGE SITES**

To assess the priorities of responses from a (tangible) cultural heritage management perspective, the perceived ecotourism opportunities were re-analysed limiting the analysis to the tangible sites. There is a discrepancy in the relative ranking of cultural heritage places when all opportunities (figure 21) are compared to cultural heritage places only (figure 41). This discrepancy is brought about by the fact that for the latter a number of additional responses could be utilised. These are those responses where equal ranks were allocated that did not affect the choice of sites. Despite the reduction in choices, 14 responses remained invalid because they contained identical scores (usually 1) for different classes of resources.

As in the overall response, archaeological sites have proven to be a priority, ranking highly in each section in which they appear. In the pre-symposium response archaeological sites are 1.8 rank units ahead of all sites and form a class by themselves. Colonial Spanish and German sites ranked third, while Japanese civilian sites gained a higher ranking in this analysis than they did when ranked with all the opportunities for heritage ecotourism (figure 21). Shipwrecks benefited from a number 2 ranking, but also exhibited the greatest amount of variation. World War II sites have continued to rank poorly as heritage ecotourism opportunities, again ranked last (figure 41).

In the post-symposium questionnaire seven respondents gave answers of unclear rank (double ranking), predominantly preferring colonial and Japanese sites over the archaeological sites and WW II sites. With these double answers omitted, 23 valid responses remained (figure 42).

During the symposium a dramatic shift in opinion occurred. Japanese civilian sites moved from fourth place in the pre-Symposium ranking to first place in the post-Symposium ranking, over 1.5 ranking units ahead of the next type of site. This category also exhibited a remarkably small standard deviation (figure 42).

The shift from a ranking of fourth place to first may be due to the focus of material presented throughout the symposium. Some of the site visits were used to address the apparent imbalance and the lack of Japanese civilian sites in the heritage interpretation. From the results of the second questionnaire this issue may have been over-achieved. This presents some indication of the educative powers of such a symposium.

Interestingly, a similar, but less marked shift occurred for the Spanish and German Colonial Sites, even though the standard deviation in the rank is much larger than that for Japanese civilian sites. Colonial (Spanish and German) were now perceived to be more important than initially considered. Archaeological sites
dropped to third place with a substantial variation in the individual opinions. Shipwrecks experienced a decrease in the standard deviation in responses, which resulted in a lower ranking. Again World War II sites remained consistently at the bottom end of the ratings.

Figure 41. Pre-Symposium Ranking of Cultural Heritage Places as ecotourism opportunities (n=31)

Figure 42. Post-Symposium Ranking of Cultural Heritage Places as ecotourism opportunities (n=23)
Learning Outcomes

Finally, we need to ask whether the symposium was a success in alerting the Micronesian decision makers to the issues of heritage eco-tourism and whether attitudinal change occurred because of the symposium.

Where the participants changed their opinions over the duration of the symposium, this change was usually only minor and not statistically significant (Table 3). The more practical aspects covered at the symposium, saw a more marked attitudinal change than the more conceptual aspects, but even this change was statistically not significant (table 4). That the more practical aspects saw a more marked attitudinal change can in part be explained in terms of symposium teaching.

The symposium was presented with no formal preparation of the expected outcomes, bar any preparation that may have occurred on an individual level. The audience of the symposium was one dominated by practitioners in their respective field with usually little post-secondary education. Thus it was predictable that conceptual issues would be challenging subject matter, particularly if presented in a short-term and high-intensity mode of teaching. Furthermore, the more practical aspects were reinforced by examples and personal decisions during the afternoon excursions and training sessions.

An interesting observation was the 6% increase of people who stated that they did not understand the concept of ecotourism after the symposium. It clearly indicates that individual perceptions had been successfully challenged, but also point to potential shortcomings in the format of the symposium.

The post symposium questionnaire has shown an increased polarisation of opinion which also indicates that the information provided allowed participants to form an opinion. Some percentage increases were unexpected, such as the increase among those who believe that there will be no social impact. Some of this is likely to be caused by ambiguous phrasing of the questions which could have been remedied had an opportunity existed to pre-test the questionnaire.

The power of enthusiastic presentations coupled with a reinforcement of the message during field exercises was made clear by the dramatic increase in ranking of Japanese civilian sites as an eco-tourism opportunity (when compared to other heritage sites). Because the participants had expressed relative disinterest in such sites even though they are abundant on Rota, some emphasis was placed on them, mainly suggesting that participants not forget them in their decision making.
Table 3 Average Importance Rating to a number of assertions before and after the symposium (coded as strongly agree=7, strongly disagree=1)

<table>
<thead>
<tr>
<th>Assertion</th>
<th>Pre-Symposium Mean</th>
<th>STD</th>
<th>Post Symposium Mean</th>
<th>STD</th>
<th>Diff.</th>
<th>T-test</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>I understand the concept of eco-tourism</td>
<td>5.98</td>
<td>0.90</td>
<td>6.20</td>
<td>1.32</td>
<td>0.23</td>
<td>0.347</td>
<td></td>
</tr>
<tr>
<td>Eco-tourism is not a 'bona fide' industry in its own right, by merely a small part of the overall tourism industry</td>
<td>4.68</td>
<td>1.98</td>
<td>4.82</td>
<td>2.09</td>
<td>0.14</td>
<td>0.749</td>
<td></td>
</tr>
<tr>
<td>We can 'pull back' from eco-tourism development if environmental problems occur. Nature will heal itself</td>
<td>3.17</td>
<td>2.01</td>
<td>3.23</td>
<td>2.08</td>
<td>0.06</td>
<td>0.738</td>
<td></td>
</tr>
<tr>
<td>Eco-tourism is a short-lived phenomenon</td>
<td>2.04</td>
<td>1.24</td>
<td>2.32</td>
<td>1.49</td>
<td>0.28</td>
<td>0.159</td>
<td></td>
</tr>
<tr>
<td>Eco-tourism' is just a fashionable term for general tourism which capitalises on the natural and cultural heritage</td>
<td>3.63</td>
<td>2.20</td>
<td>4.23</td>
<td>2.10</td>
<td>0.60</td>
<td>0.135</td>
<td></td>
</tr>
<tr>
<td>Eco-tourism will pose fewer negative impacts on my country/state than mainstream tourism</td>
<td>4.59</td>
<td>2.05</td>
<td>4.86</td>
<td>2.14</td>
<td>0.27</td>
<td>0.403</td>
<td></td>
</tr>
<tr>
<td>Large-scale' Nature-based' resort developments violate the concept of eco-tourism</td>
<td>4.19</td>
<td>1.71</td>
<td>4.41</td>
<td>1.92</td>
<td>0.22</td>
<td>0.460</td>
<td></td>
</tr>
<tr>
<td>It is better to have more tourists in a less fragile area than fewer tourists in a fragile area</td>
<td>4.25</td>
<td>1.98</td>
<td>4.90</td>
<td>2.06</td>
<td>0.65</td>
<td>0.150</td>
<td></td>
</tr>
<tr>
<td>All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage</td>
<td>2.41</td>
<td>1.44</td>
<td>2.39</td>
<td>1.79</td>
<td>-0.01</td>
<td>0.969</td>
<td></td>
</tr>
<tr>
<td>Eco-tourism will not have a social impact on our communities</td>
<td>2.74</td>
<td>1.65</td>
<td>2.98</td>
<td>2.06</td>
<td>0.24</td>
<td>0.563</td>
<td></td>
</tr>
<tr>
<td>There is much potential to increase the number of visitors to my country without increasing the problems they pose</td>
<td>4.39</td>
<td>1.93</td>
<td>4.23</td>
<td>2.18</td>
<td>-0.17</td>
<td>0.710</td>
<td></td>
</tr>
<tr>
<td>Outer island communities will be receptive to the development of cultural or nature-based tourism</td>
<td>5.52</td>
<td>1.31</td>
<td>5.30</td>
<td>1.65</td>
<td>-0.22</td>
<td>0.497</td>
<td></td>
</tr>
</tbody>
</table>

This observation is supported by the relative change in perceived importance of local plant life (as opposed to local bird life) as an eco-tourism opportunity. Discussions on the use of local plants for food, medicine and fibre for weaving were held at the Taisacan Eco Nature Trail and the Gagani Agroforestry Farm. No similar presentations were held with regard to local bird life.
Table 4 Changes in Average Rank of opportunities and priorities before and after the symposium

<table>
<thead>
<tr>
<th>Opportunities for ecotourism</th>
<th>Pre-Symposium</th>
<th>Post Symposium</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>STD</td>
<td>Mean</td>
</tr>
<tr>
<td>World War II sites</td>
<td>8.19</td>
<td>2.17</td>
<td>7.83</td>
</tr>
<tr>
<td>Spanish &amp; German Places</td>
<td>7.10</td>
<td>1.99</td>
<td>6.54</td>
</tr>
<tr>
<td>Japanese Places</td>
<td>6.87</td>
<td>2.51</td>
<td>7.08</td>
</tr>
<tr>
<td>Shipwrecks and diving</td>
<td>6.68</td>
<td>2.81</td>
<td>7.08</td>
</tr>
<tr>
<td>Traditional Fishing</td>
<td>6.45</td>
<td>2.32</td>
<td>5.92</td>
</tr>
<tr>
<td>Traditional Skills</td>
<td>5.26</td>
<td>2.67</td>
<td>6.13</td>
</tr>
<tr>
<td>Local plants</td>
<td>4.10</td>
<td>2.17</td>
<td>4.29</td>
</tr>
<tr>
<td>Local bird life</td>
<td>3.94</td>
<td>2.11</td>
<td>4.46</td>
</tr>
<tr>
<td>Natural landscapes</td>
<td>3.13</td>
<td>2.40</td>
<td>3.46</td>
</tr>
<tr>
<td>Archaeological Sites</td>
<td>3.00</td>
<td>2.05</td>
<td>2.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Priorities for ecotourism</th>
<th>Pre-Symposium</th>
<th>Post Symposium</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>STD</td>
<td>Mean</td>
</tr>
<tr>
<td>Large visitor numbers</td>
<td>9.13</td>
<td>1.15</td>
<td>8.59</td>
</tr>
<tr>
<td>Alternative income source</td>
<td>7.13</td>
<td>1.45</td>
<td>5.86</td>
</tr>
<tr>
<td>Sensitive visitors</td>
<td>6.56</td>
<td>1.63</td>
<td>6.09</td>
</tr>
<tr>
<td>Economic benefits</td>
<td>6.25</td>
<td>2.44</td>
<td>7.05</td>
</tr>
<tr>
<td>Environmentally aware tourism</td>
<td>5.31</td>
<td>2.68</td>
<td>5.09</td>
</tr>
<tr>
<td>Sustainable development</td>
<td>5.19</td>
<td>3.37</td>
<td>5.50</td>
</tr>
<tr>
<td>Education through Interpretation</td>
<td>4.44</td>
<td>2.34</td>
<td>5.09</td>
</tr>
<tr>
<td>Preserve local plants &amp; animals</td>
<td>3.69</td>
<td>1.40</td>
<td>4.23</td>
</tr>
<tr>
<td>Ability to showcase my own culture</td>
<td>3.06</td>
<td>2.89</td>
<td>4.36</td>
</tr>
<tr>
<td>Preserve cultural heritage sites</td>
<td>2.94</td>
<td>1.98</td>
<td>3.00</td>
</tr>
</tbody>
</table>

The survey was successful in identifying those perceptions and attitudes that respondents considered an ecotourist should have. The results indicate that after the symposium ecotourism is no longer perceived as such an elitist product. The demographic profile of the perceived market is bound to change after the establishment of the ecotourism industry. It will be very interesting to observe whether the expectations of the decision makers will be met.
BIBLIOGRAPHY


Perceptions of Heritage Eco-tourism by Micronesian Decision Makers


Perceptions of Heritage Eco-tourism by Micronesian Decision Makers


APPENDICES
APPENDIX 1. ADDRESSES OF THE AUTHORS

DIRK H.R. SPENNEMANN
Johnstone Centre and School of Environmental and Information Sciences
Charles Sturt University
PO Box 789
Albury NSW 2640
Australia

DAVID W. LOOK, AIA
Chief, Cultural Resources Team,
Pacific Great Basin Support Office,
Suite 600
600 Harrison Street
National Park Service
San Francisco, CA 94107-1372
United States of America

KRISTY GRAHAM
School of Environmental and Information Sciences
Charles Sturt University
PO Box 789
Albury NSW 2640
Australia
APPENDIX 2. QUESTIONNAIRE

The pre symposium questionnaire was yellow, while the post symposium questionnaire was green.
Participant Survey

Age Group
- 20 - 35
- 36-50
- 50+

Country
- CNMI
- FSM
- Guam
- Palau
- RMI
- Other

Employment
- Heritage
- Tourism
- Parks / Wildlife
- Other Govt
- Student
- Other

Generally, which age group do you consider fits the profile of ecotourists?
- 18-25
- 26-35
- 36-50
- 50+

Which (annual) income bracket do you believe most ecotourists belong to (US$)?
- below 15,000
- 15,000 to 25,000
- 25,000 to 35,000
- 35,000 to 50,000
- more than 50,000

PLEASE READ THE FOLLOWING STATEMENTS. DO YOU AGREE THE OPINION OR NOT:

I do understand the concept of ecotourism
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree

‘Eco-tourism’ is not a bona fide industry in its own right, but merely a small part of the overall tourism industry
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree

We can ‘pull back’ from eco-tourism development if environmental problems occur. Nature will heal itself.
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree

Ecotourism is a short-lived phenomenon
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree

‘Eco-tourism’ is just a fashionable term for general tourism which capitalises on the natural and cultural heritage
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree

‘Eco-tourism’ will pose fewer negative impacts on my country/state than mainstream tourism
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree

‘Large-scale’ nature-based resort developments violate the concept of eco-tourism
- Strongly Agree
- Agree
- Somewhat Agree
- Don’t Know
- Somewhat disagree
- Disagree
- Strongly Disagree
It is better to have more tourists in a less fragile area than fewer tourists in a fragile area

Strongly Agree  Agree  Somewhat Agree  Don’t Know  Somewhat disagree  Disagree  Strongly Disagree

All damage done by tourists to cultural heritage places can be repaired without detriment to our heritage

Strongly Agree  Agree  Somewhat Agree  Don’t Know  Somewhat disagree  Disagree  Strongly Disagree

Eco-tourism will not have a social impact on our communities

Strongly Agree  Agree  Somewhat Agree  Don’t Know  Somewhat disagree  Disagree  Strongly Disagree

There is much potential to increase the number of visitors to my country without increasing the problems they pose

Strongly Agree  Agree  Somewhat Agree  Don’t Know  Somewhat disagree  Disagree  Strongly Disagree

Outer island communities will be receptive to the development of cultural or nature-based tourism

Strongly Agree  Agree  Somewhat Agree  Don’t Know  Somewhat disagree  Disagree  Strongly Disagree

Ecotourism can focus on several natural and cultural heritage aspects. Please rank their importance by placing a ‘1’ in the box next to the aspect you see most important and then number through with ‘10’ awarded to the aspect least important.

Archaeological sites (pre-Contact)  
Japanese Heritage Places (not WWII !)  
Local bird life and its role in traditional society  
Local plants and their uses  
Natural landscapes  
Shipwrecks and diving opportunities  
Spanish and German Colonial Heritage Places  
Traditional Fishing Practices  
Traditional skills (weaving, building, sailing, food preparation)  
World War II sites  

Please rank the importance of the following aspects of tourism and ecotourism. Place a ‘1’ in the box next to the aspect you deem most important and then number through with ‘10’ awarded to the aspect least important.

Ability to showcase my own culture and environment  
Economic benefits to the State / Country  
Education through Interpretation  
Environmentally aware tourism  
Large visitor numbers  
Preservation of cultural heritage sites  
Preservation of local plants and animals  
Providing an alternative income source to the Local Community  
Socially and culturally sensitive visitors  
Sustainable development  

THANK YOU FOR PARTICIPATING!
APPENDIX 3. SYMPOSIUM PROGRAMME
HERITAGE ECO-TOURISM CONFERENCE

"THE BEST OF BOTH WORLDS"

Heritage Eco-Tourism Symposium: the Best of Both Worlds
28 February-3 March 2000
Rota, Commonwealth of the Northern Mariana Islands

Program

Too often cultural and recreation resources are thought of as separate from natural resources and vice versa. A fragmented approach results in competing interest without overall coordination and cooperation. An integrated approach to heritage and ecology tourism provides the best experience for the visitors, both residents and tourists, while educating the public and protecting the environment.

This symposium is sponsored in part by American Express Company.

Monday, February 28th — The Big Picture

8:00-9:00 AM  Registration and Coffee
9:00-9:05 AM  Orientation to Facilities: David Look, Chair
9:05-9:45 AM  Welcomes:
   Honorable Benjamin T. Manglona, Mayor of Rota
   Honorable Jesus R. Sablan, Lt. Governor, CNMI
   Joseph P. DeLeon Guerrero, Historic Preservation Officer, CNMI
   Perry Tenorio, Executive Director, Marianas Visitors Authority (MVA)
   James Shevock, Assoc. Reg. Director for Resources, Stewardship, and Partnerships, NPS
   Karen Gustin, Superintendent, War in the Pacific NHP and American Memorial Park

9:45-10:15 AM  Introduction and Overview: David Look, Chair
10:15-10:30 AM  Break
10:30-Noon  Tourism in Micronesia: Perry Tenorio
   (Micronesia visitor profile; current tourism offerings/resources overview, potential benefits/challenge, carrying capacity issues, etc.)

Noon -1:30 PM  Lunch
1:30-2:45 PM  Ecotourism: Mit Parsons
   Definition, Benefits, Challenges, and Principles

2:45-3:00 PM  Break
Perceptions of Heritage Eco-tourism by Micronesian Decision Makers

3:00-4:00 PM   Heritage Tourism: Amy Webb
Definition, Benefits, Challenges, and Principles

4:00-5:00 PM   Heritage Eco-Tourism (panel presentations, emphasize overlap between historic, cultural and natural, questions from audience): Mit Parsons, Amy Webb, Dirk Spennemann, and John Heather

6:00-8:00 PM   Reception

Tuesday, February 29th

8:00-8:30 AM   MRS Video Truk Lagoon: Underwater Museum (optional)

8:30-9:00 AM   Preserving Heritage Resources: Why and How: Mark Rudo

9:00-10:00 AM  Heritage Ecotourism: Identifying and Assessing Cultural and Natural Resources for Heritage Ecotourism Opportunities: Dirk Spennemann

10:00-10:15 AM Break

10:15-10:45 AM Visitors and their Impact: Protecting Heritage Ecotourism Locations from their Clientele: Dirk Spennemann

10:45-11:15 AM Case Study: Preservation/Conservation Issues in Micronesia The Shipwrecks of Chuuk: A Fragile Future and discussion

11:15-11:45 AM Humanities Role in Education and Interpretation: William Barrineau

11:45-Noon   Logistics and instructions for the afternoon field exercises: Mit Parsons

Noon-1:30 PM   Lunch

1:30-5:00 PM   SWOT Assessment and Recommendations Team Exercises (Strengths, Weaknesses, Opportunities, & Threats)

(1) As Nieves Taga Stone Quarry
(2) Mochong Latte Village
(3) Chiugai Pictograph Cave and nature trail

Wednesday, March 1st

8:30-9:00 AM   Teams reporting on their assessments and discussion: Mit Parsons, Moderator

9:00-9:30 AM   Make Sites Come Alive: Creative Strategies in Interpretation: Amy Webb
9:30 -10:15 AM Case Studies: Interpretative Planning at American Memorial Park: Karen Gustin

10:15-10:30 AM Break

10:30-11:00 AM Finding the Fit Between the Community and Tourism: Amy Webb

11:00-11:45 AM Case Studies: Balancing the Needs of Residents and Visitors: Measurement and Assessment of Visitor Impact at Lake Mungo National Park (Willandra Lakes World Heritage Area): Dirk Spennemann

11:45-Noon Logistics and instructions for the afternoon field exercises: Mit Parsons

Noon-1:30 PM Lunch

1:30-2:15PM RARE Educational Campaign: Ann Hudgins and Bill Hocog

2:15-5:00 PM SWOT Analysis and Interpretive Analysis Team Exercises

(1) Interpretive issue: how to improve the visitor experience at Puntan Saguahga Bird Sanctuary

(1) Carrying capacity issue: managing visitors at Puntan Saguahga Bird Sanctuary and Ginalangan Japanese World War II Defensive Complex

(2) Preservation/conservation issue: protecting and preserving resources at Ginalangan Japanese World War II Defensive Complex

Thursday, March 2nd

8:30-9:00 AM Teams reporting on their assessments and discussion: Mit Parsons, Moderator

10:00-10:30 AM Visitor Services and Hospitality Training: What do Visitors Need? Amy Webb

10:30-10:45 AM Break

10:45-11:45 AM Developing Successful Heritage Eco-Tourism Partnerships: Amy Webb (Presentation and facilitated discussion)

11:45-Noon Logistics and instructions for the afternoon field exercises: Mit Parsons

Noon-1:30 PM Lunch

1:30-5:00 PM SWOT Analysis, Interpretive Analysis, and “Rota Heritage Eco-Traveler” Profiling Team Exercises

(1) Rota Cave Museum
(2) Agroforestry farm/fruit tasting
(3) Rota Zoo
(4) Taisacan’s Eco Nature Trail
6:00-8:00 PM  Banquet

Friday, March 3rd

8:30-9:00 AM  Teams reporting on their assessments and discussion: Mit Parsons and Amy Webb

9:00-10:00 AM  Rota Heritage Eco-Tourism Presentation to Mayor and Community Leaders: Comments from experts (all speakers): John Heather, Moderator

10:00-10:15 AM  Break

10:15-11 AM  Tourism Marketing Strategies for Rota: Comments from experts (all speakers): John Heather, Moderator

11:00-11:45 AM  Next Steps for Heritage Eco-Tourism in Micronesia: John Heather, Moderator
               (*Facilitated discussion*)

11:45-Noon  Wrap up and Evaluation: John Heather