Consequences of Tourism: Retrospect and Prospect

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Introduction

The purpose of this contribution is to discuss the consequences of tourism for the people and places which are visited. Of course, there are other consequences in addition to those which occur in destination areas. For example, tourism has implications for the tourists themselves, for the organizations such as travel agencies and tour operators which cater to their needs and wants, for investors who may live a long way from the locations in which tourism takes place, and for governments at all levels which may attempt to gain revenues through direct and indirect taxes on tourism. Also, the journeys between home and destinations may be of concern, particularly among those interested in global climate change. Thus, this is a partial discussion of the consequences of tourism.

The discussion is placed in the context of evolving global-local relationships. With about 900 million international travelers recorded annually and many more domestic tourists, tourism is clearly a force which is of global significance and it can be viewed as being an important instigator of global change. At the same time, tourism is very unevenly distributed and many, perhaps most, of the consequences of tourism are concentrated in destinations areas. Furthermore, although a global phenomenon, tourism is not homogeneous in its forms and the areas on which it impinges may respond in different ways to the threats and opportunities which accompany it. Thus, the local consequences of tourism may vary from place to place.

When viewed from the perspectives of the tourists, destination areas are commonly places in which pleasure is sought. But the motivations of tourists are diverse and their expectations of and commitment to the places which are visited are likely to differ from those of permanent residents. While for some purposes it may be appropriate to count business travelers as tourists, most tourists are likely to be seeking leisure experiences while temporarily away from home. In contrast, for residents of destination areas, the communities which are visited are places of home, work and retirement. Thus, tourists and residents bring different expectations to their involvement with the destination community and use it in different ways.

It may be useful to view tourism as involving the interaction of three types of cultures: the destination culture, the cultures of the visitors' origins and a tourist culture reflecting the fact that tourists of diverse backgrounds often use common facilities, visit similar sites and exhibit many common

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behaviours even though their cultural origins may differ. None of the three types of cultural expression is homogeneous and, furthermore, they interact in a diversity of ways.

As suggested above, hosts and guests bring different expectations to the interactions which occur between them. In fact, Smith's (1977) catchy "hosts and guests" terminology hides the fact that not all residents of destination areas are true hosts and, for some, tourists may be unwelcome intruders rather than invited guests. Residents and visitors are less emotive terms and concepts such as entrepreneurs and customers or, more generally, producers and consumers, may reveal more about the economic or instrumental relationships which are often involved.

Interactions between residents and visitors are concentrated spatially in the so-called front regions and occur in specific settings such as transportation termini, hotel lobbies and places of amusement. In contrast, few tourists penetrate the back regions of the community where life goes on largely in the absence of the presence of tourists (McCannell, 1976). For tourists who may have saved up for much of the year, the experience of being a tourist is a special one and they are likely to behave differently than when at home, often getting up and going to bed later, eating more and drinking more, dressing differently, and possibly feeling more sexually liberated. In contrast, for many residents, interactions with tourists may be routine and often occur in what is a work setting for them. Interactions may be fleeting, lack spontaneity and may be carefully managed. The resident may be employed in servicing the needs of the tourists who may be operating in an unaccustomed environment. Thus, the interactions which do occur may be unequal and unbalanced, embedded in complex power relationships. They also may be mediated by cultural brokers such as tour books or tour guides. Such relationships have implications for the consequences of tourism.

Consequences, impacts, opportunities and change

The title of this contribution has been purposely called consequences rather than impacts. There are a number of reasons for this. First, although it is possible to contemplate both positive and negative impacts, the word "impacts" often has a negative connotation. However, change is desired by almost all stakeholders involved in tourism - whether it be a break from routine on the part of tourists, enhanced life opportunities through jobs and incomes on the part of residents, larger tax receipts by governments, and greater resources for preservation by heritage advocates – although there may be considerable disagreement as to actually what is desirable. Thus, balance, compromise and trade-offs between competing perspectives will need to be sought.

Wood (1980) suggested that much tourism research on impacts has adopted an inappropriate paradigm which he called the billiard ball assumption. Under this perspective, tourism is viewed as an external force which impinges upon a static community. The latter is then transformed into a new state, much like the balls on a table put in motion initially by the strike of a cue. Eventually, a new equilibrium is reached when the balls have stopped rolling. All of the above assumptions can be questioned when applied to tourism. Tourism is nor simply an external force for tourists and investors in tourism are actively sought. Furthermore, communities are not static but are in a continuous state of flux. Many of the forces of globalisation appear to have similar repercussions to tourism so that it is extremely difficult to determine what changes are attributable to tourism and what should be ascribed to other phenomena. Since these forces are acting at the same time in the same places, it is actually artificial to try to separate them and Lanfant (1995) has argued that tourism is now so pervasive in some communities that it should be considered as an inextricable part of them rather than something apart.

A further criticism of the billiard ball assumption is that residents are not passive in the face of tourism but respond in a wide variety of ways which influence the specific outcomes of tourism development. Dogan, for example, (1989) identified five possible responses: resistance (associated with enmity and aggression against tourists), retreatism (avoidance of contact with outsiders, revival of traditions, and increasing cultural and ethnic consciousness as opposed to active resistance), boundary maintenance (the establishment of a well-defined boundary between external and local cultures and presenting the local traditions to foreigners in a contrived context so that the effects of outsiders on the local culture are minimized), revitalization (traditions, customs and institutions formerly disappearing are revived and accorded new meaning when they have become tourist attractions) and adoption (new cultural expressions introduced through tourism are accepted and adopted by local people).

Some early discussions of the impacts of tourism, such as that of Doxey (1976), attempted to categorize communities' attitudes towards tourism. Thus, Doxey, on the basis of work conducted in Canada and the West Indies, suggested that communities go through a predictable series of stages as the volume of tourism increases. These stages are euphoria, apathy, irritation, antagonism and a final level when the community is undermined and its formerly attractive features destroyed. While simple and plausible as a possibile, even common, circumstance, such ideas have received increasing criticism for two main reasons. First, the inevitability of the sequence of attitudes moving from positive to negative has been questioned, the opposite also being a possibility. Secondly, it may be misleading to view communities as having attitudes, even dominant attitudes, for most communities are comprised of people with varying views and these views may change over time. Bjorkland and Philbrick (1972, in Mathieson and Wall, 1982:139) suggested a useful four-fold classification of individuals who may be positively or negatively disposed to tourism, and who may be active or passive in the promotion of their views. Thus, four positions are acknowledged: actively for, passively for, actively against and passively against. Individuals may change categories over time as issues and circumstances change. This appears to provide a fruitful and dynamic way of moving from the simplistic classification of communities to incorporate the differences which exist within communities. However, although the framework has been available and cited in the tourism literature for many years, few researchers appear to have actually employed it in empirical studies. There is a good opportunity here for a researcher to test the utility of this framework in field situations.

As implied in the preceding discussion, even if changes associated with tourism could be identified with certainty, they will not necessarily be regarded in a similar manner by different people with different values and different types of involvement in tourism. Thus, large numbers of visitors may be welcomed by the business community but resented by individuals who are searching for peace and quiet. Similar impacts may be ascribed different meanings or degrees of importance (salience) by different individuals in the community or even by local people and researchers from elsewhere. For example, there is a tendency for some academics to bemoan changes occurring in the lifestyles in traditional communities while their residents may be seeking an enhanced quality of life and the trappings of modernity. Thus, there may be insider (emic) and outsider (etic) perspectives on impacts and these may be different. It may be useful for researchers to share their findings with their subjects, not merely because they deserve to be able to benefit from the research, but also because their interpretations of significance and cause and effect relationships may sometimes differ from those of the researcher.

Somewhat similarly, many surveys show that a majority of residents of destination areas recognize that increased tourism will likely result in more litter. Fewer respondents will likely spontaneously mention

changes in land values and, even if they do, it may not be clear whether land values will rise, perhaps because of increased business opportunities, or decline because of congestion or declining environmental quality. Furthermore, it may be wrong to suggest that litter is a more important problem than changing land values merely because more people acknowledge it in a survey. Litter is certainly an easier problem to deal with than land values from planning and management perspectives.

A brief example of a change which has taken place in Bali, Indonesia, will provide an example of the difficulties in understanding the importance of specific changes. Balinese families make offerings to the Gods three times per day. This is a task which is undertaken by women. The offerings ideally should consist of six flowers of different colours plus a small amount of rice and perhaps meat. The flowers would probably be picked from plants growing in the family compound and the offering is contained in a small tray made from parts of a banana leaf. It is placed on the family temple or on the ground in front of the family compound or business, or even on the dashboard of a car. The offering is usually made by a woman. Many people now purchase their offerings rather than making them themselves. This trend appears to have occurred since the rapid growth of tourism in Bali. However, it is not clear that it is a consequence of tourism. Perhaps it is a reflection of a rising standard of living so that money is now available to purchase offerings whereas it was not previously. The availability of offerings for sale has saved time for some women who would otherwise have had to prepare the offering. The change has created jobs for other women who make offerings on a commercial basis. Is the offering less valuable and the individual less religious because they have purchased the offering? If offerings are purchased routinely, then it is less necessary to grow a variety of plants in the family compound. Does the purchase of offerings have implications for ecological diversity?

Many young Balinese now wear jeans rather than sarongs, although they still may wear a sarong for ceremonial purposes. Also, some people are unable to escape the fixed hours of tourism employment, so that they may be unable to attend village (*banjar*) meetings. They may choose to send money instead, thus acknowledging their obligation and maintaining ties. It is not clear, even after discussions with Balinese friends and colleagues, which of these changes is most significant from a Balinese perspective. It is certainly vital to maintain one's links with the home community for cremations are organized through the *banjar* and, if one is not cremated properly, the prospects for future lives are not very good!

Where change is occurring but the complex cause and effect relationships are incompletely understood and the significance of the changes are unclear, then the management of impacts and the provision of mitigation strategies and remedial measures are far from straightforward. It is suggested that there is a substantial difference between a fairly narrow focus upon mitigating impacts (although there is not a large literature on this topic in the context of tourism and few have returned later to assess whether or not mitigative strategies have been successful) versus the more complex, iterative process of monitoring and managing change.

Types of impacts

It has become conventional to divide impacts into three major categories: economic, environmental and socio-cultural (Mathieson and Wall, 1982). Some may argue that this three-fold division is inadequate for there are other consequences of tourism, such as political and institutional, which do not fit snugly into one of these three categories. Furthermore, the categories are not distinct for it is possible to spend money to protect the environment, and employment opportunities and working hours, perhaps providing remunerated work opportunities for women outside of the home, may have social implications. In fact,

there may be differential involvement of women and men in tourism, with new employment opportunities introducing new roles with implications for changing gender relationships (Kinnaird and Hall, 1994; Norris and Wall, 1994; Sinclair, 1997).

The division is therefore artificial but convenient for it is impossible for the human mind to embrace all dimensions at the same time.

Impacts are both direct and indirect. This is most clearly articulated in economics where visitor spending, perhaps in a hotel, is viewed as direct; the expenditures of the hotel on supplies to meet tourist demands is termed indirect; and changes in purchasing patterns of hotel employees resulting from the direct and indirect expenditures are called induced. Total impacts in this scheme are the sum of direct, indirect and induced impacts.

Similar phenomena occur in the environmental and social domains as initial impacts ripple through the respective systems and give rise to additional associated consequences.

Interest in sustainable development has drawn attention to economic and environmental impacts and to the frequent situation that economic gains often accrue at the expense of environmental costs. Proponents of sustainable development have often drawn attention to the need to consider both economic and environmental dimensions of impacts but the significance of socio-cultural consequences have often been overlooked in discussions of sustainable development. If tourism, or any other phenomenon, is to contribute to sustainable development, it is necessary that initiatives be economically viable, environmentally sensitive, and socially and culturally acceptable.

The state of knowledge

Although there is a large number of academic studies of the impacts of tourism, the body of knowledge is less insightful and useful than might be hoped. First, there is often a lack of multi-disciplinary perspectives. Not only are most investigations concentrated on one of economic, environmental or socio-cultural impacts, they are often highly focused within these broad domains. The result is that the work is fragmented with only few attempts to paint a complete, or even a broad, picture: many pieces of the puzzle exist but they do not fit together well, there is no apparent strategy for putting the pieces together and, in consequence, a limited vision of the overall scene to which they might contribute.

Secondly, there is often an inadequate specification of the types of tourism which are involved and the characteristics of the community in which impacts occur. If one researcher is discussing tourism on a beach, another is examining downhill skiing and a third is investigating visits to historic sites, it is no wonder that the results are different. It is an over-generalization to extend the findings to tourism as a whole. Failure to specify details of the precise nature of the tourists - their numbers, distributions, activities and other characteristics, as well as of the settings in which tourism takes place, results in communication failures within and between researchers and policy-makers.

Thirdly, most studies of the impacts of tourism are backward looking: they examine the consequences of tourism after they have occurred. If measures of human dimensions are available, such as the numbers of tourists, their spatial and temporal distributions and their activities, such investigations can provide useful information on the relationships between levels of use and magnitudes of change. Unfortunately, many studies only measure the impact and not the phenomena which have caused the changes, reducing their managerial utility. Furthermore, such studies look at changes which have already occurred whereas the managers and policy-makers are more likely to be interested in predictions of possible impacts so that undesirable consequences can be avoided or mitigation strategies put in place. The backward-looking perspective of academic researchers often gives rise to lack of

practical relevance from the perspectives of the policy-makers or practitioners.

As suggested above, where mitigation strategies have been adopted, there have rarely been efforts made to measure their effectiveness. In fact, surprisingly few efforts have been made to evaluate the effectiveness of tourism plans and other tourism initiatives of any kind, perhaps because public agencies often work to a political agenda and their masters may not wish to risk the embarrassment of learning that their policies and programmes have, with the benefit of hindsight, proven to be less than satisfactory.

The results of the above emphases have considerable implications for the understanding of tourism impacts. Numerous studies are case studies which are not well embedded in a broader context so that knowledge is less cumulative than it might otherwise have been. Also, there may be a tendency to over-generalize from specific cases to tourism as a whole with misleading consequences. For example, work in wilderness situations is often based on the assumption that the quality of visitor experiences will decline with increasing numbers of visitors. However, in urban situations, or in the case of special events such as festivals and sports extravaganzas, there may be considerable tolerance for high densities of use and large numbers of other participants may contribute to enhanced experiences, crowding and deteriorated experiences only occurring at extremely high levels of use.

One topic which has received surprisingly limited attention among tourism researchers is the role of culture brokers in influencing the behaviours of tourists and, consequently, their impacts. Travel agents, guide books and tour guides for example have substantial influences on where people go and what they do, particularly for package tourists, both at the macro-level of the entire trip and at the micro-level of specific sites. As such, they play a major role in determining the sizes and locations of expenditures i.e. economic impacts, including leakage and commissions. Similarly, they influence the places which people visit, the environments in which they spend time and their activities in them i.e. environmental impacts. They also mediate between visitors and visited, with social and cultural consequences. Given the potentially far-reaching implications of culture brokers in tourism, it is surprising that their roles have not received more attention from researchers attempting to explain current impacts and from policy-makers wishing to ameliorate future negative impacts or enhance positive ones.

A final deficiency of impact research which will be reiterated is the lack of attention to saliency, or the importance to be accorded to specific changes that are identified. For example, researchers of cultural change may comment negatively on particular changes which may be acceptable to those undergoing them and vice versa. As pointed out in the Bali case above, the meanings of changes may in fact be obscure and difficult to determine, even for those experiencing them.

The above discussion suggests that there is much yet to be done if researchers' knowledge of the impacts of tourism is to be enhanced substantively and its utility to decision makers expanded. Yet in spite of this situation, the knowledge of "experts" is used in various processes (such as Benefit-Cost Analysis and Environmental Impact Assessment) in an attempt to improve decision making and, ultimately, the quality of development. There is a gap between the level of knowledge and the requirements of the applications for which that knowledge is required. This will be discussed in more detail below.

Factors contributing to and mediating impacts

Although I have been critical of the state of impact research, it is not difficult to identify in very general terms, some of the factors of relevance to the consequences of tourism. At the broadest level one

can suggest three groups of factors which are likely to be associated with consequences of different magnitudes and types but which are relevant across economic, environmental and social domains:

1. types of tourism. It is evident that the number of tourists, their personal characteristics, their lengths of stay and the activities which they engage in have implications for destination areas. However, accommodation amounts and types can also be used as a proxy and a control mechanism for different types of tourism.
2. community characteristics. The characteristics of the destination area are likely to modify impacts, as well as the acceptability of similar impacts, because of such factors as resource base, level of development, availability of alternative economic opportunities and extent of local control, both actual and perceived. As an example, a relatively large number of visitors can blend into a large, cosmopolitan, urban area as compared with a similar number in an isolated village.
3. nature of host-guest interactions. The frequency, locations, seasonality and spontaneity (or lack thereof) of interactions between residents and visitors are also relevant, as are the roles of culture brokers.

Even in seemingly similar situations as identified by the three groups of variable just discussed, impacts may be modified by a variety of temporal factors. For example, places at different stages of development, whether identified by general measures of development or those related specifically to tourism, such as those associated with Butler's (1982) tourism cycle of evolution, are likely to have differing abilities to accommodate and tolerate tourists. In many tourism locations it is the cumulative effects of many small developments and decisions which build upon each other and gradually change the characteristics of places and the lives of their residents that may be of more concern than the attributes of any specific initiative. Also, a rapid pace of change may be as significant as the specific changes themselves for speed results in greatly constrained opportunities for residents and planners to prepare themselves and their communities.

Of course, tourism seldom takes place in a planning or policy vacuum and, it must be assumed that these have implications for the manifestations of tourism although, as indicated above, there have been surprisingly few evaluations of the effectiveness of tourism policies and plans.

If it is conceded that all of the above factors are relevant to and modify the consequences of tourism, then one might expect that students of the impacts of tourism would document them as part of their studies. While much literature exists, few authors adequately document the above factors and, therefore, fail to specify the context in which specific impacts occur.

Brief economic comments

This is not the place to review the extensive literature which is concerned with the both the substance of the economic impacts of tourism and the means employed to estimate them. Certainly much more is at stake than jobs and incomes, including taxes, inflation, investment incentives, and the balance of payments to name a few additional economic variables. At this juncture, a series of points will be made of a somewhat polemical nature to draw attention to issues which this observer believes deserve more discussion than is possible here.

How much is spent and how much remains? This involves an examination of the direct, indirect and induced consequences of tourism, often through the assessment of multipliers and leakage. It is important to consider both the amount of visitor expenditures and the magnitude of multipliers for it is the interaction of both which determine the size of economic impacts. It is conceivable that reduced numbers of visitors and smaller associated

expenditures may generate larger net benefits if leakages can be curtailed and multipliers increased.

The distribution of impacts may be as important as their magnitude: who gains and who loses? This may reflect underlying power relationships. Similarly the quality of employment may be as important as the quantity, as well as whether the jobs that are created go to local people or outsiders. There may be different perspectives in areas of high unemployment, where jobs of almost any king may be welcome, as compared with situations of labour shortage. Perspectives may differ between so-called developed and developing countries, the informal sector being of greater significance in the case of the latter although this is all to rarely considered in the formulation of plans (Wall, 1996a).

Benefit - cost analysis

Benefit - cost analysis (also called cost-benefit analysis) is a procedure which is often employed in the economic evaluation of proposed projects. It is essentially an accounting procedure in which the positive aspects of a project are compared with the negative aspects on the assumption that, if the former exceed the latter, then the project *may* be worth undertaking (The word "may" is emphasized because, for example, of the distributional affects which have just been mentioned). This seemingly simple task is in fact complex and such assessments involve numerous challenges. First of all, ideally all aspects and implications of the project need to be measured in similar terms so that they can be summed and compared. Usually, the metric which is used is monetary - dollars and cents. Unfortunately, not all manifestations of a project, particularly, the so-called intangibles and incommensurables, can be easily ascribed a dollar value (For example how much is a life worth?). If this is the case, then quantitative comparisons are frustrated. Furthermore, even should such measures be obtainable, the estimation of the life of the project and the interest rates which are ascribed to costs and benefits occurring at different times will have considerable implications for the calculations and the resulting overall assessment.

Types of impacts of tourism are usually measured in different ways. For example, economic impacts may be measured in dollars and cents or the number of jobs (often in person-years to reflect seasonal and part-time employment) that are created;environmental impacts through coliform counts or changes in biochemical oxygen demand or measures of species diversity; whereas social concerns may be indicated by the proportion of respondents answering in a particular way to a questionnaire. Clearly it is almost impossible to combine such contrasting impact measures to synthesize results into one figure and hence to determine if benefits exceed costs and by how much. Such measurement problems are likely to be of greatest importance where the differences between benefits and costs appear to be small. Thus, in one sense, the technique tends to let one down at the very time one needs it most! On the other hand, it does encourage the systematic documentation and comparison of all benefits and costs and thus enables interested or concerned individuals to see that all foreseeable consequences are incorporated in the analyses and to question the bases on which decisions are made.

The above discussion concentrates upon technical issues of evaluation involved in the determination of whether the benefits of a project exceed the costs and, thus, whether or not a project should be implemented. However, this is often a moot question. The decision on whether or not to proceed may have been made by another, perhaps political, process and if the decision is positive, then the question becomes not whether but how to proceed. The data collected in a benefit - cost analysis may be very useful input into such decisions. However, at this point disaggregated information may be required for planning and management purposes, for the introduction of mitigation measures and to deal with trade-offs and compromises. Ones needs

to know the dollars and cents if one is interested in the economic dimension of development, the coliform count if one is interested in water quality, and the responses to surveys if one is concerned with social issues. Thus the extent to which benefit - cost analysis can replace the need for value judgments can be debated.

Environmental impact assessment (EIA)

EIA is another procedure which is used to assess the likely consequences of tourism. EIA has been defined by the Canadian Environmental Assessment Research Council (1988, quoted in Doberstein, 1992: 12) as:

> A process which attempts to identify and predict impacts of legislative proposals, policies, programs, projects and operational procedures on the biogeophysical environment and on human health and well-being. It also interprets and communicates information about those impacts and investigates and proposes means for their management.

In other words, EIAs are undertaken to assess the likely consequences of initiatives so that decisions can be made concerning whether and in what form the initiative should proceed. EIA is future-oriented and the conduct of an EIA requires an ability to predict the impacts of tourism. EIAs are often legally required by governments as a step in the approval process for new initiatives and, as such, they are undertaken to improve the quality of development and to protect the public interests. The product of an EIA process is a document. Such documents should, ideally, include information on likely consequences of development, development alternatives and mitigation strategies. The content of EIAs is usually broader than environment alone.

The inclusion of impacts on human well-being in the above quotation suggests that social impact assessment is a fundamental part of the EIA process. The definition also indicates that EIA can be useful both in analyzing specific projects and as a tool at the planning and policy levels of development, and that it may provide a framework for management of impacts. At the project level, Werner (1992) suggests that EIA can be used as a decision-making tool in determining the acceptability of a project, or as a planning tool to minimize negative impacts of an already-accepted project. Tourism initiatives, as a form of development, are often subject to EIA.

This is not the place to discuss in detail the difficulties of preparing useful EIAs and complying with legal requirements that EIAs be undertaken which, in any case, vary with jurisdiction (see for example, Doberstein, 1992, and Simpson and Wall, 1999). Although many countries have sophisticated legislation and regulations concerning the application of EIA, implementation and enforcement of EIA procedures is variable. It is influenced by such factors as political will, availability of resources (including the availability of expertise) and knowledge of impacts of tourism. Thus, it is one thing to have policies in place and quite another to implement them.

Biswas and Agarwal (1992) and Hunter (1995) discussed many of the problems with formal EIA procedures and concluded that there is a tendency for EIAs to focus on physical impacts and neglect social and cultural ones, often resulting in the production of overly-mechanistic reports that deal almost exclusively with the presentation of data, rather than its analysis. For example, waste or emission concentration levels may be provided with an emphasis on whether acceptable limits will be exceeded, rather than an evaluation of their likely consequences for human or ecosystem health. EIA often focuses upon mitigating negative impacts, rather than attempting to increase beneficial impacts, and compliance monitoring is seldom performed. Assessments often delay developments and cost more than expected, sometimes because they are not undertaken in a timely manner and are not well-integrated into the project cycle.

And, because it is often narrowly focused, EIA often looks only at the direct impacts of a new development, and not its addition to the cumulative impacts of development in the area.

In addition to the above problems, the characteristics of tourism result in particular challenges for those undertaking EIAs. The physical changes to areas will affect the way of life of local populations, while interaction with tourists may have an enormous influence on the entire society. No other kind of development includes the anticipation of a continued influx of outsiders, who are not expected to try to integrate with the local community, and who will interact with them in such a wide variety of situations. As well, the resources devoted to tourism developments are often no longer available for the traditional users, which may cause inconvenience or even hardship.

As is the case with other economic sectors, tourism competes for scarce resources of land, water, energy and waste assimilative capacity. However, tourists tend to have extremely high demands, using more energy and water and generating more waste than the average resident. In many developing countries, labour is not in short supply although labour with the appropriate skills is often not available. If such attributes are not fully appreciated, it is easy to underestimate the environmental and other consequences of tourism. Given the above discussion, an argument can be made that in many jurisdictions, legislation and regulations are ahead of the ability to implement them.

To be effective, EIA should be based upon a thorough understanding of the nature of the agent of change if the full implications are to be foreseen. Unfortunately, tourism has a number of characteristics which make it particularly challenging for the conduct of EIAs. Some of these characteristics will now be examined briefly.

Tourism is an extremely complex phenomenon. For example, the tourism industry is fragmented, involving both multi-national corporations and a multiplicity of small and intermediate-sized operations interacting in a web of institutional interrelationships: it is an example, *par excellence*, of the intricate links between interacting phenomena operating simultaneously at both global and local scales. These linkages involve operators in both the private and public sectors, and span a diversity of economic phenomena, such as transportation, hotels and restaurants, attractions and shopping purchases, which are not always considered as being part of the same economic sector and whose roles in tourism may be difficult to separate from their other functions (Smith, 1988).

With reference to tourism, EIAs are usually conducted for specific developments such as new resorts. As such, the focus of the EIA may be restricted to the confines of that resort development. However, most tourists do not remain within the resort. They arrive by air or another form of transportation and must be transported to the resort. Thus, the new resort has implications for the number of jets arriving at the airport and the number of taxis and buses on the road. They also travel to see the sights in the vicinity and thus penetrate other parts of the destination region. Such situations are both difficult to document and result in challenges in drawing up the terms of reference for the conduct of a tourism EIA to ensure that it will encompass both on-site and regional impacts.

While large developments are natural candidates for EIAs, the cumulative impacts of many small developments may be just as troublesome but much more difficult to encompass within traditional EIA processes. Also, tourism exhibits many of the characteristics of common property resources, where there may be an incentive for individual entrepreneurs to expand their operations to the detriment of others, resulting in the degradation of the resources on which they all ultimately depend (Hardin, 1968). The gradual, insidious, development of a multitude of small accommodation units, restaurants and souvenir outlets can rapidly change the character of a place but it is time-consuming and expensive to conduct assessments of every minor initiative.

It is easy to write of tourism as if it were an undifferentiated phenomenon. However, there are many manifestations of tourism which vary in scale, environmental setting and activities undertaken. The consequences of tourism will also be modified by the policy context and the roles which intermediaries, such as tour guides, play in influencing interactions between visitors and local people. This makes it difficult to adopt class assessments as is sometimes done for some sectors and activities, such as forestry or road construction where the lessons learned from one development may be more readily applied to another.

It is desirable that both the negative and positive consequences of tourism be assessed prior to development in order that undesirable effects can be avoided or mitigated, and the desirable effects enhanced. Unfortunately, the literature on impact mitigation as it might be applied to tourism is not large (although see Long, 1992). To complicate matters further, tourism is often directed at special environments where the mitigation of adverse environmental changes may be particularly difficult to address. High energy environments, such as coasts and mountains, are often sought by tourists. Also, tourists are often not satisfied with experiencing usual situations but wish to see noteworthy buildings, special cultural festivals or endangered species, making their potential for disruption particularly marked. Yet in many places tourism has been allowed to develop without being previously evaluated by EIA processes. Furthermore, while social impact assessment (SIA) is incorporated into most current EIA processes, it is traditionally an area of weakness (Hunter, 1995). Although current tourism literature supports the use of EIA in evaluating tourism developments (Ceballos-Lascurain, 1996), EIA literature does not make much mention of tourism, nor does it address the unique nature of its impacts.

Summary

It has been suggested that the impacts of tourism may be large, diverse, growing, vary by gender, difficult to assess and challenging to manage. But, at the same time, tourism is ultimately dependent on accessibility to and, in the long term, maintenance of high quality environments, especially in a competitive global marketplace. As tourism is one of the most rapidly growing industries in the world, it is vital that its impacts are foreseen and understood, so that they can be accurately incorporated into environmental planning and management.

To be effective for tourism developments, the EIA process must be based on a good understanding of tourist behaviour, and geared to encompass its wide-ranging and cumulative impacts. Some of the challenges in undertaking EIAs for tourism are listed in Table 1. In 1982, Mathieson and Wall

Table 1 | Eight Challenges in Undertaking EIAs for Tourism

1. There are many types of tourism with different impacts so experiences gained with one type of tourism might not be readily applicable to another;
2. Tourism experiences consist of many components (attractions, accommodations, food and beverage outlets, transportation etc.) each of which may require separate evaluation;
3. Tourism is inherently intersectoral and data availability as well as authority and responsibilities may be dispersed;
4. EIAs are often conducted for specific developments and may be confined to specific sites but tourists are mobile and impacts may occur elsewhere off-site;
5. Cumulative impacts and rate of change may be critical issues. Numerous small changes, when taken together (such as the proliferation of buildings along a formerly pristine coastline) may be just as significant as one major development. On the other hand, rapid change may be much more difficult to adjust to than gradual change;
6. Impacts vary with stage of development, the same project having different implications in a remote location with little experience with tourism when compared with one with a long history of tourism development;
7. Extending the previous point, the impacts of similar developments will be different in different settings;
8. It may be difficult to separate changes due to tourism from those attributable to other agents of change.

Source: Wall, 1996b.

wrote that, due to the newness of EIA, there was a paucity of methodological guidelines for undertaking investigations of the impacts of tourism. Now, 25 years later, though guidelines for EIA methods are plentiful, few are specifically targeted to assess the impacts of tourism developments. Mieczkowski (1996) suggested that such studies should be made comparable with one another through the use of similar methodologies, scales, and levels of analysis. Hunter (1995a) suggested some general criteria for use in determining the necessity of EIA, recommended that EIA should be performed for all planned and pre-existing tourism developments, and suggested that they will be most successful if they are performed within the context of a national framework for balancing development goals and environmental concerns.

The role of indicators

The above problems give rise to a number of procedural challenges, some of which are applicable to all impact assessments, others of which are more specific to tourism. Included in the former are the establishment of base levels against which to measure change, the difficulty of disentangling human-induced from natural change, spatial and temporal discontinuities of cause and effect i.e. an event occurs in one location but consequences occur elsewhere and with a time lag; and complexity of environmental interactions (everything is related to everything else!). As indicated above, the diversity of activities which tourism encompasses and the wide variety of environments in which it takes place are further complicating factors.

Three main procedures have been employed to measure the environmental impacts of tourism and recreation and each has different time and cost requirements and differing managerial utility. They are after-the-fact analyses, monitoring change through time and simulation. These methods are described in more detail in Wall and Wright (1977). However, regardless of method, it is necessary to decide what to measure i.e. what variables to use as indicators of change.

Kreutzwiser (1993) suggested that useful indicators will have the following characteristics: they should be sensitive to temporal change and spatial variation, have predictive or anticipatory capability, have conceptual validity and relevance to management problems. Furthermore, he opined that relative measures are more useful than absolute measures and that their utility is enhanced by reference to threshold values.

The identification of useful indicators has become something of a growth industry in recent years with international organizations, such as the World Tourism Organization, staking a leading position in promulgating their own preferred lists. However, there is usually a need to complement general indicators with site-specific indicators. Furthermore, it can be debated whether indicators are best promulgated by an international agency or are better formulated with the input of stakeholders to reflect their specific concerns.

Conclusions

In 1982, the author published a book on impacts (Mathieson and Wall, 1982) and approximately a quarter of a century later a second book on the consequences of tourism (Wall and Mathieson, 2006). This has provided the opportunity to reflect on what has occurred in the intervening years and such thoughts underpin this paper.

Tourism is of such magnitude that its consequences are extremely far-reaching, both because of the sheer scale of the phenomenon as well as the speed of the many changes associated with it. In fact, it would not be difficult to make a case that tourism is itself a major agent of global change (as well as being affected by other forces of global change, such as those

associated with climate, technology and politics). Paradoxically, it can also be argued that tourism is becoming so pervasive that it is part of the usual complement of activities found in many communities so that it is difficult, if not impossible, to determine what should be attributable to tourism and what is the result of other forces of change. Regardless, these changes have multiple and interlocking dimensions: economic, environmental, social, cultural, political, institutional....

While a massive literature has grown on the impacts of tourism, it can be argued that research results have often been confusing and contradictory, and based in an inappropriate paradigm, leading to the conclusion that legal requirements may be ahead of scholarly understanding. Perhaps a more manageable and ultimately more useful question is not "What are the impacts of tourism?' but, rather, "In what circumstances (contexts) are particular consequences likely to occur?".

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