TOURISM AND ENVIRONMENT: SOME GENERAL OBSERVATIONS

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Sham Soni (Ed) Enr. Conservation in Sabal: Issues and Stratgles (notified for Development Statis (Sabal), KK: 1987:101-114

INTRODUCTION

Tourism is a highly complicated industry, its scope encompasses many sectors of the economy and many other facets of the host community. In places where tourism has developed into a major activity its influence extends throughout the entire fabric of the society transcending both areal and temporal boundaries. For this reason the consequences of rapid growth in tourism have been a source of considerable concern among observers both inside and outside the industry.

Until recently discussions on these consequences have laid stress on the positive aspects. The catchword among industry advocates is the so-called 'multiplier effect'. Perhaps too frequently tourism is seen as a blessing; it is often claimed that tourism does confer multipliers of benefits in terms of jobs, income, foreign exchange and improvements in public amenities and infrastructure. To these gains other lofty outcomes such as cross-cultural understanding, modernity, enrichment of local culture, and even national integration, have been added. This tendency to see more of the brighter side continues into the 1970s; one rarely hears tourism being associated with negative effects. Perhaps for this reasons for example there is practically no mention of environmental impacts in both the Malaysian Tourism Master Plan (1975) and the Sabah Tourism Master Plan (1980).

Similarly the image of this country which we project overseas since the 1950s continues to be in the positive: the harmonious plural society as it were, or for Sabah the tranquil land below the winds. The good image of the environment projected in the travel media is well matched by the positive impression of tourism which we continue to receive from consultants since the persuasive Checci Report released by the U.S. Department of Commerce in the 1950s. This report, like many of its subsequent pedigree, presented tourism as a sure blessing and an opportunity that must not be passed over. To make the case more convincing it has been fashionable for commentators to cite large multiplier figures and to present highly optimistic visitor arrival projections. It is not by simple chance alone that these reports seldom fail to inflate figures. For instance the number of visitor arrivals projected for Sabah was 221,600 (1985) which is more than triple the actual number that eventuated (63,067). The same degree of optimism is also found in the Malaysian Master Plan.

¹Part of the confusion lies in the frequent changes in the definition of 'tourists' as used by the Department of Immigration. But even allowing for this, the actual number of arrivals in Sabah, including Peninsular Malaysians would have been less than 120,000.

It is however not the purpose of this paper to question the validity of the assumptions underlying the master plans. It may nonetheless be suggested that the inclination to be optimistic and persuasive might have resulted in the omission of the less palatable issues, including the negative environmental repercussions, that can be anticipated from the rapid development of the tourist industry. After all these issues are by no means new. Publications from the Carribbean, Africa and the United Nations have conclusively exposed the fact that tourism does deliver many blights beside the blessings.

In contrast to the optimism shown by the foregoing advocates, critics of tourism, many of whom are linked to and draw inspiration from a network of world environmental movements, tend to adopt a conversely pessimistic stance. Very often reports issued by the latter group lay stress on a host of negative socio-cultural and environmental consequences. The question of what options and alternatives resource-poor areas have besides tourism is conveniently sidestepped. Tourism is openly viewed in the perojative, often in association with the problems of prostitution, crime, loss of community cohesion and environmental pollution (for example see Elwood, 1986; CONTOURS, 1986; Hong, 1985; South East Asia Chronicle, 1980). Together with the previous optimists (mostly consultants and industry insiders) the latter group are equally vocal in dominating the media on tourism. Outside these two groups there apper to be few moderates, and the majority of the public and even the politicians, at best tend to remain acquiscent.

Given this divergence of views the need for more balanced viewpoints on tourism development hardly needs emphasis, for the dominance of either of the former groups can be counterproductive. It may serve to mislead the lay public and intellectuals whose opinions are beginning to be increasingly heard in the decision-making process. It is thus pertinent to note right at the outset that we need more accurate and comprehensive information, and that we ought to promote a more balanced discussion on the issues surrounding the consequences of tourism development. More information implies more research, not only visitor statistics but also on issues beyond the numerics. So far there seems to be little encouragement and efforts in this direction outside the consultant and the public tourism bodies. Sate-wide initiative in public debates on tourism over the past two decades have been illuminating in Tanzania and the Carribbean. On this score the efforts of the Sabah government towards this in recent months is a welcome change.

The present paper is concerned basically with the interrelatiouships between tourism and the environment. A brief conceptual relationship between tourism and the environment is first presented followed by a discussion on the environment as being one of the many tourist attractions, and comments on the potentials of tourism in Sabab. A discussion on tourism as one of the many factors affecting the state of environmental health is then presented. Here the concept 'carrying capacity' is examined with an attempt to speculate on the nature and extent to which tourism has contributed toward the condition of the environment. Subsequently a capsule reference is made on the relevant policies for environmental conservation in tourism. Some preventive strategies are emphasized and explored; some hopes are also raised. The concluding section provides a brief synthesis of the points raised in the earlier section concerning the interrelationships discussed, and suggests some measures that can be taken towards a better understanding of these interrelationships.

DEFINITIONS

The terms 'tourism' and 'environment' have a variety of meanings to different people and in different contexts. To avoid confusion the following definitions are adopted in this paper.

- **Tourism.** 'Tourism' refers to the whole industry (activities and facilities) that serve the needs of the tourists. And by 'tourist' we mean any visitor to a place who stays overnight and uses the above facilities and services. As far as the environment is concerned it does not discriminate between the kinds of tourists (domestic, international, wealthy or budget) who occupy and explore it. The impact on the environment depends on what the tourist does and how long and how intensively he does it. Ultimately the nature of environmental impacts from tourism depends on the number of tourists visiting an area and the absorptive capacity of the receiving environment. Accordingly, the stage or evolutionary model suggests that as the scale of tourism changes the type of tourists coming in (explorer/clite, off-beat/unusual, mass/charter) also changes so that the extent of environmental impact is closely associated with the type of tourists (Williams, 1982:221). The casual budget-conscious tourist prefers the off-beaten tract and expects modest quality of facilities and services whereas the mass tourists spends substantially more and demands the minimum quality tourist (MTQ) standard of services and facilities. But officials in the ASEAN region have expressed disdain over the budget tourists. According to them these tourists bring in little foreign exchange, and although they may not be a menace to the environment, their frequent involvements in drugs, improper conduct in dress and behavior may have bad influence on the local community.
- (b) **Environment.** In common usage 'environment' broadly refers to everything around a subject. It includes both the physical and the human components, tangible and intangible. In the field of tourism the French call it ambience which is quite similar to the German version of lanschaft. The environment here consists of elements of climate, physical and cultural landscape, culture, lifestyle, behavioural traits, performing art, history etc. In a sense the total environment is a composite bundle of attractions and non-attractions for the tourists. Clearly the impact of tourism also has bearing on all these elements but for the purpose of this paper we concentrate only on the physical environment. As an attraction, the physical environment in concert with other attractions certainly draws tourists.

INTERRALATIONSHIP BETWEEN TOURISM AND THE ENVIRONMENT

The close interrelationship between tourism and the environment has been long recognized in western countries and world bodies such as IUOTO (now WTO) and a number of organizations within the UN including UNESCO, WHO and WWF. In this country such awareness even preceded those of the world bodies. Sharma (1960) for example, drew attention to this relationship when he reported on the extensive damages done to coral reefs in the waters of Pulau Redang by tourists whose arrival to the area was in the first place motivated by the very thing they were destroying, it is a grim reminder of the adage

that 'tourism destroys tourism'. There are two popular approaches to the interpretation of this paradox: sociologists refer to them as the functional view and the conflict view.

From the functional perspective we can look at the physical environment as an ingredient in a basket of attractions a particular destination offers. Physical environment serves to attract tourist who in turn spends money to boost the local economy, and at the same time contributes to foreign exchange earnings. In this sense both the tourist and the environment play positive and complementary roles. The tourist needs the environment for pleasure purposes and the environment can benefit from tourist expenditures for its beautification and conservation. Excessive demand over supply which can cause environmental problems are regarded as externalities which can be remedied by the invisible hand of the market.

The conflict view on the other hand sees the environment both as an arena of conflict as well as one of the opposing forces which operates in the same arena of conflict. As shown in Figure 1 the tourist environment is a point of conver-

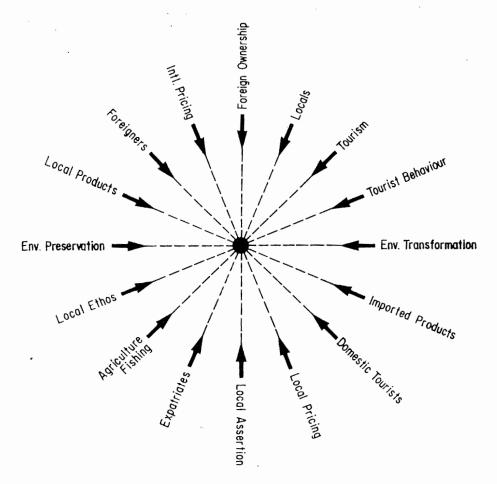


Figure 1: Examples of Competing Interests in Tourism

gence of competing interests: local labour vs. local cultural expectation, or hosts vs. guests: dominance of international capital owners vs. local political assertion; vernacular language vs. international language; domestic tourists vs. international tourists; environmental preservation vs. large scale ecological transformation; tourism interests vs. the interests of other sectors such as fishing and agriculture especially for labour, land and water supplies; and even local pricing vs. international pricing (inflation caused by the so-called Dutch Syndrome); and many areas of competition.

Within this complex web of bipolar conflicts of interests we can isolate for the purpose of discussion, the latent conflict between the need for environmental conservation and the needs for tourism development. As mentioned earlier the physical environment constitutes and important ingredient in the attractiveness of a destination area. This is especially the case in destinations like Sabah where the main attractions are based on natural endownments: the sun, sand, sea, mountain, rivers, jungles, wild flowers, orang utans and corals. Can this congeries of environmental attractions continue to attract tourists and if so at what scale and in which pattern of development can the environmental attractions be sustained? Without a careful study of the present and the future, any attempt to answer these questions would be close to wild guessing. Nonetheless it is possible to suggest a range of possibilities on the interrelationship between tourism and the environment as depicted in Figure 2.

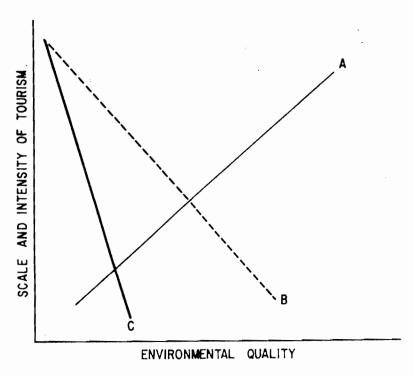


Figure 2: Interrelationship Between Tourism and the Environment

Graphically, the relationship between the growth in tourism and the impact on the environment can be positive, negative, linear, curvilinear or none of the above. In the positive linear situation (line A) the growth in tourism runs parallel to the improvement in the quality of the environment. Both the dependent and the 'independent' variables promote each other. In the negative linear situation (line B), tourism grows at the expense of the environment, and environmental quality can be reverted by regulating the number of tourists to a desirable level. In terms of cost-benefits the steeper the slope (line C) tourism benefits, cateris paribus, outweigh the costs. The range of possibilities of this interrelationships is limitless and context-specific. The curve can be sigmoid, meaning that while the relationship may be positive during the initial stage, the growth in the number of tourists may reach a threshold or 'tipping point' beyond which the negative effects begin to show. Indeed this is the likelihood postulated in the product-cycle theory on tourism (Gee et al, 1983: 100-103). Essentially the theory finds support in studies that have been conducted in some of the more established destinations such as Acapulco, Alantic city, Pattaya and Penang. In these areas rapid and unplanned growth in tourism have contributed to the deterioration of the environment although the causal connections are by no means clear. A detailed study of this relationship in a report by OECD titled, The Impact of Tourism on the Environment, indicates the need for governments to take social action to protect the environment and the tourist industry. The study concludes that 'there is enough evidence to support the assertion that 'tourism destroys tourism' in certain specific regions' (OECD, 1980:67).

What emerges from the above observations is that while the expansion of tourism may lead to environmental deterioration, the possibilities are many. The interrelationship between tourism and the environment can be controlled and regulated by government intervention. Simple as it may sound, the product-cycle theory has bearing on the way tourism is planned in our country. In the past very rarely do we hear of suggestions to scale down development or to be mindful of the consequences on the environment in our planning horizons. Even a small town such as Melaka is planning for a half million tourists by year 2000, apparently with little consideration given to the absorptive capacity of the host community.

ENVIRONMENTAL ATTRACTIONS IN SABAH AND ITS POTENTIALS

Among the states in Malaysia Sabah arguably has the best total offering in environmental attractions. This position is apparent in many travel books including the most recent ones (Bowater-Wright, 1985; Tisdell, 1984). Like many other areas in the tropical region Sabah offers a warm climate characterised by daily temperatures ranging from 28 to 32°C. Climatic attraction may be taken for granted by residents in the country, but for those coming from the temperate regions it is certainly a major asset. Unlike other states however not all of Sabah's coasts are exposed at any one period to the vagaries of the seasonal stormy weather, since the coasts not only face three different seas but are also in places sheltered by many islands (see Figure 3).

Some of these islands, while affording shelter for coastal beaches, are themselves valuable attraction. Many of them are the homes of coral reefs and

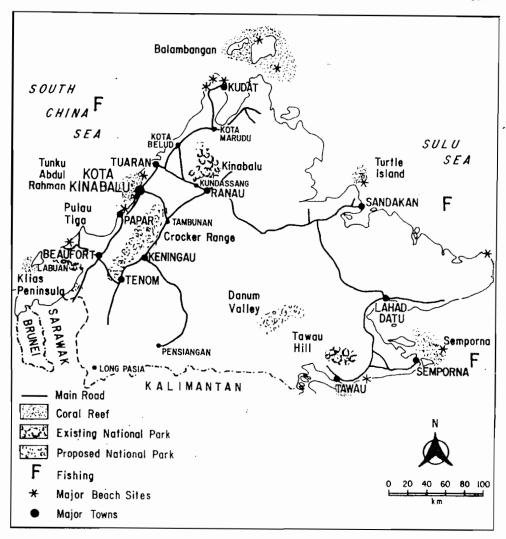


Figure 3: Major Tourist Attractions in Sabah (Source: Sabah Tourism Master Plan, 1980, p. 38)

their location which faces the open seas ensures clear and unpolluted water which is another attraction for swimmers, divers and snorkelers. The coastal beaches share most of the characteristics of the island beaches in that they are clean and expansive; the river estuaries and the mangrove swamps are of course exceptions owing to the problem of decaying debris and sediments which nevertheless are still relatively free from chemical and other synthetic forms of pollution. Indeed, if properly organized they can also serve as an attraction especially for canoeists and those who wish to explore the interior by river.

Away from the coast there is a range of attractions for nature lovers. Sabah has a total of 103,196 hectares of forest reserves which is the biggest in the country after the state of Pahang. The most well known attractions which fits into the category of 'monument of nature' in these reserves are the orang utan in Sepilok sanctuary, and Gunong Kinabalu, being the highest mountain in

the region. Many unique species of birds and mammals are also available. These include the Kinabalu rat, the banteng, the clouded leopard, the bearded pig, gibbons and honey bear. On the coast and the islands there are also a number of wildlife species including the turtles, seabirds and rare breeds of tropical fish and attractive coral formations. Besides faunal populations there are interesting plants and flowers which include the monkey pots and the famous large flower rafflesia.

Thus, as a destination Sabah has a lot to offer. But the problems often mentioned in association with Sabah tourism are the lack of facilities, inadequate publicity and the problem of access. The lack of facilities appears to have been overstated owing to the fact that many of the tourist facilities—good quality hotels and the handicraft centre—are very recent creations. The lack of facilities for night life and cultural exhibitions to some extent may be related to the nascent state of the industry where supply awaits demand. The number of tourists coming to Sabah which averages around 200 per day is hardly sufficient to encourage entrepreneurs to take the initiative in developing more attractions. It is the chicken-and-egg question. Looking at the slow pace at which tourism grows in Sabah, despite the rich sociocultural and environmental attractions it has to offer, one might have to look closely at the accessibility and publicity factors.

A look at the comments by tourists in the newspaper suggests that more efforts are required in these areas. As a destination Sabah is relatively unknown. The Japanese delegate to the recent PATA conference in Kuala Lumpur pointed out that there was no publicity on Sabah in his country (Daily Express, 24.4.86). This is unfortunate considering that Japan is a major sender country whose contigent of visitors to Malaysia is one of the fastest growing groups. There are two possibilities; either there is no adequate effort on the part of our promotional agents or that the right kind of promotion has not been employed. Advertising is an expensive job which we cannot do without if we seriously want to develop the tourist industry. And spending money alone is not enough unless we accurately identify the audience; only through concerted market research can we determine the segment of the target population among whom our promotion campaign is like to effective.

There is divided opinion on the techniques of persuasion. Some prefer the plain informative approach while others emphasize on the need to lure the client. In tourism it appears that potential travellers have been constantly bombarded with the latter type of publicity to the point that they either develop a measure of cynicism to promotional literature, or have become disinterested with tourist brochures. What travellers want is an accurate guide that tells everything they need to know when travelling to a particular destination. For this purpose the brochures on Sabah are more than adequate. The question then is does it reach the potential travellers. The answer is simple and is perhaps best known to TDC or STPC. Many previous studies have shown that in any case only a small percentage of the visitors are influenced by promotional literature.

In the whole ASEAN region only 8% read travel brochures and in Malaysia only 7% (International Travel Research Institute, 1983: I–37). The same study shows that the greatest influence of all are the friends, relatives and business associates. It also implies that the power of influence also has a multi-

plier effect. Although the 7% is small its promotional potential is quite considerable if we consider how fast impressions can spread through words of mouth. Thus although advertisement is expensive it is unavoidable and may be the best available option.

As in most travel brochures the entries on Sabah present the image of an exotic tropical destination with natural attractions as the main, if not all the offering. According to some writers it is important to present a balanced picture realistically so that when the tourist actually arrives and travels in the country he or she would not feel cheated. "The portrayal of Sabah as an unspoilt virgin beauty or unspoilt virgin tropical forest of exotic flora and fauna is a plain bluff to those who know better" (Sabah Times Supplement, 17.4.86:9). The above comment refers to the problems of difficult access and the lack of information to many of Sabah's attractions.

It is common knowledge that access to and within Sabah are relatively poor partly owing to its backyard position vis-a-vis the major air traffic route, and to its mountainous terrain. Part of the problem lies in our less than open air policy. Sabah is for all intent and purposes the tail end of Kuala Lumpur, Singapore, Manila and Hong Kong. This means that it requires some inconvenience on the part of the visitors to reach Sabah. The situation has certainly improved compared to a decade earlier, and there is good prospect of Kota Kinabalu to be turned into the second busiest gateway to Malaysia in the near future (Daily Express, 24.4.86:5).

Internally, Sabah which has the most number of airports, is also one of the most difficult land to traverse. The longest road mileage (both total and per capita) is to be found here although next to Sarawak it has the lowest percentage of surfaced roads (33.3%). Road mileage tells little of the transport facilities available. Most of the taxis in Sabah for example are only available in major towns. Air transport both internal and external are expensive. The Chief Minister once pointed out that the cost of flying to Sabah was more than three times that of the cost of flying to London (on per mile basis). It is for this reason that the problem of access is regarded as the most important if not the only handicap in the development of tourism in the state. Besides, there is a complaint on the lack of ground handlers or in-bound tour operators, the complainer noted that there was only one operator in Kota Kinabalu (Sabah Times, 17.4.86:9). I do not fully agree with this. For the purpose of this paper I wrote to three operators and obtained a professional response from everyone of them.

Other frequent complaints are the lack of information counters, souvenir (made-in-Sabah and not Taiwan or Hong Kong) culture. While this is true for other states also, and in some is fast changing, this shows a dilemma surrounding the chicken-and-egg question. Should the authority initiate these facilities in the face of uncertain results? Or should it take a wait-and-see approach to build them incrementally in response to the growth trends? Sabah's tourism has hardly begun to grow and has been notably sluggish over the past decade. On the basis of simple visitor projection from past visitation records it will be a long while before the tourist industry takes off. In the main this will depend on what happens with the problem of access. Changes are taking place rapidly. The year 1986 saw the launching of Feri Malaysia; it was also earlier this year that the Prime Minister announced plans to turn Kota Kinabalu into a gate-

way to East Malaysia, meaning that passengers using Kota Kinabalu as a gateway may soon be able to fly to one other intermediate point in Sabah, Labuan or Sarawak at no extra costs (Daily Express, 24.4.86:5).

Judged from the average length of stay among visitors in the state (10.6 days, cf. 4.8 days for Malaysia as a whole), Sabah appears to offer a lot and promises to attract more visitors on the score of its range of attractions. The crucial factor seems to be improvements in transport linkages and pricing. The accommodation sector also needs to be expanded and its room rates reduced. Sabah has the lowest hotel rooms-population ration in the country (0.25, compared to Sarawak, 0.37; and Peninsular Malaysia 1.15).

Starting late obviously—as advantages as well as disadvantages. Sabah can learn from the past mistakes of other destinations. It also means that it has to compete with other areas which are already developed. But the natural attractions to be found in this state will not find easy substitutes elsewhere. In this sense it is not an exaggeration for the TDC or the Betchel Corporation of the U.S. to suggest that the state has great potential for tourism development and that it can be turned into the 'gold coast' of Malaysia. Hopefully tourism in Sabah will not develop into a playground for the wealthy tourists only; already Sabah is noted as an expensive place. More importantly it is hoped that political developments in the state will not be a hindrance, since in every destination political stability and public safety and security are prerequisites that ofen lie beyond the realms of control.

IMPACT OF TOURISM ON THE ENVIRONMENT

As suggested in the earlier section there are many possibilities in the interrelationship between tourism and the environment. It depends on the intensity of site-use and the absorptive capacity of the environment, to these may be added the time perspective of the tourism developer and the transformational character of the development process.

The environmentalist looks at development problems in a total manner with long term goals whereas developers tend to operate on short term and individual project basis. What the economist calls externalities, unless compelled by regulation, are rarely taken into account by private developers (Cohen, 1980:193). This is particularly the case in small projects where the environmental risk may not be considered relevant. In larger projects such as the proposed Promet Project on Langkawi, Nusa Dua in Bali and the proposed Karambunai integrated resort, questions such as sewerage treatment, water supplies, landscaping and maintenance are important. In such cases developers consider measures which would ensure longevity of the facilities and in general tend to be observant of environmental regulations.

Tourism development sometimes involves a large scale transformation of the environment from the natural state to a contrived one such as the Disney World, Sentosa Island and even in old resorts such as the Cameron Highlands. In the latter case the original plan was to imitate the English Highlands as closely as possible. Here the shape of building, the landscaping of meadows, the floral and sometimes even the faunal species were intriduced; the popular menu served to this day is still reminiscent of the old concept. Such is the transformational character of resorts. It does not necessarily entail environmental disruption although there have been instances where these problems

surface. In this connection the complaint, if any, is directed at the loss of identity and the original character of the resort.

THE CONCEPT OF "CARRYING CAPACITY"

As a concept "carrying capacity" is neither absolute nor measurable. The definition issued from WTO states that the threshold level when negative factors start to operate (Jackson, 1986:7). Threshold here implies a certain development limit usually represented by the number of tourists visiting a destination or using a facility, thus we have the carrying capacity of a beach, water or power supplies for a resort, and the wildlife reserve. The capacity to absorb tourism is not just environmental capacity, it also refers to social and perceptual carrying capacity. For example to what extent can tourism grow before local residents begin to dislike tourists? Or how many users can a beach accommodate before recreationists suffer the lack suffer the lack of privacy hence deciding to pack up and leave?

Similarly, the carrying capacity of the environment on a large scale refers to the number of tourists or the scale of development beyond which the environment start to deteriorate. The usual standard used to describe the threshold for water-based activities adopts the WHO standard for water use. For examples feacal coliform should not exceed 2000/100ml in water bodies for swimming, beach area density should be around 3.7–4.7 sq.m per person. The tolerance threshold obviously depends on the resilience of the environment and the nature of use. Certain activities such as *tamu besars* give more satisfaction with crowding whereas romantic courting requires more solitary atmosphere. Coral habitats are more fragile than theme parks, and turtle beaches need more care than surfing beaches. Sabah has a range of natural habitats with different carrying capacities which is recognized by the authorities. Basically for this reason many of the islands and reserves are gazetted as protected areas.

THE IMPACT OF TOURISM ON THE ENVIRONMENT IN SABAH

As mentioned earlier tourism development in Sabah is still at the incipient stage; for this reason its impact on the environment is still insignificant. Nonetheless some concern has been expressed in certain situations where corals have been destroyed by activites related to tourism. The reclamation of land for one particular hotel, while is understandable, required extensive filling of coral beds. As in the case of Pantai Lido and Batu Ferringgi in Peninsular Malaysia, hotels in Sabah until recently drain their sewage in sewers which have outlets in the sea. In many islands such as Timon, Langkawi and Pangkor, rubbish disposal continues to be a problem. The same situation appears to occur in Sabah. There have been complaints in the newspapers on rubbish problems in Tanjung Aru and even on Mount Kinabalu. Problems such as these however do not appear to be threat. As rubbish collection systems continue to be improved so are the sewage systems.

Another problem often associated with tourist areas is traffic congestion with its attendant problem of air pollution. This however is not likely to be a major problem given the fact that tourists zones at present are located closed to open seas and hence are subject to natural ventilation. Both in Sabah and Langkawi there have been some concern over the siting of the cement factories

in the vicinity of tourist zones. Unfortunately there is very little published information on this.

Tourism in Sabah is concentrated on the west coast especially in the Tuaran-Tanjung Aru stretch. Such concentration means that although the tourist sector as a whole is small, its impact can be intensive in certain localities.

Public complaints on the impact of tourism on the environment are a good reflection of its severity. This is a reasonable assumption for Sabah which has wide newspaper circulation, and had regional offices of the TDC and DOE. A study of the complaints however, suggests that Sabah carried the least complaint in the past and all the complaints received so far by the DOE are not related to problems originating in the tourist industry.

TOURISM LEGISLATION AND THE ENVIRONMENT

Explicit set of tourism policies in the country are yet to be enunciated although there exist fragmentary regulations and by-laws governing the operation of tourist areas and tourist related premises. For example, as forms of dwellings and hotels are subject to sanitary sewage disposal regulations, this in effect would ensure the control of water pollution from tourism sources. Similarly, tourist vehicles, as sources of air pollution problems, are subject to motor vehicle emission standards in the same manner as it applies to civilian vehicles. Another relevant legislation is the Hotel Incentive Act, 1968, which is aimed at dispersing tourism development to less developed areas thereby discouraging projects in areas which are already intensively developed. In addition to the above a host of provisions in the National Forestry Policy, 1979, which are implemented through the National Park Act, 1980 and the National Forestry Act, 1985, provide inter alia, for the gazettement of forests as national parks and forest recreation areas, with tourist use in mind. (As it stands however the above Act applied only to Peninsular Malaysia). One recent move towards the expansion of amenity forests in Sabah is the proposed Sabah Forest and Parks Agency which is intended to develop more forest-based recreation amenities in Danum Valley for use by both domestic and international tourists (The New Straits Times, 3.8.86).

Of particular relevance is the Town and Country Planning provisions which require structure plans for development regions. These documents are aimed at providing comprehensive plans with due consideration given to tourism needs where they apply especially with respect to the zoning of tourist districts. Similarly, the Department of Environment requires that with certain exceptions, tourism projects are subject to environmental assessment procedures. Projects not exempted include coastal resorts, hill stations and tourist development projects in national parks. Besides these, major projects not related to tourism are also required to make assessments of their impact on tourism. The assessment exercise involves evalution of project activities throughout its lifespan including the investigation, development and construction, operation and maintenance, together with subsequent projects related to the proposed project.

If the above provisions are diligently enforced without too much room for corner-cutting there should not be much to worry about. Unfortunately, as in the case of the gazetted Tunku Abdul Rahman Park, Turtle Island, Semporna and Sipadan Marine Reserves, there appears to be little management efforts

after the declarations. As have been repeatedly pointed out by public bodies, the role of the public are crucial in the success of any attempt to protect the environment. The usual procedure in the light of administrative limitations is to act on public complaint. If the public is apathetic to the needs of conservation, there would be little motivation for administrative action. The concentional approach moreover, is to adopt such *post hoc* approach whereas environmental conservation especially in future-oriented industries such as tourism, requires emphasis on the preventive approach.

CONCLUSION

Tourism depends on and affects the environment. In Sabah, environment is perhaps the most important element in the industry. At this early stage tourism does not appear to be a problem. Given the high potential in tourism that Sabah has, and can be exploited once the accessibility and publicity problems are overcome, it is imperative that anticipatory measures are taken to avoid any undesirable outcome. The environment is only one ingredient in a host of requisite attractions. Foremost in any destination is the social factor. The people in Sabah are friendly although tourists are beginning to say that the host community is not friendly enough (Daily Express, 17.3.1986). Public resentment on tourism, especially that based on the deterioration of their environment can and must be avoided at all costs. We have to realise that tourism should not only be good for the country, but should also be good for the local community. There is therefore a need to promote public understanding at the initial stage. Public understanding must come from a balanced knowledge on the impacts of tourism rather than from propaganda efforts designed to serve interested parties.

There is a lack of evaluative work on tourism; should Sabah develop tourism at all, and if she does at what costs and benefits? I am not aware of any serious work that addresses this issue in Sabah or elsewhere in the country. The usual approach is to listen to the politicians and ask the consultants to suggest plans rather than asking them to evaluate whether we need to develop tourism in the first place. There is clearly a need to study the pros and cons of tourism in order to identify the available alternatives both in non-tourism options and tourism options. Mistakes have been made elsewhere but Sabah is still fortunate to be just starting.

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