

RETHINKING THE ROLE OF TRANSPORTATION IN TOURISM

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Abstract: Transportation and travel can be discussed without taking tourism into consideration, but tourism cannot thrive without travel. Transportation is an integral part of the tourism industry. It is largely due to the improvement of transportation that tourism has expanded. The impacts on the ecology, degradation of destination sites, tourist experience, and economy has called for a better management of resources. In biodiversity-rich areas, opening of sensitive and fragile areas through improved infrastructure and service may prove detrimental to the ecology of the place. In the light of such issues, it is important to re-think the role of transportation in areas such as these. Though careful planning of the components of the destination is done to ensure sustainability, transportation is seldom considered in the process and due to this a number of biodiversity-rich areas have been destroyed due to the easy access.

Key Words: sustainable transportation, tourism, sensitive areas

1. INTRODUCTION

The state of natural attractions and tourism management has been the focus of much research over the years. Tourism affects all aspects of the natural environment. There is a need to study the “environmental inter-relationships...especially in ecologically sensitive areas such as small islands, reefs, desert oases, and tropical habitats” as these areas most often offer the “greatest tourism potential” (Inskeep, 1987, p 120). Degrees of impact vary according to the number of tourists, the resilience of the ecosystem to the pressure wrought by tourism, time, the changing fashions in tourism, and the transformational nature of tourism itself (Burns and Associates, 1989).

Transportation links the various destinations and ferries people, goods, and services. Tourism is all about travel; and the role of transportation in its operation is vital. It is largely due to the improvement of transportation that tourism has expanded. The advent of flight has shrunk the world, and the motor vehicle has made travel to anywhere possible. This reality coupled with changing work patterns and innovative marketing has driven international mass tourism through the years.

Culpan (1987, p 546) identified transportation modes and management as the “important ingredients of the international tourism system,” acknowledging that linkage by air, sea and land modes is essential for the operations as well as the availability of support services such as fuel stations, auto repair, motels and rest facilities for land travel.

Advances in transportation have widely eased travel. It is attributed to the ease and accessibility of modern transport that has spurred the widespread growth of nature tourism within the United States and overseas (Honey, 1999). The increase in the number of visitors to what were once remote areas has resulted in degradation and damage of the resources prompting the need to re-evaluate the role of transportation in the exercise. Impacts of tourism development include soil erosion or compaction, clearance of vegetation to give way to roads and tourism facilities, recreation use of off-road vehicles, trail bikes, snowmobiles, horses, and even the trampling of pedestrians (Buckley, 1996). The careful planning of sensitive areas which includes the utilization of zoning to determine areas for facilities and tourist activities and to protect natural areas and discourage development, and the planning of roads, hiking and riding trails should be integrated into the natural environment (Inskeep, 1987).

2. TRANSPORTATION IN TOURISM

Croall (1995, p 1) was exhaustive in his criticism of what he called “the spectre of tourism” which he sees as slowly ruining erstwhile pristine landscapes, quaint communities, as well as polluting the air and water, trivializing cultures, and degrading life on this planet. He puts the blame on poor or lack of visitor management and the level of accessibility of the destination area. Accessibility and tourism activities have broken barriers and opened formerly off-the-beaten-track areas to visitors through aggressive marketing of some far-off paradise with the availability of transport.

Transportation in tourism is most often seen as just part of the tourism system which is in charge of bringing the tourists to the destinations, a means of getting around the place and leaving it once the duration of the trip is over. Page and Lumsdon (2004) contend that the transportation system of a tourist destination has an impact on the tourism experience which explains how people travel and why they choose different forms of holiday, destination, and transport. The improvement in transportation modes plus low fares has increased the accessibility of areas once considered off-the-beaten-path. Access to tourism sites vary according to the nature of the site, the state of infrastructure, and the efficiency of the public transport system.

The OECD (1988 as cited in Button, 1993) came out with a table outlining the major impacts of transportation on the environment. For land transportation, the rail and roads impact wildlife and habitat when these pass through natural areas, creating divisions in an otherwise contiguous plain. Emissions from road and air transport are the common sources of greenhouse gases and industrialization has not helped much in curtailing the sources. “The transport sector is responsible for over a quarter of the world’s primary energy use, and for about 54 percent of all world oil consumption” (Peters, 2000, p 110). Air and noise pollution accounts for the engine noise from planes, motor vehicles, construction, overhead cable cars, as well as human voices and footfalls (Buckley, 1996).

2.1 Access and Modes

Tourism and accessibility may be linked to the level of degradation of the destination. Issues arising from this include the concept of carrying capacity, impacts per capita, and visitor

management. How these issues are managed is reflective of the type of tourism being advocated by the operator, the community as well as the government.

Accessibility can make or break a destination. There are two streams of argument here: one involves the number of visitors and the other involves number of visitors per capita. The first contend that too much access brings in a bigger number of people that can increase the level of degradation, decrease the experience, and impact the natural state of the resources. The second argument takes into consideration the ratio of visitors to the host population and the level and type of impacts created.

On the issue of carrying capacity, Inskip (1987) acknowledges the fact that areas such as small islands, arid and coastal lands, reefs, mountains and lakes are vulnerable to tourist overuse and overdevelopment and proposes that carrying capacity should be a part of the comprehensive regional and site-specific analysis and planning process. And “it is important to distinguish between capacity based on tourist acceptability and that predicated on environmental deterioration because the two may not be the same” (Inskip, 1987, p 121).

Fennell (2003) and Honey (1999) cited the experience of the Galapagos Islands in Ecuador wherein the increase in access started a chain of problems: in the 1970s access to the islands was through cargo ships from Ecuador’s main port in Guayaquil which plied the islands every three months or so but the growing popularity of the islands as a nature enclave spurred the boating business to expand from just five small boats in the early 70s to forty-two by 1980; and when the United States military base on Baltra accommodated regular commercial airlines, visitor number quickly grew to unsustainable proportions as crowding on trails and the monitoring of visitor movement became inefficient with the lack of qualified guides. Immigration escalated as higher paying jobs were on hand which led to the introduction of new species such as goats and rats which in turn endangered the species endemic to the island (Honey, 1999).

Ratio of visitor to host population should be kept at a level wherein the community is comfortable with the level of influx of visitors and there is no conflict regarding resources. Many researches have covered the problems of areas wherein the local community has been alienated by the tourism development in their area. Worse, aside from being banned from using the beaches as these are for the exclusive use of hotel guests, oftentimes locals suffer power and water shortages just so that hotels have air conditioning and running water at all times.

An increase in visitor number means a lot of things: congestion on the roads and trails, increase in pollution level (both noise and air), more trash to contend with, insufficient infrastructure to support the increase, as well as the impacts on the environment and wildlife. The telling disappearance of the golden toad in the Monteverde Cloud Forest Reserve in Costa Rica is one case where numbers fell from 1,500 in 1987 to virtually zero within two years has been attributed to the increase in tourism of the area (Honey, 1999).

Independent Digital (UK) Ltd. (2004) ran an article regarding how “cheap flights and a fascination with the environment” has contributed to the degradation of natural areas. It is so easy now to hop on a plane and reach one’s destination within the day, factor in the cheap prices and a destination area is immediately swamped with visitors.

The modes we choose and how we travel are indicators of our level of awareness. Some tour operators give options to their clients while others just group them together to get the best out of a deal. As argued earlier, access to places would rather be organically developed or planned with the conservation of nature in mind. And the impacts of transportation on the environment have been an issue through the years. The Kyoto Protocol is seen as the instrument to force industrialized countries to reduce emissions, yet still has to prove its worth.

As with the arguments regarding economics, Ozbay, K. *et al.* (2003) theorized that having a reliable and efficient transport infrastructure is a key factor in a region's economic welfare. They utilized several accessibility indexes such as Hansen's (1959), Ingram's (1971), and those of Black and Conroy's (1977) to check the performance of a transport network and came up with a conclusion that a region with good access ensures the efficient operations of manufacturing, retail, labour, and housing markets. The relation between being an economic success and accessibility is logical in the sense that the flow of goods and services are unhampered. This logic can be abused by governments willing to sacrifice the environment for steady cash flow. The question of sustainability and economic issues again enter the picture.

2.2 Day Trips and the Automobile

The impact of automobiles in tourism can be observed in the increasing number of daytrips and leisure travel. Most trips to the countryside are common and most utilize automobiles, which can take their toll on the resources. Nelson and Wall (1986) investigated the relationships of the changing transport network of Vancouver Island and confirmed the observations of Rajotte (1972) and Lundgren (1982) that established tourist destinations decline in importance once a more accessible destination is opened elsewhere. It was the extensive use of the automobile that initiated the changes on Vancouver Island, even the coastal liners and passenger trains gave in to the competition it posed.

In a study done by Capineri and Spinelli on the impacts of day tourism on the environment, they were able to identify three types of buffers that correspond to how tourist populations converge into a resort, with patterns influenced by "existing networks and by connections with the inland" (Capineri and Spinelli, 2002, p 196). It follows that the more connected a resort is, the more extensive its area of attraction; while smaller buffers have a limited catchment area due to the lack of transport networks. The resulting patterns were then used to identify the areas where traffic management systems should be employed.

2.3 Transport Strategies

Transport strategies reflect the values of those in the business. In Farrell and Runyan (1991, p 31), different transport-tourism management approaches are suggested: one is "to 'harden' the resource by paving, fencing, restricting, or directing traffic or by other means to facilitate more intensive use"; others include regulation using land use, limiting/prohibiting access—dependent on the nature of the site, pricing is also a much debated alternative, and the use of visitor traffic management schemes such as private-public transport linkages, speed limits, group size and characteristics, and marketing. Since transportation is a derived demand then

knowing the target population would greatly help in determining the most suitable modes of transport for certain areas.

Another strategy utilized in transportation management includes the creation of land use policies, by regulating location, scale, density and design of activities, which have an impact on traffic flows. It can also be utilized to adjust urban development around the needs of the public transport system to create a balanced passenger demand. The promotion of non-motorized and public transport is emphasized and the involvement of users is encouraged in decision-making and in mitigating the negative effects of transport. Though land-use planning alone cannot resolve unsustainable transport patterns, it can help reduce the number of unnecessary trips, prevent activity fragmentation and provide opportunities for other more environment-friendly modes of transport (Herala, 2003).

Finally, the issue on tourism sustainability and transport can be noted when access to attractions that give destinations their tourism appeal are either off-limits or limited (Ayala, 1996). Reasons vary from the need to rehabilitate due to too much stress because of heavy visitation to non-accommodation of tourists to preserve a site. Mowforth and Munt (1998) point out that motorized vehicles are now being restricted in nature areas. The fact that the automobile is one of the most unsustainable modes of transport, this move is indeed good news. For countries with a high level of car ownership and use, this could be an issue regarding freedom and rights. Though this issue may not be of much concern in Third World Countries (TWCs), special cases such as the “highway...built through the Metropolitan National Park in Panama City, [which is] the largest area of tropical rainforest within the boundaries of a city” and the use of wildlife safari vehicles in East Africa is worth investigating (Mowforth and Munt, 1998, p 118). In the final analysis, it is how people travel, how the destinations are being packaged, and the stand of the governments on ecotourism as reflected by the regulations, which are crucial in determining the level of sustainability.

3. PLANNING ISSUES

The role that transportation plays in the planning of natural areas as destination sites involves various players and the consideration of the needs of the community it will serve. Transportation sometimes does not stimulate the desired tourism development and therefore it is important to understand the central position of transport in destination development if the destination’s growth process is to be understood.

3.1 The Tourists

The reality that there has been an increasing demand for natural areas as destination sites, whereas there has been a marked decline in the quality and quantity of natural areas due to the increase in tourism. Analyses of tourism movement shows that it is based on the concept of seasonality: preferred climates, location, and schedules of activities such as festivals and the like (Burns and Associates, 1989). An association can also be drawn between the type of tourist being catered for and the impacts their activities have on the environment.

Holden (2000) identified psychocentrics composed of self-inhabited, nervous and non-adventurous individuals who prefer a high level of tourism development; and the allocentrics composed of confident, experimental and adventurous individuals who prefer

non-institutionalized tourism. In Dufus and Dearden's study (1990, as cited in Hvenegaard, 1994) wildlife tourists were classified based partially on the physical rigor and interest level; they came up with the specialists who required little infrastructure, interpretative or management facilities and whose presence is absorbed by existing support systems; while generalists were less ambitious and usually came in large numbers, were not particularly interested in the site's attraction and therefore relied heavily on infrastructure. Areas visited by generalists should have a good management plan in place to offset the impacts of the added pressure of their presence.

The concern for the welfare of tourists has always been the priority for an economically driven business. Most travel and tourism researches have focused on how to improve the system of catering to their needs such as easing transfers, the right accommodation, food, and the types of activities offered. It would seem that the world revolved around the tourists and everyone in the industry bowed to follow and cater to their whims. Through the years, a change of focus has been encouraged from an anthropocentric to an ecocentric perspective. The new environmental paradigm was spurred by sustainability issues and the reality that present development is deemed "inconsistent with the world's environmental carrying capacity" (Weaver and Lawton, 2002, p 343).

3.2 The Stakeholders

The sustainability issue between tourism and transportation is perceived differently by the local government, the operators, and the various organizations. It is important and essential to the success of a plan that a tourism strategy takes into consideration the various roles of the stakeholders in making the practice more sustainable. Brohman (1996) believes that the state and the market should establish the parameters wherein tourism development will serve both the interests of the state and the public. The importance of the role of non-government organizations (NGOs), community groups, and the local government in the planning of the destination areas is stressed.

In a survey done of two hundred and twenty-one ecotour operators showed that their concern regarding overdevelopment, loss of pristine environments, and traditional cultures are not as keen as those of the academics'; but they recognize the increase in environmental awareness and the need to introduce more sustainable development values in the products and practices of the industry (Lew, 1998).

Doolan (1994) acknowledges that tour operators are keen on the travelling aspect of ecotourism, it is important that travel is undertaken. As for operators, this group is concerned with bringing tourists to the destinations: issues on accessibility, modes, accommodation, and group size to spectacular but remote areas are taken into consideration. National park rangers, on the other hand, would be looking at the viable number of people that the site can accommodate at any one time. The number that the resources can support and the influence of the visitors on the habits of the animals are weighed. Tourists are more concerned with the value for their money, the quality of the attractions, and the depth of the experience.

Ceballos-Lascurain (2001) sees NGOs as the link between tourism and biodiversity conservation. He cites the role of international NGOs such as WWF, IUCN, Conservation International (CI), and The Nature Conservancy, in furthering the goals of biodiversity conservation through research, outreach, and community empowerment. NGOs can also

police how the government has been acting on its policies regarding tourism and development.

Tourism's sustainability is linked to factors such as a country's tourism policies, the operators' attitudes and vision, and the vigilance of NGOs and advocacy groups. McKercher (1993a as cited in Fennell, 2003) cited four reasons which can lead to the downfall of sustainable tourism and wherein three are relevant to the argument. This includes the non-recognition of tourism as a "natural resource-dependent industry," the reality that tourism is "electorally weak" and so support from the government is not sufficient, and the "lack of leadership" to drive the industry. The third point may be linked to the fact that tourism is an international industry and that each country tries to get a piece of the returns so that it is run haphazardly with profits determining its course.

Travis (1985, p 98) acknowledged the fact that "tourism is an internationally 'traded' commodity." Tourism is indeed a global industry which encourages national governments to make the most of their natural attractions in exchange for the foreign revenue brought in by international tourists. Government tourism agencies have created their own marketing mechanisms to promote the natural attractions in their area, most popular of which would be the packaged trips to natural areas for a number of days doing the sights and preferred activities.

It is important that decision-making involves all sectors taking into consideration the national planning objectives especially when a tourism development entails infrastructure such as roads, airports, power and water supply as these will benefit and have an impact not just the development itself but on the local community as well (Brohman, 1996).

3.3 Visitor Management

The deterioration of trails due to the onslaught of visitor numbers has led to different strategies to limit, reduce or prohibit the opening of areas to tourism. The role of transportation in managing visitors and resources is analysed in the light of reducing impacts to the destination area.

The effective management of resources requires a good measuring tool to quantify the resources of a site. Inskeep (1987) suggests that to come up with a basis for tourism planning a "thorough and systematic environmental analysis" should be done which includes a site's carrying capacity. This way visitor access to environmentally critical areas may be controlled, appropriate sites for tourist facilities may be mapped out, and vulnerable areas will be safeguarded. Another thing pointed out is the importance in defining carrying capacity based on tourist acceptability and one that is anchored on the environment (Inskeep, 1987). Buckley (1996) relates that the number of visitors and their behavior is considered a "major management issue for many conservation reserves worldwide."

A strong public transport system, the application of appropriate traffic management schemes, and good linkage with the programs of ecotour operators may alleviate impacts. Coleman's (1997) study of visitor traffic in North York Moors National Park was aimed in getting the views of both visitors' and residents' on the traffic, the environmental and visitor management system employed at the park. It also wanted to formulate a most suitable visitor traffic management scheme that would discourage the reliance on private vehicles and

encourage use of public transport. From the results of the study, to encourage modal shift, information on the current usage of public transport and the reasons why tourists/visitors do not utilize it is essential (Coleman, 1997).

Several regulatory instruments have been formulated to control the environmental impacts of transportation. A review of the economic policy instruments and transport indicators was done by Acutt and Dodgson (1997). Economic instruments included fuel taxes, emissions taxes, variable car excise tax, scrappage bounties, road congestion pricing, parking charges and public transport subsidies. Regulatory instruments, on the other hand, included vehicle use restrictions, parking controls, land use planning, vehicle noise, emission level, road construction, safety, and traffic calming. Their study provided a wide range of policy options for governments when dealing with the impacts of transport to the environment. The difficulty of enforcing the economic techniques is acknowledged and they advocate that “the economic approach can be an effective complement to the regulatory one” (Acutt and Dodgson, 1997, p 33).

4. RETHINKING THE ROLE OF TRANSPORTATION

Tourism as a client-pleaser industry is in danger of destroying the very environment it promotes. Tourism whose emphasis is on fragile and sensitive areas needs to undergo thorough evaluation to allow for the appropriate level of development, type of activities, and access. Economics play a big role in the whole process. For the biodiversity-rich areas of the Third World, economic issues revolve around their dependence on these resources. The growth of tourism and the search for alternative destinations have created a new market for nature reserves.

Nature tourism is considered by governments as an economic and conservation strategy rolled into one. This strategy is both worthwhile and at the same time dangerous since sometimes it is the same government who sign the development plans that exploit the environment. The need for regulation to ensure proper care and development is advocated to protect the very environment people are coming to see.

Tourism as an economically driven industry that draws much of its income from the state of the environment will benefit much when it is run in a sustainable manner. The role governments, NGOs and operators play in the industry is crucial for the appropriate utilization of resources. The importance of including tourism in formulating the national development plan is that resources can be managed in consonance with the policies of the rest of the government agencies. It is hoped that a balanced plan may be created given the knowledge and background of a destination. Trade-offs between economics and the environment will remain an issue as it will be dependent on variables such as the vision of the community involved, the existing policies, and the common practice.

Environmental issues look different to various peoples. What may be exploitation for one is merely the process of survival for the other. There is a need to look at the problem in context and the role governments play. The stand of the government on the environment as cited is reflective of their values. The problem of striking a balance between ecology and economics would be the central issue. With the increasing popularity of nature tourism fears of it falling into the same mould as mass tourism is worthy of consideration, as the advancement in transportation and the availability of modes may well be one of the main reasons for its

eventual downfall. As of the present, a link can be drawn between the accessibility of a destination and the state of the environment. Heritage sites, national parks, and the countryside have fallen into disrepair due to the onslaught of tourists and vehicles. Alternative visitor management schemes are being considered to help reduce impacts and save the very environment people are coming from all over to see. What is a pity is the fact that transportation options open to tourists are not necessarily the most sustainable ones. What makes it more challenging is that these destinations are fragile and sensitive and careful planning has to be done to achieve its goal of conservation.

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