ISSN 1327-8231

ECONOMICS, ECOLOGY AND THE ENVIRONMENT

Working Paper No. 27

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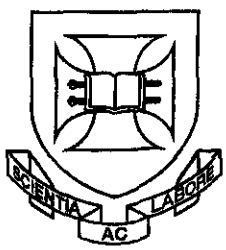
by

Clem Tisdell

October 1998



THE UNIVERSITY OF QUEENSLAND

ISSN 1327-8231
WORKING PAPERS ON
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* Second draft (as at 7 October, 1998) of Chapter 39 (intended as a overview of Volume II) to be in C.A. Tisdell (ed.) *The Economics of Tourism*, Edward Elgar, Cheltenham. Forthcoming 1999. To be in the series *The International Library of Critical Writings in Economics* (Mark Blaug, series editor). This working paper should not be quoted without the permission of the author and is circulated for possible feedback prior to official publication. I wish to thank members of the School of Economics at Griffith University, especially Dr. A. Fitzgibbon, for useful comments provided as a result of a seminar presentation at Griffith University of the first draft in September, 1998.

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WORKING PAPERS IN THE SERIES, *Economics, Ecology and the Environment* are published by the Department of Economics, University of Queensland, 4072, Australia, as follow up to the Australian Centre for International Agricultural Research Project 40 of which Professor Clem Tisdell was the Project Leader. Views expressed in these working papers are those of their authors and not necessarily of any of the organisations associated with the Project. They should not be reproduced in whole or in part without the written permission of the Project Leader. It is planned to publish contributions to this series over the next few years.

Research for ACIAR project 40, *Economic impact and rural adjustments to nature conservation (biodiversity) programmes: A case study of Xishuangbanna Dai Autonomous Prefecture, Yunnan, China* was sponsored by the Australian Centre for International Agricultural Research (ACIAR), GPO Box 1571, Canberra, ACT, 2601, Australia.

The research for ACIAR project 40 has led in part, to the research being carried out in this current series.

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Wider Dimensions of Tourism Economics: A Review of Impact Analyses, International Aspects, Development Issues, Sustainability and Environmental Aspects of Tourism.

ABSTRACT

Provides an overview of Volume II of *The Economics of Tourism*. It reviews various impact analyses of tourism, including simple multiplier analyses, input-output analysis and computable general equilibrium (CGE) models. This is followed by an outline of studies on the economics of international tourism. Coverage includes institutional impediments to international tourism, economic factors influencing international travel/tourism demand and welfare consequences of foreign tourism for host countries and the economics of government promotion of such tourism. As a result, some qualifications are added to existing theories, particularly that of Clarke and Ng e.g. concerning possible adverse environmental externalities from inbound tourism. Tourism in developing countries and in economic development is given special consideration as is sustainability and environmental aspects of tourism. Many of these themes are in fact interdependent.

1. INTRODUCTION

Volume I of this book concentrated on topics which can be regarded as basic for tourism economics. Coverage included the nature of tourism economics, tourism demand and the forecasting of it, the supply-side of the tourism industry (including some managerial and financial issues), and aspects of public finance and public economics relevant to tourism. Volume II goes beyond the basics and applies most of the basic analysis to wider dimensions of tourism economics. In this volume, the impacts of tourism in such economic variables as employment and income and on other industries are analysed using techniques such as primitive multipliers and multipliers derived from input-output analysis. The demand for international tourism and the welfare effects of such tourism and economic welfare consequences of foreign investment in the tourism industry are also explored along with the economic benefits of government promotion of inbound tourism. Part VII deals with

tourism in developing countries and with relationships between tourism and economic development. Part VIII concentrates on sustainable development and tourism, the sustainability of tourism and the interrelationship between tourism and the environment.

Let us consider the coverage of the four parts of this volume. The coverage involves a consideration of contentious contemporary issues of major importance for economic policy purposes.

IMPACT ANALYSIS OF TOURISM (PART V)

Studies of the impacts of tourism cover a wide spectrum. However, most studies have concentrated on the impact of tourism on employment and income generation and, via backward and forward linkages (economic interdependence), its consequences for the level of economic activity displayed by other industries. The simplest of these analyses involves the use of economic multipliers discussed by Archer (1982). More sophisticated analysis is possible using input-output analysis which also captures interindustry effects (see for example, Fletcher, 1989; Heng and Low, 1990, and West, 1993). An even greater level of economic sophistication can be obtained by using general equilibrium (GE) analysis of which input-output is a simple form. GE analyses enables employment and interindustry impacts of tourism to be modelled without adopting the linearity and fixed coefficient assumptions implicit in input-output analysis (see Ch.52). However, the sophistication of GE models comes at the cost of considerable requirements for information if the models are to be made operational. It can also be costly and time-consuming to adapt GE models to regions or local areas even when such models are available for national economies, or costly to alter them quickly to reflect changes in the structure of economy. Nevertheless, such models have been used in some more developed countries for national (aggregate) economic

prediction and management, for example, the ORANI model in Australia (Adams and Parmenter, 1991, 1993). In practice, the appropriate analysis to use in considering tourism impacts, will vary with the funds available for estimating its impacts and the degree of accuracy and detail required. In addition, the usefulness of any technique for impact estimation will depend on the amount and quality of data available or such data as can be obtained at reasonable cost.

Impact analysis can be extended to other dimensions (additional to those mentioned above) as summarised by Archer and Cooper (1994, Ch. 78 in this book), including social cost-benefit analysis but for the main part the contributions in Part V focus on income and employment multipliers and consequences of tourism for interindustry activity, although the article by Frechtling (1987a & b, Chs. 41 & 42 in this book) involve a wider perspective. Let us consider the contribution of the individual articles in Part V.

Archer (1982, Ch. 40 in this book) provides a valuable introduction to the use of multipliers in tourism impact analysis and indicates possible pitfalls in this type of analysis. He points out that this analysis has its origins in the works of R.F. Kahn, J.M. Keynes and W. Leontief. He points to several erroneous uses of tourism multipliers in the literature, including failures to deduct direct leakages from the multicand or where L is the proportion of the initial tourism income which never enters the local economy, failure to deduct L from the numerator of the multiplier. Otherwise, the impact of tourism on the local economy is exaggerated. Furthermore, simple models assume that successive injections (secondary impacts) provide a constant proportionate impact on the relevant economy. As Archer (1982, p.239) explains, such models "assume that successive rounds of income generation follow a common path. In practical analysis, especially for the study of regions or small

economies, such assumptions have to be removed. Input-output models can be easily adjusted to make such allowances by allocating such expenditure as a direct import."

In some unsophisticated public circles and/or for political purposes, income and employment multipliers are portrayed as representing economic gains, and their estimation often becomes a profitable activity for consultants. But employment in a particular industry is not necessarily an economic gain if it comes at the expense of employment or production in other industries where economic benefits *may* be rated higher. The multiplier will only be indicative of economic benefits if there is wholesale unemployment of resources, such as occurred in the Great Depression. It is so easy to fall into the trap of believing that employment and income multipliers represent economic benefits. They may do so but one has to consider opportunity costs. It is worthwhile quoting from Archer at length in this respect: "Perhaps the major criticism levied at multiplier analysis is the *suitability* of this technique for analysing the impact of tourism. As previously mentioned, multiplier analysis treats all factors of production as having zero opportunity costs to society in terms of what they could produce elsewhere in the economy, ie. multiplier analysis provides little or no information about whether or not the use of these resources in tourism is economically efficient from the point of view of society as a whole in the economy concerned. Despite claims to the contrary, multiplier analysis does *not* measure the *long-run* benefits gained by an economy from an expansion of tourism" (Archer, 1982, p.240).

This of course does not means that tourism multipliers have no value. They do have value for prediction and forecasting purposes and in turn that can be of value for economic planning purposes both by the public sector and private industry.

Frechtling (1987a, Ch. 41 in this book) considers alternative methods of collecting data about expenditure by tourists and the shortcomings of these. He also reviews methods such as impact multipliers and input-output analysis used to measure the economic impacts generated by tourism expenditure. His contribution is interesting and useful in that it discusses the problems involved in alternative methods of collecting data about expenditure by tourists. Significant errors or inadequacies often occur in the collection of primary data and these cannot be compensated for by sophisticated analysis, including advanced econometric analysis. Frechtling (1987b, Ch. 42 in this book) examines the type of costs generated by increased tourism. These costs include fiscal costs imposed on government and quality of life costs or losses imposed on residents e.g., traffic congestion. It is important to take such impacts into account. Objective estimates of public facilities required to cater for increased tourism and predictions of the costs generated by greater tourism are useful in planning the supply of tourist facilities and in trying to minimise the costs imposed by an expansion of tourism.

The contribution by Board et al. (1987, Ch. 43 in this book) is unusual because it looks on tourists of different nationalities in a locality, in this case Malaga in Spain, as providing a portfolio for the local community in much the same way as the holding of various assets by an individual or company. Tourism expenditure by some nationalities is more volatile than that of others. If tourism is biased in favour of particular nationalities, it exposes the tourism locality to considerable risk. To reduce such risk, that is the possible impact of large variations in tourist expenditure, the locality may wish to adopt measures which ensures an appropriate balance of tourists of other nationalities with less volatility in their expenditure, that is diversify its 'portfolio' of tourists.

Sinclair and Sutcliffe (1988, Ch. 44 in this book) discuss the complexities of estimating Keynesian income multipliers for tourism at the sub-national level. In their analysis, they allow for leakages from a region plus the possibility of feedbacks injected from outside the region. The latter of course will tend to increase the multiplier in the local region – increases of 3%-11% have been estimated.

Archer (1989, Ch. 45 in this book) states that "impact analysis is an economic approach used to measure *inter alia* the amount of income, government revenue, employment and imports generated in an economy by the direct and secondary effects of tourist expenditure." Archer uses this analysis to explain the economic impacts of tourism in small island economies and finds that these impacts are very heterogeneous in nature, and generalising about this subject is precarious.

Fletcher (1989, Ch. 46 in this book) outlines the merits and drawbacks of using input-output analysis in tourism impact studies rather than simple Keynesian multiplier analysis. One of the advantages of input-output analysis is that it yields greater information about interdependent economic relationships but it also requires a considerable amount of information and its structure is based upon simple linear relationships which also have their limitations in practice. Fletcher outlines some ways in which perceived problems may be allowed for. He suggests that "where the lack of available data and resources prevent the researcher from constructing a complete input-output model, it is possible to construct 'hybrid' models which only desegregate the tourist-related sectors and present the rest of the economy as a single sector of local production" (Fletcher, 1989, p.525). He has applied this method to the Republic of Palau, the Solomon Islands and Western Samoa but suggests that in large economies with strong intersectoral links, application of this method would not be

satisfactory. Fletcher also emphasizes the variety of multiplier concepts and the importance of distinguishing between these in tourism impact analysis. In his classification, Type I income multipliers indicate the amount of direct plus indirect income created whereas Type II includes in addition induced income.

Heng and Low (1990, Ch. 47 in this book) call the above multipliers Leontief and Leontief - Keynes multipliers respectively. They estimate these multipliers for Singapore for a variety of economic categories e.g. output, value added and labour employment. They point out that "as expected, the Leontief-Keynes multipliers, which take into account the feedback effects of consumption and income (direct + indirect + induced), are larger than the Leontief multipliers (direct + indirect)" (Heng and Low, 1990, p.254). For example, the Leontief multiplier for output in Singapore is just under 1.5 but is just below 2.0 for the Leontief-Keynes multiplier. Subject to some qualifications, the authors find that tourism has a very positive impact on Singapore's economy and has a greater impact than other activities based on export and manufacturing. They suggest that the development of the tourism industry continue to be promoted by Singapore.

Heng and Low (1990) illustrates well the type of practical use which can be made of input-output analysis in considering the impact of tourism. Briassoulis (1991, Ch. 48 in this book) provides a relatively up to date coverage of the limitations of input-output analysis in relation to tourism. In doing so, she raises substantive issues about the structure of the tourism industry, about aggregation, structural change and prediction, and intangible impacts.

Johnson and Moore (1993, Ch. 49 in this book) concentrate on measuring the economic

impact of a particular tourist activity and tourism resource, in this case the economic impact of whitewater rafting in the Upper Klamath River (Oregon, USA). This activity was threatened by the potential damming of the Upper Klamath River. Thus one of the economic impacts of building the dam would be the loss of tourism based upon whitewater rafting. They find that "many non-local users would still recreate in the region if the Upper Klamath were not available, [so] disregarding multiple-destination behaviour may lead to overestimates of economic impacts" (Johnson and Moore, 1993, p.287). They use a combination of primary expenditure data and the IMPLAN input-output system to allow for this.

West (1993, Ch. 50 in this book) provides an extension of input-output analysis as traditionally applied for forecasting economic impacts of tourism. He finds the traditional input-output approach to be inadequate because it takes account of only producer-producer relationships and ignores institutions such as public trading enterprises and government, and it is static and linear. He uses a Social Accounting Matrix (SAM) to overcome the first problem and an integrated model to allow for changes in the relationship with the passage of time.

Harris and Harris (1994) also grapple with problems raised by input-output tables based upon past data in an economy subject to structural change. They argue that "the study of tourism at the macro level (nation, State, region) is hindered by the absence of any standard industry classification for this kind of activity. This prevents tourism being included as a separate industry in any kind of national, State or regional (sub-State) economic accounts, and so limiting the measurement of the contribution of tourism to these economies. Same kind of limitation arises if the analysis is concerned with employment as well as production"

(Harris and Harris, 1994, p.29). This of course raises the tantalising question of what is the tourism industry, a matter discussed to some extent in Chapter 1 in Volume I.

In Chapter 52, Zhou, Yanagida, Chakravorty and Leung (1997) outline a computable general equilibrium (CGE) model for estimating the economic impacts of changes in the level of tourism demand and apply this model to Hawaii's economy. CGE models are an alternative to input-output (I-O) analysis. While they are more general than the latter in their representation of the economy e.g. they provide scope for price changes and for factor substitution unlike I-O analysis, CGE modelling is more demanding of information than I-O analysis. Therefore from an operational point of view one has to decide whether the greater flexibility and generality of CGE modelling compensates for the extra cost of data collection and computation.

INTERNATIONAL TOURISM (PART VI)

Tourism very often has an international dimension, even though domestic tourism still accounts for the bulk of tourism activity in most countries. Already international aspects of tourism have been touched on, e.g. in relation to the demand for tourism (covered in Part II), multinational companies in tourism (Part III) and multipliers involving tourism e.g. Chs. 45-47. Particularly on the demand side, there is some overlap between Parts II and VI. However, Part VI also raises issues about the consequences for economic welfare of inbound tourism and the role which the government plays or should take in supporting it.

International travel and tourism is subject to institutional impediments which affect both individual travellers and businesses involved in international travel and tourism. Institutional obstacles for individuals involve documentation requirements such as passports

and in many cases, visas and the costs of these. In some instances, exchange controls, cost of buying exchange and risks associated with fluctuations in exchange rates constitute impediments. Customs regulations can also hinder international travel. Ascher (1984, Ch. 53 in this book) outlines institutional obstacles faced by international travellers and by businesses involved in travel (e.g. in investing abroad, conducting tours abroad and providing travel services in foreign countries) and discusses ways in which such impediments might be reduced. The push for globalisation and internationalisation characteristic of the late 1980s and the 1990s, and fostered by bodies such as the IMF and World Bank, has seen a reduction in obstacles to international travel and tourism. Nevertheless, obstacles still exist and suspicion of inbound tourists and foreign travel organisations is still present and doubts are often raised about their economic benefit to host countries, issues addressed in chapters 57-62 in this book as well as in some of the contributions in Part VII and Part VIII.

The modelling of international travel demand is complex. As pointed out by Witt and Martin (1987, Ch. 55 in this book) models for predicting international tourist demand may be causal or non-causal. Economic models are usually of a causal type and important explanatory variables in these models are normally the income levels of tourists from originating countries, and relative prices for travel/tours in the originating country and to alternative destinations. White (1985, Ch. 54 in this book) models the demand of US residents to travel to Western Europe using a model of this type. He fits Deaton and Mullbauer's (1980a, 1980b) Almost Ideal Demand System to the data. In this model, expenditure on all goods and services can be considered to be a proxy for income. As a result, White estimates expenditure and price elasticities for US travel to individual European countries. Some European countries are found to be travel substitutes whereas

others are travel complements. For example, France and the UK were found to be substitutes for travel with high price elasticities of substitution. The same was found to be true for Germany and France.

Witt and Martin (1987, Ch. 55 in this book) use causal econometric models for predicting international tourism demand. They point out that although causal models for prediction tend to be more costly to apply than non-causal models which say extrapolate trends or use leading indicators, causal models provide a richer range of forecasting possibilities including the possibility of running 'what if' scenarios. Furthermore, they provide greater scope for learning and for improvements in modelling.

Witt and Martin (1987) undertake a similar type of modelling to White (1985) but use a slightly different specification of the demand equations, even though like White they use the log-linear form of the demand equation because elasticities are easily derived from it as the coefficients of the independent variables. The independent variables in Witt and Martin's demand equation are personal disposable income per head in the originating country, the real cost of travel from the origin to the destination, the destination cost of tourism related to the original origin cost of tourism, the rate of exchange of the currency of the destination relative to the origin, and a dummy variable to allow for a couple of unusual events – an oil crisis and political disturbances in Greece. Tourism expenditure per head lagged by one period is also included as a component in explaining current tourism expenditure in each destination country.

The authors concentrate on outward tourism for West Germany and from the UK considering up to 11 destination countries. They find that the income elasticity of demand

for outbound tourism is higher for the UK than Germany and conclude the Germans are likely to regard foreign holidays as 'necessities' whereas the British regard them as 'luxuries'. Interestingly enough they also observe differences in habit persistence between the Germans and the British in visiting destination countries. They suggest that their econometric results imply "that habit persistence and possibly supply constraints (say, in the form of limited number of inclusive tourism on offer) play a much more important role in the UK than in West Germany. The greater holiday 'brand loyalty' exhibited by UK residents suggest that in order for new destinations to break into the UK market, or for existing destinations to improve their market share substantially, a considerable amount of promotional activity would be necessary. The low level of brand loyalty shown by German residents (other than for holidays to France) implies that destinations can compete more effectively on the basis of price and quality" (Witt and Martin, 1987, p.29).

Crouch (1993, Ch. 56 in this book) provides a systematic review of literature on the effects of income and price on international tourism as found in numerous empirical studies. He finds that about two-thirds of the 777 usable estimates of income elasticity yielded income elasticities in excess of unity indicating that not only does international tourism rise with income but does so more than proportionately. The mean income elasticity in the studies covered was +1.76 with a standard deviation of 1.80. However, some tourist destinations are inferior and have a negative income elasticity.

The situation in relation to price elasticities of demand for foreign tourism is more complex; estimates differ widely. This may be because they do so in reality. But the variation could also reflect differences in methods of measuring or selecting a proxy for the price variables. About 60% of the 1,277 usable estimates of own price elasticities were found to be negative

implying that demand for tourism to a country falls with a rise in the relative price of its tourism services. Their mean own price elasticity was found to be –0.39 with elasticities having a relatively large standard deviation of 3.70. This mean price elasticity implies that, on average, tourism demand is relatively inelastic in relation to the relative price of a destination.

Morley (1992, Ch. 57 in this book) outlines a more general model for international tourism demand than the two-stage decision model commonly used. His motivation is the belief that "a better understanding of theoretical foundations can lead to better empirical work" (Morley, 1992, p.251).

The remaining articles in Part VI focus on the welfare consequences of foreign tourism for host countries. To the extent that export instability creates disutility for exporting countries, is associated with uncertainty resulting in economic losses due to errors in economic decision- making when it is combined with lack of resource flexibility ex-post, international tourism may be regarded favourably if it reduces export instability but unfavourably if it increases export instability. Sinclair and Tsegaye (1990, p.496, Ch. 58 in this book) conclude, amongst other things: "Although the promotion of the tourism industry has been supported on the grounds that it provides an additional important source of export receipts and is a feasible means of diversifying a country's economy, diversification into this non-traditional activity has often failed to play its anticipated role of stabilising export earnings. The calculated values of the major categories of instability measures showed receipts from travel to be a relatively unstable source of earnings. The instability values for travel receipts by developing and intermediate income countries exceeded those for merchandise exports for both categories of measure, and the values calculated using deviations from a moving

log average gave rise to the same conclusions for the industrialised countries.

Of greater importance is the finding that, rather than offsetting the instability of earnings from more traditional merchandise exports, receipts from travel can amplify net export earnings instability...".

Copeland (1991, Ch. 59 in this book) presents a simplified general equilibrium model to examine the economic affects of an increase in tourism on a small, open economy. He finds that "in the absence of taxation, distortions and foreign ownership, an increase in foreign tourism benefits the host country only through its effects on the price of non-tradeables" (Copeland, 1991, p.516). The non-tradeables include a number of tourist services. He points out also that "in the presence of foreign ownership of immobile factors (e.g. land), an increase in tourism can reduce welfare if the increase in the flow of repatriated earnings is sufficiently large." Furthermore, the growth of foreign tourism *may* result in de-industrialization and a redistribution of income in favour of immobile factors specific to the non-tradeable sector. The income redistribution consequences of the latter may be unwelcome in the host country. In addition, possible adverse environmental externalities from increased tourism should be taken into account. Furthermore, "because tourists consume the services of unpriced natural amenities jointly with priced goods (and since they also benefit from public goods provided by the government), a tax policy aimed at extracting rent from tourists can increase the gain from a tourist boom." (Copeland, 1991, p.527; Cf. Tisdell, 1983). Copeland's contention that international tourism can reduce economic welfare in the host country contrast with the view of Clarke and Ng (1993), discussed later that foreign tourism as a rule raises economic welfare in the host country.

Copeland (1991) points out that his analysis has similar aspects to the Dutch-disease analyses of Corden and Neary (1982) and Corden (1984) which examine the effect on the rest of the economy of the substantial expansion in an export sector. However, as Copeland (1991, pp.515-516) emphasizes, there are substantial differences between the nature of merchandise exports and foreign exchange earnings from tourism e.g. tourists must visit a country to consume its tourism services and tourists consume a bundle of commodities some of which are unpriced natural amenities.

Dwyer and Forsyth (1993a, Ch. 60 in this book) review the possible benefits and costs of inbound tourism but not in a general equilibrium framework. Although they mention the contribution of Copeland (1991), they appear to be somewhat more optimistic (but not greatly so) about the likelihood of inbound tourism bringing net economic benefits to the host country. They conclude that "additional foreign tourism expenditures are likely to produce net benefits for the home country, though these benefits are unlikely to be large in relation to tourism expenditure" (Dwyer and Forsyth (1993a, pp.765-766). Thus it seems that, from their perspective, the economic gains of a host country from inbound tourists may be modest.

Dwyer and Forsyth (1993b, Ch. 61 in this book), in the light of their earlier article (Dwyer and Forsyth, 1993a), consider the economic justification of governments helping to promote inbound tourism, e.g. through advertising campaigns, provision of information to prospective tourists. As they point out, the chief beneficiaries are likely to be the suppliers of tourist services in the host country or suppliers of travel to the host country. In fact, *if* the supply curve for tourist services to or in the host country is upward sloping, tourists of the host country taking tours within the country may have a loss in consumer surplus due to

higher local tourism prices as a result of an induced increase in demand for tourist services. In assessing the national benefits from promotion of inbound tourism, the loss in consumers' surplus of residents must be deducted from the gain in the producers' surplus of national tourist operators. To the extent that tourist assets in the host country are owned by foreign interests, part of the increase in this producers' surplus, e.g. increase in rents, drifts abroad, and as pointed out by Copeland (1991), does not constitute a benefit to nationals and so might also be deducted. However, this of course assumes that nationals on disposing of tourist assets to foreigners did not receive the full capitalised value of these assets inclusive of all future rents.

Government financial support for promotion of the tourism industry constitutes a subsidy to owners of relevant tourist assets and suppliers of tourist services. While free-riding may mean that producers in a domestic tourist industry would spend insufficient on generic promotion and advertising to maximise their collective net benefit from inbound tourism, there seems little economic justification for governments to 'foot the bill' entirely. In agriculture such collective promotion is funded or partially funded by levies on producers. Of course, the only possible national disbenefit from increased inbound tourism may not be an increase in prices paid by residents taking domestic tours and a reduction of their consumers' surplus. Additional disbenefits such as extra environmental costs may be imposed. *On the other hand,* if external economies of scale are experienced by the tourism industry, a much more favourable result can be expected (Tisdell, 1998b). Residents taking domestic tours could experience falling prices for tours as a result of inbound tourism.

Compared to Copeland (1991) and Dwyer and Forsyth (1993a), Clark and Ng (1993, Ch. 62 in this book) have a more positive outlook on the benefits to be obtained by a host country

from inbound tourism. Basically, they use carefully stated and qualified neoclassical economic theory to support their case.

Crucial assumptions for their case are that *all* tourist resources are owned by residents of the host country and *all* relevant goods and services are marketed and priced efficiently. They then contend that "increased tourism promotes net average (i.e. Pareto) economic gains for residents even in the face of such things as increased environmental costs and increased charges. Therefore, under these circumstances, there is no case for entry taxes or qualitative restrictions on tourism to deal with environmental issues. However, such taxes can be justified on rent-seeking grounds" (Clarke and Ng, 1993, p.613).

While the above seems to be true under the assumptions made, the assumptions unfortunately cannot be fully satisfied in practice. For example, not all environmental goods and services can be marketed or marketed efficiently, areas of open-access exist in every economy and pure public goods and services are amongst commodities available. When that is taken into account, a rather different picture emerges and an entry tax on inbound tourists may become defensible, as a practical environmental type of policy to bringing about a net economic improvement. There can be circumstances, where an entry tax, quantitative restrictions on inbound tourists and qualitative restrictions on tourist developments are justifiable on economic grounds, given that not all economic goods and commodities can be efficiently priced.

From a policy perspective, it is also important to consider income distributional consequences of foreign tourism; an aspect not explored in neoclassical economic theory. Furthermore, national gains may be influenced by the extent of foreign ownership of tourism

assets, especially such ownership of relatively unique assets capable of earning rent. Non-economic considerations such as changes in social power relationships may also be of concern. Issues of this type and a number involving dynamic rather than static modelling are raised in Part VII. But before reviewing Part VII, it is worthwhile considering some simple microeconomic analysis which may help clarify a number of the economic welfare issues raised by discussing the four articles just considered.

Figure 39.1 corresponds to Figure 1 in Dwyer and Forsyth (1993a) and also to Figure 1 in Clarke and Ng (1993) and is used to introduce the view that inbound tourism is likely to provide a net economic benefit to the host country. Dwyer and Forsyth (1993a, pp.760-761) state: "Even if foreign tourism results in domestic residents being priced out of their own facilities, the nation as a whole gains. While such gains may be reduced as a result of foreign ownership of tourism facilities, [a point previously made by Copeland (1991)], the reduction in benefits to the host country is not as great as is commonly thought (Forsyth and Dwyer, 1991). Where the price increases reduce the competitiveness of a country's tourism industry compared to overseas destinations, there is also likely to be some shift by domestic residents from domestic to foreign tourism."

In figure 39.1, line AS represents the supply curve of commodities catering for tourism in a country and line D_HD_H represents the demand of residents of the country for domestic tourism. In the absence of inbound tourism, the equilibrium price of tourism services is P_1 with X_1 of these supplied to residents. Now suppose that inbound tourism also occurs and shifts the demand curve for tourism in the country up to D_{H+F} D_{H+F}, the difference between this line and D_HD_H representing the demand for inbound tourism. The equilibrium price of tourism in the country now rises from P_1 to P_2 with total tourism in the country rising

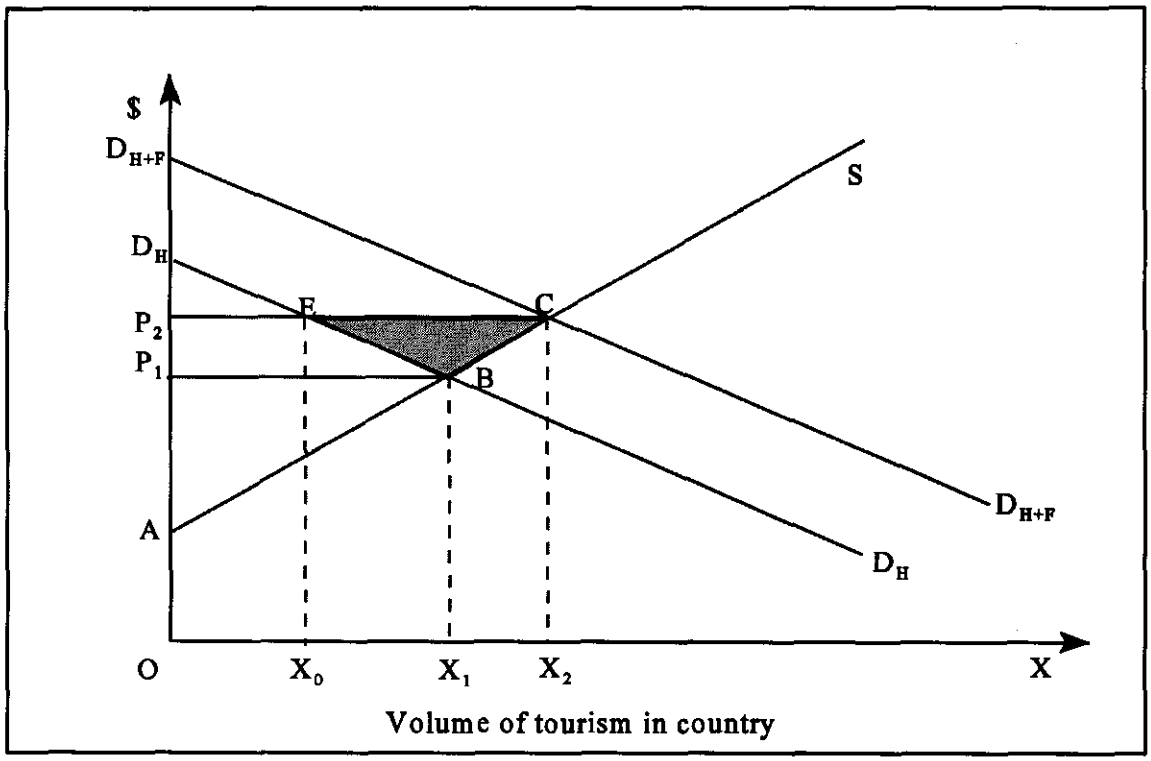

Figure 39.1 Type of figure used by Clarke and NG (1993) and by Dwyer and Forsyth (1993a) to demonstrate that inbound tourism can be expected to confer a *net* economic benefit on a host country.

from X_1 to X_2. However, some displacement of domestic tourism by inbound tourism occurs. Locals reduce their volume of domestic tourism from X_1 to X_0, and their displacement by foreign tourist amounts to $X_1 - X_0$.

As a result of inbound tourism, suppliers of tourism services for the host country obtain an increase in producers' surplus equivalent to the area of trapezium P_1BCP_2. On the other hand, residents availing themselves of domestic tourism experience a decline in consumers' surplus equivalent to the area of trapezium P_1BEP_2. Despite the loss experienced by resident tourists, the former area exceeds the latter area, and therefore, there is a Kaldor-Hicks economic gain (potential Paretian improvement) equivalent to the area of ΔBCE. Hence, in this sense and subject to no allowance for foreign ownership of resources in the domestic tourism industry, the host country obtains a net economic benefit from inbound tourism.

This accords well with the perception of conventional neoclassical economists.

In this respect, Clarke and Ng (1993) proceed further than Dwyer and Forsyth (1993a) by emphasizing that in the presence of efficient pricing of environmental externalities, no regulation of inbound tourism or tourism development is required for the host country to achieve an economic optimum in Pareto's sense. Inbound tourism on balance has favourable net economic benefits for the host country, and the greater this tourism is the more substantial are these benefits. However, this result is obtained by assuming that the host country can eliminate all market failures or more generally, all economic failures in the administration of its scarce resources. This is not a very realistic assumption because it may not be economic to eliminate all such "failures". In that case, regulation of inbound tourism could be rational as can be illustrated by Figure 39.2.

Figure 39.2 has the same interpretation as Figure 39.1, except that in Figure 39.1 line AS represents both social and private marginal costs of tourism in a country whereas in Figure 39.2 the social marginal cost curve of tourism diverges from private marginal cost curve. In Figure 39.2, line AS represents private marginal cost of tourism in the country as before, but the social marginal cost curve is now shown by ABG, drawn in this way purely for simplicity. When tourism in the country exceeds X_1, per unit of time, an unfavourable environmental externality occurs and the social marginal cost of tourism exceeds its private marginal costs. Note that in this case the externality measured is only the externality imposed on residents of the host country. All benefits and costs imposed on foreigners are ignored from a nationalistic viewpoint.

Suppose that the externalities cannot be internalized by pricing, then inbound tourism shifts

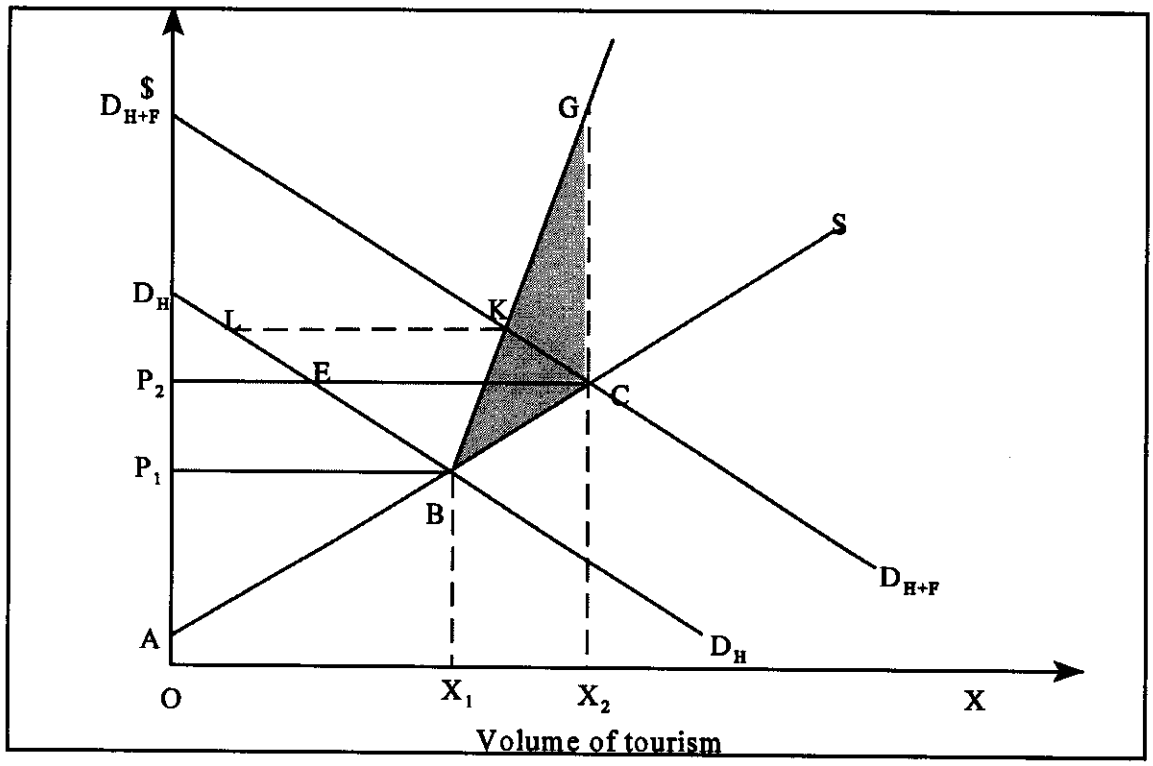

Figure 39.2 If adverse environmental externalities arise from inbound tourism, it can result in a net economic loss for a host country. This may be compounded by other market and non-market failures in resource allocation. Hence, inbound tourism can be less beneficial to the host country than is suggested by Clarke and Ng (1993).

the equilibrium of the domestic tourism industry from point B to C. This, however, results in a deadweight social economic loss equal to the area of ΔBCG. In the case shown, this exceeds the area of ΔBCE, net gains to the economy in the absence of the externality. In this case, inbound tourism because of adverse externalities, results in a net economic loss for the host country. Potentially the host country could gain from regulating inbound tourism, if the externalities cannot be efficiently eliminated within the country, as is likely in many cases. Thus, environmental externalities (contrary to the impression given by Clarke and Ng) can provide defensible economic grounds for government regulation of inbound tourism. This is in addition to the rent-seeking argument which Clarke and Ng (1993) concede (Cf. Tisdell, 1983; Copeland, 1991).

While in the case illustrated in Figure 39.2, the deadweight social economic loss occasioned by the external environmental effects generated by inbound tourism exceeded the net benefits otherwise obtained by the host country, naturally this need not always be so. Furthermore, if one *could* efficiently price the externalities thereby internalizing these, private and social marginal costs of tourism would no longer diverge. In the case illustrated in Figure 39.2, ABG would then be both the private and social marginal cost curve of tourism. The equilibrium of the domestic tourism industry would then correspond to point K and the net economic benefits from inbound tourism would be equivalent to the area of ΔBKL, applying the same argument as developed in relation to Figure 39.1.

The above suggests that the crucial question is the extent to which it is possible or economic to eliminate all externalities involved in tourism by 'efficient' pricing. For reasons suggested by North (1981, 1990), it is likely to be uneconomic to eliminate all externalities and/or convert all commodities into private commodities by introducing private property rights regimes. While some progress may be possible in that respect, some market failures involving externalities, pure public goods and open access can be expected to remain [and their presence, as pointed out by North (1991, 1990), can even be economically rational]. In addition, government and administrative failures may be unavoidable. Practical tourism policies must therefore be devised to apply in less than perfect conditions, as becomes even more obvious in Part VII of this book.

Incidentally, the models just discussed can also be applied to consider the economic benefits of government promotion of inbound tourism, a subject considered by Dwyer and Forsyth (1993b). If the model in Figure 39.1 applies, the aggregate net benefit to the host country in promoting inbound tourism which moves the demand curve up, is the increase in

producers' surplus of tourism operators less the fall in consumers' surplus of residents involved in domestic tourism, less any allowance for foreign ownership of tourism resources. However, in addition, the cost of promotion by the government must be deducted. Further, if adverse environmental externalities (or other allocated failures) are present (as illustrated by Figure 39.2), the deadweight social economic loss generated by additional tourism ought also to be subtracted from aggregate benefits obtained otherwise. From a Kaldor-Hicks point of view, government expenditure in promoting inbound tourism ought to proceed to the point where extra aggregate benefits received by the host economy is equal to the last dollar spent on this promotion. As mentioned earlier, however, this leaves out of consideration equity issues. Given the models considered above, the sole beneficiaries in the host country are suppliers of tourism services. If the user pays principle is to be applied, then they should pay. Levies might be imposed by the government on tourist operators for the purpose of generic promotion of inbound tourism.

Although the economic models discussed above provide valuable insight into the economic welfare effects of inbound tourism and the increase of such welfare, they are still relatively particular. It is for example, by no means clear that the supply curve for all tourism services is upward sloping (Cf. Tisdell, 1998b). In fact, some economies of scale probably occur in relation to transport e.g., air and rail transport, and urban-type tourist developments. These models also do not capture dynamic and evolutionary aspects and important non-economic facets of international tourism development (such a change in social power relationships) which in the end may also have economic consequences. Greater consideration is given to such issues in Part VII.

TOURISM IN DEVELOPING COUNTRIES AND IN ECONOMIC DEVELOPMENT (PART VII)

While several contributions in other parts of this collection (such as Part V "Impact Analysis of Tourism" and Part VI "International Tourism"), relate to tourism and economic development and to tourism in developing countries, few do so directly. This is rectified in Part VII in which selected articles concentrate on tourism in less developed countries and/or its role in the economic development, and these themes continue to some extent in Part VIII. Nevertheless, a search of the economic and related literature indicates a paucity of available articles with the abovementioned direct focus. This is so despite the fact that a strong positive relationship exists between the size of a nation's tourism sector and its level of economic development and its several less developed countries e.g. Kenya, rely heavily on tourism for foreign exchange earnings and as a contributor to their economic activity. Furthermore, expansion of tourism is promoted by several international organisations as a growth - enhancing strategy for many LDCs (Diamond, 1977) and one which may have favourable consequences for environmental conservation compared to fostering other industries (IUCN, 1980; Tisdell and Wen, 1991). For instance, with increasing stress on the conservation of nature and the desirability of achieving sustainable development, conservation bodies such as the World Conservation Union (IUCN) have emphasised the capacity of nature-based tourism in LDCs to yield economic benefits to LDCs and to conserve nature; a 'win-win' type of situation.

There is little doubt that a nation's tourism sector expands with its economic growth and development and seems to do so relatively (Cf. Liu, 1998). There are many reasons for this. First, the demand for tourism is highly income elastic (Cf. Crouch, 1992). Secondly, as the size of this sector increases (as well as an economy), external economies of scale may be

present especially in the transport sector which is likely to benefit by improved infrastructure and greater utilisation of infrastructure. Consequently, the real price of tours may decline, and a greater range of possible tours may become available. Higher incomes are very often associated with greater leisure-time, at least up to a point; another factor favourable to the growth of tourism. The stresses and strains of modern economies may in addition stimulate a large number of individuals to seek relief through tours (Christaller, 1964). Possibly also social pressures (field effects) on individuals to engage in some type of tourism, as a change from their usual routine, may increase.

The above relates to the consequences of economic growth and development for tourism. On the other hand, one may also consider the extent to which the growth of tourism stimulates economic development of a nation or region. Even if a country, such as a less developed country, has few domestic tourists, it may be able, if it has suitable tourism assets, to develop a significant tourist industry based on international visitors. The development of this industry *may* then stimulate the growth of other industries through backward and forward linkages and increase domestic incomes and effective demand as indicated by impact analyses using input-output analysis as discussed in Part V. A number of articles in Part VII consider such issues, especially the socio-economic benefits and costs of the expansion of international tourism in Third World countries and the role for government in such expansion. In order to obtain a representative array of contributions for this part, it has been necessary to go back more than two decades in the selection of articles.

The result, however, is interesting. The earlier papers compared to the later ones tend to be more critical of the proposition that expansion of international tourism is likely to bring substantial net benefit to LDCs and they tend to take a more positive attitude towards

government involvement in the promotion of tourism. Thus, in these articles there is suspicion of globalization and a positive attitude towards government involvement in promoting economic activity. Later articles often reflect a more positive attitude towards the globalization process and international tourism and grapple with the idea promoted by the International Monetary Fund and the World Bank, that little government involvement in the economy (as encapsulated in structural adjustment policies) is desirable. In the period covered by the essays in Part VII, there has been a rapid change from inward-looking to outward-looking economic policies and a scaling-down of the sizes of public sectors.

Consider briefly the individual contributions reproduced in Part VII. As it transpires, most are critical of the capacity of international tourism to provide socio-economic benefits to LDCs. However, this should not be taken to imply that the growth of international tourism is never beneficial to Third World countries. Many of the essays are reactions to the view that foreign tourism is always beneficial or nearly always so to the host country, as for examples suggested by neoclassical economic theory elaborated in some respects in relation to tourism by Clarke and Ng (1993, Ch.62 in this book).

Britton (1982, Ch. 63 in this book) discusses the political economy of tourism in the Third World taking South Pacific small island economies as a point of reference. He warns that the tourism industry in Third World countries is liable to be controlled and dominated by large-scale foreign and national enterprises and the "greatest commercial gains therefore go to foreign and local elite interest". One of his major concerns is with the income distributional effects and power sharing consequences of such an industry in LDCs. His approach accords with centre-periphery theories of development e.g. Frank (1978), elements of which are also present in the work of Myrdal (1956, 1974). Britton (1982, p.355) sees

a role for the government in ensuring greater and more widespread benefits from tourism but is not specific about how this should be done. Furthermore, he does not conclude that inbound tourism in LDCs involves a net economic disbenefit to them in the absence of government intervention. Indeed, despite his concerns about the equity and power sharing consequences of tourism, he leaves open the possibility that inbound tourism may be a net economic benefit for an LDC, and that an LDC could benefit by having its tourism industry developed primarily by foreign capital from the centre rather than not having it developed at all or having it little developed due to lack locally of capital or knowhow.

Henry and Jenkins (1982, Ch. 64 in this book) argue that in developing countries governments need to take an active role in fostering the tourism industry and be involved to some extent in its operations. They clearly see the tourism industry as a key industry for many LDCs. They argue that more active government involvement is needed the more important tourism is in a developing economy (Jenkins and Henry, 1982, p.506). They see the government as having a role in promoting import substitution e.g. in relation to foodstuffs used in the tourism industry, enhancing linkage affects of the tourism industry with the remainder of the economy, encouraging substitution of employment of domestic labour for foreign labour in the domestic tourism industry, and taking an active role in the regulation and/or provision of air transport. In addition, they argue that the government needs to be actively involved in land-use planning. They point out: "Tourism development poses particular problems in relation to land use policies. In most developing countries where the natural environment and habitat comprise the main tourism attractions, uncontrolled development can result in serious environmental problems" (Jenkins and Henry, 1982, p.514). Although the outlook of Jenkins and Henry shows both statist and inward-looking economic dimensions, they nevertheless are supportive of foreign

investment in tourism development in LDCs and comment: "It is generally recognised that most developing countries need to attract foreign investment to support their development efforts. Scarcity of domestic capital or a reluctance to use what is available for investment in tourism often results in government having to specifically encourage foreign investors to make investment incentives available" (Jenkins and Henry, 1982, p.510).

The article by Jenkins and Henry is representative of the era preceding widespread acceptance of structural adjustment programs (SAPs) and predates later emphasis favouring globalization. Dieke (1995, Ch. 64 in this book) takes up the implications of SAPs for tourism development in Africa and their implications for the advocacy by the Economic Commission for Africa of self-reliance and sustainability.

Diamond (1977, Ch. 64 in this book) provides a critical economic perspective on the strategy of encouraging tourism as a leading industry for economic growth. Diamond recognised that adverse sociological and *non-economic* effects of inbound tourism and foreign investment in the tourism sector of LDCs had been reasonably well canvassed by the mid-1970s but that the possible *economic* shortcomings of tourism had been given little systematic attention. While for some LDCs, inbound tourism expansion has brought great economic benefits, for others results proved to be disappointing. He selects Turkey's experience in the 1960s as an example. His study of Turkey "pinpoints some of the more general [economic] difficulties associated with promoting tourism in developing countries." He points out for example that *development* of a tourism industry tends to be capital intensive (Cf. Sinclair, 1991) even though the tourism industry can be relatively labour intensive in its operation. High capital requirements may reduce the appropriateness of the development of a tourism industry in a capital poor LDCs unless capital is supplied from abroad e.g. via foreign direct

investment. Apart from the article reproduced in this book, Diamond wrote several other articles on similar themes (Diamond, 1974, 1976).

Drawing on the experience of selected Caribbean countries, Modeste (1995, Ch. 67 in this book) finds that the growth and development of Caribbean economies have been positively stimulated by tourism development. Tourism is seen as accelerating economic development but as extracting resources from the agricultural sector in these economies so causing their agricultural sector to contract (Cf. Copeland, 1991). Dutch disease consequences occur.

Brohman (1996, Ch. 68 in this book) represents a return to the centre-periphery type theories of the 1970s and early 1980s, and a retreat from outward-oriented development and structural adjustment policies. He combines this with a call for a more active state involvement in tourism planning. At the same time, his article calls for greater allowance to be made for communal values in the development of the tourism industry. His article therefore contrasts sharply in its stance with that of Modeste (1995) and with support for globalization and internationalisation of economic activity characteristic of most of the 1990s.

Timothy Forsyth (1995, Ch. 69 in this book) considers the relationship between tourism and agricultural development using a case study in northern Thailand, namely the impact of tourism local development on the agriculture of a hill-tribe village. He finds that agricultural production increased along with land degradation as tourism to the village grew in importance. The expansion of agricultural production in this micro- case contrast with its contraction in Modeste's macroeconomic case for selected Caribbean countries. Furthermore, in the Northern Mariana Islands, located near Japan, Kakazu (1994, Ch. 4)

found in a national context that the growth of international tourism displaced traditional industries such as agriculture and promoted a rentier-type economy heavily dependant on guest workers (temporary migrants). Consequently, the nature of this economy converged towards that characteristics of oil-rich exporting countries like some in the Middle East.

An aspect of tourism development not covered by these essays is whether tourism development tends to reinforce or offset economic centralisation. Wen and Tisdell (1996) found that international tourism in China reinforced economic centralisation in the sense that it is urban centric and concentrated on the coastal region. McKee and Tisdell (1990, Ch. 5) argued that tourism is likely to have an urban economic bias and to foster economic centralisation. Opperman (1992) found that in Malaysia tourism tends to be geographically concentrated rather than dispersed. This means that the growth of the tourism industry can lead to uneven regional development. At the same time, it is possible that remote regions may obtain expanded economic benefits from growth in tourism but their relative fortunes may vary and their relative gains may be much less than that of more central places or regions.

SUSTAINABILITY AND ENVIRONMENTAL ASPECTS OF TOURISM (PART VIII)

Aspects of economic development and environmental conservation are closely interwoven in the concept of sustainable development which in the last decade or so became a major global policy focus (World Commission for Environment and Development, 1987) as underlined by the United Nations Conference on the Environment and Development held in Rio de Janeiro in 1992. While there are several different definitions of sustainable development (see for example Tisdell, 1991, 1993) all emphasise the relationship between

the present and the future; the importance of taking into the account the impact of current decisions about resource use on the benefits to be obtained from resources in the future, that is their *user costs*. To the extent that concepts of sustainability emphasise this aspect, they perform a useful role.

Socioeconomic mechanisms for resource use, including those for the use of resources in the tourism industry, do not always ensure that appropriate account is taken of user costs. Market failures may for example result in inadequate account being taken of user costs (Tisdell, 1987; Tisdell et al., 1992). Tourism activity may fail for example to be sustained at desired levels because of unfavourable environmental spillovers or externalities either from other industries or from the tourism industry itself. Other industries may pollute assets used by the tourism industry e.g. water used for surfing or swimming, or destroy visual amenities used by the tourism industry. But sometimes the tourism industry itself can be self-destructive in a similar fashion. Again, where resources used by the tourist industry are open-access resources, or virtually so, they may be destroyed by lack of care and over use. Consider here tourist boats which drop anchors on corals, permit divers to take souvenirs from coral reefs and damage these and so on.

In many cases, conservation of natural environments is needed to maintain tourism. In general, any asset on which tourism depends whether it be natural, cultural or of a man-made historical type, must be sustained in order to maintain tourism reliant on its presence. A strong relationship exists between tourism and the nature of extant environments, natural and otherwise, but surprisingly this relationship only began to be explored systematically after the mid-1970s.

Budowski (1976) discussed the question of whether tourism is in conflict with environmental conservation or can it co-exist with it or even display symbiosis with it. One of the earliest articles to explore systematically the relationship between tourism and the state of the environment is Pigram (1980, Ch. 70 in this book). Pigram recognised that there may be negative, neutral or positive relationships between the development of tourism and environment, as had Budowski. To some extent, the state of an environment is in the eye of the beholder, and individuals may be in conflict about whether the particular environment is a quality environment or not, and whether or not a tourist development improves or detracts from an environment. Indeed, in the eyes of many, some actual destruction of natural or built environments to provide other facilities may be needed to improve an environment for tourism even if arguments occur about the acceptable level of transformation. Inasmuch as Pigram (1980) does not take up this matter nor consider the array or constellation of tourism-related environments that are desirable, his article is limited in its perspective. In addition, Pigram does not discuss the role of market failures in relation to the alteration of environments.

Pigram's main points are captured by the following: "Tourism and the environment are not merely interrelated but are interdependent. The viability of tourism, rather than conflicting with environmental conservation, actually demands it, otherwise visitor satisfaction will be reduced as the inherent appeal of the tourism setting is eroded. Whereas tourism can lead to environmental degradation and therefore to self-destruction, it can also contribute to substantial enhancement of the environment" Pigram, (1980, p.554).

In the same year as Pigram's article appeared, Butler (1980, Ch. 71 in this book) was published. It introduced the concept of a tourism area cycle to predict the level of tourism

activity in a region or locality. It describes the process of how tourism may develop and eventually take off in an area, peak and then decline, principally because environmental constraints are breached. The form of the tourism area cycle is very similar to that of product cycles well-known in marketing and managerial economics. In fact, the type of cycle which Butler describes can also be generated by processes different to the ones which he isolates, e.g. by tourism product cycles, as for example pointed out by Tisdell (1991, Ch. 10). Furthermore, the concept of a fixed environmental carrying capacities as incorporated in his theory has substantial limitations (Lindberg et al., 1997, Ch. 74 in this book; Tisdell, 1998). Nevertheless, Butler's article is widely and correctly regarded as a significant contribution.

Ecotourism, although there are some variations in definitions (Tisdell, 1996a) is basically tourism which is careful of the environment especially the living environment. It is both an environmentally friendly type of tourism and usually a sustainable form of tourism. According to Wight (1993, Ch. 72 in this book), the concept of sustainable tourism involves the challenge of developing world's tourism capacity and the quality of its products without adversely affecting the environment that maintains and nurtures them. Conservation bodies such as the IUCN, see ecotourism as a possible means to reconcile economic development with nature conservation. Although Wight (1993) does not see ecotourism as an alternative to mass tourism and other forms of tourism, she sees it as a valuable supplement which if well managed, with particular goals or ethical principles in mind, is likely to be sustainable and conservation friendly. Wight (1993) provides a useful conceptual overview of different types of tourism, their relationship to one another and factors which can influence their sustainability.

Brown et al. (1997, Ch. 73 in this book) discuss environmental carrying capacity, and the sustainability of tourism in the Maldives and Nepal. They find that both these countries are suffering adverse environmental impacts from tourism mostly "associated with solid waste disposal and water resources, compounded by the depletion of natural resources" partially due to open access to such resources. Both countries use tourism dispersal techniques to reduce these adverse environmental impacts of tourism. Although the authors consider these techniques to be of assistance, they feel that they do not address the fundamental issues. Although their article uses environmental carrying capacity as a focal point, they do not provide specific estimates of environmental carrying capacities. Indeed, they express some misgivings about the operational scope of the carrying capacity concept even though it is used by them as a basis for discussing the environmental aspects of tourism. They are of the view that "even if an ecological carrying capacity can be defined, the experience of these two countries indicate that impact on local communities may well exceed so-called cultural carrying capacity" (Brown, et al., 1997, p.316).

Lindberg et al., (1997, Ch. 74 of this book) is even more critical of the concept of tourism carrying capacity calling for the concept to be abandoned all together. Tisdell (1998a) also expresses concern about the operational value of this concept, even though it provides a simplified reference point for discussing relationship between tourism and the environment.

Economists have long recognised that high demand to use tourist attractions may lead to congestion and to a deadweight social economic loss. This occurs if there is not appropriate rationing of visits to the tourist attractions via pricing or alternative allocation mechanisms. Wanhill (1980, Ch. 75 in this book) examines the formal characteristics of the problem and suggests a number of mechanisms that could be used to control the excess demand involved,

although he does not assess the socioeconomic merit of the alternative policies listed by him. When there is a degree of open access in travelling to a tourist attraction or in utilising a tourist attraction and this is not taken into account in regulating access, the type of congestion problem outlined by Wanhill can arise. In this case, private costs of a visit are liable to be lower than the social costs.

Note that Wanhill (1980) has a misprint on its first page – the generalised cost of return trip is represented by T not R as mistakenly printed on the original article. Also note that this model can be adapted to consider other adverse environmental externalities which may arise from individual tourists. Again, while there is an optimal visitor rate or 'carrying capacity' in Wanhill's model, this rate varies with alterations in demand and cost conditions. These alterations result in shifts in the curves shown in Figure 1 of Wanhill's article. Thus it would appear that from an economic viewpoint that there is no such thing as a unique carrying capacity for a tourist attraction, unless major discontinuities occur in the relevant curves.

Driml and Common (1995, Ch. 76 in this book) point out that protected areas have an important role in Australia's approach to ecological sustainable development but that many such areas have multiple-uses one of which is for tourism. They suggest that the appropriate management strategy for a protected area might be that which maximises the present discounted value of the stream of total net economic benefits from the alternative uses(including for tourism) of the protected area. However, this policy need not be one which sustains tourism (Cf. Tisdell and Wen, 1997a). Furthermore, it could be incompatible with strong conditions for sustainable development (Tisdell, 1997) and violate ecocentric constraints on the use of protected areas. What is being proposed by Driml and Common

is a form of extended social cost-benefit analysis without the type of constraints which advocates of strong conditions for sustainable development might want to impose (Cf. Pearce et al. 1989; Tisdell, 1993, Ch. 8) or which ecocentric person might wish to impose. Nevertheless, Driml and Common are able to show that protected areas in Australia generate massive levels of economic and financial benefits from tourism.

Tisdell and Wen (1997b, Ch. 77 in this book) use simple microeconomic analysis to discuss problems involved in measuring the sustainability of tourism and point out that trends in different indicators can give conflicting indications.

Owen et al. (1993, Ch. 78 in this book) suggest that sustainable tourism is achievable in practice and draw on three Welsh cases to support their point of view. The three tourism projects involved were judged to be successful in terms of their goals. They "have all been undertaken with a view to regenerating the economy over the long term, improving and protecting the environment, enhancing the quality of life for the host population, offering the visitor and the resident a quality experience of Welsh heritage and culture, and providing for local participation in decision making and the employment of local people" (Owen et al., p.474).

Archer and Cooper (1994, Ch. 79 in this book) provide an overview of the positive and negative impacts of tourism. In doing so, they consider a wide range of dimensions – economic, political, socio-cultural, environmental and ecological effects as well as the relationship between tourism and sustainable development.

They conclude by pointing out that although tourism creates both positive and negative

effects in the destination country or region, many of its negative effects can be lessened or even removed by thoughtful policy-making and planning. They continue: "Tourism can be a very positive means of increasing the economic, social, cultural and environmental life of a country. The major issue now is can politicians, planners and developers rise to the challenge and create a truly responsive tourism industry – one which brings long-term benefits to residents and tourists alike without damaging the physical and cultural environment of the destination region?" (Archer and Cooper, 1994, p.89).

CONCLUDING COMMENTS

Tourism economics is complex and, like development economics, must be interdisciplinary in nature to a certain extent, as this volume demonstrates.

While useful static economic models are applied to tourism economics in this volume, some contributions are dynamic or evolutionary in nature. Some models relate tourism structurally to the rest of the economy, as in the case of input-output analysis. Nevertheless, no economic model is able to capture all dimensions of tourism in economics. In practice, economic or more generally socioeconomic modelling involves compromise. Given the bounded rationality of individuals (Tisdell, 1996b), it is impossible to deal simultaneously with all dimensions and interrelationships flowing from tourism development and changes in the tourist industry. In modelling, we need to concentrate on selected aspects serially; those which distill the essence of the problem or the prime influences of practical or operational significance. These may vary with the problem under consideration and with goals, and the choice of a suitable model requires good judgment to be exercised, which may only come with experience.

Furthermore, in applying economic models to tourism (or to other areas for that matter), we can rarely select a suitable model 'off the shelf' and apply it without modification; usually considerable modification is required. In some cases, no suitable model may be available and a new framework may need to be developed. Existing economic models and concepts often provide a useful starting point for developing such a framework. In fact, a knowledge of existing analyses of tourism economics is essential for considering effectively a broad range of issues in tourism management extending from micro-levels through to the national and international levels.

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