

Impact of Global Warming On Land Scaping As Well As On Tourism Industry

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ABSTRACT

Regional effects of global warming are long-term significant changes in the expected patterns of average weather of a specific region due to global warming. The world average temperature is rising due to the greenhouse effect caused by increasing levels of greenhouse gases, especially carbon dioxide. When the global temperature changes the changes in climate are not expected to be uniform across the Earth. In particular, land areas change more quickly than oceans, and northern high latitudes change more quickly than the tropics, and the margins of biome regions change faster than do their cores .

INTRODUCTION

Regional effects of global warming vary in nature. Some are the result of a generalised global change, such as rising temperature, resulting in local effects, such as melting ice. In other cases, a change may be related to a change in a particular ocean current or weather system. In such cases, the regional effect may be disproportionate and will not necessarily follow the global trend.

There are three major ways in which global warming will make changes to regional climate: melting or forming ice, changing and changing currents in the oceans and air flows in the atmosphere. The coast can also be considered a region, and will suffer severe impacts from sea level rise.

While the majority of sustainable tourism's aspects are focused on local sustainability, they should not overshadow the concept of tourist satisfaction. Many locations rely heavily on the tourism industry, so providing tourists with a rewarding experience is essential to economic success. As long as guests visit with the intention of leaving natural resources and local customs intact, the location is left with the resources to provide future tourists with the same enjoyable experience. Tourism has been criticised for having negative impacts on many of the destinations which tourists visit. There are considered to be three principal impacts - economic, environmental, & socio-cultural.

This study looks at economic impacts and finds that although there are some negative aspects, most economic consequences of tourism are beneficial. These benefits include the effects of price and income elasticity, and also the economic consequences of tourism spending, including the generation of foreign exchange.

This process stimulates the local economy through the multiplier effect, which can be direct, indirect, and induced. The article uses three tables to explain the multiplier, and policy implications are reviewed, using Turkish and Jamaican studies as reference points. At the same time, the difficulties faced when calculating multipliers are considered, and also how multipliers in deflationary situations can turn from being positive to negative.

Although the economic effects of tourism are usually held to outweigh tourism's economic benefits, the negatives can be significant. These negatives relate particularly to a likely increase in demand for imported goods once tourists begin to appear, revenue leakages out of the economy, over-dependence on tourism, and land value inflation.

Tourism is usually described as having three major types of impacts on many of the places which tourists visit (Cooper et al, 1993). These effects are economic, environmental, and socio-cultural in nature. However, some impacts have been attributed to tourism though they may in fact originate elsewhere. Instead, more appropriate sources may be the media, the advertising & fashion industries, new industrial development, urbanisation, modern agriculture, mining and forestry projects, and

government and military activity. But while all these factors can be described as frequent features of modern societies, it is widely believed that travel and tourism do generate impacts, including economic ones.

BENEFICIAL OF ECONOMIC IMPACTS

Unlike some of its environmental and socio-cultural effects, tourism's economic impacts are mainly considered to be beneficial. These are:

- The generation of foreign exchange,
- The creation of new job and employment opportunities,
- The stimulation of trade, income and entrepreneurship - especially in the service and small business sectors,
- The provision of new infrastructure which is available for non-tourism uses,
- increased regional development - particularly in isolated areas,
- Greater tax revenues permitting greater government spending - or reduced taxes on other activities, and
- The operation of what is called the multiplier effect.

Price and Income Elasticity

Leisure tourism is considered to be price and income elastic (Cooper et al, 1993), and therefore very responsive to economic conditions in both host and traveller-generating countries. Price decreases and increases in destination countries (e.g. Thailand & Malaysia) are likely to, respectively, encourage or discourage some tourists from the traveller-generating countries (who would otherwise have visited) from coming. Similarly, income rises and income falls will have a parallel effect, respectively encouraging or discouraging overseas visiting by citizens of the traveller-generating nations.

The Economic Impacts of Tourists Spending

The economic effects of visitor's presence at destinations arise from the fact that travellers and tourists spend their money on a wide variety of goods and services. This expenditure can be seen as an injection of financial resources into the host economy, thereby creating new levels of consumer demand.

Foreign Exchange

Foreign tourists change their foreign currency (usually a 'hard' or fully convertible one) into the local currency to pay for their tourism experience. As a result, the host country now has more foreign currency to spend on its own needs, such as providing better medical and educational facilities, and/or stimulating general economic development etc. At the same time, in balance of payments terms, tourism expenditure is viewed as being equivalent to export income for traveller-receiving countries, eg Thailand and Indonesia. Conversely, tourism expenditure amounts to an import cost for visitor-generating countries.

Measuring Economic Impacts

However, the measurement of the economic impacts of tourism is far more complicated than simply calculating the total amount of all such tourists' expenditure, or their related receipts. Such calculations take no account of how much tourist expenditure leaks out of the economy either in payment for imported goods and services to satisfy tourist's needs, or as taxes and savings. Nor does it account for how much additional expenditure is created through the cascading effect of money being re-spent again and again by different people and businesses throughout a particular economy.

Direct, Indirect and Induced Multiplier Effects

The cascading effect of tourist's money being spent throughout the host economy begins at front-line tourist establishments, e.g. hotels, restaurants and taxis. The effect of this spending then permeates

throughout the economy (Matheson & Wall, 1982), creating impacts at three different levels: ie at the direct, indirect, and induced levels.. This is the multiplier effect.

The direct level of impact (also called the direct multiplier) is the value of tourist spending less the value of imports necessary to supply the front-line service-providers, such as hotels, etc. The direct impact - and the size of this multiplier - is likely to be less than an individual tourists actual expenditure because of leakage, except in the rare cases where the local economy can supply all that particular tourists needs.

Those travel industry businesses which directly receive the tourist's money also need to purchase goods and services from other organisations within the local economy. The economic activity generated by these subsequent rounds of expenditure is called the indirect multiplier effect. The indirect effect will not involve all that money which was originally spent by tourists, as some of this money is also likely to leak out of circulation through imports, savings, and taxes.

Finally, during the direct and indirect rounds of expenditure, money will be paid to local residents in the form of wages, salaries, rent, interest, and dividends; and also to local businesses for routine services. Some of this expenditure (called the induced multiplier) generates yet more rounds of economic activity - by being spent on local goods and services. It is only when all three levels of impact (ie direct + indirect + induced) are assessed that the full nature of this particular effect of tourism can be identified.

In the multiplier process, direct multipliers flow from what visitors actually spend, while indirect multipliers are created by tourist industry expenditure. Induced multipliers come from the routine spending, by their non-tourism industry suppliers, of both their direct tourist and indirect tourist industry receipts.

The Multiplier Effect in Action

The left-hand column of Fig 2 shows the kinds of activities which tourists pay for, creating direct multiplier effects, while the right-hand column identifies those businesses from which travel companies make purchases, using tourist-generated money, and so creating indirect multipliers. Fig 3 below shows those non-travel industry businesses, who may receive tourist-generated money, and who then create induced multipliers by spending this revenue .

Different Types of Multiplier

There are five types of multiplier. Firstly, the income multiplier is the number of times which an individual amount of tourist expenditure should be multiplied to identify the total effect on the visited places economy.

The final two types are the employment multiplier which measures changes in economic activity caused by increases or decreases in tourism employment, and the government revenue multiplier. The latter measures the effect on government revenue of changes in tourism expenditure.

Policy Implications of Multiplier Analysis

Even though multiplier sizes can vary both in time and also from country to country and locality to locality, tourism multiplier analyses are often used to assist public sector decision making. This is because they are considered to be particularly suitable for studying the current performance or output of a particular areas tourism industry, and any short-run changes in the level or patterns of tourism expenditure (Cooper et al, 1993). This especially applies to business turnover, incomes, employment, public sector revenue, and contributions to the balance of payments.

For example, Diamond J (1976) used an input-output model of the Turkish economy in which he analysed each sector of that economy's dual roles - as both a purchaser from, and seller of goods and services to, that nations other economic sectors. The aim was to measure sect oral output multipliers

for the tourism sector - as well as other sectors - in relation to four particular Turkish government policy objectives.

Diamonds work demonstrated that multiplier analysis can be used to study short-term resource allocation issues. According to Cooper et al (1993), the value of multiplier analysis, using detailed input-output models, is that it can yield valuable information about:

- the structure of an economy,
- the degree to which sectors within the economy are dependent on, and transact with, each other,
- the existence of possible supply constraints, and
- the relative capital and labour intensity of each sector.

Similarly, Fletcher J in his 1985 study of Jamaica, examined the economic impact of tourism expenditure there according to:

- a. the purpose of each tourists visit,
- b. whether it was in the summer or the winter, and
- c. whether it was a first or repeat visit.

The Jamaican study's aim was to determine which type of tourists generated the highest level of income, employment and government revenue per unit of expenditure. The Jamaican government were then able, if they wished, to use this information to target their future marketing to maximise the economic benefits of their local tourist industry.

Advantages of Measuring Multipliers

Despite Diamonds and Fletchers studies, it has proved very hard to measure multipliers accurately (Cooper et al, 1993). However, if reliable transaction records and figures are available, and they can be apportioned correctly, then it may be possible to identify:

1. where leakages may be occurring, ie which transactions and activities lead to:
 - the importing of foreign goods, or unusually high levels of savings,
2. which activities:
 - lead to continued trade, or inhibit trade (e.g taxes), and
3. which specific business sectors and/or organisations are benefiting most from tourism.

Difficulties in Measuring Multipliers

Despite the obvious value of being able to measure the multiplier effect, difficulties in calculating it accurately are (according to Cooper et al, 1993) due to the following reasons:

- Data collection problems, data selection difficulties, and supply constraints.

This is because secondary data is seldom available in sufficient quantities to enable an accurate calculation to be made of what a particular area, or industry sectors, actual multiplier is. In addition, the first requirement for any primary data survey is that there are full records of every transaction. In fact, there seldom are as some transactions, especially restaurant tips and some taxi fares, may be cash-in-hand.

Even if all transactions have been recorded, an essential requirement for accuracy is that every item of expenditure in an appropriately designed sample can be correctly analysed. This is needed to permit each purchase to be confidently categorised as either tourist expenditure, or as spending by non-tourists.

Finally, supply constraints can invalidate the accuracy of a multiplier analysis, if the local tourism industries existing capacity is inadequate to meet the additional demand created by the multiplier effect. In addition, if there is insufficient extra labour available, then increased tourism expenditure is

more likely to generate inflation than increased economic activity, and possibly also a demand for more imported goods and services.

Problems with Employment Multipliers

Similarly, great care is required when interpreting employment multipliers. Employment levels do not necessarily grow at the same pace as income or output does.

Indeed increases (or decreases) in the level of tourist expenditure are seldom matched immediately by changes in the number of people employed. Much depends on the extent to which the existing labour force in each sector is fully utilized, and the degree to which labour is able to transfer between different occupations, and sections of the economy.

NEGATIVE ECONOMIC IMPACTS

Although travel and tourism studies tend mainly to emphasise the beneficial features of tourism's economic impacts, there are some negative consequences also to consider. These are:

- Leakages of expenditure out of the local economy,
- Increased propensities (i.e. tendencies) to import,
- Opportunity costs,
- Displacement effects,
- Over-dependence on tourism,
- Inflation and higher land values,
- Seasonality issues,
- Over-reliance on expatriate labour,
- Creation of new or extra costs, and
- Problems over foreign capital investment.

Leakage

The revenue loss, which accompanies the spending of newly-acquired foreign exchange on buying foreign goods for re-sale to tourists, is called leakage. Other forms of leakage include savings, which are either not spent by anyone for a long time and just hoarded for the future, or lent by banks - but not necessarily in or near the tourism locality where they were earned. In the latter situation, the country benefits, as do the people living where the money is finally spent, but not the original community who actually hosted the tourists.

Opportunity Costs

Every item of tourism expenditure in theory could have been spent on some other project, inevitably raising the question of which is more important: eg the new hotel, or a new stretch of road, a hospital, or a school etc. Similarly, the production of goods and services for tourism purposes requires the allocation of resources which could also have been used for other, perhaps more socially laudable, purposes. The opportunity cost in such situations is the cost of using scarce resources for tourism, either as consumption or development, as opposed to using the money for alternative, perhaps more socially preferable, purposes.

Displacement Effects

Displacement can happen when a tourism development occurs at the expense of another industry, or when a new tourism project takes customers away from an existing attraction or facility - rather than adding sufficient numbers of new visitors to the local tourist destination to justify the investment. This type of situation, where tourism development simply substitutes one form of expenditure and economic activity for another, is known as the displacement effect.

Over-dependence on Tourism

Anywhere, whether it is a town or a country, is in an economically vulnerable position when it is dependent on the health and vigour of just one industry. This also applies when tourism is the principal industry (Matheson & Wall, 1982). Indeed, tourism revenues may fluctuate, for more than just seasonal reasons, beyond a destination or an attractions ability to predict and manage such a situation.

Inflation and Higher Land Values

Prices frequently rise, including land and property values, when there is sustained building demand for tourism facilities. However, a boom atmosphere at a destination frequently leads to over-investment in accommodation stock; and later, usually a fall in some buildings prices.

Seasonality

Revenue and income flows usually vary with the seasons. Peak season visitor numbers can at some destinations and attractions exceed their quietest period's attendance figures by many times.

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