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ENVIRONMENTAL ISSUES AND TOURISM

UDK / UDC: 379.85:504.03

JEL klasifikacija / JEL classification: L83

Pregledni rad / Review

Primljeno / Received: 16. listopada 2007. / October 16, 2007

Prihvaćeno za tisak / Accepted for publishing: 07. siječnja 2008. / January 07, 2008

Abstract

The article concerns largely with the wider environmental issues of economic impact in general and tourism in particular and their implications for sustainability and conservation of exhaustible and renewable productive and energy resources. It also considers the economic concept of 'market failure' and its consequences for the environment.

Key words: *environment, resources, opportunity costs, cost-benefit analysis, recovery rate*

INTRODUCTION

'Environmental' issues have emerged as hot subjects in economic discussions since the early 1970¹. So far, the term has usually been used to the analysis of exhaustible and productive resources. Lately, it is being also applied to amenity use of natural resources and in investigating the economic role of the environment and the associated causes and effects of its degradation and over-use, pollution etc.

The basic lesson that we have learnt from the environmental economics is that the environment can not be perceived as separate from other resources. Most human activities affect it and in turn changes in its state have economic repercussions. It is therefore important that economic decisions take into account the welfare of the future generation. Accordingly, greater awareness of

¹ It was not until 1950s that environmental questions were raised within economics by Carson (1963), Boulding (1966), Forrester (1971) Schumacher (1973). Sustainability has subsequently emerged as an umbrella term for studying various issues). The conservation economics as represented by earlier studies has come to be replaced by market-based approach, price substitution and technical changes. The works of Knees et al (1970), Pearce (1976), Daly (1977) have underlined the link between use of resources and environmental problems and adopted policy oriented approach.

interdependence of the environment, economic activity and quality of life raises political, social and scientific issues in addition to those that are directly economic.

Tourism is almost wholly dependent on the environment. Natural resources (beaches, seas, mountains, lakes, rivers etc) and man made resources (historic cities, heritage buildings and sites, monuments etc) constitute the primary source of tourism. Any degradation of the primary sources is likely to lead to a decline of tourism. Therefore, their analysis within economics is particularly relevant to tourism.

KEY ENVIRONMENTAL ISSUES

International business and holiday tourism travel, according to the World Trade Organization (WTO, 2006) has grown at the rate of 5,4 percent and total 826 million arrivals. The domestic tourism is estimated to be ten times bigger. Major economic, environmental and social impacts follow this mass movement. In addition to the primary sources, tourists require the secondary supportive sources such as accommodation, transport facilities, shops, restaurants and other facilities which entail physical changes and expansion in general economic activity.

Like other economic activities, tourism consumes resources. Today, tourism is one of the major economic activities in the world. It contributes roughly 6 per cent of the world income. Naturally, it has a marked impact on the demand for exhaustible and renewable resources. It generates significant wastes and thus disposal problems (Stabler and Goodall, 1996). The operation of tourism firms reflects the market driven characteristics of other economic sectors. Extended tourism expansion or concentration in certain destinations has neglected the long term dependence of the industry on environment and led over exploitation of natural resource base and the generation of non-priced effects (Cater and Goodall, 1992).

The environmental effects, widely defined, include cultural and social elements, and are probably the biggest problem of tourism. Areas where overcrowding and overdevelopment occur are often relatively small and possess fragile environments. At peak season visitors can outnumber the resident population. Hosts, tourism firms are seldom aware of the unintentional damage being caused to monuments, paintings, ecosystem (Goodall, 1992). Other effects are more deliberate, e.g. off-road use of vehicles. Excess numbers also increases the demand for secondary resources, water, energy which might be scarce at certain destinations (Romeril, 1998). Loss of flora and fauna occurs due to tourism expansion. The influx of tourists with a different life-style, large financial resources, and non-indigenous services can not only disturb existing economic life but also can destroy the cultures (Pearce, 1989).

These problems have been recognized by many involved in tourism and have become issues of concern (Goodall, 1992; Jenner and Smith, 1992). The attainment of sustainable tourism has been seen as the urgent need. It would imply balanced commercialization, resource conservation, waste disposal management, pollution control, etc. Attention has to be diverted on 'eco-tourism'.

Environmental impact of tourism is most visible in tourist destinations. But effects are also visible at points of origin and transit. For example, the output of aircrafts, ferries, buses, cars equipment and promotional material consumes productive and energy resources and generates waste in origin areas while travel creates pollution in the atmosphere and adversely effects the environment of areas traversed. These problems have come to be increasingly addressed in the 1990s, but serious efforts to mitigate them have lacked. This in part is reflection on the government's failure to seriously commit to pursue the environmental policies and in part lack of comprehension by the business companies of the environmental issues and objectives (Stabler and Goodall 1997).

Economic analysis of resource use and their costs has been expressed in terms of opportunity cost, i.e. the benefits lost by not using them for an alternative use. The guiding principle has been the benefits must outweigh the costs. Given the nature of environmental issues, economists have used cost-benefit analysis (CBA) as a suitable framework for the assessment of monetary and non-monetary costs and benefits, as well as large capital outlays, over a long period over which costs and benefits accrue. Another method used method is the planning balance sheet analysis (PBSA). The method was devised in the 1950s to overcome the fact that many cost benefits are not easily measured in money terms. Using the ranks according to criteria thought to be the 'best' multi-criteria analysis (MCA) has also been developed (Nijkamp 1975, 1988). Mathematical approach in decision making between alternatives is the analytic hierarchy process developed and used by Saaty (1987).

ISSUES IN TOURISM

Very often mentioned and discussed issues in tourism generally refer to:

- Sustainable development
- Sustainable tourism
- Maximum sustainable income
- Resources conservation
- Recycling
- Market failures

Sustainable development

Sustainability of economic development has become the catchword since Brundtland Commission Report was published in 1987 and Rio Declaration in 1992 defined a set of principles that define actions and agreements in which biodiversity, climate change, forest management and conservation were accorded prominence along with a priority to be given to the poorest sections of population. The essence of sustainable development is to manage world economies in such a way that the present needs should be met without impairing the capacity to meet the future needs. The implication of such a strategy is that the growth rates will have to be moderated. Moreover, it has been stressed that quality of life, that can not be measured in monetary terms, should be taken into account. Reductions in adverse externalities such as chemical pollution, noise levels, air and water quality etc. should be taken as measures. Further, the cost of production should be inclusive of social and environmental costs.

The main issue associated with sustainable development is how to reconcile economic development and growth with open access public good and nature of the natural environment which consequently suffers from detrimental externalities. We feel that in a sense sustainable development, although initially partial only, can be achieved through various types of sustainability, e.g. sustainable agriculture, sustainable cities, sustainable ecological systems and sustainable tourism.

Sustainable tourism

Sustainability should be the cornerstone of the development of tourism since the natural environment constitutes most of its primary resource base. Moreover, with growing awareness of both tourists and residents, firms and governments are under increased pressure to take concrete action to attain sustainability. In tourism sector experts as well as governments are trying to enforce the concept of 'viable tourism' as sustainability in the commercial sense that business is profitable and will survive.

So far, the concrete measures taken by firms confine to the conservation of energy and materials and minimization of wastes as a means of cutting their costs and thus increase revenues and profits. Firms have also taken the concern of tourists and residents alike that tourism should be environmentally responsible. In order to achieve such effect firms need to comply with environmental regulations and standards. However, there is no coherent strategy on sustainability because the past incentives have generated tourism expansion only. Because of a largely fragmented structure of tourism the issue remains complex and only the public sector has the potential to resolve.

Maximum sustainable yield

The concept concerns with resources which are capable of renewal either naturally or by management. The key issue is how to achieve maximum yield but maintain sustainability from the economic use of open access (e.g. natural parks, lakes and rivers, mountains) and common property resources (e.g. atmosphere and seas). Both are susceptible to over exploitation. The problems are more acute with the former due to the dangers of the extinction of wildlife or degradation of ecosystems. There are examples of overuse of oceans and seas (fishing, whale hunting, oil recovery, etc.).

The concept of maximum sustainable yield considers the relationship between the price of the product and cost of exploiting it, the yield in terms of the physical quantity, stock or population. The yield is determined by the exploitation effort and total stock of resource. The problem becomes of interest to economists as an issue while considering the revenue generated in relation to the cost of the effort. Normal profit maximizing considerations apply. Since the access is open it is likely that exploitation is beyond the point of maximum yield. Should the total stock fall below a given threshold (a biological or ecological issue) than the population will crash, leading in the case of animal or plant species, to extinction. Known bio-economic models can be reinterpreted within the context of tourism and cost-revenue analysis can be successfully applied.

Resources conservation

The rate of depletion and possible exhaustion of key productive resources remain a central economic problem. In context to the inducement of conservation of resources, issues have been raised concerning otherwise consequences for growth, technological developments and role of market costs and prices. Since 1970s opportunity costs have played in decision making. With respect to renewable resources, a dominant issue in tourism is the implications of the open access characteristic of much of the natural environment for the survival of flora and fauna, the sustainability of some sources of food and materials and conservation of amenity resources.

Recycling

The 'recovery rate' (proportion of a material from a primary source that can be made available for re-use) is an important factor in recycling. The extent to which recycling can take place depends upon variety of factors such as the nature of material, the stage at which recovery takes place, who uses it, available technology, residual waste etc. The supply of recycled materials depends upon their demand. Economists argue that recycling becomes feasible if the costs of recovery are lower than extracting from the primary sources. However, market prices and costs do not reflect the true costs and benefits, i.e. externalities.

Economics today, by identifying and evaluating the full social costs and benefits and externalities of resource use, including the incidence of recovery, is able to indicate the optimal level of both primary exploitation and recycling.

Resource conservation

Various researches (Middleton and Hawkins, 1993, Dingle 1995) have shown that environmental actions by firms engaged in tourism resembles like that of the households. These are to avoid the use of material likely to be environmentally harmful, substitute purchases of recycled material for those from primary sources and to reduce waste by a cut in consumption of materials and energy. However, while moves by tourism firms towards the conservation of materials and energy resource reflect the market-oriented research, conservation has not been fully considered in a wider context of sustainability.

As far as the renewable resources particularly open access resources are concerned the examples of environmental degradation arising due to tourism expansion are becoming increasingly evident. There are many resources, e.g. national parks and game reserves, natural reserves and forests, and wetlands are vital to tourism. Furthermore, varied landscapes that form the backdrop of tourism are also being influenced by human activity. Often the firms and governments alike cash the short-term benefits and are likely to brush aside the environmental concerns.

It is our contention that the so-called bio-economic principle of maximum sustainable yield, which is based on usual economic optimizing conditions and recognizes the bio-economic processes, could be helpful. Sound management of resource in tourism is the key to success.

Market failures

Lately, economists try to address the most common asked question: the market failures and the environmental problems of tourism. The inability of markets, where demand and supply are formed by price, to provide some environmental goods, arises essentially from the public good nature of resources, externalities, and distribution considerations. However, market failure is not confined to these three features alone. Monopoly could also be a factor. However, in tourism environmental context this is not a significant factor. May be global trends may lead to such trends.

The idea of market failure is well rooted in the conventional wisdom of economics. It is perceived as the rationale for land-use planning and other forms of government intervention. It is acknowledged that if market fail to perform efficiently there is a need for ameliorative measures involving governments as law enactors and regulators covering public finance, collective goods, the

management of natural resources and environment quality. However, the economists argue (Randall,1993) that market failures are inherent, so only occasional interventions are required.

In practice, there have been few attempts to relate activities of tourists and operation of tourism firms to policies necessary to deal with environmental issues which the economic analysis of market failure prescribes. In fact, the business sector perceives that market actually fail and it does not fully comprehend that they do not function accordance with an economic ideal. Nonetheless, the concept of market failure has been useful in generating a body of research on the estimation of demand and practical policy instruments to mitigate the adverse effects of markets or to increase their efficiency.

CONCLUSION

In conclusion to the above discussion, we can simply reiterate that environmental issues have become pivotal in economics of tourism. The more intensive is the insistence on the subjects such as sustainable development, rational use of resources, and mitigation of negative results of expansion of tourism, widespread is the desire for sound management of tourist resources. Sustained active role of firms and governments is considered vital for the future of tourism development.

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EKOLOŠKI PROBLEMI I TURIZAM

Sažetak

U ovom se članku uglavnom razmatra utjecaj gospodarstva u cjelini, a turizma posebice, na šire probleme u okolišu kao i njihova implikacija na održivost i očuvanje potrošnih i obnovljivih izvora proizvodnje i energije. Također se promišlja ekonomski pojam 'tržišnog neuspjeha' te njegovih posljedica u odnosu na okoliš.

Cljučne riječi: okoliš, resursi, oportunitetni troškovi, cost-benefit analiza, stopa obnovljivosti

JEL klasifikacija: L83

