

MODELING THE USE OF TOURISM CARRYING CAPACITY ASSESSMENT AS A MANAGEMENT TOOL: THE CASE OF THE TOURIST RESORT OF 'POLIS CHRYSOCHOUS', CYPRUS

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ABSTRACT

Tourism carrying capacity assessment is a widely researched area at the theoretical level but successful practical implementation can rarely be seen. Moreover, very few researchers follow a holistic approach, aiming to determine all components of the carrying capacity for a certain area.

This research project aims to define the tourism carrying capacity thresholds for all components (sociocultural, economic and political, physical-environmental) for the tourist resort of Polis Chrysochous in Cyprus. The novelty of the research lies beneath the fact that it follows a holistic approach as well as that it investigates an area which is currently in the stage of exploration and attempts to determine tourism carrying capacity thresholds for the future tourism development of the area. It is envisaged that though this holistic approach, a core model for assessing tourism carrying capacities will surface which could, in turn, be applied to other regions/resorts/Islands/Countries (subject to some modifications to fit the area under study).

Key Words: 'Tourism Carrying Capacity', 'Sustainable Tourism Development', 'Sociology of Tourism', 'Tourism and the Environment', 'Tourism and the Economy', 'Cyprus'.

INTRODUCTION

Tourism development is on the agenda in almost every region throughout the world since it is widely accepted that it provides considerable income relatively fast compared to other industrial sector developments. Therefore tourism is often seen by local planners and managers as the mean of assuring the desired foreign exchange earnings, tax incomes and the tool to solve problems of unemployment. In this attractive surrounding the positive and negative impacts of tourism development are rarely measured, and are sometimes deliberately neglected, although the desired benefits can occur only if careful planning preceded and a well-thought strategy is followed. Ignoring the impacts of tourism activities emanating from uncontrolled/unplanned development results in the inability to fully exploit the positive impacts and to counteract, to the higher possible extent, the negative impacts of the tourism development.

Although scientists' opinion on the definition of tourism carrying capacity and also on its perspective as a management tool varies, it is commonly argued that it can serve as a useful tool for planning and managing tourism development aspects. The current research attempts to define the tourism carrying capacity limits for the area Polis Chrysochous, Cyprus.

LITERATURE REVIEW

Carrying capacity assessment is based on the awareness that resources are finite in nature, can be damaged and that their deterioration or destruction constitutes a danger, a loss for societies and future generations (Chadenas et al., 2008). Based on this statement, a simplified carrying capacity definition can be given by saying that carrying capacity is reached when unacceptable resource deterioration occurs (Chadenas et al., 2008). However, the issue is much more complex and there are almost as many definitions as authors in this field. Originally, the concept of carrying capacity in the tourism scientific literature was used mainly from biological and ecological aspect, whilst economic and social aspects were added only later, during the decades of 1970-80. One of these pioneering definitions comes from O'Reilly (1986, p. 254) who defines tourism carrying capacity as "the maximum number of tourists that can be contained in a certain destination area". A

broader approach is expressed by the World Tourism Organisation defining tourism carrying capacity as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitors’ satisfaction” (WTO, 1981). Wall and Mathieson (2006, p. 33) also defines tourism carrying capacity from a more general point of view by stating that “carrying capacity is the maximum number of people who can use a site without an unacceptable alteration in the physical environment and the social, cultural and economic fabric of the destination and without an unacceptable decline in the quality of the experience gained by visitors”. A similar definition is given by Martin and Uysal (1990, p. 329) who define it as “the number of visitors that an area can accommodate before negative impacts occur, either to the physical environment, the psychological attitude of the tourists, or the social acceptance level of the hosts”.

Coccosis and Parpairis (1995, cited in Coccosis and Mexa, 2004, p. 38) on the other hand defines the tourism carrying capacity for a tourist destination resort as “the number of user unit use periods that a tourist area can provide each year without permanent natural and physical deterioration of the area’s ability to support recreation and tourism and without appreciable impairment of the visitors’ recreational experience”.

Several definitions exist as well for each component of the tourism carrying capacity. O’ Reilly (1986, p. 256) defines in his work the different components of the carrying capacity by saying that (1) physical carrying capacity is “the limit of a beach or historical building or site beyond which wear and tear will start taking place or environmental problems will arise”, (2) perceptual or psychological capacity: “the lowest degree of enjoyment tourists or users of the product are prepared to accept before they start seeking alternative sites or destinations” (3) social carrying capacity can be defined as “the level of tolerance of the host population for the presence and behavior of tourists in the destination area or as the degree of crowding users (tourists) are prepared to accept by others (other tourists)” and (4) economic carrying capacity “can be described as the ability to absorb tourist functions without squeezing out desirable local activities”. Inskip (1991) mentions two aspects to be considered when determining tourism carrying capacity: A. The indigenous physical and socioeconomic environment referring to the capacity that can be reached without damaging the physical environment and causing economic and sociocultural problems for the host community and B. The tourism image and tourist product meaning the number of visitors compatible with the tourist product offered and the experiences sought by the tourists.

This issue becomes even more complex when trying to determine the role of carrying capacity in the tourism management system. Definitely, achieving a single numeric value cannot be the basis upon which a tourism management system can be built. On the contrary, many authors agree that an upper and a lower limit of tourism carrying capacity can be of more use than a fixed value.

OBJECTIVES AND METHODOLOGY

Saveriades’ (2000) work represents a unique research as it attempts for the first time to determine social carrying capacity for the tourist resort of Ayia Napa in Cyprus. The researcher managed to map the local community’s attitude towards tourism through surveys, questionnaires and interviews and concluded that there was no evidences showing that local residents had negative feelings towards tourists or that they would have favoured a reduction in the level of tourism. The host community’s perception seemed not to reflect the fact that the area under study had already reached saturation point at the time when the research was undertaken. Ongoing research activities in the study area show that although the number of tourist arrivals to the area decreased by almost 34% between 2001 and 2010¹ this was more a result of external factors (economic crisis, changes in the tourists’ preferences and declining destination image) rather than of a conscious and planned tourism management decision implemented by national and local tourism planners.

The current research aims to build upon the research results in the Ayia Napa region (Saveriades, 2000) and determine the tourism carrying capacity levels for the city of Polis Chrysochous. The research methodology includes field research through questionnaires and surveys as well as focus group discussions with the key stakeholders of the area, local and national tourism planners as well as members of the local population and tourists visiting the area. Special emphasis is also given to compare the Ayia Napa region and the Polis area through comparative research techniques. Although Cyprus is a small Island economy both in terms of territory and population, its different areas represent distinct tourism development patterns. Therefore, it is of paramount importance that the tourism carrying capacity assessment for the Polis area is accompanied by a comparative research analysis in order to comprehensively analyse the development opportunities of the region. There are

¹ Own calculations based on data of the Statistical Service of the Republic of Cyprus

many similarities, hence, a link, between the two regions, such as the size of population² and the size of the territory³ as well as the fact that both of them are coastal regions. However, many differences as well have to be taken into account: the Ayia Napa area had already reached a saturation point in the tourism development when the social carrying capacity was determined while the Polis area is currently in the stage of exploration. For the Polis area a holistic research approach is applied meaning that all three parameters pertinent to carrying capacity (1) sociocultural (2) economic and political (3) physical and environmental are assessed. This will result in the drawing of a comprehensive Tourism Development and Management plan which is absolutely necessary in order to guide tourism planners towards the sustainable and controlled development of the area. Lessons learnt from the Ayia Napa research will be integrated into the Polis Chrysochous tourism carrying capacity assessment helping tourism planners avoid unwanted negative impacts of tourism in this area. It is envisaged that the model outcome will be applied to other regions / resorts / Islands / Countries (subject to some modifications to fit the area under study).

CONCLUSIONS

This research is of paramount importance for the Polis Chrysochous region as currently no such comprehensive tourism development plan is in place for the area which is especially critical when looking at the wider infrastructural development projects planned for the region (construction of motorway, port and marina). These projects will inevitably ease access to the region resulting in an increased tourist flow towards the area. Without a comprehensive tourism development plan the Polis area, similarly to the Ayia Napa region, will rapidly reach its saturation point leaving the currently existing tourism development opportunities unexploited.

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² Population in 2001: Ayia Napa: 2.693, Polis Chrysochous: 1.847 (Statistical Service of the Republic of Cyprus)

³ Ayia Napa: 3.121,36 hectares, Polis Chrysochous: 1.925,10 hectares (Statistical Service of the Republic of Cyprus)