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## Coastal tourism. The economy and the environment

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**42nd Congress of the European Regional Science Association.  
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**“From Industry to Advanced Services - Perspectives of  
European Metropolitan Regions”**

**Dortmund, August 27th to 31st**

**Theme : "Environment and Sustainability - General".**

***Title:* COASTAL TOURISM. THE ECONOMY AND THE  
ENVIRONMENT**

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# COASTAL TOURISM. THE ECONOMY AND THE ENVIRONMENT

## Abstract

The environment is a major component in the tourist production and the tourist product. This is particularly evident in the case of coastal tourism. However, for the natural resources to be part of the tourist product, important transformations are needed in the space. That is why we say that tourist development involves the creation of a tourist territory. However, when the regional transformations define the tourist model and intensity of the natural resources, we also define the model and intensity of the environmental impact of the tourist development, with the subsequent loss in the quality of the tourist product. In front of this loss, any policies aiming at improving the quality of the tourist product must include obligatory regional planning performance, that is, a regional planning policy.

**Key words:** coastal tourism, environment, regional transformations, economy, natural resources, impact .

**JEL :** L89; Q26; R19 .

## **INTRODUCTION**

The environment plays an outstanding role in the development of tourist activities. Nevertheless, the understanding of the environment has not always been the same. This paper aims to show some of the aspects in the relationships between coastal tourism and the environment, taking as a starting point some economic concepts. Therefore, the first section briefly shows some of the analytical categories which can be found in Environmental Economics; here, we shall put the emphasis on certain economic characteristics of the natural resources. Secondly, some of the basic features of the relationships between natural attractions and tourist activities will be explored, as they are derived from the analysis in the first section. If the natural resources are an essential component in the tourist production, our exploration will manifest the importance of regional planning policies also as tourist product policies.

## **THE ECONOMY AND THE ENVIRONMENT**

### ***The environment from an economic point of view.***

As a first approach and from an economic point of view, the environment can be characterised by two basic features: on the one hand, in some cases the environment behaves as a production factor in the sense that it can produce a series of goods and services; on the other, the environment behaves on many occasions as an attraction within itself which produces a range of services, providing satisfaction as a result of its mere existence. Likewise, sometimes some natural elements can develop both functions both simultaneously and alternatively.

Considering the environment or the ecosystem as a production factor, we are able to distinguish two clearly differentiated aspects. The first one is found at the beginning of the economic and productive process, i.e. the use of the ecosystem or some of its elements as a raw material in the productive processes; for instance, the soil and the sub-soil are used both by agriculture in production and by extra-active activities with a view to obtaining mineral

resources and power. But at the same time, a beach can be considered as the raw material of the coastal tourist production.

The second aspect in the consideration of the environment as a production factor can be seen in the last phases of the economic process, at an extracting, productive or consuming level. This is the strict application of the 'law of matter preservation'. The "matter" used does not run out in the production and consumption processes. Each of the economic cycle phases generates -directly or indirectly- residues and waste, which concern the environment, the environment taking over their treatment. Thus, the problems of the use of the resources is closely linked to the problems of residues or their return to the environment (Georgescu-Roegen, 1971; Martínez Alier, 1984; Naredo, 1987).

Figure no. 1 shows a layout of the material balance: it shows in a simple way how the entradas must be equal to he salidas, and therefore, the greater the use of the natural resources, the greater the quantity of waste generated.

Indeed, the productive processes use the natural or physical medium in a dual way. On the one hand, the natural resources are extracted from the environment in order to be incorporated -directly or indirectly- as inputs or outputs in the productive process; later, the same productive process will return to the physical medium and in the form of residues and waste those outputs which are not incorporated in the following production and/or consumption processes. However, this dual relationship kept by the natural sub-system and the economic sub-system does not only relate to the matter but also to the energy.

### ***Characteristics of the natural resources***

Natural resources differ from other assets in some features which pose problems to the effective functioning of a price system. In a few words, these difficulties must be attributed to the renewable or non-renewable character of natural resources, to their peculiar appropriation forms, and to the external effects which arise in the production and consumption of their services. "The efficiency of the price system in the conservation of the natural resources depends in a crucial way on the appropriation characteristics and the external

effects of the resources". But the external features come together with the appropriation problems (Quirk, 1976).

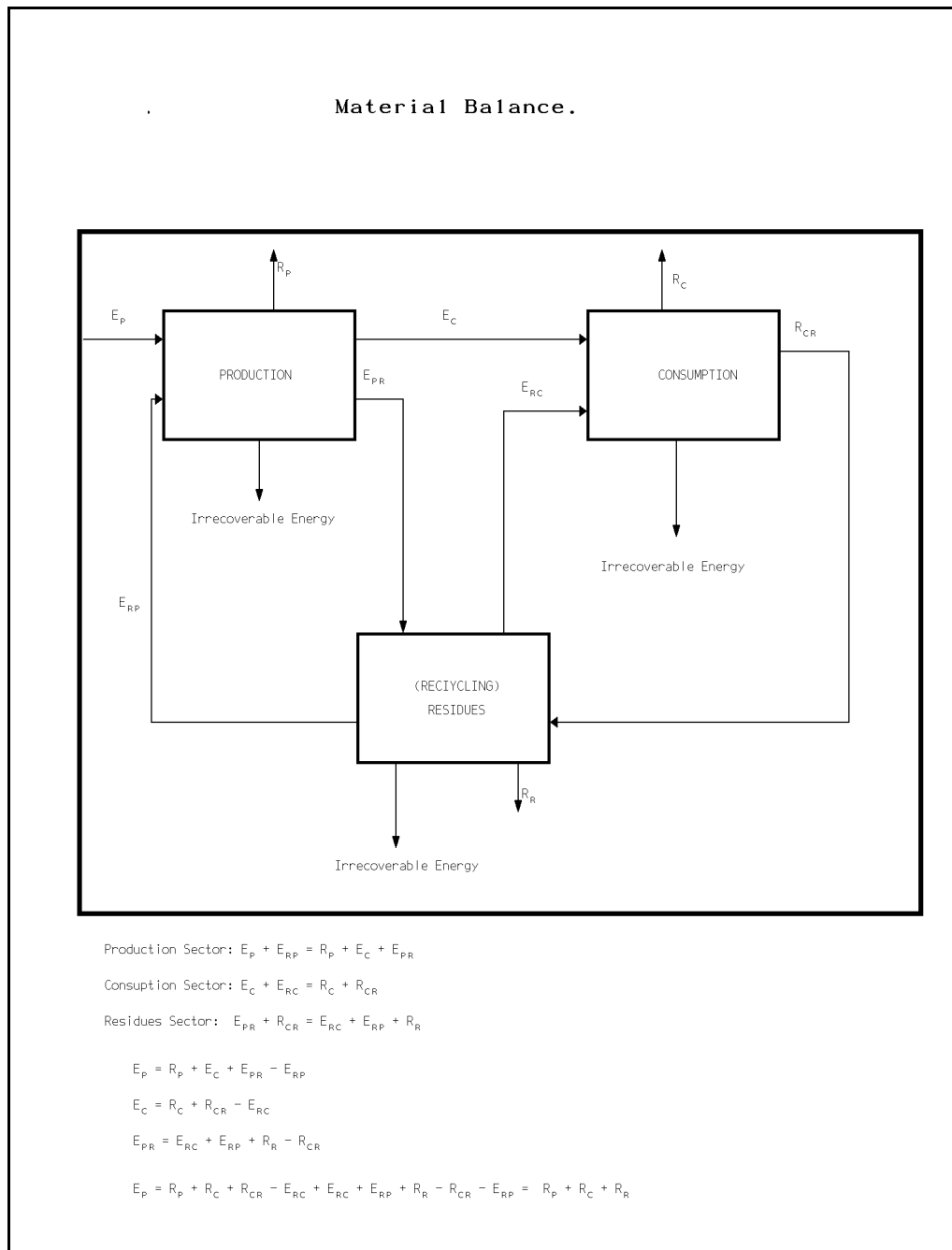


Figure nº 1: Layout of the material balance.

In Quirk's view, an asset is completely appropriable if its owner can exclude the rest from accessing its services. The capacity of exclusion means that the owner can charge for the use of the asset, and therefore can obtain the potential profit derived from the services. On the other side we find, in Quirk's opinion, the completely unappropriable assets, often called

common property, these are defined by the fact that the services of the asset are freely available to anybody willing to use them. Most of the resources are found in between these two extremes.

However, although it is true that most of the natural resources show difficulties in their appropriation and consequently may seem to be freely available, this does not imply that they are fully available at any time and place for anybody. As part of the characteristics of public goods, natural resources are free but that does not mean they are equally accessible (in terms of quality and quantity) to any individual. All goods and services with a free access are partially supplied by means of some localization mechanism. Hence, the localization permits the access to certain public goods or certain services provided by the public goods. That is why localization has an effect on the use of certain natural resources that -given their features- are considered as public goods. In addition, the localization facilitates the appropriation of the external effects caused by the public goods. Due to all this, they affect the benefits and costs of the economic agents.

However, we should not forget that the elements in Nature become resources for man as a result of the combined effect of two conditions: the condition to meet directly or indirectly a human need, that is, to have a use within a form of social life; and the second condition, which requires man to have the technical tools to separate it from the rest of nature and use it in accordance with his needs. This implies the presence of a society with a certain interpretation of nature, which combines its intellectual representations with the material means in order to act upon a fraction of that Nature and use it (Godelier, 1984).

The «resource» concept pre-supposes a "planning agent" who values the use of its environment with a view to achieving a specific target. This valuation in turn pre-supposes certain technological means available to the agent and to certain institutions (laws, habits...) of the society where it operates. The planning agent can be an individual, a company, or the whole of the community represented in several managing levels. "A resource, therefore, is a very relative concept which varies in accordance with the relationship means-ends, that is, depending on the planning agents, their objectives, the condition of the technology, and the existing social institutions" (Ciriacy-Wantrup, 1952).

After having considered the environment from the economic point of view, and having presented the economic meaning and characteristics of the natural resources, we can now proceed with the analysis of the relationships between coastal tourism and the environment.

## **COASTAL TOURISM AND THE ENVIRONMENT**

### ***Natural attractions and tourist activity***

The tourist development of a particular area requires a wide range of natural resources, but only a group of resources are -strictly speaking- factors for tourist attraction. These are what we call natural tourist resources. The rest of the natural elements, which are required for the tourist development -but does not constitute a natural attraction factor-, are simply called natural resources. On the other hand, we must take into account that this classification does not exclude the possibility that -in the tourist development of a particular area- one natural resource can be at the same time a natural tourist attraction and a natural resource.

We have already defined natural resources as those elements in Nature which meet a human need or wish, but man is enabled to separate them from the rest of Nature and use them effectively by means of his knowledge and technology. However, how does man use natural resources as natural tourist attractions? That is, how is the use made possible and promoted for instance of a beach, a climate, the sun, the landscape, and an environment? Evidently, this is achieved -at least in a significant part- through technology.

Beach tourism is based on making the most of specific environmental features. Here, we are dealing with the right combination of physical factors which become a production medium from the moment in which they are attributed a social value. In addition to the social valuation, performances and transformations are required to happen upon the space, so that its potential tourist use is effective. This latter aspect is also explained by the fact that the factors which make up the natural tourist attractions can only be used 'in situ', they cannot be moved (Sánchez, 1991).



If technology defines the use of natural resources, the use of the environment determined by the natural tourist resources and the use of each resource is defined and promoted by the tourist "infrastructure" in our case, which permits and promotes its use in a significant way, as well as defines the models and traits of the use. This "infrastructure" -related to the tourist space- is considered as man's "technological performance" on the space with the objective of making such a space into a "tourist space". If technology partially mediatizes the relationships between man and Nature, the infrastructure actions would play this part in our case. It is the features of the infrastructure which provide Nature or some of its components with a function, and therefore these become natural resources for man, and in our case, natural tourist attractions or resources.

For these natural resources to be susceptible of tourist use, a space transformation is needed where the potentially suitable spaces are found. This transformation has been parallel to the construction of a tourist offer, generally private -although not exclusively- first directed to meeting the accommodation demand and so facilitating the use of those natural attractions defined by the offer itself as such. This has led to different accommodation models (hotels, apartments, holiday estates, camp sites) and different combinations of the models. They have used and defined different consumption possibilities of the space, the tourist attractions, and the rest of the natural resources and the ecosystem as a whole -both on a quantitative and qualitative basis. This does not mean that the use of the natural tourist attractions is not possible without this transformation. But as a matter of fact, it would be difficult to speak about "tourist spaces" without a transformation. In addition, the models and characteristics of the use of the attractions would be very different without the transformation, this case not being so relevant both from an economic and environmental point of view.

To a certain extent, everything we have commented on so far can be reflected in the following quotation from a case study: "The tourist space must have certain natural conditions, sea, sun... which in a way could be considered the raw material of tourism. In order to use it, there is need for a transformation which will create the road and communication network, health structures, services, etc. If from a tourist point of view, the natural conditions are a given factor, the planning corresponds to the heavy equipment, that is, the production of basic goods. Finally, a consumption industry is required to provide the specific goods, ready for

use. This will be the job for construction companies, developers, hoteliers, etc." (Arroyo Ilera, 1980). The communications and transport infrastructures also have to be considered (McKercher, 1992; Piè-i-Ninot, 1985).

However, the new use which could be applied to the natural resources, and in particular to the natural tourist attractions, requires changes in the institutional factors which rule the conditions of appropriation of Nature. And as far as the appropriation of numerous natural resources is determined directly or indirectly by the property of the land, we must refer to it when talking about institutional factors which facilitate the consideration of natural resources as natural tourist resources.

The role which the institutional factors play in the definition and use of the natural resources as natural tourist attractions is clearly understood if we continue with the previous quotation: "The tourist space must have certain natural conditions, sea, sun... which in a way could be considered the raw material of tourism. In order to use it, there is need for a transformation to establish the road and communication network, health structures, services, etc., and to mobilise the property of the land, this becoming a main production factor, changing its grading and permitting a different use. In a few words, this is what urban planning does. If from the tourist point of view, the natural conditions are the given factor, the planning corresponds to the heavy equipment, that is, the production of basic goods". (Arroyo Ilera, 1980; p.392).

## **TOURISM AND TERRITORY**

If a significant part of tourism is linked to the environmental features of the region, tourism can be conceived -at least in one of its sides- as a phenomenon which "consists of the use and transformation of a geographical environment with a view to meeting the demand of the tourist flow" (Calzoni, 1988).

The activity of the production of tourist services is found nearly always within a environmental context -both in a positive and negative sense- modified by human activity, and contributes to its modification most times. This requires to ensure access to the space (external accessibility), and to the attractions (internal accessibility), and to ensure -through the

necessary structures- that the tourist has the best conditions for the development of the activities.

However, the process of "creating an infrastructure" which "defines" and promotes the natural tourist attractions -apart from favoring its consumption- has other consequences. First, it defines the model and magnitude of the use of the natural tourist attractions and the resources in general. Secondly, this process has gradually introduced new elements in the tourist offer, which has been diversified, so each tourist area has specialised in the production of tourist services and has added other tourist attractions beyond those strictly natural, and therefore the tourist profile of each particular area has changed. Tourist developments were initially exclusively based on natural tourist attractions, but they have gradually incorporated larger capital sums and a larger number of leisure activities, which has reinforced the tourist attraction of the tourist areas.

It is possible to establish and identify a more or less broad range of combinations between the natural tourist attractions and the rest of the attractions which can vary depending on the time and place. Each "tourist territory" is characterised at a given time by a given combination between certain natural elements and those elements resulting from the action of man upon the territory. The weight and importance of each territory -both from a quantitative and qualitative point of view- change depending on the development and evolution of the "tourist territory".

In a figurative way, these combinations can be illustrated by means of a curve of production possibilities, and on its axis we find the environmental quality and the rest of the factors used in the tourist production. The environmental quality variable synthesizes the environmental aspects which are natural tourist attractions.

Nevertheless, the graphs synthesize in a static way the different combinations of tourist productive factors and the environmental quality required for the production of tourist services, specifically of the tourist product. In Calzoni's account, there is a substitution ratio between material goods and environmental quality, which -if it were to decrease very quickly- would imply (from the tourist's point of view) that the variations in the quality of the

environment are appreciated to a great extent, and can only be compensated with opposite variations based on the quantity of material goods (Calzoni, 1988; 134-40).

Therefore, there is a lower limit of environmental quality beyond which the tourist demand stops. This is due to the fact that the tourist needs "can only be satisfied if there are tourist values [Y]. This is applied first to the natural tourist values, as the leisure needs of tourism are resolved through them" (Stakovic, 1991). Tourism requires a space with special qualitative and quantitative features and "most of the tourist developments are based, in a broad sense, on a natural platform which pre-determines its success or failure" (Molina, 1982). However, on numerous occasions, the process of tourist development in itself has an effect on that natural base.

Finally, a remark needs to be made as to everything which has been said so far. If - analytically- it is possible to speak about a substitution ratio between environmental quality and material goods, we must keep in mind that each change in the ratio implies sometimes an important modification in the characteristics of the "tourist product". That is to say, instead of talking about substitution ratios, we ought to refer to different possibilities of combination (of the set of factors which are synthesized as goods and incorporated services, and environmental quality) in the generic production of the tourist product. This is a production which becomes meaningful when it is made specific, and then, it is possible to see the differences -especially qualitative- among tourist products.

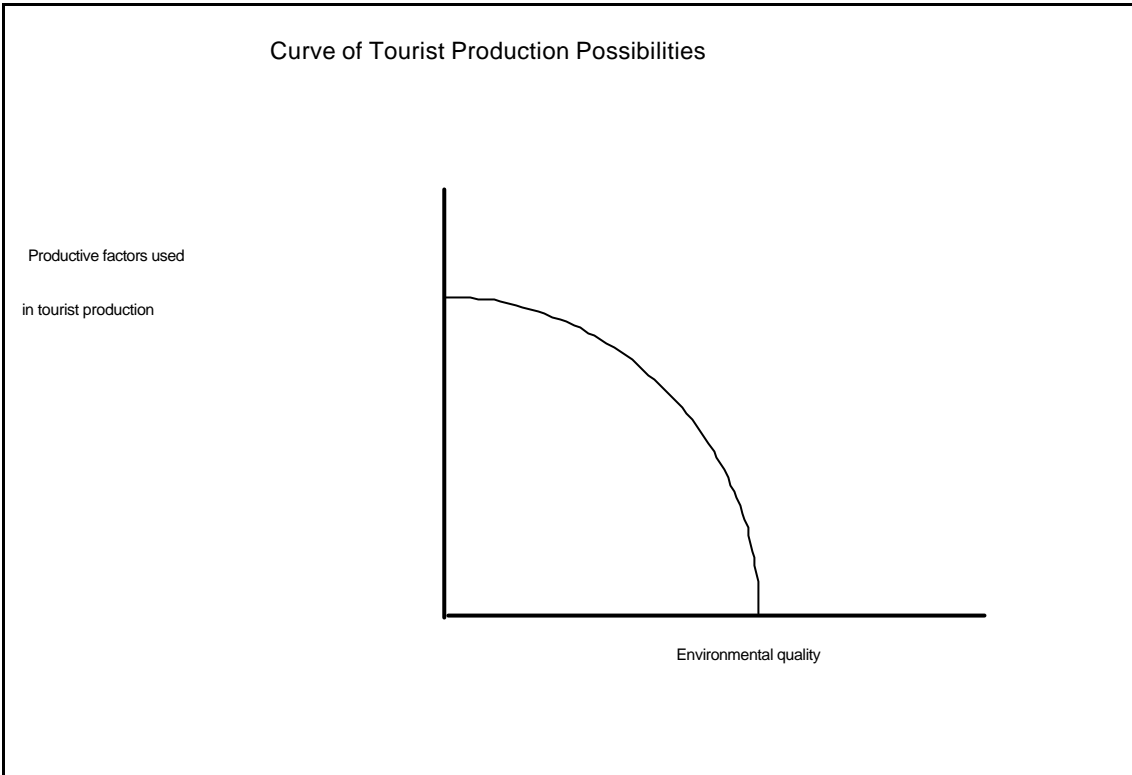


Figure n° 2: Curve of tourist production possibilities.

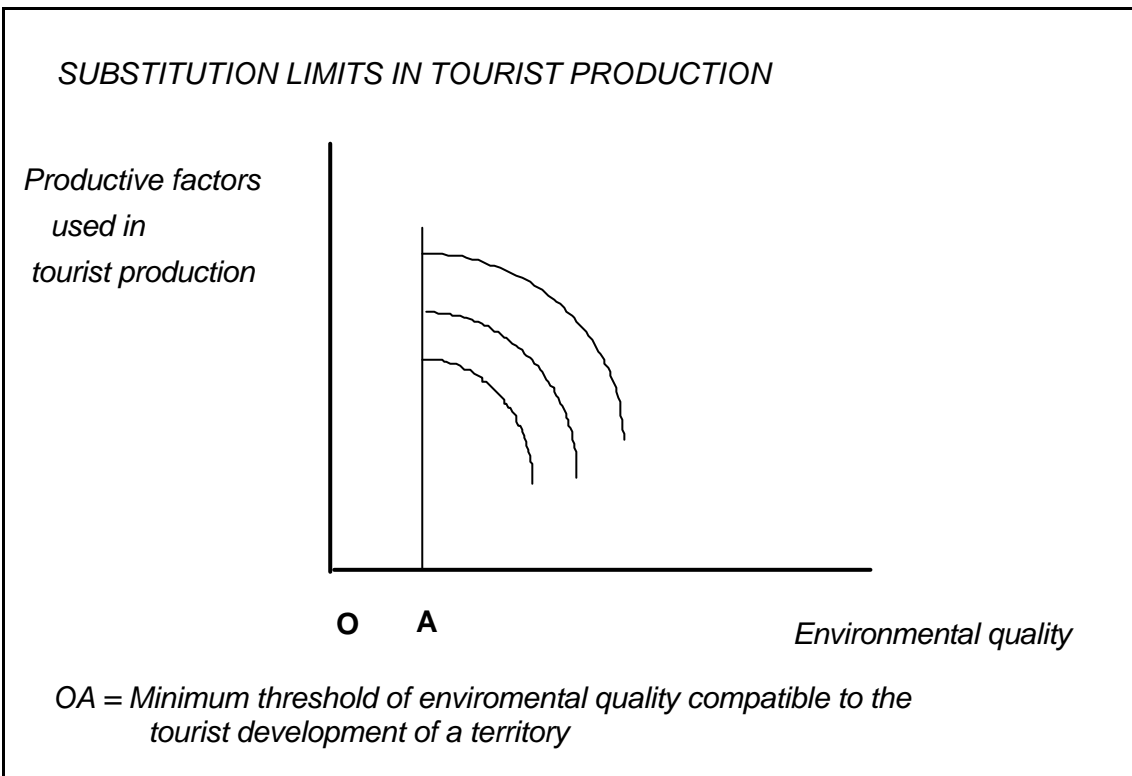


Figure n° 3: Substitution limits in tourist production.

This is an essential feature of the tourist trade which makes it different from other economic activities. In 1980, the OECD stated that the environment is an important component in the tourist activity, and keeping the environment in good condition is essential for the continuation of the tourist growth; therefore, any degradation of the environment could cause a drop in the growth. This is not the first consequence of an environmental degradation but a drop in the market segment towards which the tourist production of the space is directed. According to Morey-i-Andreu (1990), "when in those areas suitable for a selected kind of tourist trade, the necessary measures are not taken thus permitting environmental degradation phenomena to take place, instead of having a drop in the economic growth what we have is a change from selective tourism to mass tourism, which leads to an increase in the number of tourists and a fall in the quality of the tourist trade". It is not necessary to approach these changes in extreme terms, that is, from selective tourism to mass tourist trade, as the latter is sufficiently heterogeneous.

## **FINAL CONSIDERATIONS**

In our approach to the environment from the economic point of view, we have shown its role in the economic processes: as a "productive factor" (both at the beginning of the productive process and in the last phases), and as an "economic good". We have also studied that the "resource" concept presupposes the demand for an agent with technical capacity and institutional means for an effective use of the resources.

Tourism, like any other economic activity, needs the environment, but in this case, a group of natural resources is required to act as factors for the tourist attraction. The assignation of resources for tourist use requires the regional transformation of the areas where the resources are located. This makes the space to become -through regional planning policies- a "tourist area".

These regional transformations allow a tourist use of the natural resources but at the same time they establish the models of the use and therefore the intensity and models of the environmental impacts on the tourist development. Sometimes, this gives way to environmental degradation phenomena which -given the role played by the natural resources in coastal

tourism- alter, in the end, the quality of the features of the tourist product, this implying a qualitative decrease in the tourist product in itself.

This is the situation of numerous relatively 'mature' tourist developments in Spain. During decades, many Spanish littoral areas have undergone an important tourist growth; at the beginning, they counted on almost 'virgin' natural resources, but the construction of all the structures (apartment blocks, hotels, communication networks to facilitate the access to the beaches,...) have caused a strong environmental impact, and consequently, the quality of the tourist products has decreased, as well as the competitive capacity of these areas.

An avenue for the recuperation of the competitive capacity could be easily drawn from our analysis: if the environment is an essential component in the tourist production and the tourist product, and the regional transformations permit a use with a tourist objective, then any policy aiming at improving the quality of the tourist product must necessarily include regional actions, that is, a regional planning policy.

## REFERENCES.

- AGUILERA KLINK, F. (1991, b): "Economía del medio ambiente: notas para un estado de la cuestión", *Cuadernos de Economía*. Vol. 19. pp 167-96.
- ARROYO ILERA, F. (1979): "La playa de Tabernes de Valldigna (Valencia)", *Estudios Geográficos*. Vol. XL. nº 154. pp 75-104.
- ARROYO ILERA, F. (1980): "Ordenación urbana y especulación turística en Cullera (Valencia)", *Estudios Geográficos*. Vol. XLI. nº 161. pp 383-412.
- BARDE, Jean-Philippe (1992): *Économie et politique de l'environnement*. París. P.U.F.
- BAUMOL, W.E. y OATES, W.E. (1975): *The Theory of Environmental Policy*. New Jersey. Prentice-Hall.
- BOULLÓN, Roberto C. (1985): *Planificación del espacio turístico*. México. Trillas.

- CALZONI, Giuseppe (1988): *Principi di economia dell'ambiente e di gestione turistica del territorio*. Milan. Franco Angeli.
- CIRIACY-WANTRUP, S.V. (1952): *Resources Conservation-Economics and Policies*. Berkeley. University of California Press.
- COOPER, C.P. (ed.) (1989): *Progress in Tourism, Recreation and Hospitality Management*. London. Belhaven Press. Vol. I.
- COOPER, C.P. and LOCWOOD, A. (eds.) (1992): *Progress in Tourism, Recreation and Hospitality Mangement*. London. Belhaven Press. Vol IV.
- DOWLING, R.K. (1992): "Tourism and Environmental Integration: the Jouney from Idealism to Realism", in: COOPER, C.P. and LOCKWOOD, A. (eds.) (1992). Vol. IV. pp 33-46.
- ELLIOT-SPIVACK, Sheryl M. (1989): "Tourism and the Envionment: Two Synergistic Realities", *Turismo y medio ambiente en la Europa mediterránea de los 90*. CEFAT. ITVA. Valencia (Spain).
- FARRELL, Bryan H. and RUNYAN, D. (1991): "Ecology and Tourism", *Annals of Tourism Research*. Vol. 18(1). pp 26-40.
- FOURNEAU y MARCHENA (dirs.) (1991): *Ordenación y desarrollo del turismo en España y Francia*. Madrid. Casa de Velázquez.
- FURIÓ-i-BLASCO, E. (1996): *Economía, Turismo y medio ambiente*. Valencia, Tirant lo Blanc.
- GEORGESCU-ROEGEN, N. (1971): *The Entropy Law and the Economic Process*. Cambridge (Massachussetts). Havard University Press.
- GODELIER, M. (1984): *L'idéel et le matériel. Pensée, éonomies, sociétés*. Paris. Fayard.
- INSKEEP, Edward (1991): *TOURISM PLANNING. An Integrated and Sustainable Development Approach*. New York. Van Nostrand Reinhold.



- LABORDE, Pierre (1991): "Tourisme de littoral et environnement. Aménagement et protection", in: FOURNEAU y MARCHENA (dirs.) (1991). pp 101-14.
- MARTÍNEZ ALIER, Joan (1984): *L'ecologisme i l'economia. Història d'unes relacions amagades*. Barcelona. Edicions 62.
- MATHIESON, A. y WALL, G. (1986): *Tourism: Economic, Physical and Social Impacts*. London. Longman Group Limited.
- McKERCHER, Bob (1992): "Tourism as a Conflicting Land Use", *Annals of Tourism Research*. Vol 19(3). pp 467-81.
- MICHAUD, Jean-Luc (1983): *Le tourisme face à l'environnement*. Paris. P.U.F.
- MOLINA, Sergio (1982): *Turismo y ecología*. México. Trillas.
- MOREY i ANDREU, M. (1990): "Turisme i ecologia a les Balears", *Estudis Baleàrics*. n° 37/38. Agost-Desembre. pp 71-80.
- NAREDO, J.M. (1987): *La economía en evolución. Historia y perspectiva de las categorías básicas del pensamiento económico*. Madrid. Siglo XXI.
- OECD (1980): *The Impact of Tourism on the Environment*. Paris. Organization for Economic Co-operation and Development.
- PEARCE, Douglas (1981): *Touristic Development*. London. Longman.
- PIÈ i NINOT, R. (1985): "De las cartas de concesiones de usos de la playa a los planes de ordenación del litoral. La costa catalana", *Estudios Territoriales*. n° 18. pp 109-38.
- QUIRK, James P. (1976): *Intermediate Microeconomics*. Science Research Associates, Inc.
- ROMERIL, M. (1989): "Tourism: the Environmental Dimension", in: COOPER, C.P. (ed.) (1989). Volume One. Cap 6. pp 103-13.

SALVÀ TOMÀS, Pere A. (1991): "Turismo y ordenación del territorio: Un estado de la cuestión y de su problemática", in: FOURNEAU y MARCHENA (dirs.) (1991). pp 115-28.

SÁNCHEZ, Joan-Eugeni (1991): *Espacio, economía y sociedad*. Madrid. Siglo XXI.

STANKOVIC, Stevan M. (1991): "The Protection of Life Environment and Modern Tourism", *Revue de Tourisme*. nº 2. pp 2-4.