# THE IMPACT OF TOURISM ACTIVITIES. A POINT OF VIEW

## N. CIANGĂ, V. SOROCOVSCHI

Abstract. - The impact of tourism activities. A point of view. The tourism, as a phenomenon of local to global impact, and complex activity with complex effects, from the economic to the social ones and, not least with influence on the environment, determined a new way of cohabitation between the natural and anthropic and anthropogenic environment through tourism. Its bipolar character phenomenon and business — has given it a particular position among other categories of activities, such as generating flows of tourism product consumers, from the area of origin, or the tourist market, to the tourist's destination area, including touristic attractions belonging to the natural and man-made environment, or primary touristic offers, which includes the tourism infrastructure with different size and complexity. This study attempts to capture the complexity and extent of this phenomenon, with multiple effects, having a spatially and temporally complex and phasing evolution, summarized in five stages, starting from the phase of pretourism to the one of maximum and complex development, until the saturation and decline phase, with the possibility of a new cycle re-enactment.

**Key words:** Tourism, activities, impact, touristic development, types of tourism, accomodation capacity, touristic infrastructure, fragile geographical environments.

### 1. INTRODUCTION

The increase of tourists' number from over 600 million in 2000, to about one billion people at the end of the second decade of our century led to increased consumption of tourism resources, which are really parts of the environment. Tourism phenomenon is closely connected with the abiotic, biotic, human, economic, social and cultural components of the environment.

In the last decades of the twentieth century it was intended to achieve a balanced expansion of tourism, according to the standards which guarantee the preservation of ecological balance and to avoid overuse of resources, pollution and other negative impacts on environment. This is the materialization of a concept, or even of an applicable and applied philosophy in tourism, namely, that of *sustainable development*, with application for turism - *ecotourism*.

The notion of *impact* involves analyzing the relationship *tourist - tourism* resource - tourism product, which runs from simply visiting a tourist attraction, up to providing tourism service packages and activities designed to highlight the objective.

Tourism, more than any other field of activity, is dependent on the environment, because it represents the main resource and tourist attraction factor on which depends the development of various tourism activities and its quality and components, this way facilitating, inhibiting and even hindering their development.

Correlative analysis of the resultant state of the environment, tourist facilities and polarization components of tourist traffic can lead to estimate induced impacts, which may be of a natural-physical, economic, and social. The impact of financial control is achieved through an appropriate strategy and management, information, monitoring of the environment and the tourism phenomenon, applying and sectoral research, etc.

The relationship between tourism and the environment is very complex and diverse in space and time. To understand how production impacts in tourism is necessary to analyze the environmental status and dynamic elements (increase tourism forms of tourism) and static phenomenon.

# 2. CONTROL FACTORS OF THE IMPACT PRODUCED BY TOURISTIC PHENOMENON AND MANIFESTATION FORMS

Where and how the impacts induced by tourism phenomenon manifests depend on a variety of factors, among which may be mentioned the forms of tourism, tourist destination, the carrying capacity of etc.. These influences and even determines the phenomenon's intensity, duration and impact's diversity on tourism environment. In general, *the intensity and diversity* of the impact induced by tourism in its most dynamic form, under the spatial aspect the diversity of forms and mass of tourists involved, *recreational tourism*, are greater than those caused by business travel or health tourism. The impact induced by organized mass tourism is lower than that generated by mass individual tourism. A lower impact is the one induced by not institutionalized tourism.

Diversity and intensity of impacts depends on the nature of the destination. Thus, some environments (eg. climatic resorts with the status of urban settlements), can support a large number of visitors as they have adequate organizational structure to support tourists.

Instead, coastal regions and mountainous areas are more vulnerable to tourism, being more fragile media, more so as the pressure is increased by a double or even triple number of tourists compared with the native population. Some historical sites have become very vulnerable and may be affected by the presence of tourists, being partially or totally closed landmarks for visitors due to the negative effects on the environment (the Parthenon on the Acropolis of Athens, the tomb of Tutankhamun in the Valley of the Kings, Egypt, etc.). The intensity, size and nature of environmental degradation depend on the *pressure applied* by the

visitors' number and degree of culture, the practised tourism forms, concentration of utilities in terms of spatial and dimensional aspect, and planning and management applied in improvement, development and capitalizing the researched area.

Charge rate - tourist facilities is necessary to comply with the limits of affordability capacity, influencing also the features of environmental degradation (intensity, size, nature etc.). Thus, if the level and intensity of tourism resources exploitation in time exceed certain affordability thresholds, the effects are negative and may lead to degradation of the environment on one hand, and to the disturbance of tourism activities functionality.

Tourism contributes to environmental degradation through multiple paths: environment's transformation for their own purposes; consumption of various resources; pressure exerted through congestion, overload, saturation, tension, conflict, pollution, devastation; and so on.

If the effects do not exceed the affordability threshold, they are reversible which means that through proper management can be reached a near-original condition.

Thus, for the complex planning of a mountain spa and winter sports resort, project planning, development and future optimal valorification is directly related to the correlation between the reception capacity of the resort, access to the resort, access to the ski area by means of mechanical transport by cable and fluidity on the ski slopes. For this are correlated the number of persons that use the cable and the slopes, taking into account the top request of weekend. There are made and quantified indicators, categories of cable vehicles, the optimum hourly transport capacity of mechanical cable vehicles, the optimum capacity of ski slope/slopes, slope flow, slope simultaneity index, analytical indicators such as the time needed to go up with a cable car, the time requested to descent on a ski slope (Ciangă, N., Dezsi, St., 2007). For a better operation of a designed resort with minimal effects on the environment must be taken into account by the tourist structure, with skiers representing 70% of applicants (with more than 60% practicing alpine skiing, the rest - basic skiing; and of those in the former, half may be novices and few advanced and performers; all this must be taken into account to the design and construction of slopes with varying degrees of difficulty), the rest are non-skiers, which should have distinct facilities and different service packages, for each level of age and options.

The tourist conquering of mountain area, in space and altitude, especially in the Alpine region, was closely linked to the evolution and modernization of mechanical ways of access, which can be observed and studied the following stages: railways stage, cog railways stage, road penetration step, mechanical cable transport stage.

In contrast, in other fragile environment with huge tourist facilities and intense pressures of tourism demand, such as *coastal environment*, there should be taken into account the same considerations.

The main considerations – attractiveness - formed by the binomial beaches and water near shore, supporting the most tourist pressure is also necessary to correlation between the capacity of accommodation, leisure and services, support capacity for beach and sea, as well as taking into account quantifiable indicators, like exploitable and landscaped areas beaches, the number of tourists / compared to standard required area for a person, simultaneity of potential tourists' presence on the beach (Erdeli, G. Istrate., I., 1996).

Depending on the *duration of the event*, it can be observed a temporary or short term impact on the environment, which coincides with the tourist season and does not cause irreversible changes (pollution from the traffic of tourists' vehicle). For long-term impact, environment's recovery capacity has been destroyed and irreversible changes were installed (reduction of biodiversity). The impact of touristic phenomenon may take two major forms of manifestation: *positive or negative*.

Positive effects can be of economic, social, educational, and ecological nature. Thus, tourism participates in the sustainable development of numerous destinations by: increasing viability of localities with scarce natural resources; use of low productive agricultural land through the implementation of appropriate tourist facilities; increasing cash income of residents; increasing economic power of localities by obtaining new revenue from new taxes and local fees; encouraging, even reviving traditional activities, particularly those with hand-made character and from small-scale traditional industry, but also from traditional ecological mountain farming and through the capitalization of products in citu-place; development of a particular trade based on local handicraft products; upgrading cultural objectives and ecological rehabilitating of valued landscapes based on revenues from tourism etc.. Add to them the geodemographic revitalization, especially in mountainous depopulated areas due to the urban-industrial exodus, with visible effects in the Alps, Pyrenees, attracting the younger age groups, receptive to new professions related to travel, foreign languages speakers, with substantial remuneration, especially in areas where the seasonal nature of tourism tends to a visible annual continuity. (Dezsi, Ciangă, Rotar, Gabriela, 2002)

The negative effect is determined, primarily, by the destructive action of tourist facilities (from the most simple to resorts, ski slopes and cable transport development requiring major landscape correction, even drastic, and changes of the hillsides slopes to achieve the ski slopes, deforestation of forests for the same reason or for cable transport determining degradation of soils in the affected areas), but also by tourists, with effects on the environment and its components, in particular tourism resources.

Destructive actions, in many cases unconscious, generated in particular by tourists' lack of touristic and ecological education may be numerous, especially in areas or landmarks with obvious tourist concentration and while the amenities and tourist facilities do not meet requirements for environmental protection.

Uncontrolled tourist traffic especially outside the marked trails or practices of wild skiing brings numerous damages by destroying soil, vegetation, the disturbance of fauna and flora habitat, by triggering fires, preventing ecological regeneration, the practice of poaching. Uncontrolled tourist traffic in large groups has negative influences also on the cultural objectives.

The lack of specific facilities designed for resting, installation of tents, in areas and paths with high tourist interest produces the degradation phenomenon of the landscape, through the accumulation of waste, garbage, etc.

*Motoring* causes damages by parking and traffic in prohibited places, with deviation from the main roads, with stops in clearings, riverbanks, by producing exhaust gases, noise, and destruction of floristic species. Main effect of the tourist traffic is the intense air pollution.

Intensive and irrational exploitation of natural resources with tourist valences (mineral water, mud, mofetta gases, beaches, salt lakes waters etc.), especially water, with limited reserves, even deficient in the mountain area and especially in the island areas of the Mediterranean Sea may determine its limitation or depletion. An important role is keeping the hydrogeological perimeters and the sanitary norms for the protection of hydro-deposits with balneary value.

The accommodation and catering facilities which do not use alternative energy, recycling and wastewater use, storage and garbage composting bring considerable damage on the environmental components (air, water, soil, etc.).

# 3. CATEGORIES OF IMPACT INDUCED BY TOURIST PHENOMENON

Although the consequences of tourism industry's explosive development are multifaceted, however there are some common features that allow systematize the impact of tourism in three categories: impact on the physical environment, socio-cultural impact and economic impact.

# **3.1.** Tourism's impact on the environment

Nature and cultural values' organisation and valorification through tourism, thoughtlessly and randomly, in time and space can produce negative impacts on all environmental components (table 1).

**Table 1**. The impact of touristic activities on environment's natural elements

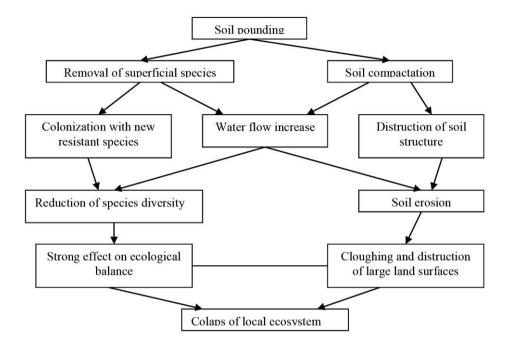
Actions that cause changes in the composion and number of vegetation and fauna			
species			
The distruction of vegetation and fauna species' habitat			
Hunting			
Killing of animals for gastronomic curiosities and souvenir market			
Distruction of valuable vegetation species for plant picking and wood			
Clearing of natural vegetation for the appearance of touristic facilities			
Reduction of natural reservations' surface			
Pollution			
Of water through dumping sewage			
Of air through exhaust gases			
Of soils through various wastes resulted from different touristic services			
Sound pollution resulted from touristic activities and transportation			
Amplification of natural processes			
Land's consolidation and compactation			
Landslides			
Snowfalls enactment			
Deterioration of karst forms, river banks, beaches, etc.			
Reduction and depletion of natural resources			
Reduction or depletion of water resources through over			
Reduction or depletion of resources needed in the maintenance of touristic activities			
reduction of forests' surface due to deforestation or fires			
Visual impact			
Touristic facilities			
Garbage resulted from touristic activities and circulation			

From the natural components, the soil supports major changes due to its take-up tendency with tourist infrastructure, technical utilities and communication routes. Soil degradation produces a chain a negative effects series (Fig. 1).

Flora bears negative consequences as a result of intense tourist traffic and tourism facilities for winter sports (clearing of forest corridors), leisure and entertainment, etc.

Fauna suffers from the destruction and reduction of specific species habitat. The hunting and fishing potential of many tourist areas have suffered from the irrational practice of hunting and fishing.

The regions most affected by tourism activities are coastal and mountainous areas, where the tourists' density is great and the ecological fragility is high.



**Fig. 1**. The effects of land pounding in touristic areas

Natural or urban landscape in different regions is degraded through human intervention resulting in new tourism structures whose architecture does not integrate in terms of aesthetic and environmental aspect.

Tourism activities can also produce impacts on buildings by taking land out of primary production, overload with elements of infrastructure, training for new equipment of general and specific infrastructure, changes in urban but also rural structures, in amenities, reuse and restoration of ancient sites, of historical buildings, restoration of old buildings as second residence - holiday houses etc. Visual impact can occur in urban areas by increasing the areas occupied with buildings, introducing new architectural styles, not harmonized with the existing ones, and through congestion of people and goods. In urban settlements the effects of tourism activities development are felt mostly on historical centres, old buildings, monuments etc.. Space and resources consumption is a phenomenon known as being caused by the "expansion" of the tourism phenomenon, leading, among other things, to the development of tourist facilities in the detriment of other uses such as agricultural in the vicinity of large cities.

The effects of tourist facilities are multiple and consist of modifying the soil structure, of groundwater circuit and their depletion through excessive exploitation, of hydrographic network, of biodiversity and microclimate.

The contribution of tourism to increase the greenhouse effect is achieved by intensifying the emissions resulted from different types of transport (especially road and air) and from energy consumption for heating or cooling accommodation facilities. There were established several indicators that can highlight the contribution of tourism to emissions of greenhouse (Table 2).

**Table 2.** Indicators for greenhouse gases emissions (after Mihaela Dinu et all. 2006 \*)

SCG Components	Indicators	
- Greenhouse gases emissions by tourist	-Total CO <sub>2</sub> produced as a result of consumed	
destinations and tourism components.	energy	
- Transport of fuel used in the	-Total fossil fuel consume per capita for	
destination area.	transport.	
- Energy consumption in relation to	- Total fossil fuel consume used for tourists'	
temperature.	transport	
- Spreading of protected natural areas	- Number and % of rooms with air	
	conditioning or heating.	
	- Percentage of territory coverage in the area	
	of destination.	

<sup>\*</sup>Source: Indicators of Sustainable Development for Tourism Destinations, WTO, 2004

Consumption of water resources from various categories (underground and surface) in tourism activities has increased a lot in recent decades. There are some tourism regions where increased water demand in quality and quantity can no longer be satisfied, leading to conflicts between different categories of land uses (agriculture, industry and tourism). Tourism as a major water consumer may cause conflicts in certain destinations, especially those with reduced water resources such as Mediterranean island areas, Middle East, Israel etc. The irrational exploitation of water resources may lead to the decrease or even the disappearance of underground water reserves.

Conserving and preserving the quality of fresh water, with physical and chemical guaranteed and very strictly controlled qualities are very important in the hotel units. Thus, water consumption in hotels involve the use of filters and the use of biodegradable detergents dishes or laundry washing so as to increase the lifetime of the installations with indoor water circuit, of the equipment and facilities. This way the water spilled-over will be cleaner and less harmful.

The problem of water consumption appears not only in arid and semi-arid areas with scarce water resources, but also in mountainous areas with high concentration of tourist facilities, where besides household water consumption,

water resources are requested for other activities, such as artificial snow production. Thus, extremely rare snowfall in recent years have led to the use of snow cannons in many resorts. Since 2001 all ski areas in the US (East, Central, South-East) have snow making systems (between 62 to 98%). The phenomenon is similar in Alpine countries (France, Italy, Austria, Switzerland). In France, for example, 110 of the 450 ski resorts had at least one snow cannon. There was found a sustainable alternative by advancing in altitude, especially in the French and Italian Alps, where the winter sports facilities, established as a third generation, that of integrated resorts for winter sports resulted in the limited use of artificial snow and expansion of the season with winter sports practice.

In order to produce a skiing hectare are needed 200,000 litres of water. Artificial snow production has a number of negative effects among which: reducing of plants growing season, reduction of rivers currents speed of the fish population specific to mountain regions, reduction of forest areas etc.

Biodiversity, namely the variety of living organisms of all origins (terrestrial, marine and other aquatic ecosystems and ecological complexes) can be or are affected by the various forms by the tourism activities that are not conducted in accordance with the standards of proper environment management (hunting, fishing, boating, etc.).

The disorganized practice of tourism and of poaching in the Danube Delta has affected the habitat of many ornithological species, but also of the fisheries, which lead to a reduction of the number of species that nest in this biosphere reservation, or affecting the survival of valuable fish species, such as sturgeon.

The pressure from tourism activities carried out in Bucegi Mountains, favoured by the road access to the high parts of the Bucegi Plateau contributed to the extinction of animal species (Bald Eagle), the reduction of chamois specimens and the destruction of plant species (Edelweiss, Mountain Peony, Gentiana, etc.).

Tourism activities contribute to environmental degradation through pollution of all its components. Thus, air pollution occurs due to car traffic, production and use of energy etc., and water pollution through the spill-out of industrial and domestic wastewater, solid waste, motor-navigation etc. For example, the impact of cruise ships on destinations is very complex and is manifested through harmful emissions released into the atmosphere, pollution of the aquatic environment through wastewater, solid waste, wasters of different categories. Contamination of the aquatic environment can affect tourists' health in coastal regions and the estate of coastal ecosystems (marine fauna, coral reefs etc.). The signalization of sea water contamination entails several measures including, more frequently, beach closing or limiting the use of shore. Tourists can find information online about water status of most beaches in the US and Australia, Canada, Hong Kong and the Mediterranean Sea.

Air pollution has also negative effects on cultural monuments and natural landscapes, even causing their degradation (acid rain attacks marble). Due to intense circulation, vibrations produced by various means of transport cause an acoustic pollution. In crowded major cities and tourist resorts is performed a noise control.

The impact of waste (organic and nergenerabile) on the environment is strongly felt through the pollution produced by it, creating an inappropriate images of tourist areas. Waste management (collection, storage, incineration or recycling) in destination areas is a difficult problem, because of very large quantities and costs caused. On the beaches of California are daily collected 400 tons of domestic waste, and from Retezat National Park more than 50 tonnes/year. On Côte d'Azur in summer, the waste quantity exceeds 5 kg/tourist/day.

Degradation of landscapes, places and historical monuments is caused by excessive urbanization, inappropriate and/or poor quality architecture, and air pollution and acid precipitation. To this, add vandalism and lettering on the walls.

## 3.2. Social and cultural impact of tourism

The social impact of tourism is manifested in various aspects, highlighting the necessity of an interdisciplinary research with the contribution of specialists from many research fields (sociology, history, demography, psychology, geography, etc.).

The social impact is manifested through the influence that tourism has on the traditional livelihood of inhabitants, on widening their spiritual and professional horizon. Given that socio-economic lifestyle has increasingly acute trends of generalization and levelling, keeping traditional elements will occupy an important place in the future of the settlements included in tourism activities.

Harnessing the natural and cultural heritage of a tourism area presents both positive and negative social impacts.

Tourism through its various manifestation forms has positive effects through: increase of social and professional opportunity by creating new jobs in tourism services and infrastructure; creating new seasonal or permanent jobs, especially for young people (scholars, students, etc.) and women; the decline of depopulation process in some mountain or coastal reception areas leads to demographic revitalization of these areas (the Alps, the Mediterranean and the Spanish coasts, Balearic Islands, etc.); ensuring and development of social progress, increase of cleanliness and public hygiene, of general comfort in tourist localities; decreasing of disparities between socio-professional categories in terms of revenues.

The negative effects of tourism activities are also many, and can be materialized by: the disruption and gradual destruction of traditional lifestyles

related to various activities (pastoral, forestry, handicrafts and small industries, etc.) and often to the manifestation of mercantilismuilui imposed by the market economy; the acceptance by the local population of the negative social influences; the occurrence in many reception areas of demographic aging resulting from the migration of old people and their settling in holiday homes from tourist resorts or surrounding areas.

Beside social problems, in destination areas arise problems with cultural and anthropological background. The cultural impact is dominated by the relationship between tourists and local population, which is not always beneficial for the locals.

The positive aspects are given by: the development and revival of cultural and religious traditions; diversification of artisanal valorifications forms of guaranteed bio agricultural products; encouraging the increase of local people interest in maintaining and preserving natural and cultural tourist objectives, which may thus be capitalized; initiating new cultural action in religious plan - pilgrimage to monasteries in order to satisfy the sentiment of Christian sacredness and respect for moral values; contacts and cultural exchanges between local communities and tourist groups, facilitated by learning foreign languages.

The negative aspects are also numerous, and their appearance and manifestation is felt after a relatively longer time: the appearance of changes of mind-sets, moral values under the influence of tourists, keeping of customs and traditions just for tourists, appearance of bad taste products; adaptation and copying by residents of attitudes and behaviours attributed to tourists; appearance of potential conflicts and antagonisms when tourism becomes a mass, supersaturated phenomenon, leading to the disappearance of a sense of pride to their own culture; increased cost of living, ultrafast developing of a consumer society model, the gradual destruction of local social spontaneity.

In many tourist destinations appears tension phenomena between visitors and residents, resulting from cultural differences, leading to the isolation, rejection or exclusion of newcomers.

## 3.3. Economic impact of tourism

Measuring the economic impact may take into account three elements: the direct impact reflecting the effects of the first round of monetary circuit originated from tourists; the indirect impact measures derived effects caused by additional rounds caused by the recirculation of initial monetary unit; the impact induced (stimulated) compares the derived effects caused by employees of travel agencies that spend part of their wages in other business sectors. In total economic impact is equal with the effects of indirect impact plus the impact of tourist spending.

Logically, the multiplier effect of tourism is expressed by summing the three impacts, reported to the direct impact.

# 4. Environment's reception capacity and support capacity for tourism

For defining environment's capacity for tourism it is used two terms: the reception capacity and the support capacity. Knowing the particularities of these terms has a great importance in tourism's sustainable management.

Reception capacity. There are many views and theories on the concept of reception capacity. The first view is the fact that there is a normal relationship between the number of tourists and the number of resources that are needed to satisfy both visitors and destination areas. A second opinion supports the idea that in a very dynamic tourist activity, sooner or later reaches a saturation limit, where the tourist facilities and volume can no longer develop, use, increase or change, or will not be allowed. After reaching this threshold, the destination will not be required. A third opinion supports the idea that the impact of tourism should be an acceptable or "normal" one from all points of view. According to other opinions there is some elasticity in reception capacity, meaning that certain interventions can be made, or introducing of new reception categories, which could diminish or even eliminate the negative impacts of tourism and as a result will increase reception capacity. The concept of reception capacity was developed in order to define the idea of sustainability.

The level of tourist reception capacity can be determined based on several criteria, some of which are quantifiable and other hard to quantify. There may establish three major types of reception capacity: maximum, weekly/daily and annual.

Appreciation criteria for maximum reception capacity refer to two major components: local environment or tourism product or image (Table 1).

Local environment includes basic elements of the natural environment, of socio-economic development, of cultural level, resources being limited and exhaustible. Where natural areas are less fragile, the volume of tourist traffic can be calculated (maximum and minimum) through realised image-tourism product. The evaluation of travel requirements can be calculated directly using a demand analysis. In areas with tourist destination are applied physical, economic and socio-cultural criteria and also the ones related to general and specific infrastructure (Table 3).

The space seen as a surface and length unit is used in tourism for the calculation of indicators reflecting the reception capacity.

#### THE IMPACT OF TOURISM ACTIVITIES. A POINT OF VIEW

Touristic development rates refer to the rate between tourist exploitation or capacity and the local population, carrying capacity, kilometric density, seasonal frequency, economic benefits etc.

**Table 3.** Criteria for assessing maximum reception capacity (after Florina Bran et all, 1998)

Criteria	Components		
Criteria	Medium	Touristic image-product	
Physical	- visual impact with an acceptable level; -threshold where environmental damages occur; -necessity to conserve wild and marine life.	<ul> <li>favourable climatic characteristics connected with the lack of pollution;</li> <li>attraction degree exerted by urban and rural settlements;</li> <li>quality of tourist structures and of leisure time.</li> </ul>	
Economical	-setting of tourism volume that produces maximum tourism benefit; - the level of employment in local communities	- the stay's cost (price and tariff policy)	
Socio- cultural	-Determining the volume of acceptable tourism without being detrimental to socio-cultural life of communities; -setting the level of tourism that enable maintenance and conservation of monuments and cultural traditions without any negative effects	<ul> <li>interest enjoyed by a local community and culture;</li> <li>quality of local handicrafts, culinary curiosities.</li> </ul>	
General and specific infrastructure	-public services; - infrastructure for transport; -Other essential facilities (medical facilities, trained personnel).	- public and tourism services; - transport facilities level	

Assessing of unquantifiable aspects may be materialize through costbenefit analysis and impact studies, finally drafting, rules, regulations or laws.

**Environment's support capacity for tourism.** It allows the definition of the number of tourists that can be accommodated in a destination without negative effects on the place and without lessening the enjoyment of tourists.

Setting support capacity for tourist destinations helps in tourism planning and sustainable development and provides a positive effect on tourism market. Knowing the support capacity, meaning the upper development limits in optimal resources use is of particular importance in tourism planning and management.

Determination the support capacity in tourism means to measure physical, economic, demographical and socio-cultural parameters, which is a rather difficult problem. There are several types of carrying capacity (Swarbrooke 1999, quoted by Mihaela Dinu, 2005) (Figure 2)

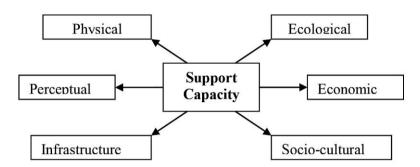


Fig. 2. Types of support capacity (after Swarbrooke, 1999, cited by Mihaela Dinu, 2005)

Physical capacity aims that level of tourism or recreational activities development where the facilities that the territory offers are "saturated", or the damages caused to the environment are starting to manifest due to overuse or to inadequate infrastructure networks. According to some authors this occurs in relatively small areas, where mass tourism has developed. Unwanted changes of land's physical capacity can be rectified through significant investment in order to protect the physical elements of the territory.

Environment capacity refers to tourism or recreational activity's level of development where the environment becomes degraded or compromised.

Economic capacity is the ability to absorb tourism functions without causing undesirable activities. This approach is closely linked to the version costbenefit analysis, which tends to associate a certain limit of reception capacity, according to the environmental, social, cultural and even political costs (Melinda Candea et al., 2000).

Social-perceptual capacity is that level of saturation of local population and of visitors' rejection, considering that they harm the environment, local activities or the culture.

Psychological reception capacity (with threshold effect) is exceeded when tourists no longer feel comfortable in the destination area because they perceive the locals' negative attitude, the congestion or the environment's physical damage.

Infrastructure capacity is the number of people that can be accommodated in the tourism infrastructure before it becomes unable to function properly.

The types of support capacity have some drawbacks in that their application in practice and their quantification are difficult, having a high degree of

subjectivity (socio-cultural and natives - tourists perception capacities) do not take into account a number of key factors (type of destination, the degree of fragility, state of the environment and of local community, type of tourism, etc.) and that the social structure, economy and geographical conditions and types of tourist facilities are not identical in two different locations, which requires specific studies.

#### 5. CONCLUSIONS

Tourism is one of the most extensive and complex phenomena of the contemporary world, which deeply marked the current society, at all levels and has been linked to the change of philosophy and perception of the concept of leisure, and to the imposition of a motivations set that become true conditioned - acquired reflexes in its development.

Its evolution has led to major effects: appearance of large tourist facilities stretched on complex and extensive areas, causing huge investments implying the need for development, management, promotion and exploitation strategies; massive temporary displacements of population, with different motivations and demands and causing significant changes in the environment.

The effects are often of contradictory nature, positive and negative, and whose knowledge and research can contribute to a better understanding of the phenomenology, aiming a sustainable development with potential multiple benefits for the environment and the human community.

#### REFERENCES

- 1. Archer, B., Cooper, C (2001), *The positive and negative impact of tourism*, in Global Tourism, 2nd ed., Oxford: Butterwort Heinemann.
- 2. Bălteanu, D., Şerban, Mihaela (2005), *Modificări globale ale Mediului. O evaluare interdisciplinară*, București: Coresi.
- 3. Bran, Florina, Ioan, I., et al. (2006), *Cuantificarea dezvoltării durabile*, București: Editura Economică.
- 4. Bran, Florina, Cândea, Melinda, Cimpoeru, I. (2006), *Organizarea, amenajarea și dezvoltarea durabilă a spațiului geografic*, București University Publishing.
- 5. Cândea, Melinda, Erdeli, G., Tamara, simon, Pepteanu, D. (2003), *Potențialul turistic al României și amenajarea turistică a spațiului*, București University Publishing.
- 6. Ciangă, N. (2006), *România. Geografia turismulu*, Cluj-Napoca: Presa Universitară Clujeană.
- 7. Ciangă, N., Dezsi Şt. (2007), *Amenajare turistică*. Cluj-Napoca: Presa Universitară Clujeană.
- 8. Cocean, P., (2002), Geografia turismului, Cluj-Napoca: Focul Viu.
- Dezsi, St., Ciangă, N., Rotar, Gabriela (2002) Considerații privind impactul turismului asupra mediului înconjurător și riscurile induse de activităților turistice, In V. Sorocovschi (Editor), "Riscuri și catastrofe", Vol. I, Cluj-Napoca: Casa Cărții de Stiință.

- 10. Dinu, Mihaela (2001), Relațiile reciproce dintre turism și mediul înconjurător. Influența mediului înconjurător asupra activităților turistice, In "URA", No. 4, București.
- 11. Dinu, Mihaela (2002), *Geografia turismului*, București: Edititura Didactică și Pedagogică.
- 12. Dinu, Mihaela (coordonator) (2005), *Impactul turismului asupra mediului*. *Indicatori și măsurători*. București University Publishing.
- 13. Erdeli, G., Istrate, I. (1996), Amenajări turistice, București University Publishing.
- 14. Gâştescu, P. (2000), Managementul mediului, Târgovişte: Sfinx.
- 15. Gilpin, A.(1995), Environmental Impact Assessment, Cambridge University Pres.
- 16. Glăvan, V. (2000), Turismul în România, Edit. Economică, Bucuresti.
- 17. Hunter, C., Green, H. (1995), Tourism and the Environment: a Sustainable Relationship, Routledge, London.
- 18. Istrate, I., Bran, F., Roşu, A. G. (1996), *Economia turismului şi mediului înconjurător*, Bucureşti: Editura Economică.
- 19. Mac, I. (1998), *Geografia turismului*, Universitatea Ecologică Dimitrie Cantemir, Sibiu
- 20. Mac, I. (2003), Stiința Mediului, Cluj-Napoca: Europontic.
- 21. Mac, I. (2008), Geografie normativă, Cluj-Napoca: Presa Universitară Clujeană.
- 22. Maier, A (2001), *Patrimoniul turistic și protecția mediului*, Cluj-Napoca: George Barițiu
- 23. Miossec, J., M. (1998), De l'amenagement touristiques des littoraux a la gestion integree les zones cotieres, In Vol. "Les littoraux. Espace de vie". Paris: SEDES
- 24. Muntele, I., Iațu, C. (2003), Geografia Turismului. Concepte, metode și forme de manifestare spațio-temporale. Iași: Sedcom Libris.
- 25. Neacşu, N. (2000), Turismul şi dezvoltarea durabilă, Bucureşti: Expert.
- 26. Nistoreanu, P. (2002), Managementul în turism, Bucuresti: ASE Publishing.
- Păcuraru, Al. (1999), Geografia turismului internațional Cluj-Napoca: Presa Universitară Clujeană.
- 28. Snak, O., Baron, P., Neacşu, N. (2001), Economia Turismului, Bucureşti: Expert.
- 29. Sorocovschi, V. (2008), *Climatologie și aplicații bioclimatice în turism*, Cluj-Napoca: Casa Cărții de Știință.
- 30. Sorocovschi, V. (2008), Aspecte privind tipurile şi activitățile turistice induse de apele de suprafață. În vol. of "International Symposium, Challenges of European Integration" (October 24-25, 2008), "Dimitrie Cantemir" University, Târgu Mureş, Romania. Cluj-Napoca: RISOPRINT.
- 31. Sorocovschi, V. (2009), *Probleme de mediu și turism*. Târgu Mureș: Dimitrie Cantemir.
- 32. Swarbrooke, J. (1999), Sustainable Tourism Management. New York: CABI, Publishing.