APPREACHES OF DURABLE DEVELOPMENT OF TOURISM

Mirela ŞTEFĂNICĂ  
Alexandru Ioan Cuza University of Iaşi, România  
stefanica_mirela@yahoo.com

Gina I. BUTNARU  
Alexandru Ioan Cuza University of Iaşi, România  
gina.butnaru@uaic.ro

Abstract
Sustainable development is a dynamic concept, with many dimensions and interpretations. It is seen as a process of permanent change, related to the local context, needs, and regional priorities. Sustainable development appeared, on the one hand, as an answer to the necessity of a balance between the economic progress and the social one, and on the other hand from the concern regarding the environment and the administration of natural resources. Consequently, sustainable development of tourism should focus on total valorisation of special natural and cultural resources, on improvement of the quality of life in local communities, as well as on fulfilment of tourists’ motivations and requirements in accordance with environmental conservation and protection for the future generations. Therefore, sustainable development in tourism cannot take place without a sustainable tourism. The administration and the assurance of tourism durability imply first the understanding of this concept, and second the analysis and the calculation of sustainable tourism indicators. In this paper we intend to do these things, and we chose to calculate the sustainable tourism indicators for the North-East Region of Romania, with the purpose to quantify sustainable tourism in this area.

Key words: tourism, sustainable development, sustainable development of tourism, durability.

JEL classification: L83, Q01.

INTRODUCTION

“In the last century, a change with enormous implications appeared on the list of human priorities: instead of happiness, the first place was taken by the problem of survival” (Giurgiu, 1995). These problems appear due to the fact that the planet resources are limited (though some of them are regenerating, but in a rather long time), and we are using them in an alarming rhythm. According to the report of World Wide Fund for Nature, “if the practices of consumption and production continue in the same rhythm, after the following 50 years we would need another planet Earth in order to survive” (Grand et al., 2007). In 1987, the prime minister of Norway, who was also president of the International Commission of Environment and Development at that time, offered to the public a report with the title “Our Common Future”. This report analyses the entire evolution between man and environment, and it explains the difference between growth and development, rejecting the concept that the ecologists would be against the economic and human society development. According to Daly and Cobb (1989), “the founder of the theory of sustainable development is considered Herman Daly”, who was a great American economist from the University of Maryland. He elaborated from 1971 to 1981 the concept of “steady state economics”, representing the basis on which afterwards the notion of sustainable economy was founded. Starting with this concept of “steady state economics”, the concept of sustainable development was initiated ten years later. In 1990, the World Bank was organising in Washington an International Interdisciplinary Conference with the subject “Ecological Economics of Sustainability”, when “The International Society for Ecological Economics” was founded. This became a reunion of several international specialists. In 1992, in Rio de Janeiro, from the 3rd to the 14th of June, the United Nations Conference on Environment and Development took place, attended by 178 states, which was later followed by a two day summit, called EARTH SUMMIT (World Conference “Environment and development” in Rio de Janeiro, 1992). This conference constituted the beginning of the endeavors concerning environmental issues and sustainable development. The participants in the Summit, leaders of the sates of the world, adopted there the following main documents (Pasdel Brochure, Concepts and definitions of sustainable development, page 2): a). The Rio Declaration; b). The Convention on Climate Change; c). The Convention on Biodiversity; d). The Declaration on Desertification; e). Agenda 21. Since Romania is member of European Union, the concept of sustainable development should also have an impact on the territory of our country. Nowadays, not only that the concept of sustainable development is of great interest, but it has also a long perspective. Sustainable development, among several other roles, also
contributes to change the life style, and it makes us become better and more tolerant.

**RESEARCH ASPECTS**

Choosing and formulating the research aspects help explaining the approach of sustainable development in the field of tourism.

For that purpose, we formulated five research questions:

1. What is the meaning of sustainable development and sustainable development of tourism?
2. Which are the main types of durability, and how do they interact with each other?
3. Which are the conditions for sustainable development of tourism, and which are the basic principles of sustainable development of tourism?
4. Which are the objectives, and what is the role of sustainable development of tourism?
5. Which are the indicators of sustainable tourism, and how can be sustainable tourism quantified in the NE Region?

The gathering, the processing, and the analysis of the data involved both a qualitative approach from the study of the documents to the empirical comparative analysis, and quantitative, by systematisation and interpretation of statistical data used for the quantification of sustainable tourism in the NE Region.

**LITERATURE REVIEW**

**Sustainable development - concept**

Taking into account the concept of “sustainable development”, we can state that this mainly refers to the problem of resources. Consequently, a serious problem for our planet is the natural resources, which are limited quantitatively. Also, our environment is more and more polluted, and the population of the planet is continuously growing, which does not limit the main problem of durability only to strictly economic aspects. Efforts are made to optimally combine economic aspects (concerning resources) with social ones (concerning social classes), and with ecological ones (concerning environmental protection and pollution reduction).

According to Enzo Tiezzi and Nadia Marchettini, “the new theories of sustainable development and ecological economy confront us with a paradigm: today there is no economy based on two parameters (capital and work), but an ecological economy which admits the existence of three parameters: work, natural capital, and capital produced by man”. We consider that, consequently, sustainable development also represents a problem of relationships and interdependence. “Carring capacity” is the capacity of the planet to support the population and other life forms, flora and fauna, which man and nature need in order to survive. This is the basis of durability.

**Sustainable development** should allow human life to continue, and it should also assure environmental protection from the activities of the society. Some natural disasters appeared as a result of activities with high risk and of the way we behaved with the place where we develop our daily activities. The greenhouse effect, acid rain, desertification, ozone holes, pollution, destruction of forests and of biodiversity, erosion are indicated as evidence that an economic development with no limits is a way with no return, which can lead no more to economic welfare; the natural capital and the patrimony left by our ancestors should persuade us to reintegrate a truly sustainable economy. Over time, it is obvious that from a world rich in natural capital and poor in capital produced by man, we passed to a world very poor from a natural point of view, and rich in what concerns the capital produced by man. Consequently, Rudolf (1885), the founder of thermodynamics, stated: “In a nation’s economy, there is a generally available law: the consumption should never be higher than what can be produced in the same period of time. This is why we should consume as much fuel as it can be possibly reproduced by tree growth.” A very clear definition was given within the World Commission on Environment and Development attached to United Nations Organization, also known as Brundtland Commission or Brandtland Report (from Gro Harlem Brundtland’s name, who was then the prime minister of Norway): “sustainable development represents a development satisfying the present needs without compromising the capacity of future generations to satisfy their own” (Ardelean, Maior, 2000). Albu (2007) proposed an economic-ecological definition for durability, widely accepted. He established durability as the relationship between the dynamics of the economic system and the slower dynamics of the ecological one, where social life can continue forever, individual life can prosper, human culture can develop, but the effects of human activity are somehow limited, avoiding to destroy the diversity, the complexity, and the functions assuring life support, accomplished by the ecological system.

In the economic theory, three types of durability are analysed – ecological (environmental), economic, and social, as well as the ethical, ecological, economic and social influences over them. They are presented in table 1.

<table>
<thead>
<tr>
<th>Types of durability</th>
<th>Influences over durability (dimensions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethical</td>
</tr>
<tr>
<td>Environmental</td>
<td>A</td>
</tr>
<tr>
<td>Economic</td>
<td>E</td>
</tr>
<tr>
<td>Social</td>
<td>J</td>
</tr>
</tbody>
</table>

Source: Duguleană (2002)

In the case of economic durability we can identify the following influences:

- *Over the environment* – reducing the resources – F;
- *Economic* – inflation, payment balance – G;
- *Social* – social cohesion – H.

The ethical dimensions of durability are:
The recovery of the ecological balance of the planet and the realisation of a sustainable development of the society also means, according to Cămăşoiu et al. (1994), to respect the following minimal requirements:
- to reduce the uncontrolled demographic increase;
- to preserve the natural resources, to maintain the diversity of the ecosystems, to monitor the impact of the economic development over the environment;
- to give a new dimension to the economic development, taking into account a more balanced distribution of resources, and to emphasise the qualitative aspects of production;
- to give a new orientation to the technology, and to control its resources;
- to eliminate poverty – which can be realised by fulfilling the main necessities in order to assure a workplace: food, water, energy and health;
- to unify on an international level the decisions concerning the environment and the economy.

Sustainable development of tourism

The concept of sustainable development penetrated all the fields of economic and social life, including tourism. “The growing popularity of the concept of sustainable development determined the conviction according to which tourism can develop too by observing the philosophy of durability” (Buttler, 1991). Consequently, at the beginning of the 90’s, “sustainable development of tourism” appeared as a new approach for the administration of tourism activities. Ever since, sustainable development of tourism has been admitted as “a new paradigm of tourist industry” (Godfrey, 1996). Sustainable development of tourism is a concept defined by some tourism organisations like: World Tourism Organisation (WTO), Tourism Council, and Earth Council. According to Stănciulescu et al. (1998), sustainable development of tourism is “that kind of development of tourism activity which emphasises the present valorisation of resources, in order to maintain their reproduction capacity in the future”.

According to Barlet and Collombon (2004), sustainable tourism is a form of tourism which, as opposed to mass tourism, favours the administration of the totality of resources on long term, so that people’s economic and social needs could be fulfilled, maintaining culture integrity, essential ecological processes, and biodiversity. On the other hand, sustainable tourism means the ability of the tourist destination to remain competitive against all the problems that appear, to attract visitors for the first time, and to keep them afterwards, to remain unique from a cultural point of view, and to be in a permanent balance with the environment.

Consequently, sustainable tourism implies social responsibility, a powerful engagement in what
concerns nature and integration of local population in any tourist activity or development.

This development can be obtained only if the following conditions are observed (Theobald, 1998): decision making and implementing specific policies for sustainable development should be characterised by large participation, by partnerships and cooperation activities among the affected social groups; the policies should be integrated with each other, and should be based on admitting the interdependence of tourist policies with the ones specific to other related fields (transport, labour etc.); the implementation of these policies should be realised taking into account the existent constraints from the practical activity, which means to choose some objectives on short term, which should be re-evaluated periodically - therefore it is recommended to establish the objectives progressively; it is important to take into account the consequences generated by the development of tourist activity over the natural and anthropic environment, and to avoid such risks by reducing the chance for these activities to create irreversible damages over the environment and over the quality of life; some of the tourists’ needs are fulfilled by the use of non-sustainable resources. With the help of sustainable development policy, these needs should be reduced and redirected; the damage producers should pay for these damages, in order to be stimulated to change their behaviour.

Consequently, we consider that the basic principles of sustainable development of tourism can be as follows: a) reducing over consumption and waste; b) maintaining diversity; c) integrating tourism in planning and marketing; d) supporting the local economies; e) involvement of local communities and consulting the participants; f) training the employees; g) durable use of resources (Dimu, 2005).

The role of tourism as factor of sustainable development is conclusively expressed by a few recommendations of WTO: all the participants in tourism development should protect the natural environment in order to assure the continuous economic development, generating equity in the fulfilment of present and future generations’ needs and aspirations; all forms of tourism development which help preserving rare and precious resources, particularly water and energy, but also avoiding as much as possible the waste production should be encouraged by national, regional and local authorities; planning in time and space the flow of tourists and of visitors in order to reduce the pressure of tourist activity over the environment, and increasing the positive impact over tourist industry and local population; tourism infrastructure should be designed in order to protect the natural inheritance made of ecosystems and biodiversity, and to conserve the disappearing wild species; the participants in tourism activities, especially professionals, should agree on imposing some limitations or constraints in their activities when they develop in sensitive areas: desert, polar regions, high mountains, coast regions, rainforests, or humid areas (deltas, swamps), favouring the creation of protected natural areas.

According to Vellas (2002), sustainable development of tourism belongs to the process of planning the activities whose purpose is to avoid any actions affecting the very bases of development, as follows: ecosystems degradation, endangering the cultural patrimony, brutal modification of traditions and people’s life style, as well as competition for the access to equipment and infrastructure.

Consequently, the main objectives followed by sustainable development of tourism (Rojanschi, Bran, 2002) are as follows: control of tourist circulation; development and proper equipment of the areas – tourist destinations; diversification of tourist products by introducing new forms of tourism, specialised and integrated in the environment.

**Sustainable Tourism Indicators**

The quantification of sustainable tourism can be realised with the help of a number of indicators, and the literature proves it. They can ease the knowledge of normal values, of minimal and maximal limits between which the parameters involved must vary. These indicators help us learn about the qualitative state of tourist attractions, the degree in which the visitors’ needs are fulfilled, the emphasis of different local economic issues (labour, income), about the biodiversity and the degradation of the ecosystems etc. From another point of view, the indicators of sustainable tourism are directly related to the definition and implementation of the concept of tourism carrying capacity, which takes into account the following dimensions: ecological, physical, social-perceptive, economic, psychological, or of tourist exchange. The most used method to calculate the tourist carrying capacity of a territory (www.incdt.ro – accessed on the 3rd October 2012) is according to the following formula:

\[
Cc = \frac{(S \times Kv)}{N}
\]

- **Cc** – carrying capacity
- **S** – surface, expressed in ha or sqm
- **Kv** – coefficient of correction of the degree of use of the area;
- **N** – norm of use of the area, in ha or sqm /tourist

The quantification of tourist carrying capacity can be also realised with the help of some indicators describing quantitatively and qualitatively the economic, social and environmental impact of tourism development (Surugiu, 2008), as follows (for example – North-East Region):

**Ecological conservation indicator** - physical - environment indicator, reflects the stage of protected areas of the region (the degree of environmental protection).
According to the data from table 2, 8.5% of the surface of the country is represented by protected areas, and in the North-East Region they cover just 1.3% of the territory. We can see that the protected area of the counties is not significant, only Neamţ County (4.4%) and Bacău County (1.5%) register an ecological conservation indicator higher than the regional average.

**Overcrowding indicator or tourist density indicator** – reflect the application level of natural space in a given area.

\[ \text{loc} = \frac{\text{number of tourists}}{\text{total surface}} \]

We see in table 3 that both in the country, and in the NE Region, the indicator of overcrowding had an ascending trend, except Bacău County, and in Iaşi County the degree of requirement of natural surface is higher than the national average and the regional one (situation applicable also for Neamţ and Suceava counties). Consequently, there is a more intense requirement of the area, especially that the pressure over the environment is higher if we take into account the residents, the families who have second residences in the area, and the unregistered tourists.

**Environmental protection indicator** – indicates pressure on protected areas by tourists.

\[ \text{Ip} = \frac{\text{number of tourists}}{\text{surface of protected areas}} \]

According to the data from table 4, the protection indicator corresponding to the NE Region and to the component counties is higher than the national average. We can see that in Bacău, Botoşani and Neamţ counties it is lower than the regional average. The pressure over the protected areas is the more important as they are more fragile, needing a special attention; the pressure from the tourists only brings a negative impact over the biodiversity of the protected areas.

**Indicator of the density of tourist infrastructure** - socio - demographic indicator, reflects the number of accommodation compared to the number of inhabitants of a region.

\[ \text{Idti} = \frac{\text{No. of tourist accommodation places}}{\text{Permanent population}} \]
Infrastructure - The conclusion is that quality tourism, in 2012, it is higher than the
nty, in 2012, it is higher than the
is still a subject of intense debate, with no consensus in
policies and strategies for the protection, development
implications, in order to implement the best measures,
for better understanding the tourist phenomenon and its
of tourism effects through thes
is no important tourist flow to affect the local
national one.
neast Region is lower than the national average, and that only
East Region and its components, tourist infrastructure
is getting close to the national average.

Table 5 Calculation of the density of tourist infrastructure for the NE Region (2001/2006/2012)

<table>
<thead>
<tr>
<th>Location</th>
<th>No. tourist accommodation places</th>
<th>Permanent population</th>
<th>Idtix Places/person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romania</td>
<td>277,047</td>
<td>287,158</td>
<td>301,109</td>
</tr>
<tr>
<td>NE Region</td>
<td>16,971</td>
<td>18,968</td>
<td>24,200</td>
</tr>
<tr>
<td>Bacău</td>
<td>3,554</td>
<td>3,188</td>
<td>3613</td>
</tr>
<tr>
<td>Botoșani</td>
<td>1,326</td>
<td>733</td>
<td>1096</td>
</tr>
<tr>
<td>Iași</td>
<td>3,198</td>
<td>3,314</td>
<td>3530</td>
</tr>
<tr>
<td>Neamț</td>
<td>2,989</td>
<td>4,121</td>
<td>5586</td>
</tr>
<tr>
<td>Suceava</td>
<td>5,034</td>
<td>7,012</td>
<td>9447</td>
</tr>
<tr>
<td>Vaslui</td>
<td>870</td>
<td>580</td>
<td>928</td>
</tr>
</tbody>
</table>

Source: INSSSE – processed data

According to the data from table 5, in the North-
East Region and its components, tourist infrastructure
is lower developed than the national one, only Suceava
County is getting close to the national average.

Table 6 Calculation of density of tourist circulation for the NE Region (2006/2012)

<table>
<thead>
<tr>
<th>Location</th>
<th>Total number of tourists (thousands)</th>
<th>Permanent population</th>
<th>Density of tourist circulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romania</td>
<td>6,216</td>
<td>7653</td>
<td>21,623,849</td>
</tr>
<tr>
<td>NE Region</td>
<td>678</td>
<td>735</td>
<td>3,732,583</td>
</tr>
<tr>
<td>Bacău</td>
<td>118</td>
<td>95</td>
<td>721,411</td>
</tr>
<tr>
<td>Botoșani</td>
<td>26</td>
<td>35</td>
<td>456,765</td>
</tr>
<tr>
<td>Iași</td>
<td>153</td>
<td>186</td>
<td>824,083</td>
</tr>
<tr>
<td>Neamț</td>
<td>141</td>
<td>145</td>
<td>567,908</td>
</tr>
<tr>
<td>Suceava</td>
<td>211</td>
<td>237</td>
<td>705,730</td>
</tr>
<tr>
<td>Vaslui</td>
<td>29</td>
<td>37</td>
<td>456,686</td>
</tr>
</tbody>
</table>


According to the data from table 6, we can see
that the density of tourist circulation in the North-East
Region is lower than the national average, and that only
in Suceava County, in 2012, it is higher than the
national one.

We can say that in the North-East Region there
is no important tourist flow to affect the local
population in a special way.

In conclusion, in our opinion, the quantification
of tourism effects through these indicators is important for
better understanding the tourist phenomenon and its
implications, in order to implement the best measures,
policies and strategies for the protection, development and
promotion of tourism.

CONCLUSIONS

We consider that, due to the attention and
support it received, sustainable development of tourism
is still a subject of intense debate, with no consensus in
what concerns its definition and practical applicability.

Indicator of the density of tourist circulation
in peak periods - indicates the tourist flows from a
region

Density of tourist circulation = no. of tourists/
no. of inhabitants (in peak periods)

No matter of the opinions of several researchers and
analysts, sustainable development of tourism represents
the dominant approach regarding the administration of
the relationship between tourism and environment,
based on an ensemble of principles and objectives
which had been adopted almost unanimously, with the
purpose to minimise the negative impact of tourism
over the environment.

In what concerns the sustainable tourism
indicators, they offer the possibility of monitoring the
impact of tourism over the environment of a tourist
destination. This is necessary, because uncontrolled
development of tourism could reach a limit over which
the increase, the use, or the change could not appear at
some point, or they would not be allowed, and after this
threshold, the destination would not be the same as before.

The final conclusion is that quality tourism
should be based on both respect for the environment,
and efficiency of tourist activities.

46
REFERENCES

26. ** Strategia protecţiei mediului, MAPPM, Ed. R.A.M.O., Bucureşti, 1996
27. ** Brosura Pasdel, Concepte şi definiţii ale dezvoltării durabile
28. ** Giurgiu, N., Broșura Pasdel- Modulul I- Dezvoltare Durabilă
29. ** WTO, Coduri globale ale eticii pentru turism, 1999, Cap 3