

APPROACHES TO TOURISM IN THE REPUBLIC OF MOLDOVA AND ESTIMATION OF THE ECONOMIC VALUE OF ENVIRONMENTAL RESOURCES IN NATURE-BASED TOURISM

Galina LUȘMANSCHI

State University of Moldova, Chișinău

galina.lusmanschi@usm.md

Oxana COSTEȚCHI-JUȘCA

State University of Moldova, Chișinău

oxana.costetchi.jusca@usm.md

Abstract

Based on the data of the National Bureau of Statistics of the Republic of Moldova and publications of scientists from different countries, the given work presents the role of tourism as a field of activity and as an income-generating activity, having a significant impact on the national economy and GDP. At the same time, the tourism industry is closely linked to natural resources and contributes to the socio-economic development. The estimation of the economic value of environmental resources in the nature-based tourism has been identified by the authors as an acute problem in the field of tourism services. Natural areas are often in the focus of leisure trips (eg parks, gardens, lakes, agricultural land, etc.), but rarely have a market price. The travel cost method is a technique that has been developed over the years to value the use of natural resources for recreational purposes.

Keywords: *tourism; nature-based tourism; travel cost method.*

JEL Classification: *M41*

I. INTRODUCTION

Tourism, being one of the industries that is actively involved in the development of the world economy as a service industry, is dependent on the endowment of nature and the cultural heritage of each society. The Republic of Moldova has a relatively small territory, but it has human, natural, landscape potential and folk traditions for the development of tourism.

According to the Tourism Strategy 2020, the Republic of Moldova is a small country with a large diversity of objects of tourism interest located at short distances from the main hotel centers ([Official Gazette, 2013: 127-133, art. 370](#)). Natural tourism attractions represent the main motivations for traveling on the territory of Moldova. In Moldova, there are over 15 thousand anthropic tourism attractions and over 300 important natural areas. Several thousand prehistoric resorts have been attested, together with about 400 settlements from different historical eras, about 50 ancient fortified cities, about 500 early medieval settlements, numerous medieval earthen fortresses, 6 medieval stone fortresses (in various stages of preservation), over 1000 protected architectural monuments, about 50 Orthodox monasteries. This heritage is relatively evenly dispersed throughout the national territory, and its value sufficiently motivates tourism visits. Unfortunately, the state of degradation of the heritage makes it unattractive.

Forested areas represent an important potential for attracting tourists in Moldova (about 11.6% of the country's territory). About 45% of the total area of forests are recreational forests and those intended for nature conservation. These values create sufficient premises for the development of green tourism and environmentally friendly forms of tourism (agricultural/rural, wine tourism, adventure, etc.).

The public policies promoted in tourism are focused on the valorization of local resources (natural and anthropic), the development of domestic and inbound tourism, the enhancement of the country's touristic image, as well as the support of SMEs for local economic diversification. In public policies, tourism is seen as a sector of the national economy with possibilities to generate socio-economic benefits and as a catalyst for the development of other sectors or disadvantaged territories, such as the countryside, natural protected areas and cultural-historical monuments.

The marketing of tourism services and packages on the territory of the Republic of Moldova is carried out by tour operators and travel agencies on the basis of the tourism services contract and the tourism voucher, as an integral part thereof, in accordance with the legislation in force ([Garrod & Willis, 1999](#)).

The flow of tourists and excursionists is monitored quarterly by the Tourism Agency and the National Bureau of Statistics. The official collected data, exclusively reflect the activity of travel agencies and tour operators, through the lens of certain indicators.

Thus, the statistical data (table 1) presents the number of tourists and excursionists participating in inbound and domestic tourism in the Republic of Moldova organized by travel agencies and tour operators according to the purpose of the visits.

Table 1. Number of tourists and excursionists participating in inbound and domestic tourism organized by travel agencies and tour operators according to the purpose of visits

No	Indicators	Tourists and excursionists, people										
		Year										
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1.	Inbound tourism, of which, for the purposes of:	12797	13150	14362	15514	15668	17497	19276	19848	6 950	24006	29008
	holidays, recreation and leisure	7 025	6 343	8 355	10097	11454	13706	15835	16928	6 612	22457	26 499
	business and professional reasons	5 190	5 962	4 952	4 196	3 062	3 002	2 857	2 358	238	1 467	914
	other purposes	582	845	1 055	1 221	1 152	789	584	562	100	82	1 595
2.	Domestic tourism	34363	34172	43045	37255	41297	38107	40137	46128	42848	79196	123 559

Source: Developed by authors based on the data of the National Bureau of Statistics of the Republic of Moldova.

The data in table 1 indicate an increasing trend in the indicators, which characterize the situation in the field of inbound tourism and domestic tourism in the Republic of Moldova in the last 10 years, except for 2020, when as a result of the consequences of the coronavirus pandemic (COVID-19), the number of foreign tourists in the Republic of Moldova decreased.

Out of the 29 thousand foreign tourists and excursionists who visited the Republic of Moldova in 2022 and benefited from the services of travel agencies and tour operators, 91.3% arrived for purposes of rest, recreation and leisure, 3.2% - business and professional reasons and 5.5% - for other purposes. Larger shares in the total number of foreign tourists and excursionists arriving in the Republic of Moldova in 2022 belonged to the citizens of Romania (34.8%), Ukraine (26.0%), Italy (17.2%), the USA (5.2%), Russian Federation (4.3%).

The number of tourists and excursionist participating in domestic tourism in 2022 is growing considerably and amounted to 123.6 thousand, thus representing an increase of 64% compared to 2021. The movement of Moldovan residents inside the country, for tourism purposes, was organized in particular by travel agencies and tour operators from the city of Chisinau (66.2%), development regions Center (18.9%), South (7.1%), North (6.5%) and Gagauzia (1.3%).

The receipts from tourism activity of travel agencies and tour operators totaled 3.3 billion lei in 2022, registering an increase of 41.2% compared to the previous year.

The importance given to tourism at the current stage, on the national and international levels, has increased the need for deeper research into the particularities of the accounting of this sector of the economy in the Republic of Moldova. Providing information on the cost of tourism products is an important function of managerial accounting within a tourism entity. This information allows entity's managers to identify problem areas, exercise control over production costs, and substantiate managerial decisions.

At the same time, the field of production cost accounting and cost calculation in the tourism industry is very dry, as there are very few approaches to this issue in the specialized literature from the Republic of Moldova. As a result of the documentation, the authors came to the conclusion that the fundamental research of domestic and inbound tourism accounting has not been carried out, yet, in any scientific work from the Republic of Moldova, thus wanting to contribute to filling this gap by elaborating the given paper.

There are many studies that address the issue of management, marketing, business organization, etc. in the field of tourism. But the authors found an insufficiency of the research on the accounting aspects of the costs generated by this field of activity.

II. DATA SOURCES AND METHODS

The informational support of the work resides in: scientific publications on the topic of the study from the Republic of Moldova, Romania, the USA, the CIS states and other countries, the national and other countries' legislation in the field of tourism and accounting, strategies of the Government of the Republic of Moldova, the

Tourism Agency, etc., national statistical data, other informational resources available on the Internet.

During the research process, the universal dialectic method and its procedures were applied, such as analysis and synthesis, deduction and induction, as well as economic-statistical methods of collecting and processing information: comparison, grouping, balance method, the method of indexes, etc.

III. RESULTS AND DISCUSSIONS

The explanatory dictionary of the Romanian language defines the notion of tourism as "the totality of relationships and phenomena that result from the movement and stay of people outside their place of residence (such as spending a holiday or vacation, participating in various events, etc.)".

In the national tourism legislation of the Republic of Moldova, namely Law no. 352 of 24.11.2006 "On the organization and development of tourism activity in the Republic of Moldova", the term tourism is presented as "a set of relationships and phenomena resulting from the movement and stay of people in any place, other than their place of residence, on a period of less than one year and for a purpose other than carrying out a remunerated activity in the visited place" (Law No. 352 of November 24, 2006).

A similar definition is also regulated in Romanian legislation, i.e. tourism represents "the branch of the national economy, with complex functions, which brings together a set of goods and services offered for consumption to people who travel outside their usual environment for a period of less than a year and whose main reason is other than exercising a remunerated activity within the visited place" (Ordinance No. 58 of August 21, 1998).

As a result of the need to adopt and develop a common tourism terminology worldwide, the World Tourism Organization (UNWTO) defines tourism as: "the activities carried out by people, during trips and stays, in places located outside their usual residence, for a consecutive period that does not exceed one year (12 months), for the purpose of rest, for business or other reasons" (UNWTO, 1993).

At the same time, the categories of people who participate in tourism circulation and their notions, which the authors have systematized in table 2, are stipulated in Law no. 352 of 24.11.2006 "On the organization and development of tourism activity in the Republic of Moldova" and the world specialized literature.

Table 2. Specification in local legislation and world literature of categories of people who participate in tourism circulation

No.	Source	Categories of people	The notion of the categories of people who participate in tourism circulation
1.	Law no. 352 of 24.11.2006 "On the organization and development of tourism activity in the Republic of Moldova"	<i>Tourist</i>	A natural person who travels to any place, other than its place of residence, for a duration of at least 24 hours and for a purpose other than carrying out a remunerated activity in the visited place.
		<i>Visitor</i>	A person who moves to any place other than its place of residence for a period of less than one year and for a purpose other than carrying out a remunerated activity in the visited place.
		<i>Excursionist</i>	Person visiting a tourism area or destination for a day (without staying overnight at the destination).
		<i>Tour group</i>	Six or more people affiliated in order to make a trip, spend a stay, visit some tourism objectives.
2.	The world specialized literature.	<i>Visitor</i>	The person who travels to a place other than its usual place for less than 12 consecutive months and whose main purpose is not to perform a remunerated activity at the visited place.
		<i>Tourist</i>	The visitor who stays at least one night in collective or private accommodation at the visited place.
		<i>Excursionist</i>	The visitor who does not spend the night in collective or private accommodation at the visited place.
		<i>Vacationer</i>	The visitor who travels for his own pleasure outside the usual residence for a period of time of at least four days, making, in this way, a differentiation between weekend tourism (1-3 days) and holiday tourism (over four days).

Source: Developed by authors based on Law No. 352 of November 24, 2006 and Ordinance No. 58 of August 21, 1998

Further, the study of tourism flows that take place in a geographical framework delimited as an area, allows the delimitation of the following forms of tourism (UNWTO, 1993):

- *inbound tourism* (active, receiving tourism), which represents that part of tourism that registers the arrivals of foreign citizens in a given country, these citizens having permanent residence in an issuing country. Inbound tourism represents, for the inbound countries, an important and efficient source of foreign exchange earnings.

- *outbound tourism*, which represents the movement of residents of a country outside its borders for tourism purposes, with a stay longer than 24 hours.

- *domestic tourism*, which represents that part of tourism that records the trips of local citizens within the country of residence, with a minimum of one night accommodation.

The three basic forms of tourism, mentioned previously, can be associated, thus obtaining the following categories of tourism:

- *domestic tourism* - movement of residents of the Republic of Moldova within the country for tourism purposes;

- *national tourism* which regroups domestic tourism and outbound tourism;

- *international tourism*, the set of relationships and phenomena resulting from the travel and stay of people visiting a country other than the country of residence, for tourism purposes. It includes inbound and outbound tourism.

Apart from these, the legislative basis of the Republic of Moldova also establishes other forms of tourism, such as: wine tourism, business, rural, spa, cultural, ecological, social tourism ([Law No. 352 of November 24, 2006](#)).

The activity of tourism entities, represented by tour operators and travel agencies, consists in the formation, promotion and sale of a specific tourism product.

The Romanian economists [Stănciulescu and Țigu \(1999\)](#) mark the *tourism product* as "the set of material goods and services able to satisfy the tourism needs of a person between the moment of departure and the moment of arrival at the place of departure".

According to the Civil Code of the Republic of Moldova No. 1107 of 06.06.2002, with the subsequent amendments in force from 01.03.2019, the notion of *travel service package (package)* is used, which represents a combination of at least two different types of travel services intended for the same trip or vacation.

For the effective development of the tourism activity, truthful information about the composition of the costs of a tourism product is necessary, and as a result, the correct calculation of the cost of the tourism product or tourism service.

The investigations carried out have demonstrated that, currently, there is a problem related to the lack of information on production costs at tourism entities, that serve as a basis for determining the cost of the tourism product, and as a result, the erroneous assessment of the financial situation of the tourism entity. The situation is also complicated by the fact that, currently, there is a lack of branch methodical instruction regarding the accounting of production costs and the calculation of the cost of the tourism product in the tourism activity.

Thus, in the opinion of the authors, one of the solutions to the problems of accounting of production costs and calculating the cost of the tourism product can be the elaboration and approval in the manner established by the legislation of the Methodical Instruction regarding the accounting of production costs and calculating the cost of tourism products, taking into account their particularities, based on the *Methodological guidelines on the accounting of production costs and the calculation of the cost of products and services* ([Official Gazette of the Republic of Moldova, October 2013](#)) and comments on the application of the NAS provisions for tourism.

To calculate the cost of a tourism product, it is very important to correctly set the calculation objects. Calculation objects or the so-called cost carriers are presented as a type of product, the cost of which must be calculated. Thus, for example, in the case of a group tour, the cost of serving the group of tourists serves as the object of calculation, while in the case of an individual tour - the cost of serving a single tourist.

In the category of basic tourism services, according to the national tourism legislation of the Republic of Moldova, are included ([Law No. 352 of November 24, 2006](#)): transport, accommodation, food, excursions and leisure services.

Natural areas are often in the focus of leisure trips (eg parks, gardens, lakes, agricultural land, etc.), but the valorization of their services within the tourism services is not evaluated. In this context, nature-based tourism is not only a socio-economic activity that brings income and other benefits to local communities, but also plays an important role in understanding natural heritage, obtaining public support and funding for protection. Some researchers associate tourism with leisure activities that take place in natural areas, and its main components are visitors and experiences in nature ([Fredman & Tyrväinen, 2010](#)). These experiences can be different and include a variety of outdoor activities.

The funds to be allocated for the development of natural resources can be estimated more realistically if, first of all, their economic value is determined. As a consequence, some methods have been developed to determine the economic value of natural resource functions that currently have no market value.

The contribution of natural resources is not taken into account when evaluating gross domestic product (GDP). Thus, forest ecosystem services, such as carbon sequestration and air filtration are not valued, considering that many of the benefits that natural capital provides are "free" and can be ignored in the pursuit of economic

growth. This assumption leads to irreversible losses as natural capital stocks disappear or diminish. Due to insufficient attention from institutional and political structures, the health of ecosystems around the world is deteriorating and together with it, their capacity to support well-being and sustainable economic growth decreases.

Traditionally, the value or contribution of natural capital is not considered in the decision-making process, even at the business level. Even when considered, decisions are limited to moral arguments or based on an incomplete understanding of organizational relationships with natural capital. Meanwhile, accounting will enable the collection and systematization of information on stocks and flows of natural resources and their evolution over time. In this context, accounting is an important foundation that helps to better manage natural capital both, for the agricultural enterprise itself, as well as a resource for humanity. The global community recognizes that natural capital accounting should be the basis for social and economic decision-making, as well as potentially help avoid environmental degradation and associated economic crises in the future.

In managing a tourism business, the travel cost method would be useful to assess the benefits of ecosystem services, such as outdoor recreation.

Thus, the valorization of the natural environment is one of the fundamental requirements of nature-based tourism. Therefore, nature-based activities can include: guided tours; trips to experience nature conservation activities; nature (flora, fauna) observation tours; types of adventure activities (bicycle tours on organized routes, tourism on predetermined routes, ski tours, etc.); excursions in local communities (visiting traditional villages, visiting cultural sites, watching traditional cultural events, eating traditional local food products, etc.).

The travel cost method uses willingness to pay approaches relevant for estimation of the economic value of a leisure property. Willingness to pay is reflected by the travel costs, time costs and visit-related expenses incurred by individuals to visit a recreation site. The Travel Cost Method (TCM) is considered as one of the most suitable methods for evaluating the leisure and tourism functions. The main stated advantage is that it is based on human observations. TCM is considered the oldest method of environmental resource valuation and is based on the assumption that a part of the travel costs in the area is the value of the area. Thus, the more tourists will appreciate the tourism area (for example: Orheiul Vechi), the more tourists will be willing to pay a higher cost.

According to Smith, the travel cost method includes in the price of recreation the total cost of using the leisure facility, which includes the following elements (Smith, 1996):

- ✓ travel costs related to transport;
- ✓ access fees;
- ✓ on-site time costs;
- ✓ additional equipment costs;
- ✓ supplies, etc. directly related to the activity.

According to economist Syagga, a person's recreation consumption involves three main cost elements, namely (Syagga, 2002):

- the cost of travel - the cost of transportation to and from the place of recreation;
- the cost of time - the value of hours used for recreation;
- entrance and meal costs included in the entrance fee (if any) and additional costs used for alimentation in addition to the already included expenses.

Apart from these costs, there are other factors that determine the frequency of a person's recreational visits. The given factors vary from a recreation place to another and period to period. These factors can be classified into two groups as follows in Table 3.

Table 3. Factors that determine a person's frequency of recreational visits

Attraction or location factors	Individual population factors
<ul style="list-style-type: none"> - the comfort or discomfort of the trip; - the climatic and meteorological characteristics of the recreation area; - the quality of the management of the leisure place; - the extent to which the leisure place has been promoted; - the capacity of the area to host recreational activities; - the availability of alternative leisure places; - the time required to travel to and from the leisure place; - innate attractiveness as rated by regular users. 	<ul style="list-style-type: none"> - the average income and its distribution among the population; - past experiences of the population and present knowledge about the recreation site; - the taste of the population for the leisure place; - the total population around the leisure place; - the socio-economic characteristics (education, age, family structure, etc.) of the population in the recreation area; - the monetary availability spent when visiting the leisure place; - the geographical location of the recreation site and the population within the given site, etc.

Source: Developed by authors based on Syagga (2002)

Garrod and Willis (1999), as a result of a carried out study, observed that there is an inverse relationship between the cost of visiting a recreation site and the number of visits. Devani (1970) found that leisure preferences are conditioned by the time and distance required to get to the place where one can spend the desired activity. In his research, more than half of those interviewed expressed a desire to go to the beach, but were unable to, because

of lack of transportation and places far from home. People who live further away from leisure sites and incur higher transport costs make fewer visits per year than those who live closer. Studies of travel costs have consistently shown that as the price of access (the cost of travel) increases, the rate of visitation to the leisure site decreases.

There are various aspects of a recreation site where this method can help to calculate the economic benefits and costs, namely: changes in the environmental quality of a recreation site; changes in access costs for a place of leisure; adding a new entertainment venue; removal of an existing recreation site.

Thus, the economic evaluation of environmental resources is important in terms of ensuring the sustainability of recreational and nature-friendly tourism activities. This will prevent the destruction of the surrounding area and ensure the conservation, planning and management of natural areas in the future.

IV. CONCLUSIONS

Tourism, being one of the industries that is actively involved in the development of the world economy as a service industry, is dependent on the endowment of nature and the cultural heritage of each society. The Republic of Moldova has a relatively small area, but it has natural resources of particular importance in the development of tourism. The adequate economic evaluation of recreation sites is important in order to convince the government of the need of their allocation, preservation and conservation. An effective method for making such an assessment is the travel cost method, which has various models, examined in the specialized literature. This method will enable practitioners to come up with more effective assessment techniques of recreation that result in more optimal values, which will persuade governments to endow, protect and maintain the existing recreation sites and identify new recreation spaces.

REFERENCES

1. Civil Code of the Republic of Moldova No. 1107 of June 6, 2002. In: Official Gazette of the Republic of Moldova, No. 66-75, March 1, 2019.
2. Devani, H. (1970). Public Outdoor Recreation Resources of Mombasa and its Peripheral Areas: Their General Pattern and Use. Unpublished B.A. Dissertation, Department of Geography, University of Nairobi.
3. Explanatory Dictionary of the Romanian Language [online]. Available at: <https://dexonline.ro/>
4. Fredman, P., & Tyrväinen, L. (2010). Frontiers in Nature-Based Tourism. *Scandinavian Journal of Hospitality and Tourism*, 10(3), 177.
5. Garrod, G., & Willis, K. G. (1999). *Economic Valuation of the Environment: Methods & Case Studies*. Edward Elgar.
6. Law No. 352 of November 24, 2006, "On the Organization and Conduct of Tourist Activities in the Republic of Moldova," published in the Official Gazette, No. 14-17, February 2, 2007, with subsequent amendments.
7. Methodological Guidelines for Production Cost Accounting and Costing of Products and Services. *Official Gazette of the Republic of Moldova*, No. 233-237(4551-4555), October 22, 2013.
8. National Accounting Standards (SNC). *Official Gazette of the Republic of Moldova*, No. 233-237(4551-4555), October 22, 2013.
9. Ordinance No. 58 of August 21, 1998, on the Organization and Conduct of Tourism Activities in Romania, Official Gazette, Part I, No. 309, August 26, 1998.
10. Smith, V. K. (1996). *Estimating Economic Values for Nature: Methods for Non-Market Valuation*. Edward Elgar.
11. Statistical Yearbook of the Republic of Moldova 2022. Available at: https://statistica.gov.md/ro/buletin-statistic-trimestriale-2005-2021-9877_59482.html
12. Stănciulescu, G., & Țigu, G. (1999). *Tourism Operations Technique*, 3rd Edition. Ed. All Beck.
13. Syagga, P. M. (2002). Valuation of Outdoor Recreation. Unpublished article. Department of Land Development, University of Nairobi.
14. Tourism Development Strategy "Tourism 2020," Government Decision No. 338 of May 19, 2014. *Official Gazette* No. 127-133, art. No. 370, May 23, 2014.
15. UNWTO. (1993). *Recommendations on Tourism Statistics*. New York: United Nations.