

# Environmental Safety Factors of Territories and Development of Ecological Tourism

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**Abstract:** The issues of the influence of the development of ecological tourism in the Russian Federation on the ecological safety of the country's territories are considered. The analysis of the influence of mass types of tourism on the ecological system is carried out and the possible consequences of possible ones are given. The main differences between sustainable and unsustainable types of tourism are identified. The following parameters were used, mass character, types of vehicles, occupancy of the tourist program, language proficiency and cultural characteristics of the host country. The analysis of the feasibility of the formation and development of ecological tourism in specially protected natural areas, the importance, preservation of the biological and natural landscape, changes in the natural environment. The features and development prospects, as well as the pros and cons of the organization of ecological tourism in these territories and the ecological consequences are revealed. Measures are proposed to minimize the negative impact on the natural potential from tourist activities in the recreational area.

## 1 INTRODUCTION

The federal program for the development of tourism at the external and internal levels and the concept for the development of a system of specially protected areas, including parks, reserves, objects of historical and cultural heritage, also identified the prospects for the development of ecological tourism, especially in protected areas. The maximum popularization of parks, national reserves and other protected areas, used to increase the tourist flow of foreign tourists, as well as contributing to the development of domestic tourism, leads to an increase in the burden on ecological systems. This, in turn, has a bad effect on the ecological state of the territory and has negative consequences of a socio-economic nature. The increase in the tourist flow necessitates the development of a system of measures to reduce the load on the ecosystem and neutralize the ecological catastrophe.

Analyzing the world experience of countries, both with developed market economies and countries in transition, it can be concluded that there is a direct relationship between ecological systems with rational viability and ensuring environmental safety. Improving the quality of life, maintaining a healthy environment for people's life and creating tourist recreation are becoming a strategic task of the state, along with meeting socio-economic needs.

## 2 MATERIALS AND METHODS

In the work, empirical methods (description, comparison, modelling), general logical methods (analysis, synthesis, generalization, analogy), methods of economic analysis (expert assessments) were used as methods of scientific research. When studying the differences between the types of tourism sustainable and unstable, the method of criterion differences was used. In particular, unstable tourism

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is characterized by mass character, fast means of transportation, an approved program, the main reference point to attractions, a low level of language skills and cultural characteristics of the host country, when unstable tourism is characterized by individual tours and family tours, measured and not fast means of transportation, unplanned the program, the behaviour of tourists according to the lifestyle of the host country, a preliminary study of the cultural characteristics of the country and linguistic features, the main reference point of the impression, the purchase of souvenirs for memory. The regulatory documents for regulating relations in the field of tourism, the formation and development of individual territories, environmental regulations and statistical reporting on the issues under study were used

### 3 RESULTS AND DISCUSSION

In the initial period, the formation of the policy of ensuring the safety of man and the environment had a multidirectional nature. Moreover, the process itself did not have the structure and basis of scientific research. It all came down to creating a safe environment for humans. As a result, an engineering task was completed, which determined the main postulate of the environmental policy. As a result of the development of socio-economic and ecological systems, it was discovered that ensuring safety only for humans does not at all guarantee the safety of the other two components of the flora and fauna. The result of the interaction between man and the environment is nature management, which in the process of economic development has been transformed in the direction of greening the economy. Considering the general concept of economic growth, it is based on three factors: human capital, means of production (artificially created) and natural resources. In most cases, serious environmental disasters arise from the underestimation of the "environmental services" obtained from natural capital, and, as a result, huge economic losses. Having passed a huge number of concepts, which for the most part led to consumption and environmental degradation, at the present stage we have come to the most widespread concept – the concept of sustainable development. The concept clearly traces relations in the "nature – society" system and forms the following principles of interaction between them: optimal correspondence between society and nature, the integrity of the biosphere, the factor of compensation to the nature of what is withdrawn in direct proportional relationship, human activity in the use of natural resources should

be as environmentally friendly as possible and justified, the priority of public interest in solving environmental problems (Zabihi, 2020).

The ecological safety of territories and the quality of the environment are directly interconnected not only with the growth of industrial production, the development of the energy sector, transport structure, but with the tourism sector, the development of recreation as a factor of increased interest of tourists. The intensive development of the tourism sector contributes to the emergence of contradictions between the real needs of the industry and the observance of the environmental safety of recreational areas; between the ever-increasing consumption of natural resources by participants in the tourism sector and serious pressures on the ecological environment; between the formation of sustainable development and functioning of ecological systems and the decline in natural capital; between the ever-increasing demands on the environment and its quality and an insufficiently formed ecological culture as a personal and independent value (D'Souza. 2019).

In addition to the positive aspects, the development of mass tourism also has negative ones, and this is a decrease in the environmental safety of tourist destinations. When studying the influence of mass tourism on tourist territories, it was found that there is a negative impact: on the soil – a decrease in its fertility and moisture; on the plant world – the degradation of the species composition and changes in the characteristics of plants; on the animal world – the disappearance of species; for the water system – changes in coastal boundaries, changes in chemical composition; for the atmosphere – harmful emissions from industrial production of goods. At the same time, it should be noted that ecological tourism is one of the cleanest and safest types of tourism, in terms of the consumption of natural resources in specially protected areas.

The main difference between ecological tourism (sustainable form of tourism) and mass (unsustainable form) is that part of the proceeds from ecological tourism goes to the restoration of tourist recreation used as an object of ecological tourism.

Ecological tourism as a type of tourism was formed in 1990. Since then, its share has increased significantly, and it continues to grow. It has a lot of different names focused on cleanliness, environmental friendliness, maximum gardening. Accordingly, there is a tendency indicating an increase in the individual responsibility of consumers of territories used for ecological tourism; about the emergence and eco-tourists of maximum awareness

and maintenance of the ecological stability of the territories, which directly correlates with the aforementioned concept of sustainable and balanced development.

The sustainability of ecological tourism is characterized by the following features: preservation of recreational potential; increasing the level of socio-economic sustainability of regions directly related to the field of ecological tourism; strengthening the ethnographic potential of recreational areas.

Tellingly, these signs have a very serious drawback, since the factor of rest of the tourist himself is not taken into account. There is no reference to compliance with travel safety measures and meeting the needs of tourists.

Ecological tourism can be defined as tourism of a sustainable form, based on the recreational and educational activities of participants, without harming it, contributing to the formation of an ecological culture, having a positive effect on the psycho-emotional state of tourists and local residents, and focused mainly on small groups of tourists (Cheng, 2019).

Several models, one focused on pristine nature (USA, Canada, Australia) and one that can be implemented in a local format, can represent ecotourism. In Russia, the second model is most applicable, since ecological tourism is an attentive attitude to natural resources, no matter especially protected areas or not. Even now, the question remains open about the possibility or impossibility of using protected areas as an object of ecological tourism. The most commonly used are parks and protected areas. The Russian Federation is a country with unique natural resources and protected areas. Today in Russia there are 102 nature reserves and 42 national parks, respectively, the territorial potential for the development of ecological tourism is enormous. Territories suitable for the development of ecological tourism can be oriented towards both external and internal tourism. Moreover, it should be noted that territories of such a plan are most preferable for the development of ecological tourism, since it is advisable to organize tourist activities around an ecologically protected zone, taking into account the load on the ecological system and in accordance with permissible environmental safety standards, with the development of a set of measures in order to further eliminate the consequences from the activities of the tourism sector.

Despite the significant development of tourist areas for the organization of ecological tourism, there are also serious issues, namely: the insignificant development of infrastructure, a small number of full-

fledged accommodation facilities, and underdeveloped infrastructure of tourist routes. It is these negative factors that lead to uncontrolled pollution of territories, waste disposal, pollution of water bodies. These factors also lead to a decrease in the environmental safety of the territories, and, therefore, have a negative impact on the local population (Tan, 2018).

Of course, the lack of strategic development, planning, a clear understanding of the vector of development, the presence of a regulatory and methodological base of documents aimed at organizing the sphere of tourism and its branches negatively affects the overall development of ecological tourism. Taking into account the documentary base at the government level, it is necessary to develop and implement measures of state regulation in the field of taxation of enterprises focused on the provision of tourist services. Determine the rules for the use of land, the procedure for organizing tourist routes, trails, as well as the procedure for licensing and certification of tourist services.

Despite the fact that at the government level, programs for the development of external and internal tourism have been developed, and some have already been prolonged and continue their work, there are many difficulties. It is necessary to stimulate the population to ecological travel around the country. To achieve this goal, it is necessary to develop and implement a comprehensive marketing research program, the main purpose of which will be to determine the tourist preferences of the country's residents.

Another important factor in the development of ecological tourism is its organization in specially protected natural areas; moreover, this aspect can positively affect the increase in the welfare of the local population living in this area. However, it should be noted that not all residents consider the development of ecological tourism in specially protected natural areas to be an acceptable and positive moment. Of course, one cannot but pay attention to the negative factors that arise during the organization of this type of tourism: environmental pollution, depletion of natural resources in general, an increase in noise levels, the emergence of contradictions between local residents and tourists. In this situation, a low level of environmental culture is clearly traced: education in this area, complete or partial lack of understanding of the economic benefits of organizing tourism, instability of education and obtaining a profitable part, a possible negative impact on local culture. Naturally, over time, all factors are

levelled, giving way to understanding the positive aspects of the process: obtaining benefits, increasing the number of jobs, the possibility of organizing family businesses, the development of small and medium-sized businesses, the development of related types of business (trade, communications).

The authors identified the prospects for the development of ecological tourism in the country in order to be in demand on the world market. For this, the SWOT - analysis method (Strengths, Weaknesses, Opportunities, and Threats) was used, in order to determine strengths and opportunities and maximize their use, as well as the possibility of levelling weaknesses and threats. The strengths of the organization of ecological tourism include a unique natural potential, a huge number of monuments of cultural and historical heritage, the location of the local population, fairly budget prices. Among the weaknesses, the following can be distinguished: a small amount of accumulated experience in receiving tourists, a lack of necessary knowledge in the field of foreign languages, the consequences of various environmental emergencies and disasters with irreversible consequences, an almost absence of developed infrastructure, a low degree of popularization of tours and routes that have an ecological direction. Considering the possibilities, the following important points can be highlighted: based on the analysis of statistical data, there is a huge external demand for ecological tourism, the possibility of cooperation with neighbouring states in terms of the development of tourism infrastructure, as well as significant support from the state. The threats are the difficulty of obtaining subsidies from the state and the competition within the tourism sector.

At the present stage, the economy of the Russian Federation is at the stage of global reform, and there is a general vector of development that has a social orientation. Any reforms, as a rule, create the need to develop mechanisms for interaction of all participants in the process. The most significant parameters in these processes are the improvement of the level and quality of life of citizens.

Considering the reforms through the prism of socio-economic development and the formation of economic relations in the field of tourist services, one cannot but pay attention to the variety of forms of ownership, types of activities, forms of interconnection and subordination, all this is due to a large number of different directions of tourism activities and the multivariate implementation of tourist services.

The Government of the Russian Federation pays special attention to the development of tourist

infrastructure, tourist recreation, the formation of special economic zones, which is confirmed by the development of a huge number of programs of various levels aimed at the formation of tourist clusters, and accurately showing the profitability of this area of socio-economic development. Moreover, developing its own tourist potential, a large number of programs for spiritual development, moral, civil-patriotic, physical development of society are being formed.

The tourism industry is a multifaceted and multifactorial system, it contributes to the growth of the number of jobs, the formation of tourist zones aimed at the development of new types of recreation, using various natural areas with unique natural potential; influences the formation of the economy at different levels; contributes to an increase in the flow of foreign tourists.

Self-organization and the formation of a service market are the main directions that can lead to self-organization, both in the tourism sector and in the entire service sector. The development of the tourism sector is very susceptible to the influence of various factors of the economic and non-economic format, which creates the need to study relations in the field of tourism, the ultimate goal of which is to improve the mechanism for the development and implementation of the state's socio-economic policy.

In the early stages of development, there were two forms of tourism: "hard" – a form of maximum consumption, like a conveyor; "soft" – differentiation takes place in this type. The reformation led to the need to change the work of the sphere, focused on taking into account the individual needs of the consumer. The form of transition from hard to soft form contributes to the shift of priorities from the seller to taking into account the individual characteristics of buyers.

It is ecological tourism that can be most easily transformed. The demand for outdoor recreation and its massive consumption lead to the use of new territories used for the development of, in particular, ecological tourism. The main goal of ecological tourism is to restore the vitality of the human body, its spiritual and psychological state. Ecological tourism contributes to the relaxation of the human body in the natural environment, relieving stress, restoring the vitality of the body. Time spent in nature increases the body's performance. Recreational time includes time to work, rest and sleep. An extremely important factor is the type of activity that a person is engaged in during the rest period, since this affects his further behaviour at work, in the family, in society.

Based on a large number of documents developed at different levels of government from the government to the local scale, it should be noted that the state policy in the field of environmental development is focused on solving problems of the socio-economic format. In particular, this is the preservation of the environment in general, the variety of natural resources, including the use of environmentally friendly natural resources, as well as the formation and implementation of the right to a favourable ecological environment. From this point of view, many areas can be identified, the key ones are the following: creation of a management system with the maximum ability to protect the environment and ensure environmental safety; widespread use of new technologies in environmental safety; minimization of negative impact on the environment; exclusion of the possibility of damage to natural resources and specially protected areas; educating citizens about the formation of environmental culture; preservation of natural, ecological territories used for the formation of zones of ecological tourism.

Of course, this concept is most effective, provided that huge investments are made in this area, which will be aimed at developing new innovative technologies that can gradually eliminate the consequences of negative impacts on the ecological system (D'Souza, 2019).

The Russian Federation is one of the main states that have the strongest impact on maintaining the sustainability of the biosphere. This happens due to the huge reserves of drinking water, forestlands, ecosystems not used by economic activities, huge biodiversity. At the same time, one cannot fail to note the enormous damage caused to the environment by increasing the discharge of wastewater and the volume of waste, which increases annually, exceeding the EU standards by 2 times. The Government of the Russian Federation has set the task of stabilizing the situation in environmental safety. This can be achieved through rational nature management, increasing the efficiency of natural resources use, legal regulation, including the development of large recreational projects aimed at preserving ecologically clean areas, including: application of the international system of environmental safety standards; the use of environmentally friendly and safe industries; creation of a system of environmental education, culture and upbringing; creation of a system of specially protected areas; use of innovative technologies.

Paying close attention to the last three points, the following should be highlighted. In the Russian Federation, a document has been developed – a

concept aimed at creating a system of specially protected areas throughout the country. The main mission of the concept is the creation and development of a system of specially protected natural areas of federal importance by increasing the efficiency of public administration and the operation of the system of specially protected areas in order to ensure environmental safety, preserve the natural diversity of territories and cultural heritage (Cheng, 2019).

Of course, the current concept provides for a large number of tasks: creation and development of parks and reserves with national status; formation of geographical maps with a list of currently existing parks and reserves; creation of a system for the protection and safety of parks, reserves, objects of cultural and historical value; development of educational work to popularize reserves and parks; creation of a system of interconnection and involvement of these territories in the development of ecological tourism; ensuring the demand for scientific products of reserves and national parks and the results of their environmental monitoring; implementation of the process of integration of territories with a special status in the sphere of socio-economic development of regions (Shchetilina, 2020).

All this, in a single complex, is aimed at creating a positive image of the Russian Federation at the international level.

Specially protected areas are areas that are partially or completely withdrawn from economic circulation. They are necessary to preserve the landscape of the biosphere. The main directions of use of such lands are as follows: creation of ecological stability of lands previously used in economic activities; creation of rational conditions for the reproduction of natural resources; creation and development of ecotourism recreations in order to maintain normal human life; creation of programs with an environmental and educational direction for the mass awareness of people (Bowles, 2018).

Among a wide range of goals, objectives and directions in the concept, special attention is paid to the use of innovative technologies that increase the efficiency of using territories, obtaining information about the current state of a particular territory and promptly responding to possible changes in its landscape, ecological state, etc. (Loc, 2021). Among such technologies, one can single out geographic information systems that are capable of checking territories for compliance with the environmental situation, and the results can be made public in a document as a report on the environmental safety of the territory. Moreover, using geographic information

systems, both natural and industrial territories are assessed, objects and soil are assessed (Andersen, 2018).

Geographic information systems are widely used at different levels of government. When determining the strategic directions of socio-economic development, there is a need for analysis, with the aim of dividing territories into sub-districts with a certain content, and further use of the obtained data to build geographic information systems, and this, in turn, is possible using cluster analysis methods.

Cluster analysis involves geographic zoning of territories based on natural and socio-economic characteristics, in order to conduct research and build coverage areas.

"Cluster" (or "Bundle") is a territory bounded by physical obstacles of natural

At its core, "Cluster" is a "territory within a territory" that conduct life according to their own rules. Accordingly, if a society living in a cluster has the ability to satisfy its needs, then it will not go beyond its limited territory without special need.

An elementary example of a "bundle" is a village in a mountain valley. Accordingly, if the residents of such a village have everything for a normal life, they may not leave it for a long period.

Based on the foregoing, we can conclude that geoinformation technologies make it possible to correctly determine the size of a cluster, its boundaries and its natural resources. Moreover, the boundaries of the cluster can change in the context of changes in the infrastructure around the formed cluster.

Returning to geographic information systems and their use for geographic regionalization based on natural characteristics and characteristics of the socio-economic plan, cluster analysis is also used. Accordingly, it is advisable to use these systems to create clusters of the ecological direction. Moreover, geographic information systems allow you to set a model for a clear formation of a territory with given characteristics. Also, through geoinformation systems, there is a solution to certain problems, through environmental audits: monitoring the environmental situation of natural and man-made emergencies, assessing man-made impacts on the environment and their consequences, ensuring the environmental safety of the area under consideration (from local to global levels); territorial and sectoral planning and management of the placement of industrial facilities, transport, agriculture, energy; control of living conditions of the population, health care and recreation; mapping (complex and sectoral); creation of thematic maps and atlases, updating maps,

operational mapping; integration and interaction of information resources (Tikhomirov, 2019).

Thus, the geoinformation method of environmental audit research performs two functions: informing about objects and the state of the environment and modelling. As a result of an environmental audit using geographic information systems, management decisions are made, the purpose of which is to stabilize and improve the environmental situation in the area under consideration.

The geoinformation method for studying the ecological situation involves the analysis of the entire spectrum of available information in relation to a specific geographic point or object. Spatial geoinformation includes geographic information about the study area, objects located on it, and occurring natural and anthropogenic phenomena. Time geo-information assumes data for monitoring these objects and phenomena distributed over time and is necessary for creating models and predicting the implementation of one or another scenario of changing the ecological situation. Non-spatial geoinformation consists of regulatory documents, general data typical for the class of objects, phenomena, etc. (Dedeke, 2017).

Accordingly, the obtained data of the analysis and the data of the cartographic study can be used in monitoring and making management decisions on the part of the places where ecological tourism is organized, as well as the possible elimination of negative consequences in the territories exposed to tourists (Xu, 2017).

## 4 CONCLUSIONS

Based on the foregoing, we can say the following that the Russian Federation has a huge number of opportunities for the development of ecological tourism. Many reports on sustainable development of territories have been published, both at the European level and at the country level (Osland, 2017). Studying modern theories of sustainable development and ecological safety of territories, considering and adopting, unfortunately, domestic and foreign experience in organizing ecological tourism using specially protected natural objects, there is an urgent need to develop conceptual approaches and develop directions for increasing the ecological sustainability and safety of ecological tourism (Agaeva, 2021).

We believe that on the basis of the already developed concept for the development of domestic and inbound tourism, it is necessary to develop a

concept aimed at increasing environmental sustainability and improving the safety of ecological tourism, which will contribute to the economic development of specially protected areas, including taking into account the preservation of natural resources and environmental protection. Moreover, it has been statistically proven that sustainable development leads to increased tourism competitiveness (Martinis, 2019). Ecological tourism has a significant socio-economic effect, and Russia has numerous criteria that contribute to the development of ecological tourism. Due to its unique natural potential, the Russian Federation has every opportunity to become a world leader in the field of ecological tourism.

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