

ECOLOGICAL SAFETY OF GEORGIAN TOURISM

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ABSTRACT. The development of tourism activity is highly dependent on external and internal factors. Terrorism is considered to be the main threat to tourism, although natural disasters cause no less negative impact around the world, which, in addition to material damage, can threaten the life and health of tourists. Environmental risks of regional and global nature are noteworthy. The natural processes spread on the territory of Georgia, along with other sectors of the economy, caused great damage to the tourism sector and related industries.

The territory of Georgia, 54% of which is mountainous, is characterized by a variety of natural processes and represents the most challenging region. The paper aims to study the natural processes existing in regions vulnerable to tourism and their impact on tourism. Official information and published documents of the Department of Emergency Management of Georgia were used for the research, where natural disasters and their negative consequences are discussed. The work is done using lattice, cartographic, statistical, comparative analysis and synthesis methods.

KEYWORDS: NATURAL EVENTS, WARMING, RISKS, TOURISM, CONSEQUENCES.

INTRODUCTION

The problem of ensuring travel safety is one of the most important (if not the most important) and at the same time one of the most difficult problems of tourist traffic.

It is necessary for tourism to avoid negative consequences of geological, meteorological, hydrological and other risk factors. From year to year, the number of extreme travel enthusiasts is increasing, especially in adventure and sports tourism. First of all, this is facilitated by scientific and technological progress and the emergence of new types of tourist equipment. At first glance, it is a paradoxical situation – travel is becoming

easier, but the danger on the tourist route is not decreasing, but increasing. Although the number of visitors interested in visiting hard-to-reach corners of our country is increasing, and this type of travel is always associated with elements of risk – currently very little attention is paid to the safety issues of ecological and adventure tourism, especially at the level of scientific research.

The first scientific studies on the negative impact of mass tourism on the natural environment appeared in the early 80s of the last century in Europe, the leader in the development of tourism. In 1980, the West German magazine “TEO” published R. Junk’s article “How many tourists per hectare of beach? The word ‘soft’ in defense of tourism”.

In 1981, H.Weiss’s book “Peaceful Destruction of the Landscape and Measures to Save It in Switzerland” was published.

Ecotourism received official status in 1990. Since then, its influence in the world has been growing every year, and it is expected to continue to grow. Today, there are many definitions regarding ecotourism. It is called “soft”, “green”, “environmentally sustainable”, “nature-oriented”. All these terms reflect the trend of growing interest in nature, indicating the rise in people’s level of environmental awareness (Kabouchko, 2008:105). [1]

MAIN PART

Ecotourism can be defined as sustainable tourism, which represents recreational and educational activities without harming the natural environment, contributes to raising the level of environmental culture of all participants in the tourism process, and positively affects the country’s standard of living. The local population was mainly focused on individual tours in compliance with environmental standards and technologies. For tourist groups, ecotourism is formed with a small number of participants.

Even today, there is a question: “is it ethical to use protected natural areas for the needs of ecological tourism?” After all, as the name suggests, this area is “specially protected”, so it should not be subjected to recreational pressure from visitors. A solution was found in the division of protected areas into zones. Some of them are closed for tourists (the reserve), and the rest tourist excursions focused on minimal impact on nature are held.

In world practice, ecotourism is most often organized in national parks and other protected areas. Another advantage of protected areas is that it is possible to organize tourist activities in their territory, taking into account the permissible load and in accordance with environmental safety requirements, by checking and monitoring the state of the natural environment. as well as a set of measures aimed at neutralizing the negative consequences of tourism activities.

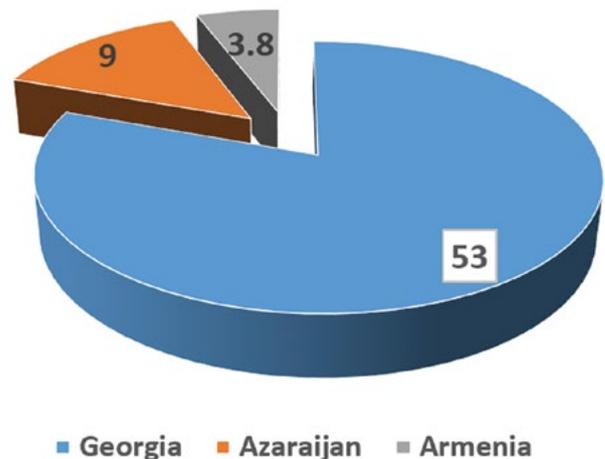
The modern trends of increasing “extreme” travel, the agreement of physically, technically and psychologically unprepared people to pay a

lot of money for the right to enter the history of tourism, lead to an increase in the number of accidents and disasters. For example, in France and Japan, more than 100 people die every year only on mountain routes, in the Alps, this figure is 300-400 people, in the small Polish Tatras – up to 30 travelers. In Chamonix alone, in the Mont Blanc region, about 60 climbers die each year. According to the data of a number of rescue services, the number of fatal cases increases by 13.5-17% from year to year. As a rule, all these troubles happen to the most active and promising members of society (Kabouchko, 2008:107).

Geological structure, climate change and anthropogenic impact are mentioned as the causes of natural events. In this regard, Georgia is considered one of the most challenging regions in the world, 70% of the country’s territory is considered a natural hazard zone, and 50% of it is inhabited (Salaghaia, 2017). [2]

According to official data, Georgia has 53,000 landslide areas and 3,000 flood-prone rivers, making it the first country in the South Caucasus. There are 9,000 landslide areas in neighboring Azerbaijan, and 3,800 in Armenia (see Fig. 1).

Figure 1. Distribution of landslide areas in the countries of the South Caucasus



In the territory of our country, the dangerous natural zones are allocated in almost all regions: Adjara ranks first among them, and Kvemo Kartli is the least hazardous region. Dangerous zones are found in Racha-Lechkhumi, Svaneti, Tbilisi, Kakheti, Guria, Samtskhe-Javakheti, Tergi and Aragvi basins (Tughushi, 2013). [3]

The main cause of natural events in Adjara is anthropogenic impact, especially the "water of Adjara" river is dangerous. Enguri River is especially dangerous in Upper Svaneti. Landslides, avalanches and mudslides related to the Enguri valley are periodically observed here.

Only in Tbilisi there are 52 waterways and 12 rivers in Gvarsashi, only in the 20th century there were 6 landslide events in Vere and more than 100 people died. In 2011 and 2015, the number reached 28 people.

In the Tergi Basin, the Darial border zone is particularly vulnerable, where there is intense traffic. The danger of glacial landslides is recorded periodically in the Devdorak basin. In 2014, the flood killed 10 people and the damage exceeded 100 million dollars. There are more than 300 glaciers in the entire Caucasus, and 90 of them are in the Tergi Basin. Eight of them are mobile (pulsating), but Devdorak does not obey the changes caused by climate change, and the reasons for its pulsating are still unknown today. The above regions are vulnerable to tourism and are very popular with both domestic and foreign visitors.

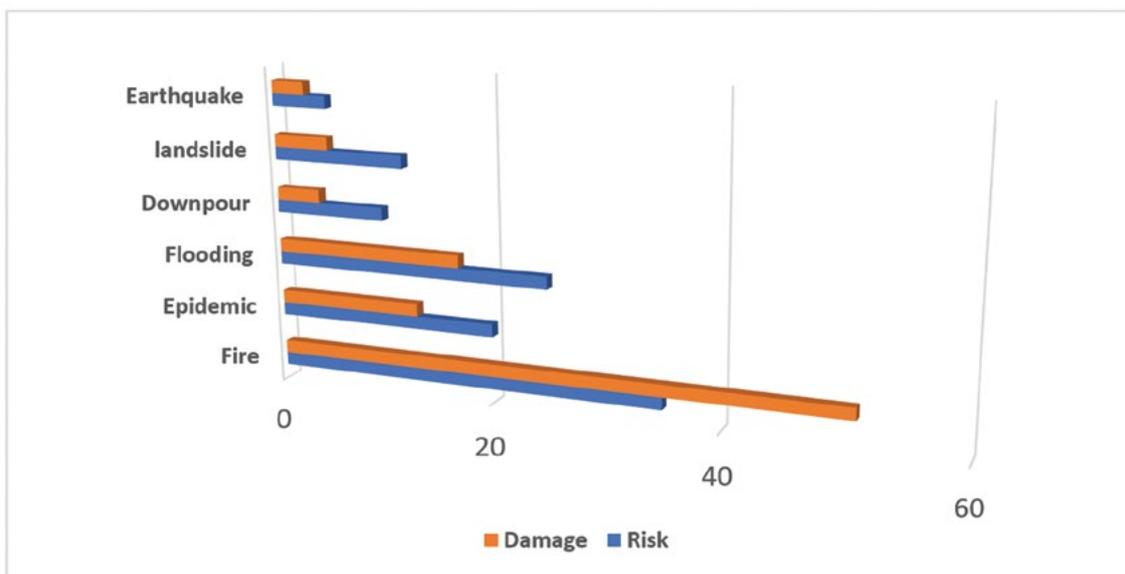
Ecological security of territories and preservation of environmental quality largely depend not only on the development of industry, energy, transport, but also on tourism activities, increas-

ing interest in the natural environment as a recreational object.

The development of mass tourism has not only positive consequences, but also negative ones, in particular, the ecological safety of the territories decreases. Under the influence of mass tourism, there is a loss of fertile layers for the soil, a decrease in looseness, a change in humidity and a change in microflora. For the plant world – the disappearance of the species composition of plants and the change of plant characteristics; For the animal world – the reduction and disappearance of some biological species; For the water system – changes in the characteristics, organic and chemical composition of coastal strips; For atmosphere – pollution of air layers. At the same time, we agree that ecotourism is considered the safest form of tourism environmental management that can be developed in ecologically protected areas. The main difference between unsustainable (mass) and sustainable (ecological) tourism is that part of the benefits from sustainable tourism are directed to the restoration of areas used as ecological facilities.

People’s wrong actions cause more than 70% of natural disasters in populated areas. The settlements of mountainous Adjara and Guria are especially noteworthy, where the most of the slopes are more than 40 degrees. In the mentioned areas,

Figure 2. Risks and losses of natural processes in Georgia (in %)



Source: Emergency Situations Management Service of the Ministry of Internal Affairs.

the population is intensively felling the forest for settlement, thereby contributing to the washing away of the slopes. In 2008, the construction of a house on a wrongly chosen site in Adjara cost the lives of 10 people. Three people died in Guria in September 2023 due to mudslide. The tragedy of Shovi resort on August 3, 2023, which claimed the lives of 35 people, most of whom came to Shovi for vacation, is particularly alarming.

On August 5, 2023, the National Environment Agency published an initial conclusion on the causes of the Shovi tragedy, where it is noted that there was a convergence of five processes. Namely, river in the Bubistskali Valley, intense melting of Buba and Tbilisi glaciers took place, the accompanying sediments brought the solid material in the valley into dynamics, activated lateral erosion processes, caused the activation of coastal landslide processes, and altogether created a landslide.

Georgia is a polyclimatic mountainous country; a variety of natural processes characterize it and is the most challenging region (*see Fig. 2*).

According to the public information provided by the Emergency Situations Management Service of the Ministry of Internal Affairs [4], it is clear that the first place among the risks of natural disasters is fire – 35%, the second place is flood, which accounts for 25% of the risks, the third is epidemic – 13%, the fourth is landslide – 12%. The 5th landslide – 10% and the last place is taken by the earthquake – 6%.

More than half of the losses caused by the risks of natural disasters, 51%, come from fires, followed by epidemics at 20% and floods at 17%. But the highest number of human casualties was recorded during floods, landslides and floods.

CONCLUSION

In small polyclimatic Georgia, climate change is taking place more painfully than in large states. There is a forecast that by 2050 the temperature in Georgia will increase by 0.9-1.9 C, and by 2100 by 5.5 C., which will ultimately increase the frequency and scale of natural disasters.

According to the information provided by the National Environment Agency [5], in 1995-2009, all natural disasters were activated, and the total damage

caused by all of them exceeded 1.3 billion US dollars, 700,000 people were affected, and what is the saddest thing, the human casualties reached 1,000.

The Shovi tragedy again showed us the need for a sound early warning system. The issue of the mentioned system was put on the agenda after the 2014 landslide in the Devdorak Valley, which killed seven people. In 2015, in Tbilisi, the landslide in Vere Valley killed 23 people. In 2019, a natural disaster was recorded in Chuberi Valley in Zemo Svaneti (Tarknishvili, 2023). [6]

The International Strategy for Natural Disaster Reduction (ISDR) aims to create a disaster-resilient society by promoting awareness of the importance of natural disaster reduction as a component of sustainable development. The International Strategy for Natural Disaster Reduction (ISDR) aims to reduce natural hazards and related technological and environmental decline of human, social, economic and environmental losses caused by disasters. A general strategy for natural disaster risk reduction should, first of all, define the context and criteria of risk management and characterize the expected threats to the community and its environment; the strategy should analyze social and physical vulnerabilities and identify the possible risks of several hazard scenarios in order, ultimately, to determine the necessary measures to reduce them. The ultimate goal lies in the present moment in reducing the risk of natural disasters and controlling the risk of future natural disasters. (Institutional strengthening for reducing the risk of natural disasters in Georgia, CENN, 2023:25). [7]

(UNDP) [8] Environment Development Program, Green Climate Fund (GCF), Swedish and Swiss governments are assisting the Government of Georgia in the development and implementation of Integrated Climate Risk Management (CRM), which will facilitate the creation and implementation of an early warning system for hazards in all sectors, thus contributing to risk reduction, prevention and increase preparedness.

First of all, this requires appropriate education and awareness. For this, according to the UN environmental program, it is necessary:

- Enhancing knowledge and understanding of the environment and environmental challenges;

- Development of necessary skills for solving environmental problems;
 - Form an informed citizen around environmental problems to take responsible actions.
- program will contribute to reducing the direct impact of disasters caused by climate change on the population of Georgia, living environment and infrastructure. Together, it will increase the safety branches of agriculture and tourism.

Implementation of the ongoing project in the country within the environment development

REFERENCES:

1. Kabouchko, A. M. (2008). Ecological Safety of Territories and Development of Ecotourism. <https://cyberleninka.ru/article/n/ekologicheskaya-bezopasnost-territoriy-i-razvitie-ekoturizma/viewer> [Last Access 1.11.2023].
2. Salaghaia, E. (2017). 5 most dangerous zones in Georgia. <https://kvispalitra.ge/article/35689-5-yvelaze-sashishi-zona-saqarthveloshi/> [Last Access 2.11.2023].
3. Tughushi, T. (2013). The most dangerous natural zones. <https://www.ambebi.ge/article/79989-stiki-urad-qvelaze-sashishi-zonebi/> [Last Access 2.11.2023].
4. Emergency Management Service of the Ministry of Internal Affairs. <https://es.gov.ge/> [Last Access 5.11.2023].
5. National Environment Agency: Shovi tragedy was caused by many factors. <https://civil.ge/ka/archives/554651> [Last Access 1.11.2023].
6. Tarkhnishvili, N. (2023). 40 days after the tragedy of Shovi – before the lawyers get acquainted with the case materials. <https://www.radiotavisupleba.ge/a/> [Last Access 3.11.2023].
7. Reducing the risks of disasters caused by climate change. (Guide) (2020). Tbilisi Caucasus Environmental Non-Governmental Organizations Network (CENN). Guiding Principles Geological and risk assessment of hydrometeorological threats and to take them into account in spatial planning and in the environmental assessment process. <http://drm.cenn.org/pdf/gidlines>. [Last Access 24.10.2023].
8. Expansion of multiple hazard early warning systems and use of climate information in Georgia. <https://www.undp.org/ka/georgia/projects/early-warning-climate-information> [Last Access 5.11.2023].