Development of virtual hunting tourism as the basis for the conservation of pristine wildlife

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Abstract. Many people in today's society still enjoy hunting as a hobby to relax and disconnect from their busy daily lives. The Crimean Peninsula, located on the Black Sea coast, is not only famous for its history, natural landscapes and resorts, but is also one of the most popular places for hunting tourism. Magnificent natural conditions, a variety of wildlife and seasonal migrations make the peninsula an ideal place for hunting and adventure, surrounded by spectacular scenery. Crimean hunting tourism offers a unique opportunity not only to plunge into the world of hunting passions, but also to enjoy all the delights of the peninsula.

The relevance of studying the development of a tourist and recreational hunting tourism project is due to the actively developing market for the provision of services in the field of hunting in our country. But the hunting resources of the Crimean forests are not limitless. The possibility of replacing real hunting tourism with virtual tourism with the help of modern IT technologies (VR, AR) is the goal of our research. Thanks to this approach, a potential hunter can feel like he is in a real wild environment, but at the same time know that his life is not in serious danger. In addition, the important task of preserving endangered animal species in the wild is being solved.

1 Introduction

An integral feature of any business, including the tourism business, is the satisfaction of the widest range of clients as possible, whose desires, differ in the reasons for their occurrence, the breadth of material resources, etc., but they have one thing in common – the desire to realize themselves new, regarding the local market of services, find a new feeling and interest.

Hunting tourism is a type of tourism that includes organized hunting trip where participants have the opportunity to take part in hunting various species of animals. And although more and more hunting farms in Russia specialize in organizing tourist hunts, the potential of the tourist and hunting market is not used quite effectively everywhere. Despite the common principles of organizing hunting tourism in the Russian Federation, taking into account…”

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count the differences in its natural and economic conditions, there are a number of regional features of tourist and hunting activities. Hunting tourism is in demand among people who are passionate about outdoor adventures and the search for new emotions. Hunting has always been an important part of human life. Since ancient times, hunting has served both as a method of obtaining food and protection, and as a means of entertainment. With the development of tourism and transportation, people began to travel to remote areas to hunt exotic animals. This has led to the formation of hunting tourism, which allows hunters to have unique experiences and share their adventures with others.

Tourist hunting destinations offer a variety of landscapes and unique wildlife species. Here are some popular hunting spots:

- Russian taiga. It is one of the most unique and attractive hunting destinations. This stunning region is rich in biodiversity and offers hunters the opportunity to harvest a variety of species such as bears, moose and fur-bearing animals. The Russian taiga is known for its beautiful scenery and offers hunters an unforgettable experience.

- African savannas. It is another popular place for tourist hunting. Here, hunters can experience exciting adventures by hunting elephants, lions, giraffes and other wild animals. The African savannah attracts hunters with its unique fauna and picturesque landscapes that create an unforgettable atmosphere.

- North America. This region also offers plenty of hunting opportunities. From the lush forests of Canada to the vast prairies of the United States, this part of the world is rich in a variety of wildlife species, including deer, bear, coyote and bison. Hunting in North America provides a unique experience and a chance to experience the spirit of the wild.

It should be noted that despite the measures taken to protect the animal world, hunting tourism has a generally negative impact on wildlife. Therefore, in this work it is necessary to consider the types of hunting tourism and propose a possible alternative to this type of tourism using modern IT technologies.

2 Types of hunting tourism

- Hunting large predators such as bears or lions is one of the most exciting forms of hunting. It requires special preparation and caution, as these animals pose a certain danger. Hunting large predators requires strong nerves and good hunter skills.

- Hunting ungulates such as deer, antelope or roe deer is a more common form of hunting. It provides hunters with the opportunity to experience the adrenaline rush and skill of tracking animals in their natural habitat. Hunting for ungulates can be done either with firearms or with a bow and arrows.

- Hunting for game birds is also popular among hunters. It requires good accuracy and quick reaction. Bird hunting provides an opportunity to enjoy the beauty of nature and experience the joy of a successful shot.

3 Impact on biodiversity

Hunting has a major impact on the region's biodiversity. Improper hunting can lead to a decrease in the population of certain animal species and disruption of the ecosystem.
Therefore, it is necessary to establish restrictions and quotas on hunting in order to maintain a stable balance in natural communities.

Sustainable hunting practices include conservation measures such as choosing the right time and place to hunt, following laws and restrictions, and participating in a wildlife restoration program.

Hunters must be responsible and care about preserving the environment and its biodiversity.

4 Development of tourism infrastructure

The organization of hunting trips contributes to the development of tourism infrastructure in the regions. It includes the opening of hotels, restaurants, transport services and other tourist facilities. Infrastructure development attracts investment and creates jobs for local residents and generates certain income. Tourists who come for hunting spend money on accommodation, food, the services of guides and operators, as well as on the purchase of equipment. It creates jobs and promotes economic development in local communities.

5 Ethical issues in hunting tourism

Hunting tourism raises a number of ethical issues related to animal welfare and compliance with rules and restrictions. Hunting must be conducted in accordance with local laws and restrictions. This includes selecting which species are allowed to be hunted and determining hunting seasons. Hunters must be aware of the rules and strictly follow them in order not to harm the environment and preserve animal populations. Great attention should be paid to animal protection issues. Hunting must be carried out with respect for wildlife and ethical principles. Hunters should strive for quick and painless death of animals, minimizing their suffering. It is also important to consider endangered species and respect hunting bans on such species. Hunters must complete training and obtain the necessary licenses before participating in hunting trips. This helps you learn essential skills, including gun safety and knowledge of hunting rules. Education and licensing promote safety for both hunters and others.

However, the measures taken cannot fully protect the animal world from the negative anthropogenic impact of humans on nature.

6 The need for new ways to develop hunting tourism in the Crimean region

6.1 General information about the region

The southern coast of Crimea stretches from Cape Aya in the west to Feodosia in the east. The unique zone of the Crimean sub-Mediterranean was originally created by nature itself for recreation. The mountain range carefully shelters from the cold winds a narrow strip of land on which Yalta, Alupka, Gurzuf, Foros, and Alushta are located. The Southern Coast of Crimea (abbreviated as South Coast) is the coastal part of the peninsula, where almost every tourist strives to get. The resort area is famous not only for its luxurious nature and beautiful beaches, sanatoriums and hotels, but also for its healing climate and abundance of attractions. The South Coast became famous in the 19th century, when it was appreciated by royalty and the metropolitan nobility. Since that time, numerous palaces began to appear on the coast. Most of them still exist today, constituting the cultural pride of the peninsula.
A characteristic feature of Southern Crimea is the delay in the change of seasons. It’s late spring and warm autumn here. This is the only region in the CIS countries that has a dry subtropical climate. The best time of year on the Southern Coast of Crimea is warm and dry autumn, when the summer sun still warms, and at night there is no longer any sultry stuffiness. This period is called the “Velvet Season”. The average October temperature is +20. Sometimes it rains, but not prolonged rains, like in December, but light, mushroom rains. By the end of November frosts occur. It is interesting that immediately beyond Alushta (to the east) and to the west of Foros, the subtropics abruptly “break off”. The average daily temperature in January drops below +2°C. The same applies to flora: there are fewer heat-loving crops, more winter-hardy ones.

There are not as many animals as plants on the South Coast. For example, the largest mammals at the moment are red deer, wild boar, mouflon and roe deer. Predators (wolves) were exterminated in the 19th century. Small animals are often found: shrews, voles, foxes, hedgehogs, squirrels, hares and bats. The world of birds is more diverse. Thrushes and wood pigeons, finches and larks live in the forests, falcons and eagles live in the mountains, and crows, tits, sparrows, swifts and swallows live in the urban areas. The coast is home to arthropods: tarantulas, crabs, scorpions and the poisonous scolopendra, which can grow up to 10 cm. The largest local insect is the cicada. Among the reptiles, the naked-toed gecko and the yellow-bellied gecko deserve attention. You should stay away from poisonous snakes—steppe vipers and copperheads. Snakes are completely harmless, but they can be large and frightening in their form.

6.2 Features of the development of hunting tourism in the region

Hunting tourism in Crimea offers various hunting options: hunting with shotguns and rifles, hunting with dogs and much more. Here every hunter can find what suits him. To organize hunting tourism in Crimea, there are many travel companies offering package tours with various services. The package may include transfers, accommodation, gun rental, an experienced guide and much more.

Crimea offers an abundance of opportunities for hunters looking for new adventures and unique hunting experiences. Here are some of the best deals and places to hunt on the peninsula:

- Yalta is famous for its diverse fauna, including roe deer, wild boar and goats. The hunting grounds in the vicinity of Yalta offer excellent conditions for hunting these animals. Magnificent views and a cozy atmosphere make hunting in Yalta unforgettable.
- Feodosia is known for its wetlands and coastal forests where you can hunt ducks and geese. This is an ideal place for hunters who want to enjoy beautiful views of the Black Sea and waterfowl hunting.
- Alushta offers not only magnificent landscapes and beautiful beaches, but also opportunities for hunting wild boars and roe deer. Local hunting grounds are an ideal place to hunt these animals, as well as to enjoy the nature of Crimea. In addition, there are many hunting grounds on the peninsula that offer hunting for various types of game, including pheasants, partridges and much more. Local guides and hunting experts will be happy to help you choose the best hunting trip and provide comfortable hunting conditions.

6.3 Recreational opportunities of hunting tourism in Crimea

The recreational potential of the Crimean peninsula is quite large. This is due to the diversity of recreational resources. Some of these are: historical and cultural, landscape, healing and mineral.
Hunting tourism provides an opportunity to exercise your body, develop strength, reaction speed, and endurance, which means that the hunter must be prepared for a variety of loads and preferably be in good physical shape. In order to get a trophy, an athlete-hunter must walk several kilometers through inaccessible and difficult terrain, with a backpack on his back and the necessary equipment for hunting. To overcome these obstacles, in order not to feel overexertion, fatigue and deterioration in the general condition of the body, a participant in such a sporting event needs daily physical training.

Regional specifics of hunting periods, methods and prohibitions of hunting in the Crimea are regulated by governing documents, which define the regional terms of hunting for game birds, and also a number of restrictions and prohibitions on hunting on the territory of the Republic of Crimea are introduced.

In assigned hunting grounds, hunting is carried out with a permit (a document confirming the conclusion of an agreement on the provision of services in the field of hunting) and a permit for the extraction of hunting resources, and in publicly accessible hunting grounds with a permit for the extraction of hunting resources.

In the hunting grounds of the Republic of Crimea, with the exception of specially protected natural areas of federal significance, the following types of hunting can be carried out:
1) amateur and sport hunting;
2) hunting for the purpose of carrying out research activities, educational activities;
3) hunting in order to regulate the number of hunting resources;
4) hunting for the purpose of acclimatization, relocation and hybridization of hunting resources;
5) hunting for the purpose of maintaining and breeding game resources in semi-free conditions or an artificially created habitat.

However, all the regulatory measures taken do not fully protect wild animals. So, you will no longer see mouflons (wild mountain sheep) in the Crimean Mountains.

7 Virtual Crimean safari project

Taking into account the need to preserve and protect wildlife from destruction, we propose an alternative project for organizing hunting tourism using modern IT technologies. The virtual Crimean safari project offers the creation and provision of high-quality virtual simulators using special virtual reality (VR) devices, as well as 360-degree video technology for preview. The idea is to offer the opportunity to explore the fauna of hunting destinations in Crimea (and not only) in a fun and realistic way for people with mobility limitations. It will contribute to the social rehabilitation of people with disabilities, will attract ordinary consumers to virtual hunting tourism, and will be an element of wildlife protection.

The main goals are to ensure accessibility and satisfaction of customer needs, as well as to introduce innovation in the organization of this tourism industry. Financial and material support will be provided through determining the costs of content creation, developing a marketing budget and searching for funding opportunities.

It is initially proposed to locate these simulators in a line of fairly well-established, profitable sanatoriums and hotels, located mainly on the southern coast of Crimea, preferably having their own beach, as well as organizing excursion services, with access to the forest area. Nature has created unique conditions for treatment, relaxation and recreation in this corner of the earth and these VR machines will only complete the presentation of this picture by emulating the nature of real hunting grounds and farms very close to the room and service in which a person is resting.
7.1 Social responsibility

A unique product that not only helps people with disabilities get to know new places, but also contributes to the development of sanatorium and resort infrastructure is offered. It preserves the ecological balance of wildlife.

7.2 Innovation

The relatively small number of competitors working in the field of VR tourism allows organizers to become leaders in the market. The offer to customers includes advanced technologies, which makes this product attractive. Features of the region, attractiveness to potential clients, innovation and quality content will attract more tourists.

7.3 Environmental friendliness

Virtual excursions involve a lack of physical contact with the environment, which is especially important for people with allergies or other health problems.

7.4 Efficiency

Virtual excursions allow clients to save time and money on travel, as well as avoid possible inconveniences associated with travel.

7.5 Types of possible consumers

The target audience is people with increased needs who cannot personally visit the natural attractions and historical places of Crimea due to physical limitations. And also those persons attracted by the fantastic combination of advanced technology, rich historical heritage and magnificent nature.

The consumer market and demand for virtual tours is currently in its development stage. However, we can already notice a growing interest in such tourism products.

8 Technological capabilities

Virtual hunting will allow you to satisfy the hunter’s desires without having to buy a gun, obtain a license and kill real, live animals.

This project proposes to develop your own virtual hunting simulation programs, based on available game bases, maps of the area of famous hunting farms in Crimea, information about the fauna living in them and photos of the surrounding nature, in order to create the most realistic and attractive offer for experienced hunters.

Virtual hunting involves hunting using virtual reality glasses, with a treadmill and an appropriate program. You can hunt without having to spend personal time going into the forest and so on. Moreover, the program allows you to hunt those animals that are not available in a particular region. These could be lions, tigers, rhinoceroses. It is also possible to kill a Tyrannosaurus.

Examples of game play that you can rely on and start developing your own unique offers with local specifics are the following representatives of this genre:
8.1 Cabela's Big Game Hunter

This game was released in 2014, but many players call it one of the best hunting simulators. The game takes place in Africa. Players will be able to visit four different regions, each with unique animals. Pro Hunts will offer several types of weapons, including a hunting bow. Virtual hunters will have to take into account a lot of little things. For example, the smell of an animal’s body, the hunter’s own scent that the victim can smell, or the speed of the wind. Sometimes one shot will not be enough, and then the player will have to track down the wounded creature along the bloody trail in order to get a well-deserved trophy (Figure 1).

Fig. 1. Screenshot from the game “Cabela's Big Game Hunter”

8.2 The Hunter: Call of the Wild

Developers from Expansive Worlds and Avalanche Studios are very proud of the project and call it the most realistic hunting simulator to date. Call of the Wild will take explorers into a huge game space with dynamic weather and a day and night cycle. In addition to a wide variety of weapons, players will be able to upgrade their character with useful skills and equipment (Figure 2).

Fig. 2. Screenshot from the game “The Hunter: Call of the Wild”

8.3 Carnivores

Dinosaur Hunter Reborn is the most unusual representative of the researched top, which fans of the Jurassic Park film franchise will certainly appreciate. Players will be able to become real dinosaur hunters, but do not forget that here the hunter can easily turn into the victim. The gameplay in Carnivores: Dinosaur Hunter Reborn is practically no different from other hunting simulators: you track exotic game along its trail and take a position convenient for shooting. It is necessary to take into account the direction of the wind (dinosaurs have a phenomenal sense of smell). It should be noted that hunters do not necessarily have to resort to killing, as non-lethal weapons are available in the game (Figure 3).

Fig. 3. Screenshot from the game “Carnivores: Dinosaur Hunter Reborn”
The use of virtual space will open the way to previously impossible, closed areas in hunting and tourism. As for hunting, this is the possibility of emulating such prohibited forms of hunting as helicopter hunting, shooting rare Red Book species, or, as mentioned above, completely extinct animal species, with habits developed based on the available data. Naturally, when it comes to illegal hunting and hunting in general, everything must be kept within reason and not turned into propaganda of violence against animals.

9 Conclusions

Summarizing the results of the study, we can highlight the factors confirming the relevance of the implementation of this project:

Hunting tourism provides an opportunity for people to enjoy outdoor adventure and experience the amazing world of wildlife. However, it is important to remember that hunting must be carried out with respect for nature and in compliance with ethical, environmental and safe principles, without causing environmental damage. Only then hunting tourism can become a source of satisfaction and unforgettable experiences, preserving nature for future generations.

But it doesn't always work out that way. It is almost impossible to find European mouflon in Crimea.

The advantage of hunting in the modern world is the opportunity to enjoy nature and escape the bustle of city life. Many people use hunting as a way of relaxation and allow themselves to immerse themselves in the natural environment, enjoying peace and tranquility far from the bustle of the city.

In this regard, virtual reality in hunting tourism is one of the newest and most promising tools for demonstrating tourist sites, resorts, hotels and other things in VR/AR mode without causing damage to nature. The full immersion effect, high image quality and ample opportunities to demonstrate virtual hunting using modern IT technologies - all this makes Virtual Reality a powerful marketing tool that promotes wildlife conservation today.

References


