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DIGITALIZATION OF TOURISM FOR SUSTAINABLE REGIONAL DEVELOPMENT

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A B S T R A C T

This work studied the role of tourism digitalization in achieving sustainable development of the territories. First, the basic concepts of sustainable development were defined. Then, a number of leading countries in the field of sustainable development were studied, such as Denmark, Norway, Sweden, and Germany, and the methods used in digitizing tourism to achieve sustainable development were analyzed. Then the level of sustainable development in Russia was studied, as it is one of the countries that seeks to achieve sustainable development for the country as a country with regions. The situation and importance of tourism in Russia was analyzed. Then the level of technology in Russia was analyzed. Then the level of sustainable development in Russia was studied. In addition, the Tatarstan region was analyzed as an example of one of the regional regions that has achieved growth in the level of sustainable development.

1. INTRODUCTION

Today, the tourism industry is one of the most profitable and dynamically developing activities that affects the social and economic development of a given region. In modern conditions, an important trend in the development of the tourism industry is the introduction of digital technologies, which determines the development of digitalization processes in the tourism sector. At present, the international trend has been towards the digitalization of tourism (Luongo et al., 2023) to achieve the sustainable development goals of the regions (Kronenberg and Fuchs, 2021), especially since it played a role in confronting the challenges that emerged during the Covid-19 pandemic.

Wider et al. (2023) notes that digitalization of tourism is the process of applying digital technologies to the tourism industry to improve processes and offer more innovative services to travelers.

Tourism is one of the most important industries that contributes to the prosperity and growth of the economy. Although it is difficult to precisely determine its actual value, the economic potential of the tourism industry is indisputable. Tourism offers huge economic potential to a country or destination that wishes to develop its tourism industry (Hassan et al., 2022). For example, employment, currency exchange, imports and taxes. In 2019, before the COVID-19 pandemic, the tourism industry was responsible for 10.6% of global employment and 10.4% of global GDP (de Bruyn et al., 2023). International tourism ranks fourth (after fuel, chemicals and automotive products) in global exports. Tourism is the main source of foreign exchange for a third of developing countries and half of the least economically developed countries.

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Currently, countries are choosing to invest their money in the tourism industry because of the positive economic effects that are hoped to be achieved by investing in activities that aim to create new regional tourism complexes, modernize them, and increase tourism flows by improving the general concept of tourism management, developing the tourism industry and infrastructure, and developing a tourism product. Competitive and improving the quality of service in tourism institutions (UNWTO, 2020).

The orientation of countries to regional investment in activities in the field of tourism included in the non-resource sector of the economy has two opposite sides: on the one hand, it meets the needs of consumers for tourism products and services, creating economically favorable conditions for the development of tourism territories, and on the other hand, it is associated with the use of tourism resources, which generates negative environmental, social and cultural costs. The main negative consequences of the development of tourism in the territories include: significant human load on the territory; environmental pollution; reduction of the attractiveness of landscapes; damage to historical and natural monuments; cultural degradation of the territory; aggravation of the problem of waste and disposal of household waste; and aggravation of some social and economic problems, etc. (Sever, 2023). Therefore, one of the promising tasks for the development of tourism in the regions is to combine the preservation of tourism resources with the environmental and cultural integrity of the region and increase the tourist flow to achieve profit. To solve this contradiction between meeting the needs of consumers of tourism services and the rational use of the regions' natural, social and economic resources, sustainable development goals are used (Gössling et al., 2021).

According to the United Nations General Assembly, sustainable development is defined as development that takes into account the social and environmental dimensions in addition to the economic dimensions to make good use of available resources to meet the needs of individuals while preserving the rights of future generations (Iftikhar et al., 2022).

Sustainable development is often achieved in tourist regions through the application of environmentally friendly technology (green technology) (Yadav et al., 2023) through the digitalization of tourism, which is known as sustainable tourism.

According to the United Nations World Tourism Organization, sustainable tourism is defined as tourism that fully takes into account its current and future economic, social and environmental impacts and meets the needs of visitors, industry, the environment and host communities (Vu et al., 2024).

2. LITERATURE REVIEW

The concept of tourism digitalization and sustainable development in relation to territories has been studied in the works of (Elkhwesky et al., 2022; Ullah et al., 2021; Jeong and Shin 2020; Stankov and Gretzel 2020; Pencarelli 2020; Sedarati et al., 2022; Ullah et al., 2021; Pagliara et al., 2021). In recent years, the digitalization of tourism has been increasingly recognized as a factor for sustainable regional development (Rausser et al., 2021), providing new opportunities to improve destination management, enhance visitor experiences, and promote sustainable behaviors among tourists (Tofiq, 2023). Adopting the digitalization of tourism has the potential to support sustainable development practices for regions by improving operational efficiency, reducing waste and emissions, and enhancing the tourism experience (Roos et al., 2021). The study by Rodrigues et al. (2023) provides a systematic literature review to examine the latest developments on the role of digital transformation in tourism as a catalyst for sustainable development, identify weaknesses, and provide directions for future research.

It is agreed upon by experts that sustainability includes three aspects: economic, social and environmental (Punzo et al., 2022). However, this concept is often misunderstood and viewed as merely balancing social, economic and environmental benefits, including replacing one form of benefit with another, for example. Economic benefits in exchange for environmental damage, which is an idea rejected in sustainable development (Peeters et al., 2024). Many experts and tourism planners consider the tourism industry to be an engine of sustainable development (Khizar et al., 2023). However, some studies, such as (Alamineh et al., 2023; Zhu et al., 2020) have addressed the negative effects of tourism growth, most notably environmental degradation and the depletion of non-renewable and renewable resources. However, several studies such as (Alamineh et al., 2023; Kronenberg and Fuchs, 2021) have shown positive outcomes of tourism growth as tourism is linked to economic development in low- and middle-income economies, where tourism activities create demographic stability, growth of local handicrafts, improvement of socio-economic well-being, and formation of new communities.

In addition, the authors suggest that strategic intervention is required from governments to achieve sustainable development in regions through the digitalization of tourism. Intervention by government and public bodies can protect regional resources, which can support the regional economy and people's well-being. Moreover, tourism promotes the economic growth of the regions, ensuring prosperity and contributing to sustainable development in the regions.

The main goal of this paper is to study the digitalization of tourism and its role in achieving regional sustainable development.

3. RESEARCH METHODOLOGY

The work methodology is based on a descriptive and analytical approach to describe the phenomenon of the title of the study (Digitalization of tourism for sustainable regional development) and a literary approach based on the analysis of sources, literature, graphs and statistics that examine issues related to the relationship between the digitization of tourism and sustainable development. The global trend of investment in the global green technology and sustainability market was studied, as evidence of growing global awareness of the importance of digital technology and its role in addressing environmental issues. The trend of using digital technology in the tourism sector to achieve sustainable development was studied in Sweden, Denmark, Norway and Germany. The trend in the importance of tourism was studied by calculating the tourism multiplier in Russia, and the role of tourism and digitization in raising the level of sustainable development of the regions, as an example, the Tatarstan region.

4. RESULTS AND DISCUSSION

Based on a review of previous studies, despite the positive results of tourism growth in the regions, which are represented in creating demographic stability, the growth of local handicrafts, improving social and economic well-being, rising incomes, job opportunities, and improving the living standards of the population. Despite the positive effects of tourism, it is accompanied by negative effects represented by the high costs of services and goods, causing many types of pollution, environmental degradation, and the destruction of natural resources. To solve this problem, countries are moving towards adopting the principle of sustainable development of regions through the digitalization of tourism, which is based on the principle of combining the preservation of tourism resources, the environmental and cultural safety of the region, and increasing the tourist flow to achieve profit.

The digitalization of tourism is the introduction of environmentally friendly digital technologies into the tourism industry, which is known as sustainable tourism.

Today, the international trend is towards increasing spending in the global market for green technology and sustainability, and based on an analysis conducted by precedence research company, it is expected that the volume of international spending in the global market for green technology and sustainability will increase, from 35.5 billion US dollars as it is in 2021 to 417.35 billion US dollars. In 2030, as shown in (Figure 1).

Figure 1. The global green technology and sustainability market size, 2021 to 2030 (USD BILLION)
Source: precedence research company

Countries' interest in sustainable development is not limited to increasing spending in the global market for green technology and sustainability, but today countries are integrating environmentally friendly technology into the tourism sector.

Sustainable tourism and digitalization are crucial to the success of the regions' sustainable development plans and are priority areas for reform in this area. Sustainable development issues include: regional development and reduction of regional inequality, as well as related ways to extend the tourist season; Developing a tourism product; and enhancing job opportunities and skills in the tourism sector.
As tourism continues to grow, measures to encourage sustainable regional development and tourist visits to less developed regions are becoming increasingly important to reduce pressure on the most popular destinations and spread the economic benefits of the travel industry more widely.

Thus, the Australian government has initiated a number of regional tourism infrastructure programs to attract more tourists to areas outside major metropolitan areas. Investing in the future of the tourism industry by allocating A$50 million in support to tourism infrastructure and the development of five distinct destinations across Australia. Hungary has identified a good deal of tourism development priorities that have the greatest potential to attract international visitors, and Croatia has established a Tourism Development Fund to promote the development of public infrastructure to support tourist attractions in less developed regions. Canada established the Experience Fund to support investment in remote and rural areas.

The potential of tourism as a driver of economic growth and development in regions is reflected in the institutional structures of tourism in some countries. For example, the Swedish Economic and Regional Development Agency is also responsible for tourism, while in the Czech Republic, the activities of the different regions are coordinated by a regional

coordinator to improve the competitiveness of the sector at the regional level.

The Scandinavian countries are among the leading countries in the field of sustainable development, as they occupy advanced positions in the global classification of sustainability. The Scandinavian countries are working to implement the seventeen sustainable development goals set by the United Nations, describing this implementation as one of the most important global standards for reaching the highest levels in the global classifications.

Sweden ranked second in the world in sustainability according to the 2023 Sustainable Development Report (Sachs et al., 2023). Sweden is considered one of the most sustainable countries in the world. Sweden has made significant progress in reducing its dependence on fossil fuels and increasing its use of renewable energy sources such as wind turbines and solar energy. In addition to adopting a smart home system and self-electric means of transportation (Fredman et al., 2021).

As for Denmark, it ranked third in the world in sustainability, according to the 2023 Sustainable Development Report. The Danish capital, Copenhagen, is one of the smart cities with a richer, more humane, and more environmentally friendly environment. Copenhagen is a global leader in addressing climate change, and the city has developed and implemented highly effective sustainable development strategies. In 2022, Copenhagen's carbon dioxide emissions were reduced by 80 percent compared to 2009, becoming an excellent example of green environmental protection. The government has formulated a series of action plans, including vigorous development of green and renewable energy such as wind power, encouraging citizens to choose green travel, promoting green building and other 50 specific projects. Copenhagen will achieve these goals through the energy supply transition, building retrofits, waste management, public infrastructure and mobility, as well as other key initiatives to support the transition in the short-term and long-term (Magrane, 2021).

As for Norway, it ranked seventh in the world in sustainable development, according to the Sustainable Development Report for the year 2023, as a result of the government and society in Norway relying on environmentally friendly policies and implementing the requirements of the United Nations to achieve the sustainable development goals. Norway is working to raise awareness of the environmental aspect through many aspects, the most important of which is reducing the use of petroleum-based energy, increasing its use of renewable energy sources such as wind turbines and solar energy, and creating environmentally friendly buildings that can generate electrical energy on their own (Fayzullina, 2021).

As for Germany, it is one of the most sustainable European countries. Germany ranked fourth in the world in the field of sustainability, according to the Sustainable Development Report for 2023, in addition to being one of the first countries that were able to reduce carbon dioxide emissions over the years, as shown in (Figure 2).

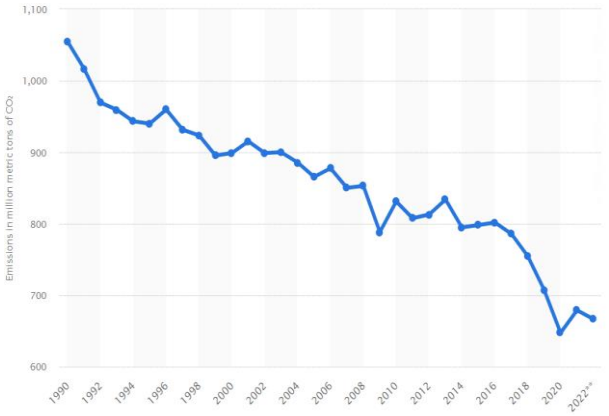

Figure 2. Annual carbon dioxide emissions in Germany from 1990 to 2022
Source: Statista research department

The leading role that Germany plays in the fields of environmental protection technologies, renewable energy and the efficient use of resources has a positive impact on the economy and the labor market. The environmental sector makes a relevant contribution to sustainable growth and the development of new technologies, not only in the energy sector but also in ICT and materials technology. Hundreds of thousands of people work in the energy industry, many of whom work in the renewable energy sector. Between 2000 and 2021, the number of jobs in the renewable energy sector has nearly tripled, with about 344,100 people employed in the field in 2021.

The trend towards sustainable development has contributed to reducing carbon dioxide levels in Germany, as shown in Figure 2. One of the most important reasons that helped Germany achieve its sustainable development plans was the application of environmentally friendly technology in most areas of life, especially in the tourism sector.

Sustainability-related aspects focus on a number of tourism sectors, which include: embracing German nature, highlighting landscape and activity holidays; Historic modern Germany, promoting cultural heritage and 51 UNESCO World Heritage Sites, highlighting the traditions and customs of rural areas; and sustainable travel in Germany, focusing on how to enjoy an environmentally friendly holiday in the country.

Germany has more than 350 health resorts that focus on sustainability-related aspects of health tourism. These include the preservation of traditional healing methods, site-specific treatments as drivers of regional prosperity,

and examples of sustainable energy management. There is also growing interest in low-impact tourism, which supports climate goals and makes tourism more resilient. More than a third of Germany's land area is specially protected as a nature park or national park, and there are about 200,000 km of hiking trails and 70,000 km of long-distance cycling trails. There has also been a renewed interest in traditional lifestyles in rural areas, enhancing Germany's image as a sustainable travel destination (Rantsi et al., 2023).

From the above, it appears from the experiences of previous countries that they are pioneering countries in sustainable development at the world level, in addition to being pioneering countries in the field of tourism. The reason for the success of sustainable development in these countries is the digitalization of tourism at all levels of the country, even the regional level. The mentioned countries participate in the digitalization of tourism through the use of environmentally friendly digital technology in the tourism sector. The most prominent shared digital technologies are the following:

1. Using the electric trains, trucks and buses in transportation, which generate electricity through movement.
2. Using renewable energy sources such as wind turbines and solar energy.
3. Using a smart heating system by connecting buildings in the area through underground pipes that capture excess heat from industrial production.
4. Disposing of non-recyclable waste through incineration and using the energy resulting from incineration in smart heating systems, in addition to using smart payment machines that give money to consumers in exchange for putting waste that can be recycled into the machine.
5. Using smart buildings and hotels to reduce energy consumption by connecting sensors to the Internet of Things.

In Russia, sustainable development ranks 49th in the world, according to the 2023 Sustainable Development Report. Despite the decline in the level of sustainable development in Russia compared to other countries, it has a good opportunity to advance through the tourism sector, especially regional tourism.

In Russia, the tourism industry generates 3.9% of the country's GDP, and the economic return from existing tourism organizations is stable (Leonidova et al., 2022). Russian regions have a high potential to provide a favorable microclimate in the tourism and entertainment sectors and form competitive markets, depending on the level of digital development of the regions.

An important economic aspect of the tourism sector is the impact on the income of local residents through tourists' expenditures.

To prove the relationship between tourists' expenditures and local residents' income, the tourism multiplier for Russia is calculated. The tourism multiplier aims to show a measure of the increase in income of local residents as tourists' spending increases per unit.

$$K = \frac{\text{Increase in income of local residents}}{\text{primary expense of foreign tourists}} \quad (1)$$

To measure the final impact, the following factors must be introduced:

Pn – propensity to purchase domestic products (propensity to national products).

Pim – propensity to purchase imported products (propensity to imports).

n – number of multiplicative expansion cycles.

k – tourism multiplier.

For an infinitely decreasing geometric progression, the value of Pn is 0, so it can be neglected. As a result, the international tourism multiplier takes the form:

$$K = \frac{1}{1-Pn} = \frac{1}{Pim} \quad (2)$$

The tourism multiplier is inversely proportional to the propensity to purchase imported products. Accordingly, the lower the propensity to consume foreign goods and services, the larger the multiplier will be. Relatively small changes in spending by foreign tourists can cause significant changes in the income of residents of tourist centers.

First, it is necessary to determine the main statistical indicators of Russia (Table 1).

Table 1. Main statistical indicators of Russia (**Source:** author's compilation).

indicators	2022	2023	Changes (Δ)
Revenue to the Russian state budget (ΔY)	25.02 (RUB trillion)	26.13 (RUB trillion)	1.11 (RUB trillion)
Revenues of the Russian tourism (ΔM)	677.3 (RUB Billion)	765.3 (RUB Billion)	88 (RUB Billion)

To determine the tourism multiplier, must be found Pim:

$$Pim = \frac{\Delta M}{\Delta Y} = \frac{88}{1.11} = 0.08 \quad (3)$$

Where Pim is the marginal propensity to import, ΔM is the change in the revenues of the tourism, ΔY is the change in the revenue to the Russian state budget. Thus, the tourism multiplier is:

$$K = \frac{1}{0.08} = 12.5 \quad (4)$$

The tourism multiplier in Russia shows that the degree of increase in the income of the local population will be 12.5 times.

From the above, it appears that the tourism sector in Russia has a role in economic development, which can be directed to the development of the regions. To avoid the negative effects associated with the growth of tourism in the regions, it must adopt sustainable development for the regions through the digitalization of tourism.

The World Annual Report on Sustainable Development for 2020 showed that Russia ranked 57th in the world in the level of sustainable development, while in 2023 Russia ranked 49th in the world in the level of sustainable development.

The previous statistics show that there is an effort by the state to work to achieve sustainable development goals. The growth of tourism has helped increase levels of sustainable development in the Russian regions, as shown in (Table 2).

Table 2. Number of tourists in Russia in 2018-2022 (million people) (**Source:** BusinesStat).

Parameter	2018	2019	2020	2021	2022
Number of tourists (million people)	62.8	68.5	53.0	61.7	67.8
Dynamics (% compared to the previous year)	-	9,0	-22,6	16,5	9,9

According to (Table. 2), in 2018-2019, the number of tourists in Russia increased by 9%: from 62.8 to 68.5 million people. The year 2019 was relatively calm: without serious natural disasters or major market shocks. In 2020, the number of consumers in the tourism market decreased by 22.6% to 53.0 million people. This decrease is due to the restrictions imposed due to the coronavirus pandemic: borders were closed, people reduced their visits to public places for fear of infection, and cultural and historical sites became unavailable for visiting. According to experts, about 40% of tourists who planned to spend a vacation in 2020 gave up travel. In 2021-2022, the tourism industry recovered from the difficult first year of the pandemic. Over two years, tourism growth reached 27.9%, and by the end of the period reached 67.8 million people, exceeding the value of 2018 by 8.0%. The main growth factors were:

- Pent-up demand after 2020.
- Increased demand for local resorts.
- Increasing the number of trips within the framework of health tourism in order to restore the body after the Coronavirus.

One of the factors that helped advance the level of sustainable development in Russia is the state's interest in information and communications technology and digital technology, which is represented by increasing the added value of the information and communications technology market, as shown in (Figure 3).

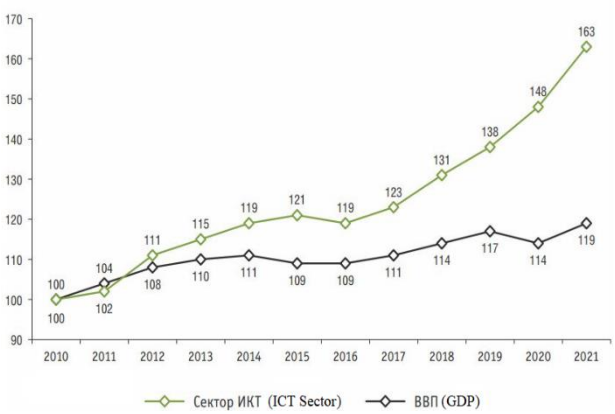

Figure 3. Dynamics of gross value added in the information communication technology (ICT) sector as percentage by 2010
Source: TAdviser

According to (Figure. 3), it appears that the ICT sector has been growing continuously over the years to increase the growth rate of gross value added: growth in real terms reached 10.8% (compared to 6.9% in 2020 and 5.7% in 2019) and reached 3.7 trillion rubles, Or 3.2% of GDP.

In addition to interest in the information and communications technology sector, Russia is focusing its investments on digital technology, represented by artificial intelligence, virtual reality, blockchain technology, and quantum technology. Based on the statistics of the Statista Research Department for the year 2019, the percentage of investment in artificial intelligence was the highest, amounting to 14 million US dollars, as shown in (Figure 4).

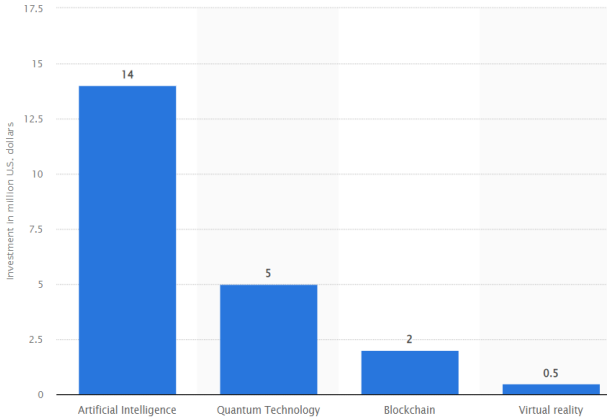

Figure 4. Investment in digitalization trends in Russia in 2019, by technology (in million U.S. dollars)
Source: The Statista Research Department

Russia's interest in investing in artificial intelligence is due to it being a common technology among all sectors, especially in the tourism sector, and because it has a role in the success of the digitalization of tourism to achieve sustainable development of the regions.

The 2020 Voluntary National Review of Sustainable Development Goals indicated that the Russian Federation has also introduced the concept of responsible tourism into the National Ecology Project and the long-term federal program. Mainly, the process of developing sustainable tourism in the country manifests itself in the form of popularizing ecological and educational tourism, which allows the formation of a public-conscious attitude towards the natural complex of Russia, as well as through environmental volunteer work, including through the implementation of special programs in higher educational institutions.

An example of the success of the role of tourism digitalization in the sustainable development of the regions is the Tatarstan region, as the Tatarstan region is one of the regions that enjoys a good level of sustainable development at the level of Russia, in addition to a good technological and tourism level. The Tatarstan region is in the top ten in the classification of sustainable development of regions in Russia. In 2015, the Tatarstan region ranked eighth, and in 2020 the Tatarstan region ranked seventh, while in 2022, it ranked fifth in the sustainable development classification of regions in Russia, according to the report of the sustainable development classification of Russian cities for the years 2015, 2020, and 2022, as shown in (Table 3).

Table 3. Results of the Ranking of Sustainable Development of Russian Regions for the years 2015, 2020, and 2022. (Source: author's compilation).

Rank	Region / 2015	Rank	Region / 2020	Rank	Region / 2022
1	Tyumen	1	Moscow	1	Moscow
2	Surgut	2	Khanty-Mansiysk	2	Saint Petersburg
3	Moscow	3	Tyumen	3	Moscow region
4	Krasnodar	4	Kaliningrad	4	Khanty-Mansiysk
5	Permian	5	Krasnodar	5	**Tatarstan**
6	Saint Petersburg	6	Saint Petersburg	6	Yamalo-Nenets Autonomous Okrug
7	Ekaterinburg	7	**Tatarstan**	7	Leningrad
8	**Tatarstan**	8	Odintsovo	8	Tyumen
9	Nizhnevartovsk	9	Krasnogorsk	9	Sakhalin
10	Nefteyugansk	10	Yuzhno-Sakhalinsk	10	Belgorod

The reason for the advancement of the Tatarstan region to fifth place is due to the success of the digitalization of tourism in the region, as it is a region rich in tourism resources. A range of digital technologies are used in the tourism sector in the region, including:

1. Using low-pollution technologies in the transportation sector, such as buses, bicycles, and scooters that operate on electricity, and providing appropriate infrastructure for them.
2. Using digital technologies to effectively manage the use of renewable resources such as water and soil. New technologies, recycling and frequent water supply systems were introduced, which led to a decrease in the volume of water withdrawn. The region operates more than 120 wastewater treatment facilities with a total capacity of about 800 million m3, and about 40 facilities with a capacity of up to 90 million m3/year are in the design and construction phase.
3. Using digital technologies in hazardous waste management. To increase the efficiency of using valuable consumer components of solid waste in the region, solid waste sorting complexes and facilities continue to be established in cities and regional centers across the republic, and there are currently 19 waste sorting complexes with a total capacity of 1,041 thousand tons per year. Aggregators sort up to 10 types of secondary resources. Some landfills operate equipment to produce paving slabs, paving stones and tiles from polymer waste.
4. Complex and factor-by-factor human load indicators have been developed, allowing effective management decisions on environmental protection. The use of these indicators makes it possible to prioritize environmental protection measures, optimize budget expenditures and improve the efficiency of environmental quality management.
5. To obtain new qualitative information about the state of the environment in the Tatarstan region, geographic information systems have been introduced and widely used. This allows organizing and analyzing information on the state of the environment at a new qualitative level, as well as solving the problem of providing it to government bodies, environmental authorities, the population and representatives of the business community more effectively. Reliable information about the state of the environment in the Republic.
6. Within the framework of the e-government system of the Tatarstan region, an experimental geographic information system (GIS) for nature management was developed and introduced into the system. GIS includes: mineralogy, hydrogeology and subsoil use; special reserves and natural lands; state environmental control; monitoring of unauthorized disposal of solid waste; and atmospheric air monitoring (Vasilievich et al., 2022).

The success of sustainable development in the Tatarstan region is the result of many years of work carried out by specialists in digitalization, economics, and environmental scientists in the Tatarstan region, including the introduction of digital technologies in

most sectors, especially the tourism sector, which reflects the current state of the economic and environmental situation, and its changes, in time and place, as well as the distinction between economic, natural and environmental resources. Atlas maps are considered a model for expressing the concept of sustainable development for the region, and their use has practical importance in preparing administrative decisions in the fields of sectoral development planning and regional programming, and developing and implementing programs, projects, and tourism and environmental events in the region.

5. CONCLUSION

In light of the circumstances and crises that countries face in terms of political, geopolitical, national, cultural, social, social, and shadow factors that affect the stability of the regional system, countries seek in every way to achieve stability of the social and economic system and meet human needs. Today, the international trend has become to adopt sustainable development goals for the regions in order to reach a radical solution to problems. One of the methods used in the success of sustainable development of regions is the digitalization of tourism. Tourism is considered one of the leading industries in the world because of its role in achieving economic development and well-being for countries. Despite the positive benefits of the tourism industry, such as increased income, job opportunities, and improved economic and social conditions, it has negative effects, the most prominent of which are environmental degradation and the destruction of resources. Naturally, countries are resorting to the digitalization of tourism through environmentally friendly technology, which leads to the emergence of sustainable tourism. Many countries have succeeded in achieving sustainable development through the digitalization of tourism and have become world leaders in sustainability, such as Sweden, Denmark, Norway, Germany and other countries.

As for the situation in Russia, it is today seeking to achieve sustainable development for the country. The authors believe that despite Russia's progress in the level of sustainable development and its success in some regions, such as the Moscow region, Saint Petersburg, and Tatarstan. However, the task of sustainable development for the country is considered a difficult task because Russia is considered the largest country in area in the world and needs to direct a large amount of resources and effort to achieve sustainable development for the country. Therefore, it needs to apply development at the regional level and work to exploit the tourism industry through digitalization because it has a major role in achieving sustainable development of the regions. The authors believe that it is possible to benefit from the experiences of other countries in digital solutions used in the tourism sector to achieve sustainable development.

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