UDC 338.504
DOI: 10.24411/1995-042X-2020-10511

Svetlana I. MISHULINA
Federal Research Center "Subtropical Research Center of the Russian Academy of Sciences"
(Sochi, Krasnodar Kray, Russia)
PhD in Economics; e-mail: MISHuLSV@yandex.ru

CURRENT SITUATION AND GREENING ISSUES IN RUSSIAN TOURIST ACCOMMODATION SECTOR

Abstract. *Amid significant environmental abuses, the growth of systemic challenges to environmental safety, social needs ecological transformation, and growth of aggregate green demand, increasing pressure from national and international regulations, hotel business ecologization or greening is no longer a tendency but transforms into a crucial condition for survival and successful functioning in a highly competitive market. The article provides analysis for the Russian tourist accommodation sector development processes, as well as the place and role of the ecological component within these processes. The correlation of applied local and international accommodation classification and certification systems to dynamic changes of tourists, destinations and the local community ecological values and needs, their influence on environmental safety of tourist product manufacture and consumption are under research. It is concluded that there are no objective conditions for the green transformation of the domestic tourist industry and accommodation sector as its part. The necessity to include the goals of greening into business and tourist destination development strategies is justified. The problems, factors, and conditions of green principles entrenchment in accommodation establishments everyday activities are defined. The article aims at researching the domestic tourist industry accommodation sector development dynamics, the specification of the green accommodation sector characteristics, their transformation trends, factors, and conditions ensuring ecological requirements priorities in current and planned activities of the tourist industry accommodation sectors. The research perspectivity is determined by the necessity to extend the subject and particularities of ecological processes for a tourist product creation and consumption to develop sustainable management mechanisms for the domestic tourist industry innovative ecological modernization processes, raising its competitiveness and ensuring sustainable development of recreational and tourist regions, resorts and tourist centers.*

Keywords: *green economy, tourism industry, accommodation sector, greening.*

This research is held within issue №0261-2019-0009 The strategic management of territory's social and economic development based on sustainable development principles of Federal Research Center the Subtropical Scientific Center of the Russian Academy of Sciences state assignment.

Citation: Mishulina, S. I. (2020). Current situation and greening issues in Russian tourist accommodation sector. *Servis v Rossii i za rubezhom [Services in Russia and Abroad]*, *14*(5), 119-132. doi: 10.24411/1995-042X-2020-10511.

Article History
Received 8 November 2020
Accepted 12 December 2020

Disclosure statement
No potential conflict of interest was reported by the author(s).

СЕРВИС В РОССИИ И ЗА РУБЕЖОМ

T. 14, No. 5 (92)
2020

УДК 33.348
DOI: 10.24411/1995-042X-2020-10511

МИШУЛИНА Светлана Ивановна

Федеральный исследовательский центр «Субтропический научный центр РАН»
(Сочи, Краснодарский край, РФ)
кандидат экономических наук; MISHulSV@yandex.ru

СОВРЕМЕННОЕ СОСТОЯНИЕ И ПРОБЛЕМЫ ЭКОЛОГИЗАЦИИ РОССИЙСКОГО СЕКТОРА РАЗМЕЩЕНИЯ

В условиях существенного ухудшения качества окружающей среды, роста системных вызовов экологической безопасности, трансформации общественных потребностей и роста совокупного «зеленого» спроса, усиления давления со стороны международных и национальных регуляторов экологизация или «озеленение» отельного бизнеса перестает быть тенденцией, превращаясь в необходимое условие выживания и успешной деятельности на высококонкурентном рынке. В статье анализируются процессы формирования российского сектора размещения индустрии туризма, место и роль экологической составляющей в этих процессах. Исследуется соответствие критериев, применяемых международными и национальными системами классификации объектов индустрии гостеприимства, динамично изменяющимся экологическим ценностям и потребностям туристов, дестинаций и местного населения, их влияние на экологичность производства и потребления туристского продукта. Делается вывод об отсутствии объективных условий «зеленой» трансформации отечественной индустрии туризма и сектора размещения, как ее части. Обосновывается необходимость включения целей экологизации в стратегии развития бизнеса и туристических дестинаций. Определяются проблемы, факторы и условия внедрения «зеленых» принципов в повседневную деятельность средств размещения. Целью статьи является исследование динамики развития сектора размещения отечественной индустрии туризма, уточнение характеристик «зеленого» сектора размещения, тенденций их трансформации, факторов и условий обеспечения приоритетности экологических требований в осуществляемой и планируемой деятельности сектора размещения индустрии туризма. Перспективность исследования определяется необходимостью углубления понимания сущности и особенностей процессов экологизации производства и потребления туристского продукта с целью формирования эффективного механизма управления процессами инновационной экологической модернизации отечественной индустрии туризма, повышения ее конкурентоспособности и обеспечения устойчивого развития регионов рекреационно-туристской специализации, курортов и туристских центров.

Ключевые слова: *«зеленая» экономика; индустрия туризма; сектор размещения; экологизация*

Для цитирования: Мишулина С.И. Состояние и проблемы экологизации российского сектора размещения // Сервис в России и за рубежом. 2020. Т.14. №5. С. 119-132. DOI: 10.24411/1995-042X-2020-10511.

Дата поступления в редакцию: 8 ноября 2020 г.
Дата утверждения в печать: 12 декабря 2020 г.

Introduction

A relatively low level of Russian accommodation sector development is one of the factors that determines the domestic tourism industry competitive weakness in the world market. Much attention is paid to tourism industry development in recent years, particularly to the accommodation sector as an essential technological part of the tourist product creation process that determines its quality and competitiveness. As a result, the number of collective accommodation establishments grew more than twice in the last 8 years. The tourism industry gross value-added share in Russia's GDP increased from 2.9% in 2011 to 3.8% in 2017. However, room stock quality and structure are still unsatisfactory.

An important trend of global tourism development is a tourism product creation and consumption ecologization process, the establishment of a green tourism industry which is recognized to be a driver of global economy ecologization. Green innovations implementation at all stages of complex tourism product creation is considered by tourism industry entities as an instrument for their product differentiation and its competitiveness increase in national and international markets. The greening processes of the accommodation sector as a tourism product essential component come out in strengthening ecological requirements for new hotels (compliance to international green standards), and in active modernization of current accommodation establishments, the large-scale introduction of green technologies into production processes to reduce ecological track of their activity. The hotels and other accommodation establishments ecological characteristics become an important part of provided services quality and a factor that determines tourists choice, volume, and tourist flow destinations. In these conditions, the environmental safety and competitiveness of the currently emerging Russian tourism industry accommodation sector to great extent will be determined by the level of its conformity to growing ecological regulation requirements, destinations, and tourists that mainstreams the research of factors and its ecologization conditions.

The research data background is composed of analytical and statistical reports of international tourist and environmental institutions, governmental and nongovernmental analytical centers, governmental statistical service official data, the data of tourist market entities surveys. Applied methods of theoretical analysis, informational monitoring, and selection in international scientific databases, systemic analysis, and synthesis, patterns identification, statistical analysis allowed to make reasonable conclusions and recommendations.

Current situation in Russian accommodation sector

Domestic and international scientific and professional literature interpret the accommodation sector as a touristic sector (a part of touristic infrastructure) that provides tourist accommodation services including a wide range of collective and individual accommodation establishments that differ by room size and equipment, by range, level, quality and pricing of services provided. Domestic statistics applies the term Collective Accommodation Establishments (hereinafter CAE) that includes hotels and similar accommodation establishments, as well as Specialized Accommodation Establishments that differ from a hotel sector by additional services highlighting their purpose and specialization (health resort, wellness, sports, educational and others). The accommodation sector is a tourist product integral component and along with tourist transport considerably determines the volumes of tourist flow to a specific destination (their physical accommodation capabilities). The quality of services provided, while influencing the tourist satisfaction level, determines the country's competitiveness, its destinations, and touristic enterprises in international and national markets.

The economic value of the accommodation sector for national economies is determined by its share in a tourist product structure, GRP, and GDP. According to the Organization for Economic Co-operation and Development (OECD), the average share of tourist accommodation services within a tourist product structure can reach 19%, which is up to 2% of global GDP accordingly. Dynamics of

Russia's ranking in the World Economic Forum Travel and Tourism Competitiveness Index is shown in Table 1. Russia's relatively low ranking is determined, among other things, by the low level of tourist infrastructure quality and development. According to this index component Russia is ranked 116 out of 136 countries participating in this rating in 2017[1], and 113[2] in 2019, which indicates serious concerns in the accommodation sector.

Table 1 – Russia's ranking in the World Economic Forum Travel and Tourism Competitiveness Index[3]

Years	*Rank*	*Years*	*Rank*
2007	68	2015	45
2011	59	2017	43
2013	63	2018	39

Development level and services quality of the domestic hospitality industry is identified as one of the main factors hindering the domestic and inbound tourism development in Russia and are included as priority goals in federal and regional tourism development programs.

The reason for the unfavorable situation in the sector lies in the limited number (for a country like Russia) of accommodation establishments and maldistribution across the country (ranked #82 in WEF 2018 rating), in imperfect room stock structure, as well as in outdated facilities and equipment of the most hotel complexes build in Soviet times, in engineering infrastructure deterioration – all the above determines the low quality of services provided along with high maintenance costs of the accommodations. Comparative data on the dynamics in the total number of accommodation establishments in some European countries and Russia are shown in Table 2.

Table 2 – Total number of hotels and similar accommodation establishments in some European countries[4]

	2014	*2015*	*2016*	*2017*	*2018*
Austria	12839	12625	12366	12153	12003
Germany	33997	33635	33061	32749	32433
Spain	19563	19718	19524	19630	19657
Italy	33290	33202	33166	32988	32898
UK		39829	39715		39715
France	17336	18328	18424		18090
Russia	10714	13957	15368	18753	

The figures in the table show a well-established and fairly stable accommodation sector in common European counties of tourist attraction and actively emerging sector in Russia, which despite an increase of 75% in the last 4 years is not comparable with such relatively small countries as, for example, Italy and Great Britain. It should be pointed out, that, according to the updated 2019 data, the number of CAE within the full range of business entities increased from 12,585 in 2010 to 25,291 in 2017, i.e. it more than doubled[5]. Even with a comparable number of hotels and similar accommodation establishments in 2017 in Russia and, for example, in Spain, the number of accommodated people differs crucially: 48,411.7 thousand people in Russia and 103,787.2 thousand people in Spain, that indicates a low level of domestic hotels occupancy. The overall occupancy level of the accommodation sector in the Krasnodar Region – the leading tourist region, for example, amounted to 67.88% in 2016, which is considered to be a rather good indicator. However, the current data of regional municipalities indicate essentially different CAE occupancy levels in different resort areas, so the Black Sea accommodation establishments occu-

[1] The Travel & Tourism Competitiveness Report 2017/Country/Economy Profiles and Rankings. URL: http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/country-profiles/ (Accessed on June 27, 2020).

[2] The Travel & Tourism Competitiveness Report 2019. Travel and Tourism at a Tipping Point / World Economic Forum. Geneva. 2019. P.129. https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2019 (Accessed on October 7, 2020).

[3] Source: The Travel & Tourism Competitiveness Report 2017 // Country/Economy Profiles and Rankings. URL: http://wef.ch/ttcr

[4] Source: Federal State Statistic Service official website with reference to Eurostat data. URL: www.gsk.ru

[5] Federal State Statistic Service data URL: https://www.gks.ru/ (Accessed on June 27, 2019).

pancy (Sochi, Anapa, Gelendzhik, Tuapse region, Novorossiisk) was 74% in 2016, while Azov coast establishments were occupied only by 11.65%[6]. Obviously, except for the quality of services provided by accommodation establishments, the occupancy level also depends on other factors that determine the tourist flow volume, primarily the destination attractiveness for tourists and its transport accessibility.

Great attention has been paid to the issues of modern tourist infrastructure development at the federal and regional levels in recent years. Almost all constituent entities of the Russian Federation have already established or are establishing programs for tourism development in their territories, paying special attention to the formation of accommodation establishments network that meets the consumer needs. Domestic accommodation sector development jump-start is given by the major international political, sports, youth events organized in the country, such as the APEC Summit 2012, Winter Olympics 2014, World Summer 2013 and Winter 2019 Universiade, World Cup 2018, etc.

The dynamics of indicators characterizing the Russian accommodation sector activities are shown in Table 3.

Table 3 – Main indicators characterizing the Russian accommodation sector activity in 2010-2018[7]

	2010	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*
CAE number	12585	13062	14019	14583	15590	20135	20534	25291	28072
Bedrooms, thnd	556	560	586	600	671	770	795	884	975
Tourist nights, thnd	162988	166197	173614	172630	184018	212195	216838	253536	278984
Accommodated persons, thnd	34746	37399	41065	42635	44219	49284	54431	61615	73694
Hotel and similar accommodation establishments services volume, bln RUR	112,9	125,5	141,0	162,4	175,7	188,99	213,3	219,9	
Investments in fixed assets aimed at CAE development, bln RUR (Without small-sized business entities)	20669	41224	27633	67449	80468	32654	30366	32646	

Out of the CAE total amount in 2017, 74.5% were individual entrepreneurs, small and micro-enterprises, that generally correspond to the global trends in the hotel business development focusing on tourist product individualization and offering a big variety of small-size hotels with a creative approach to service package development. According to some estimations, small business is about 90% of the accommodation sector in Europe.

Accommodation establishments classification as ecologization instrument

In international practice, the range of services provided by the accommodation establishment–and their quality determines its category and is confirmed by the relevant document that is a result of the classification process. The most common international certification system is based on assigning a certain number of *stars* to accommodation establishments*, that* allow tourists to choose a hotel in any country to expect a certain set and quality of services. However, despite the common classification principles, national systems may differ significantly. Besides, the accommodation establishments' commitment to differentiate in a competitive market leads to the emergence of new types of accommodation establishments which services are difficult to classify under existing systems (apart-hotels, boutique-hotels, eco-hotels, etc.). Internet technologies development and booking platforms services range expansion allow tourists to

[6] The Krasnodar Region Ministry of Resorts, Tourism and Olympic Heritage official website data URL: https://www.kurort.krasnodar.ru (Accessed on June 27, 2020).

[7] Source: official data of state statistics and the Federal Tourism Agency

estimate the basic points of booked accommodation establishment and to get acquainted with other travelers' comments online (for example during hotel virtual tour) and call into question existing classification systems viability.

The values system is also transforming: changes in consumption and production models, transition to responsible production and consumption model require estimation criteria revision because current criteria don't promote services and production processes greening. However, the current *star* system is being widely applied as a tool of service quality improvement and verification of information available to the consumer. Accommodation establishments compliance to additional criteria that take into account changing values (including ecological) is confirmed by national and international volunteer products and services certification schemes widespread in the last decade (the *green* certification and labeling) [6]. The current trend towards volunteer classification and certification transforming into mandatory ones, along with estimation criteria greening, may lead to the international classification system of *Green Stars* hotels emerging in the nearest future. At the same time, it should be noted that an increasing number of followers are acquiring a point of view that calls into question the green certification importance for SMEs (small and medium enterprises). Serious arguments are presented to justify the possibility of small businesses greening without certification [13, 17].

In Russia, the *star* accommodation establishments classification was voluntary until recently. Significant CAE number growth was not accompanied by a corresponding increase in their quality. Moreover, according to the Federal Statistics Service, in 2014 the highest category rooms number amounted to 10.6% of the total room number, and in 2017 its share decreased to 7.8%. However, it is not clear what is meant by the highest category and how reliable this information is if the mandatory classification procedure during that period was introduced only in one region of the country – in the Krasnodar Region during Winter Olympics 2014 preparation and organization. The mandatory classification purpose was to ensure the classified rooms number required to receive the Olympiad's guests and to bring the room stock structure under the IOC requirements (the superior 4-5 stars rooms share increase to 40%) [12]. The data of the CAE sample surveys conducted by the Federal Statistics Service show that 4-5* hotels share in the total number of hotels and similar accommodation establishments did not exceed 5% over the last years and even decreased during the period under review from 4.7% in 2014 to 3.9% in 2017. Starting from January 1, 2019, the classification became mandatory for CAE with a room stock exceeding 50 rooms, from January 1, 2020 – more than 15 rooms, from January 1, 2021 – for all CAE's in the Russian Federation.

As of September 1, 2019, 3,605 accommodation establishments with a total number of 143,240 bedrooms were classified in the Krasnodar Region, the first region in Russia to implement the mandatory CAF classification, by organizations accredited by the Ministry of Resorts, Tourism and Olympic Heritage. Another 443 accommodation establishments were classified in other constituent entities of the Russian Federation. The classification results are presented in Table 4.

According to international tourism organizations criteria, the *star* structure of the Krasnodar Region accommodation sector is far from appropriate, although the highest category 4-5* rooms share is twice higher than overall in Russia and apparently corresponds to the domestic demand structure. About 40% - rooms with no stars and with one star (overall in Russia – 43,6%) that indicates the room stock low quality and its uncompetitiveness. Obviously, hotels with such room stock structure are unlikely to build sustainable development strategies, but in terms of consumed resources specific volumes and impact on the natural environment, they can (subject to environmental legislation) be more environmentally friendly than their *star* counterparts. Unfortunately, the administrative monitoring of such accommodation establishments activities indicates

numerous environmental legislation violations (mainly discharges and pollutants emissions). Comparison of quantitative and qualitative parameters of the accommodation sector in the Krasnodar Region and Sochi confirms the thesis about the extremely uneven CAE distribution across the country and the sector structure that does not meet modern requirements not only across the country and its regions but also in leading tourist destinations.

Table 4 – Data on the number of accommodation establishments that have passed the classification (by classification categories) as of 01.09.2019[8]

Category	Accommodation establishments, units	Exact category accommod. establishments number in total number, %	Rooms	Exact category rooms number in total rooms number
Krasnodar Region				
No stars	2496	69,2	49347	34,5
1 star	140	3,9	7161	5
2 stars	333	9,2	20511	14,3
3 stars	478	13,3	44570	31,1
4 stars	128	3,6	17926	12,5
5 stars	30	0,8	3725	2,6
Total	3605	100	143240	100
Sochi				
No stars	1265	71,5	19436	27,3
1 star	75	4,2	4451	6,2
2 stars	145	8,2	9194	12,9
3 stars	201	11,4	25653	36,0
4 stars	61	3,5	10284	14,4
5 stars	21	1,2	2305	3,2
Total	1768	100	71323	100

It is important to note that promoting business processes alignment with the SDGs requires revision of the criteria for assessing the accommodation establishments' comfort and safety for clients. Environmental awareness and responsibility growth lead to changes in the everyday behavior patterns of consumers who realize the need to reduce the burden on the natural environment by conserving natural resources wherever possible, including travel activities. The comfort characteristics expand first by including environmental safety parameters for a tourist (for example, safe for human health materials for walls, furniture, textiles, organic food, etc., no discharges and emissions negative impact, clean environment, air, and water), and then for the environment (psychological comfort from the understanding that the traveler himself minimizes the damage to the natural environment during his trip and contributes to an increase in the visited destinations stability). As a consequence, the interest in environmentally friendly tourism is growing and there is a growing interest in responsible travel and, thereafter, the demand for eco-friendly or *green* hotels.

Ecological problems of hospitality sector development

Analysts studying modern trends in tourism development believe that the hotel business greening is no longer a trend, it turns into a necessary condition for successful operation in a highly competitive market. In its turn, UNWTO notes in its analytical reports the need to revise regularly the criteria for assessing the current hotel classification systems in order they meet the changing consumer needs and take into account sustainable development principles and goals[9].

As noted above, despite the apparent environmental safety of tourism activities, the real tourism impact on the natural environment destruction and climate change is quite significant and is growing steadily with an increase in tourist flow and the scale of activities to service them. Over the last decade, the electricity consumption by guests in hotels has grown from 25% to 30% of total consumption due to changes in lifestyle and consumption patterns (increased requirements for comfort, electronic equipment use, etc.)[10]. According to the estimates of the international

[8] Source: the author's calculation based on the Krasnodar Region Ministry of Resorts, Tourism and Olympic Heritage operational data: URL: https:// www.kurort.krasnodar.ru

[9] Hotel Classification Systems: Recurrence of criteria in 4 and 5 stars hotels. UNWTO, Madrid, 2015. URL: http://prohotelia.com/wp-content/uploads/2015/03/UNWTO-Hotel-Classification-System.pdf (Accessed on October 10, 2020).

[10] How to reduce energy consumption in hotels. URL: www.hotelnewsnow.com (Accessed on June 10, 2020).

environmental organization *Green Seal*, a hotel with 150 rooms consumes as much electricity per week as 100 private houses. The fossil fuels use, rather than renewable energy sources, means that hotels emit greenhouse gases that directly affect global warming. A typical hotel can emit from 160 (room) to 200 (lobby) kg/m^2 of carbon dioxide (CO_2) per year, and some European hotels emit up to 13.6 megatons of CO_2 [1]. An average three-star hotel consumes approximately 350 liters of water per guest overnight (as much as 100 houses rural settlement). Herewith, the higher the hotel category is the greater is the amount of the consumed resource. In five-star hotels, guests consume up to 1800 liters of water per guest daily[11]. Hotels lose an average of 35% of purchased food [9]. On average, a hotel guest generates 1 kg of waste per night[12].

In its turn, the resources consumption scale is determined both by the requirements of the current standards for ensuring a comfortable area and temperature in rooms, round-the-clock public spaces illumination, providing personal hygiene products, etc. and by the irrational resources use by guests. It followed that the standards that define the hotel category do not promote efficient resource use and reduction of negative impact on the natural environment. This conclusion fully applies to the Russian hotel business standardization certification system. Requirements for daily cleaning and towels and linen change in superior rooms, for round-the-clock public spaces illumination, etc., contribute to increased resource consumption and increased pressure on the natural environment. The current system of Russian standards regulating the hotel business lacks special requirements (or recommendations) to reduce a negative impact on the natural environment, except for the general requirements for compliance with environmental legislation and "... compliance with relevant legislation" in accommodation establishments located on the protected territory (GOST R 51185-2014 Clause 10 Environmental Protection Requirements).

Being a part of a tourism product technological process manufacturing, that includes traditional commercial sector (hotels, motels, hostels, guest houses, etc.), individual private sector (rooms and apartments), as well as actively developing new tourist accommodation services platforms (the so-called shared economy - Airbnb, HomeAway, Couchsurfing, etc.), accommodation establishments generate for a total 1% of global carbon dioxide (CO_2) emissions and are responsible, according to various estimates, for 20% - 24% of the tourist industry emissions[13]. The main emissions sources are heating and air conditioning systems, restaurant and bar equipment, swimming pools, and spa centers. Obviously, the overall impact depends on accommodation establishments number, location, and size, as well as on the institutions' type (for example, hotels, as a rule, consume more energy than corporate venues or campgrounds) and their environmental policy.

The tourist industry in general and the accommodation sector in particular are both a cause and a victim of climate change. These changes can be either positive (for example, changes in the swimming season duration, comfortable air and water temperatures in the seas and oceans, etc.), or negative (snow cover reduction at ski resorts [15-16], territories desertification and dehydration, biodiversity loss, an increase in the extreme natural phenomena and processes number and scale, land waterlogging, etc.). For instance, heavy rainfall in mid-November 2019 led to an extremely high rise in water in Venice, causing one billion euros losses. Scientists note that over the past 1200 years, the San Marco Cathedral has been flooded 6 times, 4 of them in

[11] Green Economy & Trade: Trends, Challenges & Opportunities. UNEP, 2013. URL: http://www.unep.org/greeneconomy/GreenEconomyandTrade (Accessed on May 27, 2020).
[12] The ultimate guide to sustainable hotel practices. URL: http://www.smartvatten.com (Accessed on October 2, 2020).
[13] UNWTO FAQ – Climate Change and Tourism. URL: http://sdt.unwto.org/content/faq-climate-change-and-tourism (Accessed on October 12, 2019).

the last 20 years. In Scotland, the rainfall amount has increased by 10% compared to the 20th-century beginning, as a result, the flooded areas are growing, 2.7 million objects are at risk of being flooded (data from the official website BRE Global (Building Research Establishment)).

Climate change is becoming significantly more expensive for businesses. In addition to flood damage, preventive costs for adapting to changes are rising. According to BREEAM.com (Building Research Establishment Environmental Assessment Method), 83% of certified projects completed in 2016 in Scotland used special flood protection measures. In England, 72% of new construction projects completed in 2016 included medium and extreme temperature growth rate in the ventilation and air conditioning systems design.

The key reasons for the transition to environmentally friendly models of the hotel business and its environmental modernization are: environmental requirements tightening (for example, the Kyoto Climate Treaty signing forced many entrepreneurs in the participating countries look for ways to reduce negative impact); corporate social responsibility, which alters companies strategies from changes responding to changes initiating; the increasing resource efficiency capability. In these conditions, ignoring the tasks of greening business entails definite economic losses such as poor image and lowering competitiveness.

Factors and conditions for domestic accommodation sector ecologization

Companies activities linked to UN development goals, meeting growing environmental requirements, social goals, and economic efficiency, have received the name of *ecopreneurship* in English science literature [5, 8]. At the same time, there is a distinction between ecopreneurship, which initially focuses on *green* values and enterprises activities that integrate environmental goals into the existing goals system [10, 14], developing new *green* products, or introducing organizational innovations and changing business strategies. Three types of environmentally-oriented business conduct transformation are identified: compliance-based greening, market-oriented greening, and value-oriented greening [8].

The existence of a clear policy for transition to a green growth model is the incentive for activities greening apart from legal compliance. Thus Europe, for example, demonstrates leadership in the environmental innovations in the tourist industry development and implementation, that can be explained by several reasons, one of which is the pan-European strategy for sustainable development, which includes the goals for the transition to a circular economy by 2050 in all sectors and industries.

Tourist industry greening factors and conditions studies show that, since this business is traditionally considered as environmentally friendly (as opposed to industrial production), it does not experience much legislative pressure, but largely depends on local policies and economic management conditions in the specific destinations territories [8, 11]. Therefore, its ecological strategies more often form not within companies (as an internal necessity), but under the external environment influence including a wide range of stakeholders that have ecological and economic interest in the territory. The main factors promoting economic activities greening are formed to a greater extent by the environment in which the company operates, rather than within the company itself. In this regard, the role of the destination in the greening of business processes carried out in their territories is substantially changing. In any case, the need to comply with the requirements (of the state, local authorities, public organizations and population, credit institutions, and business partners) implies costs and promotes the search for innovative solutions that ensure compliance with the laws, primarily by increasing resources efficiency.

The *green* tourist demand growth is a factor of tourism market-oriented greening [2]. The greening demand monitoring at the global level confirms the growing tourist's readiness to pay more for environmentally friendly goods and services. So, if in 2013 such tourists constituted one-

third of the global tourist flow, in 2017 their share increased to 55%. Moreover, among Y-generation (Millennials) and Z-generation (digital generation) representatives this figure is much higher - 73%, which is an important trend that determines the future tourism development and the industry enterprises competitiveness[14].

The results of sustainable tourism and travel preferences research carried out regularly by Booking.com analytical services[15] are shown in Table 5. They show more than double eco-housing demand growth over the past four years.

Table 5 – Share dynamics of travelers planning to book eco-housing, %[16]

Year	2015	2016	2017	2018
%	34	62	68	73

The official Blue & green tomorrow.com website gives even more impressive numbers. According to their estimates, 87% of tourists want to travel on a sustainable basis (in 2013, the figure was 47%). That is, there is a clear and growing overall demand for responsible travel.

At the same time, despite the general responsible travelers share increase, those who are willing to pay for the sustainability of their own travel are much less. There are markets where their number is insignificant. Russia can safely be considered as such a market, that can be explained by low general ecological culture and the ecology's place in population priorities system. According to the surveys conducted by the Institute for Statistical Studies and Economics of Knowledge of the Higher School of Economics in 2014-2015, every third response to the question about the innovative development priorities named *green measures*, including environmental protection (10%), natural resources rational use (11%) and energy-saving (11%). At the same time, 53% of respondents named agriculture as development priorities, industry – 38%, medicine – 31%, which indicates a production and consumption greening issues low rating in the Russians value system [3, 4].

In recent years, the issue of sustainability (environmental friendliness) and competitiveness balance has been quite actively discussed. There is an opinion that modern *green* technologies cannot withstand competition with traditional technologies, and their application negatively affects the products and services competitiveness in national and international markets [7]. The established view on the green innovation high cost is a major barrier for business greening for small and medium-sized enterprises, comprising a large share of accommodation establishments. Under these conditions, only a tangible decrease in resource consumption and, accordingly, a decrease in operating costs becomes a market motivator for greening, however, it faces the problem of affordable credit resources availability. However, in terms of strategic development goals (unusual for domestic business) sustainability, according to many authors, has no alternative.

Another important aspect of this issue is the need for an integrated approach to the green technologies implementation and use, which execution requires interaction with a wide range of stakeholders, local service companies, and resource providers. When building new accommodation establishments, this issue is solved by applying *green* construction standards and coordinating a set of innovations at the design stage. In existing accommodation establishments, especially in historic centers, environmental modernization usually requires a lot of approvals, time, and financing, which small tourist enterprises do not have.

Examples of innovative *green* technologies

[14] OECD (2018), Tourism Trends and Policies 2018. Paris, OECD Publ., 2018. P.74. DOI:dx.doi.org/10.1787/tour-2018-en https://read.oecd-library.org/urban-rural-and-regional-development/oecd-tourism-trends-and-policies-2018-en#page74 (Accessed on September 18, 2020).

[15] Booking.com reveals key findings from its 2019 sustainable travel report. URL: https://globalnews.booking.com/bookingcom-reveals-key-findings-from-its-2019-sustainable-travel-report/ (Accessed on October 28, 2020).

[16] Source: http://prohotelia.com/2019/04/sustainable-tourism-travel-preferences/

successful application by hotel business, as a rule, relate to large international hotel chains that possess financing, highly qualified personnel, and other resources and consider greening as a tool to improve management efficiency and service quality. One of the striking examples is the JW Marriott hotel in Singapore: creative architectural solutions with *green* technologies allowed creating a canopy of 3 hectares total area on the hotel territory, simulating a sea wave and simultaneously performing several functions of the territory cooling, collecting rainwater and generating electricity used to illuminate the building facade. The aluminum structures inclination angles and spectral glass allow cooling the territory and interiors without electricity consumption. Hilton Worldwide Corporation saved $53 million in 2009-2016 by reducing electricity and water consumption, as well as waste disposal. 4.5 thousand establishments of this chain are certified according to ISO 14001. Hyatt Hotels has been actively involved in water conservation issues since 2006 and plans to reach a 25% reduction in water consumption by 2020. All newly erected buildings for Hyatt Hotels are certified according to the LEED (Leadership in Energy and Environmental Design) green building standard[17]. Berghotel Muottas Muragl – a ski hotel located in the Alps at an altitude of 2500 m above sea level, has spent 16 million euros on its business *greening*. As a result of the innovative energy generation technologies introduction (solar panels, photovoltaic panels, etc.), it is fully self-sufficient in electricity and was able to reduce energy consumption by 64%[18].

More and more construction projects based on the zero-energy-building (ZEB) concept are emerging. The concept idea is the use of energy generated from renewable sources by the building itself, in amounts that almost completely cover the building needs throughout the year.

The practice of applying *green* technologies in hotel business within *active home* and *smart home* concepts framework is expanding. Return on investment in *green* hotels is from 2 to 6 years.

Large hotel chains strategies, disclosed reporting and innovative practice analysis allows us to highlight their environmental activities main areas: common environmental policy development for a hotels chain, new chain hotels construction in accordance with the requirements of *green* standards (English BREEAM, American LEED, German DGNB and others), environmental management systems implementation (as a rule, together with quality management systems, since many procedures are duplicated or linked), monitoring and reduction of air, water and soil pollution, noise pollution reduction, energy, water and other resources consumption monitoring, search and implementation of innovative solutions aimed at all types of natural and material resources consumption reduction, renewable energy sources usage, increase of environmental awareness and personnel professional development, personnel involvement in business environmental modification, interaction with local businesses, responsible procurement system implementation, informing and engaging customers in environmental activities, partnerships, cooperation, participation in programs and initiatives, memberships in various international organizations (for example, The International Hotels Environmental Initiative, Energy Star for Hospitality), *green* certification of accommodation establishments and their services (Green Globe, Green Key, Green Seal, etc.).

For wider involvement of small and medium-sized hotel business in greening processes, the share of which, as already noted, ranges in different countries from 70% to 90% of tourist industry enterprises total number, special national and international programs are being developed. Within these programs framework, the hospitality industry is provided with consultations, technical support, and training on improving business

[17] Green hotels: environmental initiatives bring profit. URL: https://share.america.gov/ru (Accessed on September 18, 2020).

[18] Alpine hotel Berghotel Muottas Muragl. URL: https://arttravelblog.ru/oteli-i-gostinicy/alpijskij-otel-muottas-muragl.html (Accessed on September 18, 2020).

resource efficiency and various aspects of activities greening. An example of such a program is the Hotel Energy Solution, a UNWTO-initiated project to provide advice and technical assistance to small businesses on buildings energy efficiency and renewable energy sources use. An important advantage of such programs is the provision of an integrated cross-sectoral approach to solving the environmental business modernization issues, illustrating low-cost ways of *greening.*

Studies of the hotel business greening examples and factors promoting environmentally-oriented activities prove that the environmental initiatives' success mostly depends on business owners and managers personal assurance and social and environmental responsibility [8]. Together with the growing social and environmental responsibility of the Millennials and Z Generation, who strive to reduce their ecological footprint, changing their lifestyles, the trend towards value-based green tourism will play an increasingly significant role shortly.

The tourist business orientation towards the personal values transformation and an increase in the importance of the socio-ecological travel aspects for tourists is more typical for developed countries (the booking.com research results in 2018 showed that out of 21,500 travelers from 29 countries 58% refuse to travel because of possible negative effect on the local community, 86% are ready to devote time to activities reducing the negative impact on the environmental protection during the trip - forest planting, cleaning beaches, etc[19].). In 2018, the number of green tourism followers number increased in Italy, Germany, and China. But even there, 46% of tourists are more likely to choose responsible travel if they have economic incentives in the form of tax benefits, discounts, and other bonuses (for example, free parking for green transport modes or a free lunch for generating electricity on a hotel's exercise bike). In many countries of the world, tourists are either not familiar with the responsible travel concept, or not ready to limit themselves to anything during the trip.

To promote tourist's sustainable behavior UNWTO developed *Practical Tips for the Global Traveler*, the purpose of which is to increase the tourists' responsibility towards people and places they visit, increase knowledge and awareness of their impact on the environment and people, increase mutual understanding and respect for local culture, nature and traditions. As part of this initiative, many travel companies, hotel chains, and transport companies are developing their own travel booklets informing travelers about negative travel forms and impacts on the natural environment and local populations, suggesting simple ways to reduce this impact. For example, Ecobnb offers on its booking site information needed to calculate the carbon footprint of a trip, how many trees will be saved, and how much water will be saved when choosing accommodation and services responsibly.

In any case, an important factor determining travelers' responsible behavior is their trust in accommodation establishment sustainable behavior evidence, which determines both the independent national and international *green* certification systems importance and widespread development, and generation of in-hotel systems for the guests' awareness on accommodation establishment *green* initiatives and practices (green storytelling).

Conclusion

There are currently no objective conditions for the greening of the tourist industry and the accommodation sector in Russia, as follows:

- there is no understanding among tourist business developers of the idea and global trends in *green* tourism development;
- official statistics indicate a stable ecological situation in the leading recreational and tourist centers, the real picture is unclear since there is no effective monitoring system;
- there are no strategic goals for tourism

[19] Development trends of the hotel service URL: http://prohotelia.com/2017/04/sustainable- travel-intentions (Accessed on October 28, 2020).

greening at state, regional, and municipal levels;

- *green* demand is low, just beginning to form;
- there is no ecological infrastructure (both technological – waste processing, sewerage, etc., and institutional – regulatory and legal framework, certification systems, personnel training, and professional development, innovative development institutions and knowledge exchange platforms);
- orientation towards domestic tourism development does not promote the business to introduce *green* technologies due to a relatively weak form of domestic tourists' *green* needs.

At the same time, ignoring the issues of the accommodation sector greening because the business does not have significant incentives (effective demand) undermines the ability to achieve sustainable development goals and determines the low level of domestic accommodation establishments competitiveness in the domestic and world markets in the future. In the current conditions, accommodation establishments greening should be considered as a strategic goal, and today, in the context of the *green* economy national regulatory framework development, there are real opportunities and tools for this.

References

1. **Bogdanowicz, P.** (2001). European hoteliers' environmental attitudes: Greening the business. *Cornell Hotel and Restaurant Administration Quarterly*, *46*, 188-204.
2. **Bondarenko, T. I., & Mishulina, S. I.** (2019). "Zelenyj" spros kak faktor i uslovie ekologicheskoj modernizacii ekonomiki [Green demand as a factor and condition of the economy ecological modernization]. *Vestnik Volgogradskogo gosudarstvennogo universiteta: Seriya 3. Ekonomika. Ekologiya [Journal of Volgograd State University. Economics*], *21*(2), 99-112. doi: 10/15688/jvolsu.3.2019.2.9. (In Russ.).
3. **Chernovich, E., Miles, I. D., & Polyakova, V**. (2015). Household Technology and the Sustainability of Consumer Behavior in Moscow. *Sustainability, 8*(1), 32-37. doi: 10.1089/SUS.2015.0008.
4. **Chernovich, E., Polyakova, V. & Fursov, K**. (2015). Ekopraktiki i otnoshenie rossiyan k problemam okruzhayushchej sredy. Innovacionnoe povedenie naseleniya. Monitoring. [Eco-practices and the attitude of Russians to environmental problems. Innovative behavior of the population]. *Informacionnyj byulleten'. NIU VSHE [Monitoring. Newsletter National Research University – Higher School of Economics (HSE)]*, *2.* URL: https://issek.hse.ru/data/2015/09/25/1074029049/Экопрактики-россиян.pdf (Accessed on November, 25, 2020). (In Russ.).
5. **Dixon, S., & Clifford, A.** (2007). Ecopreneurship – a new approach to managing the triple bottom line. *Journal of Organizational Change Management, 20*(3), 326-345.
6. **Dukhovnaya, L. L.** (2020). Sravnitel'nyj analiz ispol'zovaniya koncepcii eco-friendly v rossijskoj i zarubezhnoj praktike gostinichnogo biznesa [Eco-friendly concept in Russian and foreign hotel business practice: A comparative analysis]. *Servis v Rossii i za rubezhom [Services in Russia and Abroad]*, *14*(2), 51-62. doi: 10.24411/1995-042X-2020-10205. (In Russ.).
7. **Flachenecker, F.** (2015). Sustainability, Resource Efficiency and Competitiveness. An Assessment of Resource Efficiency Policies in the European Union. *Bruges European Economic Research Papers, 32,* 1-37.
8. **Gómez Haro, S., Ferrón Vílchez, V., De la Torre Ruiz, J. M., & Delgado C.** (2015). What Motivates Hotel Managers to Become Ecopreneurs: A Case Study on the Spanish Tourism Sector. Handbook of Entrepreneurship and Sustainable Development Research (Ed. Kÿro, P). Edward Elgar Publishing. doi: 10.4337/9781849808248.00020.
9. **Koh, H.** (2017). The unseen scandal of hotel food waste. URL: https://www.eco-business.com/news/the-unseen-scandal-of-hotel-food-waste/ (Accessed on November, 07, 2020).
10. **McKeiver, C., & Gadenne, D.** (2005), Environmental management systems in small and medium businesses. *International Small Business Journal*, *23*(5), 513-537.

11. **Mishulina, S. I.** (2018). Institucional'nye, organizacionnye i ehkonomicheskie usloviya «zelenoj» transformacii industrii turizma [Institutional, Organizational and Economic Conditions for Tourism Industry "Green" Transformation]. *Vestnik VolGU. Seriya 3. Ekonomika. Ekologiya [Science Journal of VolSU. Global Economic System], 20*(2), 25-37. doi: https://doi.org/10.15688/jvolsu3.2018.2.3. (In Russ.).
12. **Mishulina, S. I.** (2014). Nasledie olimpiady: razvitie turistskoj infrastruktury [The legacy of the 2014 Olympics: the development of tourist infrastructure]. *Sovremennye problemy servisa i turizma [Service & Tourism: Current Challenges], 4,* 75-88. doi: 10.12737/6577. (In Russ.).
13. **Mohanty, S.** (2015). Hospitality Sector Staying Green for Competitive Advantage. URL: www.rsis-international.com (Accessed on October 28, 2020).
14. **Rao, P.** (2008). Environmental initiatives undertaken by entrepreneurs in the Philippines. *Journal of Entrepreneurship, 1*(1), 73-81.
15. **Rybak, O., & Rybak, E.** (2016) Application of climatic indices for evaluation of regional differences in tourist attractiveness. *Polythematic Online Scientific Journal of Kuban State Agrarian University*, *121,* 425-448. doi: 10.21515/1990-4665-121-016. (In Russ.).
16. **Rybak, O., & Rybak, E.** (2017). Evaluation of regional touristic attractiveness under conditions of changing climate. *Ecology. Economy. Informatics. Series: system analysis and modeling of economic and environmental systems, 1*(2), 453-461. (In Russ.).
17. **Yusof, Y., Awang, Z., Jusoff, K., & Ibrahim, Y.** (2017). The influence of green practices by non-green hotels on customer satisfaction and loyalty in hotel and tourism industry. *International Journal of Green Economics, 11*(1), 1–14. doi: 10.1504/IJGE2017.10003675.