Logistic Basis for Organizing Weekend Recreation for the Population of the Arkhangelsk Urban Agglomeration

© Aleksandr Yu. TSVETKOV, Ph.D. of Economic Sciences, Associate Professor
E-mail: a.cvetkov@narfu.ru
Northern (Arctic) Federal University named after M.V. Lomonosov, Arkhangelsk, Russia

Abstract. Weekend rest is an important part of a person's recreational cycle. Northerners need a good rest to maintain their health. The choice of a place for vacation is associated with restrictions on the time of movement, since its period should not be longer than 2–3 days. The purpose of the research is to select the most suitable transport areas for residents of the Arkhangelsk urban agglomeration, taking into account the landscape and tourist resources. Based on the study of vehicles and the geographical location of tourist services, three sectors were identified, limited by five–hour transport accessibility from the cities of the Arkhangelsk agglomeration. The most promising for priority development is the southern sector, the centers of which can be the villages of Kholmogory and Emetsk. Excursion, relaxation, ecological and sports tourism can be offered there at any time of the year. The transit position of the main roads of the region gives this sector the advantages of attracting tourists from other regions. The western and eastern sectors have significant recreational potential, but their use is constrained by poor transport accessibility. The western sector with the center in the city of Onega is promising for the development of seaside relaxation tourism in summer and sports tourism in winter. The eastern sector with two centers in the villages of Pinega and Karpogory is promising for ecological, sports and excursion tourism throughout the year.

Keywords: tourism, weekend recreation, transport accessibility, Arkhangelsk urban agglomeration.

Introduction

Holiday rest (weekend tourism, suburban tourism, weekend) is the most important component of a person’s weekly recreational cycle. Possibilities of spending a short break at the end of the week depend on good transport accessibility of potential destinations. Well-organized tourist infrastructure in an attractive recreational area provides additional opportunities for its touristic use not only for weekend rest, but also for quarterly and annual recreational cycles. The necessity to organize holiday rest is an important task to improve the standard of living in uncomfortable conditions of the Arctic. The problem of choosing a recreation place for residents of the Arkhangelsk urban agglomeration became especially relevant during the quarantine of 2020, when the possibilities of moving to other regions of Russia and the world were officially limited. Low population density, small number of roads and long distances between settlements in the Arkhangelsk region limit the choice of possible places for short-term rest to several traditional destinations near Arkhangelsk. But a good rest requires a change of scenery. Given that holiday tours generally cover 2-3 days (from Friday to Monday), well-organized logistics is an important condition for the development of such tourism [1].

In 2020, another concept for the development of tourism in the Arkhangelsk region was adopted. It indicates the prospective tourist zones, the main regional trends, the priority tourism
activities proposed for the region. However, there is no mention of weekend tourism in it. In our opinion, for the Arkhangelsk region, with its remoteness from the main centers of tourist flows, territorial disunity of attractive recreational facilities, the tourism development strategy should be associated, first of all, with local residents — consumers of the local tourist product. In this regard, weekend tourism is the most promising form of tourism.

Therefore, the aim of our study was to develop a strategy for choosing tourist destinations for short-term vacations, taking into account the recreational attractiveness and transport accessibility for the population of the Arkhangelsk urban agglomeration.

**Materials and methods**

Approaches to the study of weekend tourism (suburban tourism) are presented in the article of E.S. Vopilova [2]. The issues of organizing such recreation for residents of the Arkhangelsk agglomeration are discussed in the work of I.A. Potapov, A.S. Bezborodov [3]. These authors limit the area suitable for suburban tourism to a distance of 2-3 hours from the locations of tourism flows formation. This is due to the fact that this territory, called the “suburban area”, is adjacent to the outer boundaries of the agglomeration, determined by hour and a half transport accessibility from the center to the periphery during commuting [4]. Weekend recreation areas are now expanding beyond the suburban areas and are being developed in relatively remote areas [5]. With the improvement of transport accessibility (increased speed of travel, use of new modes of transport, increased comfort for night crossings), the border of weekend tourists movement can be postponed, conditionally limited by transport accessibility up to 8 hours [6]. We believe that with the existing transport geography of the Arkhangelsk region, the boundaries of the weekend recreation zone are at a distance of five hours of transport accessibility from the center of the agglomeration. Depending on the mode of transport used, this distance can be covered faster or slower, but it is not tiring for short-term rest.

Our research is based on materials obtained from the study of landscape preferences in choosing a recreation place of residents of the Arkhangelsk region [7]. Typical and unique landscapes of the northern part of the Arkhangelsk region were selected (this is the territory of the Arkhangelsk agglomeration), and on the basis of a sociological survey of potential tourists, the most attractive of them in aesthetic and emotional terms were identified. These were landscapes with water (rivers, lakes, sea), hills, karst and vegetation. The survey involved 50 people aged 18 to 55; they were offered 15 photographic scenes of landscapes in the north of the Arkhangelsk region. The respondents rated these scenes on a 7-point scale. The areas of greatest interest to respondents were landscapes of forest rivers and lakes (of considerable width and mirror area), seascapes, territories with morainic terrain and limestone cliffs of Pinega [7].

---

1. Ob utverzhdenii Kontseptsii razvitiya turizma v Arkhangel'skoy oblasti [On Approval of the Concept for the Development of Tourism in the Arkhangelsk Oblast]. URL: www.regulation.dvinaland.ru/docs/anti-corruption/3144/ (accessed 26 October 2020).
We compared the geographical distribution of such landscapes and transport routes in the territory logistically accessible for weekend tourism for the population of the Arkhangelsk urban agglomeration. After that, we examined the transport and geographical position of settlements that can be used as support centers for serving tourists. The distance from tourist accommodation to tourist facilities during weekend rest is limited not only by the time but also by the cost of travel. Therefore, as a criterion for the profitability of the transport and geographical location of the support centers for serving tourists, we used the material and time costs of potential tourists when moving from Arkhangelsk (the center of the agglomeration) to these settlements. We expressed the assessment of the time and cost of travel to the place of rest in points (Table 1). The sum of points at which the travel time and cost of regular flights were evaluated is a general indicator of the material and time expenditure of tourists. Since the territories differ in terms of tourist potential, we analyzed their possibilities for organizing recreational activities and identified a priority tourist specialization. Weekend tourism programs can include: relaxation tourism, excursion tourism, ecological tourism, sports tourism, rural tourism. We studied the current state of the tourist infrastructure within the transport accessibility for potential tourists of the Arkhangelsk agglomeration and identified the problems and advantages for the development of the tourist business in different areas of the territory under study. As a result of the research, we have identified the most promising places for the development of weekend tourism.

**Table 1**

| Travel time | Point | Travel costs       | Point |
|-------------|-------|--------------------|-------|
| up to 2 hours | 1     | up to 300 rubles  | 1     |
| up to 3 hours | 2     | up to 600 rubles  | 2     |
| up to 4 hours | 3     | up to 900 rubles  | 3     |
| up to 5 hours | 4     | up to 1200 rubles | 4     |

**Results and discussion**

The territory available for weekend tourism for residents of the urban agglomeration is limited by transport accessibility along the main highways departing from its centers. The Arkhangelsk region is characterized by a low density of roads (the density of highways is 11.4 km per 1000 km², of railways — 3 km per 1000 km²).

The Arkhangelsk urban agglomeration with a population of 570 thousand people (2020) is located in the north of the Arkhangelsk region. It includes Arkhangelsk, Novodvinsk, Severodvinsk cities and rural settlements located between them. Historically, the agglomeration core is Arkhangelsk. Novodvinsk originated from a remote area of Arkhangelsk as a result of separation from it. Severodvinsk, due to its military-industrial specialization, was originally a closed city, but after the abolition of this status, it became another agglomeration core. Independent recreation areas were formed around each city, representing gardening associations. Since some residents of the agglomeration come from suburban villages, their rest is associated with their “small homeland”. A few departmental recreation centers and pioneer camps within the boundaries of the agglomerat-
tion were owned by several enterprises. The only sanatorium “Belomor’e” is located at the southern border of the agglomeration. Most of these recreation centers have ceased to function. The “Belomorye” sanatorium in the Primorskiy District and the “Kiyskiy” rest house in the Onega District are still operating. They usually focus on an annual recreational cycle, but sometimes offer weekend tours. We do not consider them in this article. Thus, the weekend rest for the majority of Arkhangelsk urban agglomeration residents was originally represented by a dacha (or country) recreation.

Currently, the preferences of citizens in choosing a weekend rest have changed. With the increase in mobility and material capabilities, new requirements for places of rest have emerged. One can get from the cities of the Arkhangelsk agglomeration (Arkhangelsk, Severodvinsk, Novodvinsk) to potential recreation areas within a five-hour transport accessibility in five directions. These are the federal highway M-8, routing from the agglomeration to the south, the Arkhangelsk — Vologda railway, also directed to the south, the Arkhangelsk — Karpogory railway and the Arkhangelsk — Pinega highway, leading to the southeast and east (right bank of the Northern Dvina river) and the Severodvinsk — Onega highway (Onega tract), following to the west — southwest. The M-8 federal highway and the Arkhangelsk — Vologda railroad can be called the best. Several passenger transports operate daily in these directions. There is one passenger run on the Arkhangelsk — Karpogory railway (in summer there is one run every day in both directions, the rest of the time — one run four times a week). The roads “Arkhangelsk — Pinega” and “Severodvinsk — Onega” do not have a hard cover throughout their entire length, which increases the travel time, especially in the off-season.

Thus, on the basis of the existing geography of roads, three sectors can be distinguished in the five-hour zone of transport accessibility, where the development of weekend tourism for the Arkhangelsk agglomeration residents is possible: southern (settlements and tourist facilities are accessible along the M-8 highway and the Arkhangelsk — Vologda railway), western (accessibility along the Onega tract) and eastern (accessibility by the Arkhangelsk — Karpogory railway and the Arkhangelsk — Pinega highway). The southern sector includes the south of the Primorskiy administrative region of the Arkhangelsk region, the Kholmogorskiy region, the north and east of the Plesetsk region (up to Plesetsk town), the west of the Vinogradovskiy region (up to Dvinskoy Bereznik town). The western sector includes the west of the Primorskiy and northeast of the Onega regions (up to Onega town). The eastern sector includes the southeast of Primorskiy, north and north-east of Kholmogorskiy, north and north-east of Pinezhskiy districts (Fig. 1). It is necessary to take into account the presence of local roads within each sector, which can also be used for the movement to places of rest (for example, the Kudem narrow-gauge railroad between Severodvinsk and Beloe Ozero village).
Let us consider tourist resources of the allocated sectors of the weekend recreation area in places with the most attractive landscapes for potential tourists.

Southern sector. It is characterized by vast aquatic taiga landscapes (lakes: Kholmovskoe, Smerdye, Siyskie, Obozero, rivers: Northern Dvina in the middle and lower reaches, Emtsa, Vaymuga, Onega in the middle reaches). They can be used both for relaxation tourism (rest on the shores of a picturesque waterway) and for sports tourism (kayaking, yachting). Moraine relief with level differences is encountered throughout the sector. This is a favorable factor for the recreation of population living on the flat territory of the Arkhangelsk agglomeration, as it contrasts with the usual environment. In addition, the slopes of the moraine hills can be used for skiing (as at the Mechka camp site, where ski slopes are equipped). A clear advantage of this sector is the presence of region’s oldest settlements with excursion potential. These are large villages (formerly cities) Kholmogory and Emetsk, which are older than Arkhangelsk. Kholmogory is known as the birthplace of M.V. Lomonosov (Kurostrov island, where the scientist was born, is located nearby). However, this fact is not used as a tourist brand of the territory, which is why Kholmogory is losing opportunities for the development of excursion tourism. In Kholmogory and the surrounding area, there are monuments of church architecture (the Antonievo-Siyskiy monastery, ancient temples).

The territories along the banks of the Northern Dvina are old-developed, local villages can be used for rural recreation. The part of the southern sector, which is adjacent to the railway, may also be interesting because the way to the Kenozerskiy National Park begins from the Pleietsk station, which makes it possible for the development of ecological tourism. Besides, there is Mirnyy city near Pleietsk, which can be visited by tourists, but this requires a special pass, which limits access to it. The main specializations of the southern sector are excursion, relaxation, ecological
and rural tourism. Tourist and rural tourism facilities are available all year round. The main tourist service centres in this sector can be Kholmogory, Emetsk, Plesetsk.

The main advantage of the western sector is the presence of the sea and the beach line of the eastern coast of Onega Bay (Pokrovskoe — Tamitsa), which is favorable for relaxation tourism. The seascapes of the Onega coast of the White Sea are highly appreciated by potential tourists. Together with pine forests and moraine relief, a favorable microclimate for summer holidays is created by the sea. Sports tourism is also possible. There is a slalom track with a drag lift on Molodezhnaya mountain, near Onega. Onega has a local history museum, a house-museum of the Arctic explorer A. Kuchin. In the vicinity there are villages with preserved ancient buildings, monuments of church architecture (Vorzogory). Hence, rural tourism is possible. The peculiarity of this sector is its seasonality. In summer it is mainly seaside relaxation, in winter — sports tourism. Rural tourism can be realized all year round. The center of tourism service can be Onega city. The development problem is the difficult transport accessibility along the Onega highway. However, the resumption of railway communication on the Arkhangelsk — Onega route may improve the situation.

The eastern sector begins with the largest attraction of the region — the museum of wooden architecture Malye Korely, which is located 20 km from Arkhangelsk. The territory has a moraine relief, which also resonated with potential tourists. An important tourist resource of this sector is the karst relief and caves along the banks of the Pinega river, which are called by potential tourists the most exotic and contrasting places in the region. The Pinega Nature Reserve is located near the Pinega river, the adjacent territories are conducive to the development of ecological tourism. The Pinega river is used for sports tourism. Hilly terrains are used for skiing. Local villages are also among the oldest settlements in the region; their authenticity and the opportunity to live far from civilization contribute to the development of rural tourism. Thus, the specializations of tourism in this sector can be excursion, sports, ecological and rural recreation. The seasonality of visiting the caves should be noted (only in the cold season). The villages of Pinega and Karpogory can be proposed as reference centers for the development of weekend tourism. Sector development is hampered by poor transport accessibility.

Space-time costs. We identified possible routes of transport accessibility of potential weekend recreation sites based on an analysis of the public transport schedule.

The destinations in the southern sector are the most equipped with regular routes for passenger transportation. At the same time, the Kholmogory part of the sector is accessible by motor transport along the federal highway M-8, the Plesetsk part — along the Arkhangelsk — Vologda railway (the shortest route) and along the local paved road. There are 6 direct passenger bus routes to Kholmogory daily and up to 16 transit routes from Arkhangelsk and Severodvinsk. Travel time is on average 1 hour 25 minutes, travel costs — from 240 rubles. There are 5 direct and up to 16 transit bus routes daily from Arkhangelsk and Severodvinsk to Emetsk. Travel time is on average 2 hours 20 minutes, travel costs — from 500 rubles. The M-8 highway is the main one in the
Arkhangelsk region. There are several local roads to move between settlements within the sector. The Novodvinsk — Kholmogory road, which runs parallel to the federal highway along the Northern Dvina, is an alternative route that can be used to get from the agglomeration to Kholmogory, but the quality of its coverage is worse. In the area of Kholmogory and Ust’-Pinega there are ferries across the Northern Dvina, which allow to get to the Arkhangelsk — Pinega road in the eastern sector of the sector, to visit the sights of the Pinezhskiy region. On the M-8 highway, one can get to Dvinskoy Bereznik, the southern outskirts of this sector, in 3 hours 40 minutes. There are up to 13 direct and transit bus routes from Arkhangelsk and Severodvinsk per day. The travel cost is from 1 174 rubles. Plesetsk can be reached by five regular railway routes from Arkhangelsk and Severodvinsk (travel time is up to 5 hours, travel costs — from 400 rubles). In addition, there are 6 bus routes (direct and transit) from Arkhangelsk and Severodvinsk to Plesetsk. The travel time is 4–5 hours, travel costs — from 490 rubles.

The eastern sector has the smallest density of roads. The Primorskaya, North-Kholmogorsk and North-Pinega parts of the eastern sector are accessible by the Arkhangelsk — Pinega road, the Karpogorsk part — by the Arkhangelsk — Karpogory railway. In the immediate vicinity of Arkhangelsk there are the most famous destinations — the museum of wooden architecture Malye Korely, the temple complex in Lyavllya, the ski slope in Koskovo. These facilities are located along the Arkhangelsk — Pinega road and are the most accessible by transport. A regular bus to Malye Korely from Arkhangelsk makes 24 runs a day on weekdays and 19 runs on weekends. There are 2 regular runs to Koskovo a day. Further, the quality of the road surface decreases, asphalt is not available everywhere. But this is the only route along which one can get to Pinega and the most exotic sights of the Arkhangelsk region — karst landscapes. There is one daily bus trip from Arkhangelsk to Pinega, travel time is on average 4 hours. The cost is 750 rubles. The tourist complex Golubino, which is located near Pinega, has a transfer for tourists. The road can be impassable during the off-season. The train to Karpogory makes one daily trip in the summer and one trip four times a week during the rest of the year. Travel time is 5 hours 5 minutes, travel costs — from 606 rubles. Karpogory can also be reached by the Pinega — Karpogory highway, but it has a poor quality and does not function in the off-season. There are no official bus passenger runs from Arkhangelsk to Karpogory, but taxis run daily. A dirt road from Karpogory, sometimes turning into a country road, stretches along the coast of Pinega further through the villages.

The western sector is currently accessible only along the Onega tract. The road is partially asphalted, in the off-season its passability deteriorates. There are 2 bus routes daily from Arkhangelsk, travel time is 4 hours 45 minutes, cost — from 650 rubles. There is an alternative, more comfortable route along the Arkhangelsk — Vologda railway to the Obozerskaya station, then along the Obozerskaya — Belomorsk railway line. However, there is currently no direct passenger traffic on the Arkhangelsk — Onega route.
Space-time costs of travelling to places of rest in the above-mentioned centers of each sector of the weekend recreation area are expressed in points (Table 2). The lower the point, the lower the travel cost.

Table 2

The results of assessing the material and time costs of tourists (compiled by the author)

| Sector, support center | Distance from Arkhangelsk in a straight line, km | Travel time, points | Travel costs, points | Overall rating, points |
|------------------------|-----------------------------------------------|---------------------|---------------------|------------------------|
| South-central sector   |                                               |                     |                     |                        |
| Kholmogory             | 64                                            | 1                   | 1                   | 2                      |
| Emetsk                 | 133                                           | 2                   | 2                   | 4                      |
| Plesetsk (train)       | 203                                           | 4                   | 2                   | 6                      |
| Plesetsk (bus)         | 203                                           | 4                   | 2                   | 6                      |
| Dvinskoy Bereznik      | 216                                           | 3                   | 4                   | 7                      |
| Eastern sector         |                                               |                     |                     |                        |
| Pinega                 | 138                                           | 3                   | 3                   | 6                      |
| Karpogory              | 199                                           | 4                   | 3                   | 7                      |
| Western sector         |                                               |                     |                     |                        |
| Onega                  | 150                                           | 4                   | 3                   | 7                      |

Thus, the lowest material and time costs are for tourists visiting Kholmogory and Emetsk, the highest — for those visiting Dvinskoy Bereznik, Onega and Karpogory. It is noteworthy that with almost the same distance of some support centers from Arkhangelsk (Emetsk and Pinega, Plesetsk and Dvinskoy Bereznik, Plesetsk and Karpogory), their total points of material and time costs differ. The probable reasons for this are poor transport organization and roads quality (in case of Pinega).

Provision of recreational facilities for tourists in sectors of holiday area

We have analyzed the proposals for tourists’ accommodation, which are offered on the official tourist portal of the Arkhangelsk region, as well as from some tour operators. Common features of accommodation facilities that can be used for weekend tourists (as well as for longer vacations and not only for residents of the Arkhangelsk agglomeration) are their small capacity. Small hotels and tourist centers prevail, many of which are more consistent with the status of a guest house (Table 3). Most of the hotels and hostels do not have a “star” certification. One of the reasons for this is the inconsistency with modern standards, small number of rooms, lack of amenities in the room and the minimum list of services provided to guests. Some accommodation facilities operate only during the warm season. There are few classic country hotels. Most of the accommodation facilities are designed for group or family visits. Bathhouses, barbecue, fishing (hunting) are among the attractions that owners of accommodation facilities can offer to tourists. Such approach to the recreation organization limits the contingent of potential tourists and deprives the opportunity of choice.
As the table 3 shows, most of the accommodation facilities are in the southern sector of the weekend tourism zone of the Arkhangelsk agglomeration. Recreation centers and guest houses prevail here. Four out of seven hotels are located in Plesetsk, there are no large ones among them. The only classic country hotel-club is located in the Primorsky district in the village of Belomorye, its capacity is 32 beds. The average capacity of recreation centers is 30 beds, the largest base, Mechka, is designed for 100 beds.

Hotels prevail in the eastern sector, but there are only two large ones — one is located in the village of Malye Karely, the other is in Golubino. It should be noted that these are specially created country hotels with a developed program of attractions for tourists. Hotels also prevail in the western sector, all of them are located in Onega, only two of them are relatively large. One of them is built specially for sportsmen — skiers, it is also used by sports tourists. In this sector there is a classic seaside holiday home Kiy-Ostrov (open in summer). However, it cannot offer tourists comfortable accommodation, since its rooms are not provided with amenities. The western sector has an advantage in the number of locations only due to three large objects. Thus, there are 45 official accommodation facilities with 1728 beds in a potential weekend recreation area for residents of the Arkhangelsk urban agglomeration. At the same time, the population of the agglomeration is about 600 thousand people (2020). The territory is also visited by tourists from other regions; therefore, the available fund of accommodation facilities is not enough. According to I.A. Potapova, A.S. Bezborodov, in 2009 the total number of accommodation places for weekend tourists was 1122 beds (the authors considered the suburban tourism zone, which includes only Primorskiy and Kholmogorskiy districts) [3]. At present, the number of beds has decreased to 861 (excluding the Belomorye sanatorium). Old camp sites, designed for a significant number of tourists, have closed; new accommodation facilities are usually small in capacity. As the research data show, the most promising area for tourist infrastructure development is the Kholmogory part of the southern sector. Kholmogory and Emetsk, potential support centers of this part, are the most accessible by transport; tourists from the Arkhangelsk agglomeration will have the lowest material and time costs when travelling there. In addition, the natural landscapes are attractive to potential tourists, and the resources located there allow the development of several directions of tourism that can be used in any season. The advantage of the southern sector is its transit. From its territory one can get to the eastern and western sectors for excursion purposes, while the main place of

### Table 3

| Sector   | Hotels (total number of places/number of objects) | Recreation centers (total number of places/number of objects) | Guest houses (total number of places/number of objects) | Rest houses (total number of places/number of objects) | Total (total number of places/number of objects) |
|----------|-------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------|--------------------------------------------------|
| Southern | 295/7                                           | 340/8                                                       | 111/9                                                  | -                                                    | 746/24                                           |
| Eastern  | 326/4                                           | 62/1                                                        | 93/6                                                   | -                                                    | 481/11                                           |
| Western  | 250/4                                           | 20/1                                                        | 51/4                                                   | 180/1                                                | 501/10                                           |
| Total    | 871/15                                          | 422/10                                                      | 255/19                                                 | 180/1                                                | 1728/45                                          |

As the table 3 shows, most of the accommodation facilities are in the southern sector of the weekend tourism zone of the Arkhangelsk agglomeration. Recreation centers and guest houses prevail here. Four out of seven hotels are located in Plesetsk, there are no large ones among them. The only classic country hotel-club is located in the Primorsky district in the village of Belomorye, its capacity is 32 beds. The average capacity of recreation centers is 30 beds, the largest base, Mechka, is designed for 100 beds.

Hotels prevail in the eastern sector, but there are only two large ones — one is located in the village of Malye Karely, the other is in Golubino. It should be noted that these are specially created country hotels with a developed program of attractions for tourists. Hotels also prevail in the western sector, all of them are located in Onega, only two of them are relatively large. One of them is built specially for sportsmen — skiers, it is also used by sports tourists. In this sector there is a classic seaside holiday home Kiy-Ostrov (open in summer). However, it cannot offer tourists comfortable accommodation, since its rooms are not provided with amenities. The western sector has an advantage in the number of locations only due to three large objects. Thus, there are 45 official accommodation facilities with 1728 beds in a potential weekend recreation area for residents of the Arkhangelsk urban agglomeration. At the same time, the population of the agglomeration is about 600 thousand people (2020). The territory is also visited by tourists from other regions; therefore, the available fund of accommodation facilities is not enough. According to I.A. Potapova, A.S. Bezborodov, in 2009 the total number of accommodation places for weekend tourists was 1122 beds (the authors considered the suburban tourism zone, which includes only Primorskiy and Kholmogorskiy districts) [3]. At present, the number of beds has decreased to 861 (excluding the Belomorye sanatorium). Old camp sites, designed for a significant number of tourists, have closed; new accommodation facilities are usually small in capacity. As the research data show, the most promising area for tourist infrastructure development is the Kholmogory part of the southern sector. Kholmogory and Emetsk, potential support centers of this part, are the most accessible by transport; tourists from the Arkhangelsk agglomeration will have the lowest material and time costs when travelling there. In addition, the natural landscapes are attractive to potential tourists, and the resources located there allow the development of several directions of tourism that can be used in any season. The advantage of the southern sector is its transit. From its territory one can get to the eastern and western sectors for excursion purposes, while the main place of
stay can be hotels, recreation centers and guest houses in the southern sector. Transit includes roads that pass through the southern sector (the M8 highway, the Arkhangelsk — Vologda railway), along which tourists from other regions come to Arkhangelsk. During the summer, they use the ferries in the Kholmogory region to get to the sights of Pinega. This fact should be taken into account when planning the creation of accommodation facilities. Comfortable roadside hotels, motels could be a good incentive to attract tourists there. Kholmogory is the closest historical settlement to the Arkhangelsk agglomeration, which can be used as a place for a short-term rest when creating the appropriate infrastructure. The presence of preserved church architecture, the memorial museum of M.V. Lomonosov, the local history museum, bone carving craft can become a basis for the development of various excursion programs. The creation of a recreational environment in the village will attract tourists and improve the quality of life of local residents. The vast rural landscapes presuppose the development of special estates, which are designed to immerse themselves in the life of the villagers. This direction of tourism is gaining popularity. The development and popularization of recreation in country hotels located on the banks of rivers and lakes in a small distance from the city will help to realize the recreational cycles of agglomeration residents. The impetus for the development of the western sector of the weekend tourism zone will be the resumption of railway passenger traffic from Arkhangelsk to Onega and the improvement of quality of the Onega tract coverage. This will help to make sector destinations more accessible. The prospects for the western sector are in the development of seaside relaxation tourism, since this is the most favorable place for such a vacation in the Arkhangelsk region. At the same time, it is possible to implement not only a weekly, but also an annual recreational cycle. It is successfully carried out in the oldest operating recreation center Kiyskiy, which is located there. Since seaside tourism is in seasonal demand, it would be advisable to disperse the number of rooms in mini-hotels and guest houses in summer cottages on the coast of Onega Bay. Winter tourism is associated with the existing ski complex. There is a potential for the creation of other similar complexes in this area. The eastern sector of the weekend tourism zone is distinguished by the existence of two centers, the availability of which is non-competitive. One can get to Karpogory by passenger train, to Pinega — only by bus. At the same time, the only road by which one can get from the Arkhangelsk agglomeration has a poor quality of coverage. The prospects for this sector are related to the complete reconstruction of the road to Karpogory. The development impulse is possible with the extension of the railway from Karpogory to the Komi Republic, which will make this territory a transit area and expand the circle of potential tourists. For the eastern sector, ecological, excursion and rural tourism, excursions to the neighboring southern sector will be promising.

**Conclusion**

As a result of the study, it was found out that the territory where it is advisable to develop weekend recreation for the population of the Arkhangelsk urban agglomeration is limited by a
five-hour transport accessibility line along five highways: the M8 highway (final point — Dvinskoy Bereznik), the Arkhangelsk — Vologda railway (final point — Plesetsk) and the Arkhangelsk — Karpogory railway (final point — Karpogory), local roads Arkhangelsk — Pinega (final point — Pinega) and Severodvinsk — Onega (final point — Onega). Thus, this territory can be divided into three sectors, depending on the direction of the road departing from the agglomeration: the southern sector (transport accessibility of tourism facilities along the M8 highway and the Arkhangelsk — Vologda railway), the western sector (accessibility along the Severodvinsk — Onega road), the eastern sector (accessibility on the roads Arkhangelsk — Pinega and Arkhangelsk — Karpogory).

Promising tourist specialization of the southern sector can be excursion, relaxation, ecological and rural tourism, of the western sector — seaside relaxation, sports and rural tourism, of the eastern — ecological, excursion, sports and rural tourism. Analysis of the accommodation availability for potential tourists showed that the simultaneous capacity of hotels, recreation centers, and guest houses located there is 1728 beds in 45 accommodation facilities. Most of them are in the southern sector. Small hotels and recreation centers prevail, many of them have not been certified for star quality due to the scarcity of services provided. The problem of organizing weekend recreation in the region is mono-orientation of the offered attractions. Visitors are supposed to come there in large groups, individual rest is possible in rare cases. Analysis of the material and time costs of potential tourists showed that the lowest level of them will be when visiting the Kholmogory part of the southern sector. Consequently, tourism facilities located there are most accessible by public transport for tourists from the Arkhangelsk agglomeration. Taking into account the transit position of this area on the main roads of the Arkhangelsk region, it can be assumed that its tourist infrastructure and objects of exhibition will be in demand by tourists from other regions travelling to the north. Kholmogory and Emetsk, the oldest settlements in the Arkhangelsk region, can become the main of the tourist service centers in the southern sector. Moreover, Kholmogory and the surrounding area with significant tourist potential can become one of the main tourist centers in the north of the region. The main attention should be paid to the country hotels establishment. Development of the western and eastern sectors is limited by low quality of roads. Therefore, measures are needed to improve their transport accessibility for tourists. In this case the advantages of the western sector as a center of seaside relaxation tourism, and the eastern one as a center for ecological and sports tourism can be fully exploited.

Thus, as a supplement to the adopted concept of tourism development in the Arkhangelsk region, the cluster “Weekend tourism” should be added. Its resource base will be the southern sector of the weekend recreation area allocated by us, including the Kholmogory district with transport accessibility along the M-8 highway. As an alternative weekend rest, short-term cruises along the Northern Dvina, the White Sea, rail trips, which are becoming popular in the world and are well within the time frame of a given tourist destination, can be offered [6, 9, 10].
References

1. Aleksandrova A.U. Geografiya turizma [Geography of Tourism]. Moscow, Knorus Publ., 2013, 256 p. (In Russ.)
2. Vopilova E.S. Podkhody k izucheniyu prigorodnogo turizma na primere Permskogo kraya [Approaches to the Study of Suburban Tourism on the Example of the Perm Region]. Geografiya i turizm [Geography and Tourism], 2006, iss. 4, pp. 66–80.
3. Potapov I.A., Bezborodov A.S. Prigorodnyy turizm v Arkhangel'skoy aglomeratsii [Suburban Tourism in Arkhangelsk Agglomeration]. Ekologicheskie problemy Severa [Environmental Problems of the North], 2009, iss. 12, pp. 178–184.
4. Iglovskaya N.S. Problemy vydeleniya granits i otsenki ekonomiko-geograficheskogo polozheniya Arkhangel'skoy aglomeratsii [Boundary Determination and Assessment of the Economic and Geographical Location of the Arkhangelsk Agglomeration]. Vestnik Severnogo (Arkticheskogo) Federal'nogo universiteta. Ser.: “Estestvennye nauki” [Vestnik of Northern (Arctic) Federal University. Ser.: Natural Sciences], 2014, no. 1, pp. 5–12.
5. Potapov I.A. Rayonnaya planirovka (territorial'noe planirovanie) [District Planning (Territorial Planning)]. Moscow, Gardariki Publ., 2006, 398 p. (In Russ.)
6. Potapov I.A. Vozmozhnosti razvitiya zheleznodorozhnogo turizma v Arkhangel'skoi oblasti dlya otdyha vykhodnogo dnya [Opportunities for the Rail Tourism Development in the Arkhangelsk Region for a Weekend Rest]. Servis v Rossii i za rubezhom [Services in Russia and Abroad], 2020, vol. 14, no. 2 (89). DOI:10.244111/195-042x-2020-10211
7. Potapov I.A. Esteticheskaya i emotsional'naya otsenka prirodnikh peyzazhei severnykh rayonov Arkhangel'skoy oblasti [Aesthetic and Emotional Evaluation of Natural Landscapes in the Arkhangelsk Region Northern Districts]. Vestnik Pomorskogo Universiteta. Ser.: “Estestvennye nauki” [Vestnik of Pomor University. Ser.: Humanitarian and Social Sciences], 2009, no. 3, pp. 48–54.
8. Potapov I.A. Metodicheskie podkhody k analizu transportno-geograficheskogo polozheniya rekreacionnykh ob"ektov (na primere Arkhangel'skoy oblasti) [Methodological Approaches to the Analysis of Transport-Geographical Location of Recreational Objects (the Example of Arkhangelsk Region)]. Servis v Rossii i za rubezhom [Services in Russia and Abroad], 2016, vol. 10, no. 4 (65). DOI:10.12737/20182
9. Pashkevich A., Stjernström O., Lundmark L. Natur-Based Tourism, Conservation and Institutional Governance: a Case Study from the Russian Arctic. The Polar journal, 2016, no. 1, pp. 112–130.
10. Camargo B.A., Garza C.G., Morales M. Railway Tourism: An Opportunity to Diversify Tourism in Mexico. Railway Heritage and Tourism: Global Perspectives, 2014, pp. 151–165. DOI: 10.21832/9781845414399-015

Received on October 26, 2020