The article deals with the geographical and logistical aspects of sustainable development of urban tourism under the conditions of overtourism, in particular the strategies, measures and proposals for sustainable development. The main terms of overtourism, such as: tourist flow and its characteristics, capacity of tourist destination, capacity of hotel base, capacity of restaurant base, transport and tourist potential are covered. Their connection with tourism logistics on the one hand and social geography on the other is shown. On the example of Lviv and the Concept of Tourism Decentralization, adopted in this city within the framework of the Tourism Development Strategy for 2021, geographical and logistical approaches to overtourism are showed, in particular through the vertical and horizontal diversification of tourist flows in the central part of the city. Other problems of overtourism in Lviv (processing of urban and tourist waste, cases of intimate tourism, tourist safety problems, etc.) are reflected and ways of solving these problems (due to the development of conference tourism, blogger tourism, etc.) are suggested.

Vertical diversification of tourist flows is carried out in the center of Lviv by dividing the tourist flows up and down. Up means new tourist routes such as Lviv Roofs and tourists visiting newly opened restaurants on the buildings highest floors on the Market Square – "Galichyna Highest Restaurant" and "Haute Cuisine Restaurant". Down means the introduction of underground tourist routes under the Rynok Square – from Lviv City Hall to I. Pidkova Square, where a restaurant and a museum are planned. Horizontal diversification of tourist flows means the expansion of the city tourist territory by creating a "second Lviv center" on the basis of Shevchenko Avenue and Hrushevskiy Square with such interesting tourist sites as the M. Hrushevsky monument, the old building "Lviv University" (the so-called "Habsburg University", that now houses the Geological and Biological Faculties of Ivan Franko LNU), the "Shkotska" ("Scottish") coffee house, where Lviv Mathematical School members met in informal settings in the 20-30's.

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Lviv Roofs and tourists visiting newly opened restaurants on the buildings highest floors on the Market Square – "Galichyna Highest Restaurant" and "Haute Cuisine Restaurant". Down means the introduction of underground tourist routes under the Rynok Square – from Lviv City Hall to I. Pidkova Square, where a restaurant and a museum are planned. Horizontal diversification of tourist flows means the expansion of the city tourist territory by creating a "second Lviv center" on the basis of Shevchenko Avenue and Hrushevskiy Square with such interesting tourist sites as the M. Hrushevsky monument, the old building "Lviv University" (the so-called "Habsburg University", that now houses the Geological and Biological Faculties of Ivan Franko LNU), the "Shkotska" ("Scottish") coffee house, where Lviv Mathematical School members met in informal settings in the 20-30's. Therefore, for urban tourism it is now an important task to effectively manage the flows of tourists in cities to ensure the sustainability of integrated urban development. The need for reconciling urban tourism with urban development is indicated by the "New UN Urban Development Program", which outlines 17 goals for their sustainable development [3]. The relevance of this topic is confirmed by the study "Overtourism? Understanding and Managing Urban Tourism Growth Beyond Perceptions", commissioned by UNWTO and based on analysis of data from 8 European cities (Amsterdam, Barcelona, Berlin, Copenhagen, Lisbon, Munich, Salzburg, Tallinn) by experts from the Center for the Recreation, Tourism and Hospitality Expertise of University of Brad (Netherlands), European Tourism Institute of the Future of University of Stenden (Netherlands), with the support of the European Tourism Association and city authorities of respective cities. The perception of tourism and tourists by residents of European cities has been evaluated and Program of strategies (11) and measures (68) has been developed to prevent over-concentration of tourist flows in European cities. Their content was first disclosed in Ukraine in a recent publication by the author [5]. Strategies, measures and proposals to ensure the sustainable development of overtourism and urban tourism include mandatory consideration of logistical and socio-geographical (regional) features. The connection with logistics (logistical aspect) is evidenced by using in overtourism and urban tourism context such terms as: tourist flow and its characteristics, in particular magnitude, dynamics, rhythm, density, concentration and dispersion; capacity of tourist destination (one-time, daily, monthly,

Formulation of the problem. Nowadays, the tourist industry in the world is developing dynamically, the number of tourists is increasing, while the density of tourists is not the same, since tourist flows are concentrated in the most popular destinations. Such places with high density of tourists are, first of all, the largest cities – capitals and historical ones. Cultural, educational, architectural, entertaining and other types of tourism attract millions of tourists to such cities. Accordingly, there is the phenomenon of overtourism, which is increasingly being paid attention in the modern world. This is especially important in view of the need to ensure the sustainability of tourism development in cities and the sustainability of cities themselves. This is evidenced by the documents of the UN, UNESCO and UNWTO, where the problem of sustainable and urban tourism is regarded as one of the most pressing.

Analysis of recent research and publications on the topic of the study showed that this topic has not been developed sufficiently in Ukraine. Instead, several works of the author are devoted to the problem of sustainable development of urban tourism in the world and in Ukraine [5; 6 etc.]. Also, the relevance of the article is evidenced by a study commissioned by UNWTO in 2017 *Overtourism? Understanding and managing urban tourism growth beyond perceptions* [3].

Research methodology. It is based on geographical and logistical categories in relation to urban tourism in the conditions of overtourism, in particular these are indicators of capacity of tourist destination, its resource potential and potential of hotel-restaurant and transport infrastructure, as well as reflection of regional (geographical) features of tourism processes, in particular tourist decentralization, concentration and dispersion.

The purpose of the article is to reveal the essence, socio-geographical and logistical features of urban tourism in the conditions of overtourism on the examples of world and Ukrainian tourist practices.

Outline of the main research material. Recently the term "overtourism" has appeared in the tourism literature [3], which reflects the acute nature of the problem of managing growing tourist flows, particularly in urban destinations. Today, more than half of the world's population is already living in cities, by 2050 this figure will reach 70%. The increasing number of urban tourists increases the consumption of natural and tourist resources of cities, exerts socio-cultural influence and increasing pressure on urban infrastructure. Therefore, for urban tourism it is now an important task to effectively manage the flows of tourists in cities to ensure the sustainability of integrated urban development. The need for reconciling urban tourism with urban development is indicated by the "New UN Urban Development Program", which outlines 17 goals for their sustainable development [3]. The relevance of this topic is confirmed by the study "Overtourism? Understanding and Managing Urban Tourism Growth Beyond Perceptions", commissioned by UNWTO and based on analysis of data from 8 European cities (Amsterdam, Barcelona, Berlin, Copenhagen, Lisbon, Munich, Salzburg, Tallinn) by experts from the Center for the Recreation, Tourism and Hospitality Expertise of University of Brad (Netherlands), European Tourism Institute of the Future of University of Stenden (Netherlands), with the support of the European Tourism Association and city authorities of respective cities. The perception of tourism and tourists by residents of European cities has been evaluated and Program of strategies (11) and measures (68) has been developed to prevent over-concentration of tourist flows in European cities. Their content was first disclosed in Ukraine in a recent publication by the author [5]. Strategies, measures and proposals to ensure the sustainable development of overtourism and urban tourism include mandatory consideration of logistical and socio-geographical (regional) features. The connection with logistics (logistical aspect) is evidenced by using in overtourism and urban tourism context such terms as: tourist flow and its characteristics, in particular magnitude, dynamics, rhythm, density, concentration and dispersion; capacity of tourist destination (one-time, daily, monthly,
seasonal, annual); capacity of hotel base (number of placements, total and by categories, capacity seasonal and annual); capacity of restaurant base (number of seats, total and by categories, capacity seasonal and annual); transport and tourism potential (length of transport routes, including by modes of transport, quality of transport routes, including by categories, density of transport routes, including by transport modes, capacity of transport infrastructure, by type of transport). At the same time, each term of overtourism has a socio-geographical (regional) dimension, that is, local differences, which require mandatory consideration in these logistic strategies and activities.

Therefore, urban tourism is becoming more and more popular in Ukraine and in the world today. It has its own peculiarities due to the high concentration of tourists in the limited area of cities, especially in their central and historical parts. In this connection, there is a problem of increasing the tourist load on the tourism resource base in cities (overtourism), which can lead to its deterioration and degradation. This problem can be solved with the help of a logistical approach to sustainable development of urban tourism [6]. The attention to this problem in the scientific literature is still insufficient, although in the practical management of urban tourism development this problem is already well known and reflected in the development and adoption of relevant documents, for example, in Lviv, where the "Concept of tourism decentralization" was recently adopted within "Strategy for the development of tourism in the city until 2021" [6]. In particular, this concept involves the use of intangible cultural heritage in the course of tourist "unloading" of Lviv center (Market Square and Svobody Avenue) by: 1) creating a "second center" of the city through more active involvement in tourism of Shevchenko Avenue with M. Hrushevsky Square (interesting objects here – the monument to M. Hrushevsky, the old building of the Lviv University (so-called "Habsburg University", now houses of geological and biological faculties of Ivan Franko LNU), the cafeteria "Shkotska" (Scottish – nowadays a restaurant), connected with activities here in the pre-war period of so-called "Lviv Mathematical School" under the leadership of S. Banah and S. Ulam; 2) expansion of the tourist territory of the city at the expense of peripheral sections – Sykhiv, Mayorivka, Lewandivka etc. (a guidebook "Tourist Sykhiv" is published); 3) launching "Lviv +" excursion with visits to towns close to Lviv, such as Zhovkva (former royal residence) and Drohobych (the home of the famous artist Bruno Schultz and the oldest salt works in Ukraine). We can add that the attention is paid too to the development of tourism in the city center but the requirement of its tourist unloading is fulfilled by: a) development of an underground tourist route from Kornyakt Tower to I. Pidkova Square with the creation of underground city museum and restaurant in the underground of Town Hall; b) the opening of a new tourist route "Lviv Roofs" with visits to recently created restaurants on the top floors of the buildings on the Market Square ("Galicia’s Highest Restaurant" and "Very High Cuisine Restaurant" – these conceptual establishments create a modern page of Lviv gastronomy development and belong to the well-known restaurant concern "I FEST").

In addition to the above material, we add that in Lviv it was planned to create a whole underground camp for tourists. Local MPs approved the Detailed Territorial Plan, which envisages the transformation of urban dungeons into tourist routes. But before that, the authorities of Lviv want to find out all the nuances of property rights to underground spaces and their suitability for walking. It is also already known that some of the dungeons need financial investments, as they need to be properly equipped and made safe for tourists. Lviv deputy mayor reported about these plans to the media: "Several underground routes are already in operating as excursion routes. Now it is about the next stage when other routes will be opened. But before doing this, some research should be done, for example, to take soil samples to determine its stability and so on. Also, the city is actively working on the creation of an underground museum of the city, which will have enough basements for excursions. It is also planned to conduct underground excursions under the most iconic monuments of Lviv, such as the Kornyakt Tower, the Dominican Cathedral, the Italian Courtyard, the Town Hall, the Rynok Square, Ivan Pidkova Square, St. Peter and Paul Church. In this case, individual sections of the underground route will get their names, it is possible that for the "underground" tourists will be created their own information center and guides will work at these locations. Work will be done to strengthen the tourist trails, arrange ventilation, etc. so that tourists will be as comfortable and safe as possible. It will take about 5 years to complete the entire 800 m underground route, and the first phase will take about 1 year to complete. There are now separate underground locations in some churches, under the Town Hall on Rynok Square, so the goal is to connect them all together in one route. The demand for underground excursions is projected to go wild, and the excursions themselves will be by groups. Each guide can take an underground walk with up to 15 people. Practice has shown that there are many tourists who want to visit the urban dungeons. By the way, excursions to the roofs of Lviv houses (they cost from 100 to 600 UAH) were an innovation, while underground excursions will be the next highlight for tourists. Local residents believe that such excursions will be interesting for the citizens of Lviv as well.

Let's add, that visiting underground monuments is widespread in the world and has a huge success among tourists. For example, the underground city of Cappadocia in Turkey is included in the UNESCO World Heritage List, dating back to the 1st century B.C., and the UK has Burlington, an underground bunker city built by the government for case of a nuclear war with hospital, church and even a pub. In Portland (USA) tourists can visit the Shanghai Tunnels, an underground system of roads paved near town part of Chinatown, with subways leading from the port to hotels and restaurants to deliver goods faster. But many people lived there permanently. There is an underground city in France, and it’s Naur, built in the 19th century, which could accommodate up to 3,000 people. This city is located at a depth of 33 m and a total length of underground corridors ~ 2 km [4].

An urgent need in Lviv is to ensure the complete recycling of the total amount of urban waste, including tourist waste from restaurants and cafes too. It should be noted that the daily volume of waste in Lviv is 600 tons. Not surprisingly, Lviv's tourist record (2.6 million tourists in 2017 – the first place among Ukrainian cities) coincided with the "waste crisis" in this city. To solve this problem, Lviv is building a most modern waste proceeding plant in Ukraine. At the same time, in November 2018, local authorities restricted the use of plastic bags, and from April 9, 2019, a three-month educational company "Polyethylene-free" was launched in the city, according to which Lviv stores abandoned plastic bags, offering buyers alternative packaging. Lviv restaurants and cafes also use environmental and social approaches in their activities, including waste collection, reuse and recycling. So, a public organization "Tarilka" (Plate) was recently set up in Lviv, and
it will propose unused meals and products from supermarkets, restaurants and cafes for homeless people. Such experience was borrowed from Germany. According to the State Statistics Service of Ukraine, Ukrainians annually emit approximately 7 mln tons of usable products worth UAH 5.5 billion. According to the waste amount, Ukraine ranks 9th in the world ranking, overtaking Germany or France, whose population is 1.5 – 2 times more. However, when some people throw away good products, others have nothing to eat. The non-governmental organization will collect food at various establishments and distribute food to the homeless – volunteers who collect food from supermarkets and restaurants every day will do so. The Leopolis Hotel, the Kumpel, Bachevskikh restaurants, the Rukavichka, and Blizenko supermarkets supported this social project in Lviv. Today “Tarilka” is looking for stellar and refrigerated storage to distribute food to homeless people, where kitchen and dining area will be also. The mayor of Lviv A. Sadovy promised help to this social project, because he sees prospects in this project. Some restaurateurs privately told the “Vysoky Zamok” newspaper, that they are practicing waste-free production, so they have no food remains. In spite of this they also support the initiative of the public organization “Tarilka” [1].

Another problematic aspect of urban tourism in conditions of overtourism was warned by American experts who assisted in the development of the "Lviv Tourism Concept": as soon as the city's tourism becomes dynamic and massive, among the guests of the city will appear those specially interested in intimate services [1]. What's the connection with logistics there? If there is less advertising from the side of the relevant establishments (night clubs, gentlemen's clubs, show bars, strip bars, etc.), the corresponding tourist flows will decrease.

In contrast to intimate tourism, Lviv has been actively developing conference tourism and blogging tourism for last several years. In 2018 alone, 430 business events were held in the city, among them important international conferences, attended by about 100,000 participants, 11% of them foreigners and 82% from Ukraine. Conference tourism is very advantageous for the city of Lviv because one participant spends $ 414 a day, accommodating participants in four-star and five-star hotels. Lviv was the first in Ukraine to set up a conference bureau in 2013.

In 2018 conference tourists spent almost UAH 900 mln in Lviv, including catering establishments earned UAH 206 mln, business delegates spent UAH 150 mln for leisure and entertainment, and another 131 mln – for accommodation. The direct economic effect of this type of tourism amounted to UAH 775 mln in 2018, taxes were paid 188 mln UAH. At the same time 5.8 thousand people work in Lviv’s conference industry. What Lviv lacks are large conference halls for 5,000 participants, such as in Krakow, Poland, so there is a demand for international-level conference hotels. Then conference tourism would bring even greater profits and dividends to the city of Lviv.

Another recent trend in attracting tourists to Lviv, including foreigners, is to seek services of travel bloggers. "Availability, romance-atmosphere and price – quality ratio. The exquisite city looks like a traditional European capital, completed with cobbled streets, classical music festivals and high-profile literary festivities" – in such a way expert of the leading American newspaper "The Washington Post" describes the city of Lviv. That's for the first time the leading world edition wrote about Lviv. In recent years, travel bloggers have been traveling to Lviv to promote the city. Each year the city of Lviv is in the top rankings of world and European cities worth to go on weekends or holidays. According to the head of tourism department of Lviv city council it is exactly tourism blogs that give Lviv more and more guests from all over the world. As a journalist wrote, his colleagues see the article's rating and come to explore the city even better. When a city is recognized, its name is capitalized for investment and investors who want to start a business come here. Therefore, there are many benefits from travel bloggers. One of them is a wide international promotion of Lviv. The locals themselves are also pleased to hear about their city in the world. Recently one of the Polish tourist sites wrote about Lviv. Polish experts focused on the city's emotional establishments – concept restaurants and cafes. They say it adds special charm to the city. Each restaurant has its own legend. Poles also point out that it is more interesting for people of old age to visit the Lychakov Cemetery, but young people have other priorities – individual tours by the center. Our neighbors also notice “friendly prices” in shops, souvenir shops, cafes. It is noted that a good weekend can be spent here as there are direct flights from Gdansk to Lviv with ticket prices from 500 to 1200 UAH. A blogger from Irish Dublin came to Lviv on the eve of Easter 2019. It was Ryanair's airline manager who wrote blogs about all the cities Dublin has direct flights to. He made videos about Lviv, studied its architecture and cuisine, as well as traditions. He arrived just before the holidays and saw the whole process of cooking, painting Easter eggs, wadding. He visited Shevchenko Park and liked embroideries and kitchen there. Accordingly his review article about Lviv is expected to be quite prestigious. Let's note that some travel bloggers call crazy amounts in Euro for their services. But Lviv works with them according to another scheme, when the city agrees with the business and, accordingly, the hoteliers rent bloggers for free, restaurants feed them free, the owners of touristic companies show the city free. Therefore, bloggers enthusiastically describe the tourist attractions of the city of Lviv and it does not cost too much. At the same time each blogger has its target audience, so its readers come to the city. For example, there are restaurant bloggers or hotel bloggers and there are bloggers, writing about literature and culture, so separate tour is formed for each blogger.

Another important problem is the need for increased security requirements for urban tourists. The main components of the solution to this problem are: a) development of increased requirements for the safety of tourists in the conditions of overtourism, especially in terms of their accommodation and food; b) constant and strict control of the security of the living conditions of tourists, especially in apartments and private apartments; c) tight security control in the field of tourist food, with particular attention to the functioning and serviceability of the equipment of "street food" points in popular tourist locations; d) control of urban tourist transport, including tourist buses, sightseeing "trains", tourist coaches etc. It should be noted that the Lviv authorities have already taken into account these proposals, so, since 2019, the mayor of Lviv has a deputy for security, who has under responsibility departments of waste management, emergency management, civil protection of population and city security management.

Conclusions. The dynamic development of urban tourism in the conditions of overtourism, which is now observed in Ukraine and the world, causes a number of problems, among which one can note the tourist overloading of cities, especially their central and historical sites; destruction of many historical and architectural sites and
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**ГЕОЛОГИЧЕСКИЕ СТРАТЕГИИ СТАЛОГО РАЗВИТИЯ УРБОТУРИЗМА В УМОВАХ ОВЕРТУРИЗМУ**

В статье раскрыты географические и логистические аспекты устойчивого развития урботуризма в условиях овертуризма, в частности это касается стратегий, мероприятий и предложений по обеспечению устойчивого развития. Освещены сущность основных стратегий урботуризма, их возможности, стратегические и логистические аспекты, и перспективы реализации устойчивого урботуризма. В статье представлены основные стратегии устойчивого развития урботуризма в условиях овертуризма, а также перспективы для дальнейшего развития устойчивого урботуризма. В статье представлены основные стратегии устойчивого развития урботуризма в условиях овертуризма, а также перспективы для дальнейшего развития устойчивого урботуризма.