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TRADITIONAL PLATEAU RESIDENCES AND TOURISTIC VALUE IN NORTHEASTERN TURKEY (ARTVIN PROVINCE)

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Abstract: Eastern Black Sea region, in which Artvin province is located, is one of the areas where transhumance activities are most prevalent. Besides, the activities mentioned in this region have been performed for very long years and have become traditional. One of the indispensable characteristics of transhumance activities is plateau residences with their construction techniques and architectures unique to the region. Although plateau settlements are temporary settlements that are used seasonally, plateau residences are permanent. These residences which widely reflect the cultural and socio-economical structure of the region have been constructed in a plain and natural style probably due to temporary usage. In the research field where forest cover is dense, although wood is mostly used as residence construction material, stone usage is in forefront in some regions. On the other hand there are also many residences where both materials are used together. While wooden shingle usage was widespread before as roof cover, today sheet metal usage is common. Recently the ease of transportation to plateaus and the increase in economic levels of families caused structural change in plateau residences and number of concrete structures increased gradually. This situation which was also triggered by usage for recreation purpose, constitutes a danger threatening traditional transhumance activities as well as future of rural tourism potential of plateaus. Yet the sustainability of transhumance activities which have been continuing for centuries can only be achieved by preservation of traditional structure of plateau residences.

Key words: Turkey, traditional transhumance, Artvin, plateau residence, tourism.

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INTRODUCTION

Even though the term plateau is defined in different ways (Alagöz, 1993, 1), these definitions have much in common. We may refer to a few of these definitions as follows. Plateaus are settlings in the high parts of the mountains where animals are grazing in summers and where the houses are used for seasonal recreational activities. Plateau houses are administratively and economically connected to villages and they contribute to the village economy even though they are located outside the village boundaries (Doğanay & Orhan, 2016, 301-302). The term plateau mostly refers to a temporary place of

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settlement ascended in the warmer months of summer with the purpose of both engaging in a number of economic activities (especially livestock) as well as making use of country house, the change of air and relaxation (Emiroğlu, 1977, 17-18).

Accordingly, transhumance involves human's and animal's ascension of plateaus in summer and the hottest months, remaining there for a while and engaging in various economic activities. This is completely an activity carried out by the settled group of people. In other words, the animal husbandry in transhumance is practiced in the form of grazing pastures in summer and accommodation in barns in winters. Anatolia is one of the important areas in which transhumance has historically been maintained and turned into a traditional activity. The Eastern Black Sea region, where Artvin province is located at, is one of the busiest areas of transhumance activities in Anatolia (Zaman, 2007, 218). This region is rich in terms of natural and cultural heritage. The region is an important destination for tourists thanks to its special features (Somuncu, 2016, 253). For this reason, it is one of the aims of Republic of Turkey, Ministry of Culture and Tourism to develop the ecotourism in the region, especially the plateau tourism, in its 2023 tourism development strategical action plan (Alaeddinoğlu & Şemeret, 2016, 73).

In addition to plateau settlements in the research area, another temporary form of settlement, functionally integrated with plateaus, is the hamlet or barracks. The hamlets of the Eastern Black Region, which also includes the research area, are temporary settlements where migrant settler peasant families come twice a year in their passage from village to plateau and from plateau to village, where animals graze, hay and wood are secured for winter. These settlements are small agricultural settlements that reserve either only a couple of houses or several houses depending on the number of the settler families, which are mostly made from wood (Tunçel, 1996, 92). The term barrack is also widely used for the settlements in question in the region.

Barrack settlements in the research area have mostly lost their importance of the past and thereby their numbers are greatly decreased gradually over time. The main reason for the appearance of such a scene is the decline in population brought out by the intensely continued migration in the area after 1965. This large drop in permanent population in rural areas has led to a decline in the number of cattle and sheep forming basis both for the number of families heading to barracks or plateau and transhumance activities. As a result, there was no need for families to settle in barracks since the necessities that manifest barrack areas (need for pastures, the idea of preserving farmland in the village, etc) were no longer needed. Many families in the area either completely abandoned the transhumance activities or directly ascended to plateaus without deeming the migration to barracks necessary. In addition, the execution of these migrations by motor vehicles which previously took place on foot has been instrumental in weakening the transfer function of the barracks. A functional transformation took place in some of the plateau and barrack settlements in the area especially in the last 10-15 years. Settlements in question began to be used as a summer resort for recreational purposes in addition to animal husbandry activities (Grotzbach, 1984, 202; Doğanay & Coşkun, 2013, 4). It is predicted that the plateaus will be increasingly used for recreational purposes in the future (Somuncu et al., 2015, 100). They were transformed into settlements with the purpose of relaxing and being alone with nature especially for local people living outside the province. This functional change paved the way for the occurrence of transformation in rural housing located in settlements mentioned.

PURPOSE AND METHOD

Traditional rural dwellings carry the effect of geographical conditions and culture in which they were located with building materials, shape and the regulation manners of

various parts (Ungureanu & Lazuran, 2014, 131). Traditional rural dwellings of the research area have the qualities that truly reflect socio-cultural and economic features of the region. However, a significant portion of these dwellings was left to their own fate and became ruins due to the emigration in the region. Also, reinforced concrete structuring in rural areas has led reinforced concrete constructions to take the place of traditional rural dwellings. However, traditional rural dwellings, which come to the forefront with their natural and cultural structure and become favorite sites in terms of rural tourism in recent years, will be able to undertake important functions both in terms of touristic attraction and accommodation in the rural areas of Eastern Black Sea. We can find the examples of this case in different parts of the world (Quinteiro & Baleiro, 2015, 157). Revealing rural touristic potentials of dwellings mentioned and creating an awareness that will prevent reinforced concrete structuring in these areas were intended in this research. In addition, it was thought that the results obtained can be generalized and they can be applied in rural areas with similar characteristics.

A gradual and eclectic structure was followed in the study requiring to know the area with all its aspects and to conduct detailed research. "The methodology for identifying, evaluating, quantifying, mapping and integrated arrangement with tourism purpose is an essential component of a scientific approach to represent the basic elements landmark" (Ilies et al., 2009, 203). Literature review constituted the first phase of the study. During this process, the theoretical framework of the study was attempted to be constituted by examining studies related to our research area prepared both in local and general scale. Field observations were given emphasis in the second phase that allows access to first-hand information on the subject. In this phase, many permanent and temporary rural settlements in the area were visited and the attention was paid for keeping a large sampling. Interviews were conducted with the families of the region with the help of semi-structured interview forms and a photo archive related to rural dwellings were in these settlements in question. All the information and data obtained were analyzed and synthesized in the light of the principles of geographical ideas and thus, the present study was put forward.

LOCATION OF RESEARCH AREA

Artvin province, constituting the research area, is located on the border with Georgia in the Eastern Black Sea Region of Anatolian lands. While Georgian lands fall on the north and the Black Sea on the northwestern part of the provincial administrative area, the area is adjacent to Ardahan on the east, Erzurum on the south and Rize provinces on the west (Figure 1). Consisting of eight districts including the center, the province's total area is approximately 7.367 km^2.

MAJOR CHARACTERISTICS OF PLATEAU HOUSINGS IN ARTVIN PROVINCE

The World Heritage Convention have decided that "cultural assets have to meet the conditions of authenticity and have a sufficient protection and administration system to guarantee its maintenance in order to be deemed as a universal wonder" (World Heritage Conference, 2008). Traditional architecture has been also regarded as a quite significant part of the collective cultural heritage (Medica et al., 2010, 78). Many researchers noted that the authenticity is a key concept in cultural heritage tourism and especially for increasing the tourism potential of traditional rural housing (Ilies et al., 2009, 215; Medica et al., 2010, 84; Ismail et al., 2014, 42; Gavrila-Paven, 2015, 112). In this context, it is of high significance to define the distinctive values and to analyze the tourism potential of the traditional dwellings that are planned to be opened for tourism.

Figure 1. Location map of the research area

Plateau settlements in Artvin province consisted of permanent residences deployed collective on meadows and pastures (Figure 1). The common feature of plateau housings, varying from one plateau to another, is that they are simpler than housing in villages both in terms of construction techniques and general appearance and sizes because of their use only for a limited time. Two different types of plateau housing, which can be clearly distinguished from each other, can be mentioned in the research area. The first and the most encountered group is *plateau housing in which wooden materials is extensively used*. The second group is *plateau housing built as a result of piling one stone on the top another* seen in plateaus near the border with Ardahan province. Plateau houses, made of wood, are generally two-storied. Their ground floors are used as barns and the upper floors of these houses are ascended with the help of stairs again made of wood (Figure 2). The portion in upstairs consists of a room mostly used for inhabiting, relaxing and sleeping at night and another room, locally called *sütlük* (milk-room), where animal products, such as

milk, cheese and butter, etc., are made and stored (Figure 3). However, the number of room can sometimes be one and it is likely to come across with plateau houses with more than one room. In addition, there are also small balconies in the part leading to upstairs called *ayvan*. Toilets are added to the edge of ayvan in some plateau houses.

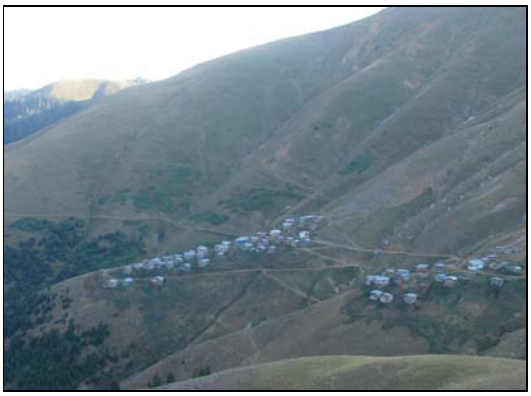

Figure 1. Plateau settlements in the field are deployed collectively in the Alpine meadows zone

Figure 2. The plateau houses made of wood, usually two floors

Figure 3. In some of the plateau hauses in the field, used as an barns ground floors was built of stone

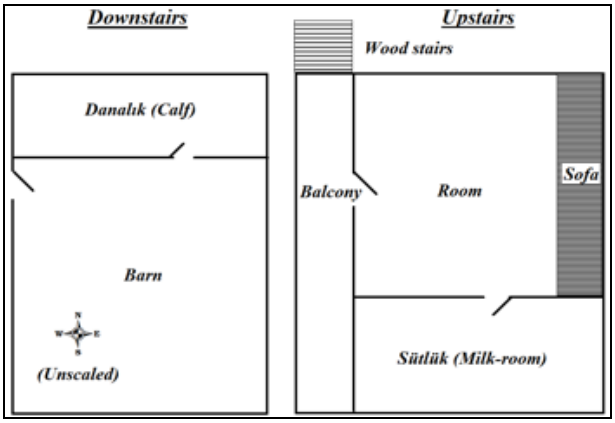

Figure 4. An example of a traditional plateau house plans in the research field

The lower part of the plateau house (barn) was built by stacking unprocessed logs of trees one on the top of the other and by intertwining the edges with grooves and notches. Thermal insulation was provided by plastering the gaps between these logs with a mixture of soil and manure from the interior. However, the plateau houses, whose bottom parts were built with stones up to a certain level, can also be encountered quite often (Figure 4). The upper floor of the plateau house was also built generally by the same method of stacking unprocessed logs of trees one on the top of the other and by intertwining the edges with grooves and notches. Either no windows were allocated or windows whose sizes would not exceed 20 cm were kept for receiving light in order to be preserved from the cold in these plateau houses in question. The roofs of traditional plateau houses are slanted in both sideways that are called *semer çatı (saddle roof)* (Tarkan, 1973, 89). Just as the outer surface of these roofs, whose skeleton part is made of wooden materials, was covered by timber called *hartama (shingles),* today the use of sheet metal has become quite common. The protection of roofs against the blowing wind was being ensured by placing heavy-stones sometimes on shingles or even sometimes on the sheet metal (Figure 5).

Figure 5. The roofs of plateau houses in the field are slanted in both sideways

Figure 6. A plateau house which basic building material is stone

Figure 7. The functional change in plateau and barrack settlements is felt itself as modernization in dwelling

While stoves are being used in some of the plateau houses, there are furnaces yet in some of them. These stoves, made of stone, and their chimneys are locally called *buhari*. Next plateau houses, there are barns in which especially small cattle stay at night built

either by surrounding with fences or stacking stones one on the top of another. The weight of stones rather than wood is felt in the construction of housing located quite far from the forest areas in the research area and especially in highlands over the Ardahan-Kars plateau near the border of Eastern Anatolia Region. Being a bit more advanced forms of houses built by stacked stones called *Pak* (Tandoğan, 1988, 105-108), these dwellings consisted of walls built as a result of stacking stones commonly found nearby one on the top of another using soil as mortar in between (Figure 5). The upper parts of beams, which crossed over these walls and built by thin logs, were often covered by sheet metals. However, the use of shingles can also be seen as the roof-covering material. The surface of these roofs, built slanting with on one or two side, were sometimes covered by tent canvas shielded with stones or soil both with the purpose of protecting against the wind and providing temperature insulation. These one-storey plateau houses, like in wooden homes, generally consist of a room also used as a kitchen and a *sütlük* (milk-room) and therefore, they have two compartments. Made about a meter above the floor on both sides of the room, divans are used as places of sitting during the day and of sleeping at night. Stoves are used in these dwellings where there are no furnaces. In addition, there are no windows in these plateau houses in question. Barns in these houses were constructed as adjacent to homes or only with a wall or even a door present. These parts, often emerge as a chamber of this dwelling, can also be considered as attachments.

POTENTIAL USES OF PLATEAU HOUSES FOR TOURISM

Branding is an important element in developing the tourism potential of a field. Branding has some processes like building a platform, providing competitive touristic products, protecting the natural environment and promoting tourism (Ungureanu & Lazuran, 2014, 126-127). Creating a visual identity is an important step in establishing the foundation of branding. In this case, traditional rural housing forms the main element of visual identity. Situated in high mountainous areas depending on the purpose and function they serve, *plateaus* are areas with rich tourism potential in terms of both their natural beauty of environment and clean air and their socio-cultural features created by traditional lifestyle (Orhan, 2015, 295). Some studies have suggested that the existence of traditional rural housing can make a great contribute to rural tourism (Medica et al., 2010, 85; Mutlu Danacı & Atik, 72). In this context, various investments and works have been conducted in these areas in recent years in order to claim plateaus for tourism. The most suitable areas for plateau tourism in Turkey are the Black Sea Region, especially the mountainous parts of the Easter Black Sea Region (Zaman, 2010, 203). Plateaus in the research area also represent high potential value in this respect.

Plateau settlements in the research area are scattered in various parts of the mountainous areas in the field. The use of plateaus for tourism purpose is not yet widespread in the province where traditional transhumance is dominant. It is evident that several infrastructural services such as road, water, electricity and accommodation, are needed to be completed for any plateau to be used for tourism purpose in addition to keeping some of the touristic attractiveness at the forefront (Coşkun, 2010, 276). Accordingly, opening the plateaus in question for tourism depends on carrying out a number of investments and works. Barrack settlements in the area are more favorable than infrastructural facilities compared to plateaus. Indeed, while low-elevation facilitated the accessibility on the one hand, on the other, electrical energy can be used in a higher proportion in these settlements in question. In addition, while plateaus usually are located in Alpine meadow zone over the forest border, an important part of barracks is situated inside or on the edge of the forest. This provides scenery superiority to barrack settlements. Accordingly, it was considered that it would be easier to barrack settlements

with present conditions in the area to bring in to tourism and there were more tendencies in this direction, but the use of plateaus from this perspective would be widespread with incentives and investments to be made in the near future. The development of plateau tourism in the area primarily depends on the improvement of transportation and accommodation conditions. Significant advances were being made in the province in terms of access to the plateaus in recent years and almost no plateau settlements were left without roads. The functional change in plateau and barrack settlements in the area tending to use them for tourism purposes that slowly began to be realized (Koca, 1995, 282; Zaman, 2007, 323) naturally led to several changes in the physical appearances of these dwellings that make these settlements. This change, seen more obviously in barrack settlements, makes itself also felt relatively in plateaus. While some of plateau and barrack homes were repaired, some of them were rebuilt in this process (Figure 7). New houses were built more functional in the form of modern dwellings. Even though there were reinforced concrete structures among them that constituted visual inconsistency with traditional housing architecture, some of them were built of wood in accordance with these houses. It was seen that the number of rooms in these homes increased and some parts such as toilets, bathrooms and kitchens were added. In addition, there are generally no barns in the new design of the houses (Hayır & Tonguç, 2007, 163).

CONCLUSION AND EVALUATION

Protecting environmental values, determining and complying with the carrying capacity and sustainability principles are included in structures of nature-based tourism types. When it is implemented with the appropriate planning and investment, rural tourism can be one of the most effective ways of preserving the rural cultural landscapes and traditional dwellings (Medica et al., 2010, 79; Mutlu Danacı & Atik, 69). In fact, a study in Finland has revealed that it is the highly educated people who live in cities, hold the administrative positions and uses the rural houses for recreational purposes (Sievanen, et al., 2007, 223). Being a type of ecotourism, plateau tourism cannot possibly be isolated from these principles. One of the most important pillars of tourism is accommodation. The accommodation needs of tourists arriving at plateaus can be resolved most rationally by putting plateau homes at their disposal (Gültekin & Uçar, 2011, 665). However, there are also a number of studies that need to be conducted on bringing available plateau homes in to tourism within the framework of plateau tourism.

The most important issue to take into consideration is to make sure the accommodation facilities to possess features that would not disrupt the traditional and authentic air of the region and to be transformed into a structure that would generate more economic revenue to the families of the region. Within certain principles, improving the home boarding-housing can help achieve the desired outcomes. Many studies and practices reveal the possibility of achieving this aim (Avram & Zarrilli, 2012, 32). However, a study carried out in Spain has indicated that although the rural houses are appealing to tourists mainly because of their natural environment and the authentic characteristics of rural dwellings, there are also other factors which affect the tourist satisfaction, such as size of the building, type of the building, quality of the equipment and services and activities. Therefore, plateau houses should be reconstructed and conserved without destroying the original texture in such a way that can meet the expectations of the tourists. A proper model can be drawn for the sector by examining the present examples in Zigana, Hıdırnebi and Kayabaşı plateaus, which are plateau tourism centers in Turkey sponsored by state. In this context, located in plateaus and used by the local people for 3-4 months at most, plateau houses should be open for tourism with arrangements for hygiene and sanitation (Kızılırmak et al., 2015, 107). Thus, the local

people who own plateau homes can be encouraged either to accept tourists to their homes or to rent their homes to tourists in the period they do not use them.

The vitality that would be created by ensuring ease of access will further increase the existing accommodation needs in plateaus. The shortage of accommodation is really one of the main barriers against bringing plateaus in the research area in to tourism. This problem can be resolved by transforming some of the already abandoned plateau houses into home boarding-houses (Avram & Zarrilli, 2012, 33) or building accommodation facilities that will not contradict with the traditional architecture and appearance. Awareness of regional families and promotions will also have important contributions in terms of the development in question. But, the important point to be taken into consideration in this regard is to make sure that the mobility to be created by tourism does not lead to reinforced concrete by destroying the architectural identity of the plateaus peculiar to themselves. Because, it was identified that reinforced concrete buildings are spreading in a significant portion of the plateaus opened for tourism in the Eastern Black Sea Region (Bekdemir & Koca, 2003, 189). It is vitally important to make versatile and rational planning in order not to encounter with the problems mentioned by learning a lesson from similar negative examples before bringing plateaus in the area in to tourism (Gavrila-Paven, 2015, 114). Furthermore, while making changes in the region, the balance of using & preserving should be maintained by integrating non-governmental organisations and local people into the process as well as the relevant governmental institutions (Başıbüyük et al., 2001, 47; Efe et al., 2015).

In conclusion, it would be beneficial to open houses that have been used as homes or abandoned for a long time in the region as accommodation facilities for the tourism sector with small adjustments order for tourism developing in the research area to provide benefits to the local people and ensuring their development within the concept of the long-term sustainable tourism over the region. Thus, areas with sensitive features in plateaus will be prevented from receiving damages in terms of ecosystems as well as the economic development of people living in the region will be ensured.

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DETERMINATION OF SOUTHERN ALTAI GEOGRAPHY PROPITIOUSNESS EXTENT FOR TOURISM DEVELOPMENT

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Abstract: Relief has its personal significance for tourism development. This is natural component, indicating the type of touristic use, which is approved by its basic position as a landscape component. The object of the research of this article is a recreational area of Southern Altai. Southern Altai as a part of the Altai Mountains is characterized by a variety of climatic conditions, landscape uniqueness and complexity of their space-time organization. Hypsometry determines the observability and attractiveness of the territory, vertical roughness of relief defines variety of scenery, horizontal roughness of relief determines variety and passes ability of the territory, slope angles define the prime cost of the recreational engineering constructions, exposure defines amount of solar energy.

Keywords: relief, landscape, tourism development, southern Altai Mountains, Kazakhstan

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INTRODUCTION

Relief has its personal significance for tourism development (Wendt, 2011; Ilieş & Wendt, 2015). This is natural component, indicating the type of touristic use, which

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is approved by its basic position as a landscape component (Castaldini et al., 2005; Ilieş & Josan, 2009; Herman & Wendt, 2011). The object of the research of this article is a recreational area of Southern Altai.

Southern Altai as a part of the Altai Mountains is characterized by a variety of climatic conditions, landscape uniqueness and complexity of their space-time organization. The absolute height, verticalroughness of relief or height relationship (m), horizontal roughness of relief –the distance where the relief shape changes from convex to concave (km), slope angles (degrees), and slope exposure should be taken into account while relief estimation (Bredihin, 2016).

Hypsometry determines the observability and attractiveness of the territory, variety of landscape elevations. The cognitive and psycho-emotional effects are closely connected with observability.

Vertical roughness of relief defines variety of scenery, panorama, and aesthetic satisfaction from the relief, an extent of pass ability and accessibility of the territory. In winter period it influences the frequency, speed and range of avalanching,

Horizontal roughness of relief determines variety and passes ability of the territory, possibility of vacationers and stuff transportation, creation of infrastructures connected with recreation. During the winter period it defines the ski-run length, pass ability of the territory. On the strongly rugged landscapes small and abrupt slopes prevail.

Slope angles define the prime cost of the recreational engineering constructions, pass ability of the territory; amount of solar energy and luminance depend upon the ratio of slope, which should be taken into account while recreational activities organization. During the winter period it determines the possibility of ski-run planning.

Exposure defines amount of solar energy and luminance – on the slopes of south exposure this indicators are higher, on the slopes of north exposure - lower. The completeness of exposure spectrum allows choosing places for recreational activities for people of various ages. On the slopes of south exposure snow is loose, melts quickly, skiing season is shorter and on the slopes of north exposure - vice-versa, other exposures take intermediate position (Garms, 2014).

AIMS AND BACKGROUND

Between basic methods are analysis of the natural expeditions researches (July-August 2016), generalization of library materials, excursion method and geoinformational methods of research with ArcGIS software implicated using with mapping (Ilieş et al., 2015; Herman et al., 2016). For impartial assessment the work was executed in the ArcGIS 10.1 (ESRI Inc.) software package, the use of which allows making needed manipulations with the available digital cartography materials and satellite images aimed at geo-informational system (GIS) and deep tridimensional analysis on the GIS basis. As basic GIS data the vector layers of digital chart of the world (DCW) on the scale of 1:1 000000 (hydrographic network, borders) as well as digital relief model with 500 m step of the SRTM project (Shuttle Radar Topography Mission) are used.

Digitizing of natural recreational areas borders was done in the ArcGIS and the geo data base of the researched territory was created (Yegorina & Loginovskaya, 2016). On the basis of digital relief model the range of digital thematic maps of the most significant morphometric features was created (Figure 1, 2).

EXPERIMENTAL

With help of ArcGIS raster slope exposure reclassification operation the statistics of the prevailing exposures for each natural recreational area (table 1) was calculated.

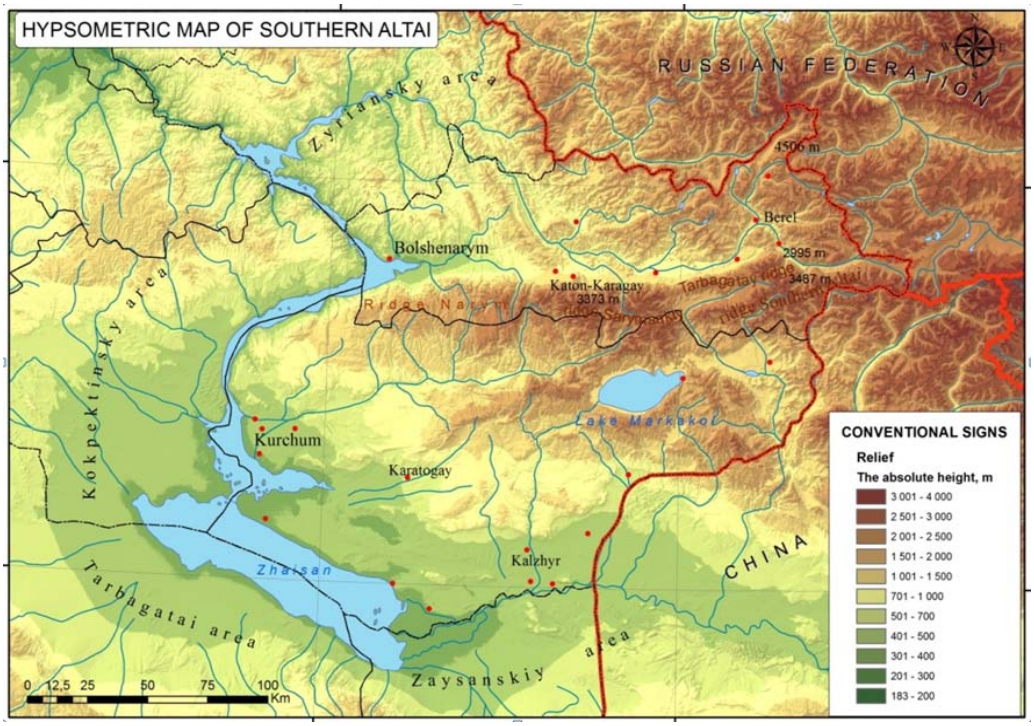

Figure 1. Hypsometric map of Southern Altai

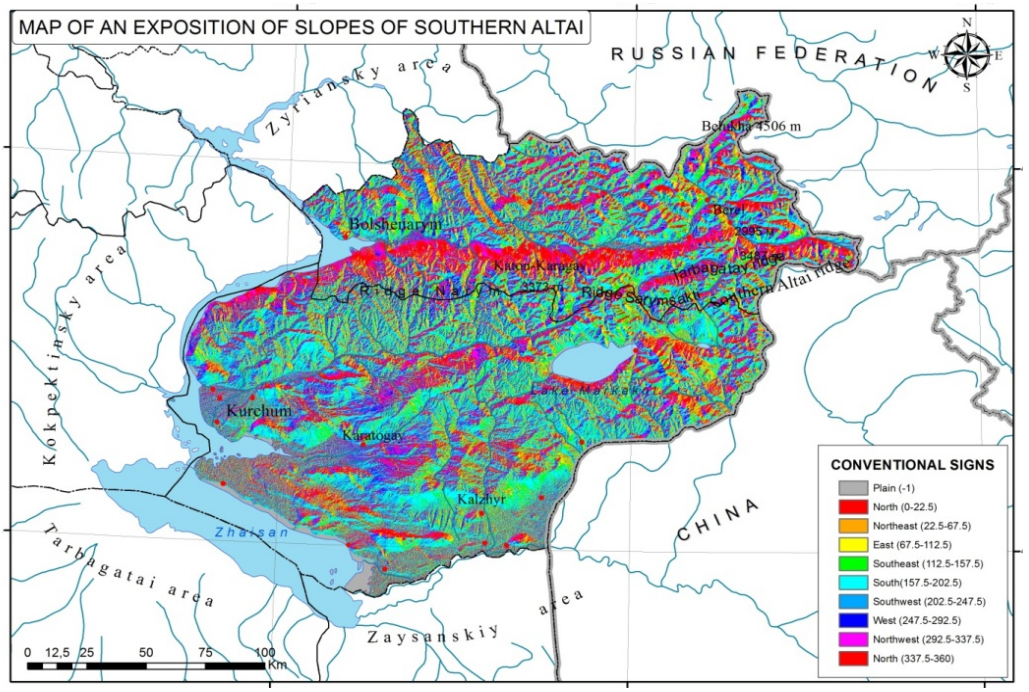

Figure 2. Slop exposure map of Southern Altai

Table 1. Share of slope exposures (%) by the natural recreational areas of the Southern Altai

Area	Leveled	N	N-E	E	S-E	S	S-W	W	N-W
Katon-Karagay		20,5	9	6,2	10,2	19,3	14	8,4	12,3
Markakol	4	11,5	8,7	7,3	13,7	27	12,2	7,1	8,6
Kurchum		13,5	4,6	5,3	10,3	25,5	17,2	9,7	14
Terektinsky		17	13,5	9,1	11,6	16	12	9,1	11,6

Southern Altai is located between the Bukhtorma river on the north, Zaysanlake and Cherny Irtysh on the south. The Irtysh valley separates it from the Kalbinsky ridge on the west side. On the east it borders on the Ukokplateau. To the west and south-west from these place two chains of mountain ridges are located. They are separated by the Kurchum and Karakoba rivers. The west border of the Southern Altai goes through the mountain chain Holzun. Its relief is hilly. The upper part consists of wide hilly heights. More higher the bold mountain tops are observed. The south slopes are sheer and strongly rugged (Saparov & Zhensikbayeva, 2016).

The relief features, bio-climate conditions, natural landscape attractiveness, development level of this complex analysis allowed us pointing out 3 groups of touristic recreational areas. To the first group belong mountain ridges Tarbagatay (2739 m), Sarymsakty (3373 m), Naryn (2400 m) which are included into northern mountain part and are marked by the population density and transport accessibility, rich in natural and anthropo-genous resources.

The level of the development and transport accessibility allow developing many tourism and recreation types in Katon-Karagay region. There is Berkutaul Mountain, which means eagle dwelling in Kazakh language; it is second popular mountain in Southern Altai among the alpinists and tourists after the Belukha Mountain. Berkutaul Mountain is located in the southern-western Altai province of the Bukhtorma-Nary area, in the Sarymsakty ridge, 18 kilometers to the south-west from the Katon-Karagay village of the Katon-Karagay administrative area of the East Kazakhstan region. It's clear faceted pyramided top, obviously standing out against surrounding mountains, rises to the 3373 m height, representing the highest top of the Southern Altai. There is hut-shelter built by alpinists at the foot of Berkut-Aul Mountain Every 9. May the alpine is held here, in which till 100 alpinists are taking part. The autumn climbing is also traditional. Berkutaul Mountain is quite convenient with its relative accessibility. Only 16 km day-time crossing separates you from the nearest Topkain village located near the regional highway (Yegorina, 2002).

The ridges Southern Altai (3483 m), Sarytau (3300 m), Kurchum (2644 m) building the southern part belong to the second group. The density of big glaciers and tops of different complexity degree, contrast of mountain landscape allow developing alpinism and mountain tourism here. An analysis of the gathered material during the research showed that for mountain tourism development in this region it is necessary to use hypsometric and glaciological resources of the Kurchum, Kalzhyr, Kara Ertys and other rivers' basins rationally. The third group includes territories, characterized by the strong combination of touristic recreational potential and transportation accessibility (Yegorina et al., 2016). Here, between the Azutau and Sarytau ridges, on the height of 1449 m, the Markakol basin is located (Figure 3).

The high part of this territory on the east, gradually going down to the west turns into hilly area. There are the tiny, shallowbottoms, and boggy lakes observed between the mountains tops. The soft landscape, various reliefs, softwood forests attract local

tourists (Shaw, 2004). The higher mountains, the more popular they are for tourists. It is believed, that the most attractive relief for tourism is relief with an absolute height more than 1500 m, slope angles 30-35°, depth of vertical roughness not more than 800 m, and horizontal roughness not less than 0.8 km. Alpine relief corresponds this requirement in the research region mainly (Yegorina, 2015).

Despite of the internal processes the big role in the varieties of alpine relief shaping played mountain glaciations. In the highland, on the height of more than 3000 m the ridges centerline is peaked. Kars, horn peaks, pikes make top shapes quite fanciful. The river valleys are represented by troughs. Between the terminal moraines of glaciers in valleys the vast intermorainal cavities or outwash plains are located. The ridges tops are adorned with snow fields and glaciers, there is vast accumulation of slopes (Zhakupov et al., 2015).

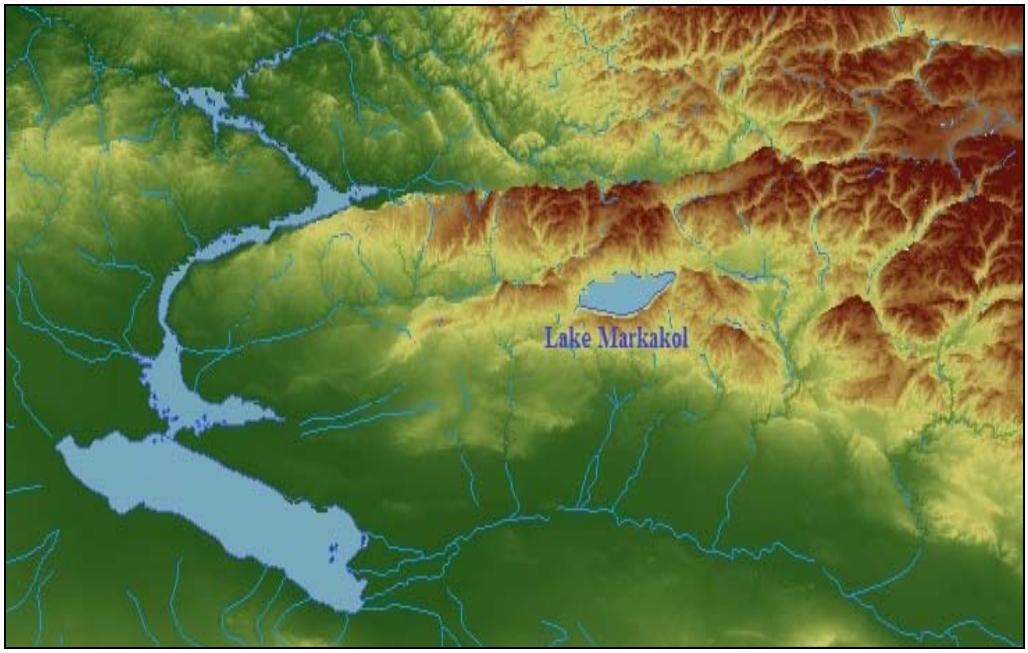

Figure 3. Devisualization in ArcScene 10 program of the Markakol lake area of the Southern Altai region

In the middle altitude reliefs shaping the big role play water-erosion processes. Mountains are split with deep erosion river valleys. The vertical roughness of the relief is from 300 to 800 m. The horizontal roughness is from 1.2 to 0.8 km. The angles change from 12° to 40°. The tops of the mountain ridges are mainly flat. There represent ancient plantain surface. The middle altituderelief is estimated by 78 geomorphologic criteria and is considered to be favorablefor touristic activities. On the south-east of the across boundary area in the Markakol national park and Katon-Karagay national park the depth of the relief roughness is from 300 to 600 m.

On the near 2000 m altitude an ancient peneplain is abundant – the hilly high-altitudeplain which is rich in moraine deposit. The high-mountain relief differs by contrast, aesthetic appearance, attractive view, but does not suit for mass tourism. Due to the severe bioclimate (Ungureanu et al., 2015), low atmosphere pressure and

inaccessibility the touristic activities in the high-altitude relief areas of trans-border Altai territory is possible for prepared and healthy people only (Geta et al., 2015).

Thus, natural recreational areas of Southern Altai have favorable relief for tourism development. The Kurchum and Katon-Karagay regions have propitious relief roughness for alpinism development. The Belukha Mountain (4506 m) itself is paramount object for alpinism. Climbing this mountain is very popular. Other favorable objects are ridges Sarymsakty (Berkutaul mountain – 3373 m), Southern Altai, Kurchum, the Tarbagatay ridge, Saur-Tarbagatay mountain system (Swarbrooke et al., 2003).

CONCLUSIONS

Summarizing the above, the significance of relief shapes for touristic recreational development on the Southern Altai territory may be expressed by the following statements:

- Natural recreational areas possess favorable relief for tourism development;
- The relief features influence significantly the attractiveness of the touristic territory;
- There is propitious relief on the main part of the researched region for various touristic activities development, including extreme and sports types and kinds;
- Relief and composing geological materials become often natural sightseeing, making the region attractive for recreation;
- The low-mountain relief has important health-related function while recreation use of the territory, particularly while terrenkur planning;
- Geomorphologic features make appearance and view of the territory and cause the choice of the place for touristic infrastructure construction;
- Relief is the top priority factor, limiting or determining one or another touristic branch in the territory use.

The following recommendations for mountain tourism in Southern Altai are worked out:

- To create basic network of main touristic objects, which undermines the network of stationary tourist bases, inns, shelters, camping, motels, touristic and sports centers and other main objects of tourism infrastructure;
- To develop the most favorable alpinism and climbing objects: Saur Tarbagatay, Kutchum, Southern Altai, Berkutaul ridges;
- There is the highest Altai top Belukha (Muztau) – the symbol of Altai – on the Kazakhstan – Russia border. This mountain is believed to be sacred in various cultures. Buddhists, for instance, believe that the legendary Shambhala is here. Moreover, this is one of the most visited mountain tops by alpinists. In this regard, the creation of alpinism camp in Belukha area is recommended;
- To create ski park on the Berkutaul mountain, which is the second popular mountain of Southern Altai among alpinists and tourists after Belukha, to work out the ski park scheme;
- It is necessary to build strategy of steady Southern Altai tourism development, aimed at the legal, organizational and economical environment creation for mountain tourism and recreation development and rolling out into the international tourist service market;
- To shore up and develop extreme ski bases in Katon-Karagay state national natural Park.

There can be other tourism types in the researched transboundary mountain region developed, such as alpinism or skiing, there are conditions for climbing, hang gliding and many other types of recreational activities connected with relief (Godde, 2000).

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AN EXAMINATION OF THE RELATIONSHIP BETWEEN CAVE TOURISTS' MOTIVATIONS AND SATISFACTION: THE CASE OF ALISADR CAVE, IRAN

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Abstract: The purpose of this research was to examine empirically the motivation of tourists in a geotourism context and also the relationships among the intrinsic and extrinsic motivations and destination satisfaction for cave tourists in Alisadr Cave, Iran. The research conceptual framework was constructed, based on previous theoretical and empirical studies. A questionnaire survey was conducted with 400 respondents to collect the primary data. Descriptive statistics, Friedman test, Factor analysis, Pearson's Correlation Analysis and Multiple regression were conducted to answer the research questions. As a result, enjoyment, relaxation, novelty seeking and escape were the major intrinsic motivations. In addition, intrinsic and extrinsic motivations had directly positive influences on tourists' satisfaction in Hamadan.

Key words: Show cave, cave tourism, geotourism, satisfaction, motivations, self-determination theory, Iran

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INTRODUCTION

Caves are important for humans because they represent geomorphologic, geologic, biologic, historical, archaeological, and paleontological laboratories. Caves are sometimes the only source of information of past geological events. People visit caves due to aesthetical, recreational, educational, health, and religious purposes (Mulec & Kosi, 2009). Show caves are caves that are managed by a government or commercial organization and made accessible to the general public, usually for an entrance fee. Unlike wild caves, they typically possess such features as constructed trails, guided tours, lighting, and regular opening hours.

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Thanks to their facilities, show caves are a powerful tool for scientific research and environmental protection, which in turn may enhance the touristic appeal of the show cave itself. Cave is a significant component of geodiversity (Gray, 2004) and is one of the first documented geologic features that has become the object of tourism (Forti, 2011). Caves were the first and, for a long period, the single geologic item for tourism. In the last years, with the creation of "Geo-Parks", new geomorphological items started to become touristic targets. Anyway show caves are still now by far the most important geologic tourist attraction from the economic point of view and, in the last 20 years, their interest grew very rapidly and actually shows caves and karst tourism supply, directly or indirectly, the income for over 100 million people, many of them living in the developing countries (Cigna & Forti, 2013). Cave tourism is a type of geotourism. In fact, some authors consider that visiting show caves is the oldest form of geotourism (Bourne et al., 2008). Geotourism is defined by Newsome; Dowling (2010) as "a form of natural area tourism that specifically focuses on geology and landscape. It promotes tourism to geosites and the conservation of geodiversity and understanding of earth sciences through appreciation and learning" (Rachmawati & Sunkar, 2013).

Cave tourism resources are based on the intrinsic values of scientific, aesthetic, recreational and cultural values (Tongkul, 2005). The scientific value indicates important geological records, history of the cave formation or earth, and mineralogy, i.e. an interest in fossils, rocks and minerals. Aesthetic values are related to the mystery and formidable wonder of geological landforms or unusual geomorphologic features in a cave, and surrounding landscapes. Recreational value is related to those who enjoy exploring inner caves, boating in caves, hiking and camping around caves that are generally located in valleys, mountain terrain, waterfalls, beaches, or limestone areas.

Cultural value is linked to superstitious rituals, residents' beliefs and wishes, traditional meaning, and historical and archeological records (Kim et al., 2008). Iran has a rich culture and civilization as well as an outstanding natural environment. Its natural and cultural diversity specifications have caused it to be listed as one of the top ten tourist countries in the world (Francesco Frangialli, Secretary General of the World Tourism Organization, 2004), and its archaeological, cultural and natural attractions form an excellent basis for developing geotourism.

There is a wide variety of caves in Iran, including calcareous (karst), salt, ancient and human-made caves (Dowling & Newsome, 2006). Alisadr cave belongs to the precious natural heritage of Iran. It is Iran's largest lake cave and one of the most visited show caves in the world. It has 700,000 visitors per year. The objective of this study was to understand travel motivation of tourists in Alisadr cave by using self-determination theory, their demographic characteristics and examine how intrinsic and extrinsic travel motivations explain and predict destination satisfaction.

LITERATURE REVIEW

Motivation

A considerable amount of literature has been published on tourist motivation in recent decades and it is ubiquitous in tourism studies (Singh, 2008). Therefore, the concept of tourists' motivation has attracted the attention of numerous leading researchers such as Graham Dann, John Crompton, Seppo Iso-Ahola, Philip Pearce, Chris Ryan, and is one of the most crucial topics in tourism and leisure literature. In tourism fields, tourism motivation is "a dynamic process of internal psychological factors (needs and wants) that generate a state of tension or disequilibrium within individuals" (Crompton & Mckay, 1997, p. 427). So motivation is one of the key factors behind

behavior models (Hemmi & Vuoristo, 1993). However, it is apparent that previous tourism studies pay scant attention to the issue of why people travel to certain geosites. Reviewing the current literature, another significant theory in explaining individual differences in motivation and behavior is Deci and Ryan's self-determination theory. As White and Thomason (2009) pointed out, self-determination theory provides an interesting insight and overcomes the limitations of the current scholarship on tourists' motivation, namely the lack of a coherent theoretical and operational theory. Many studies use self-determination theory related topic to the leisure and have found and suggested that it can be a useful approach that provides a framework for understanding people's motivation to participate in leisure activities.

SDT is an organismic meta-theory of motivation that assumes human beings are active organisms who are driven by three psychological needs such as competence, autonomy and relatedness (Deci & Ryan, 1985). It focuses on the development and functioning of personalities within social contexts. It posits that innate psychological needs can explain variances in human behaviour (Deci & Ryan, 1985; Ryan & Deci, 2000a, 2000b), and if all three needs are being fulfilled, optimal functioning and personal growth will occur. The more self-determined a person is, the more he or she endorses his or her actions at the highest level of reflection and engages in these actions with a full sense of choice. SDT views motivation as a multidimensional construct, ranging from intrinsic to extrinsic. Intrinsic motivation is the drive to pursue an activity as an end in itself. Extrinsic motivation is the impetus to pursue an activity as a means to an end, and could vary according to its degree of self-determination.

Behaviror	Nonself - determined					Self - determined
Type of Motivation	Amotivation	Extrinsic Motivation				Intrinsic Motivation
Type of Regulation	Non – Regulation	External Regulation	Introjectid Regulation	Identified Regulation	Integrated Regulation	Intrinsic Regulation
Locus of Causality	Impersonal	External	Somewhat External	Somewhat Internal	Internal	Internal

Figure 1. Schematic illustration of the self-determination continuum (Source: Deci & Ryan, 2000)

Figure 1, shows a schematic illustration of the self-determination continuum. Ryan and Connell (1989) suggest that along the self-determination continuum or perceived locus of causality, the most non-self-determined form of motivation is external regulation, which refers to behaviour that is controlled by external means such as rewards or external authority. A somewhat less external, but still a controlled form of regulation, is introjected regulation. This refers to behaviour that is internally controlling or self-imposed, such as acting out feelings of guilt avoidance, and is characterised by the feeling that one "ought to".

At the more self-determined end of the continuum, a person can be motivated by identification; that is, behavior is self-determined according to one's choices or values. It is characterised by feelings of "want to" rather than "ought to". Geotourism clearly can provide opportunities for behaviors with high levels of self-determination. There have been few studies on cave tourist's motivations. The major research which is related

to the concept of motivation in a geotourism context leads to the research of Mamoon Allan (2012). He has done a survey on geotourists' motivations in four geosites located in Australia and Jordan by using self-determination theory. Also he made a comparison between the geotourist's motivations and their intentions to return.

He has concluded that the escape from routines, relaxation, and enjoyment are the major intrinsic motivations and identified regulation is the most important extrinsic motivations among potential geotourists. Other research was done by Samuel Kim and et al in 2008 by the name of "Cave Tourism: Tourists' Characteristics, Motivations to Visit, and the Segmentation of Their Behavior". The study's objectives were cave tourists' characteristics, segmenting them according to motivation factors, and finally identifying who they are. In this article tourists' motivations have divided to four groups including Escape-seeking, Knowledge and Noveltyseeking, Noveltyseeking, Socializationseeking.

Satisfaction

Tourist satisfaction has been one of the key areas of tourism research for more than four decades. It is considered one of the prime variables to sustain competitive business in the tourism industry because it affects the choice of destination, consumption of products and services. In this sense, Kozak and Rimmington (2000) argued that satisfaction plays an important role in planning marketable tourism products and services (Egresi & Polta, 2016). Tourist satisfaction is a function between expectation and experience (Chan, 2016). It is the mental evaluation and comparison between what customers expected to receive and what they actually receive (Kim et al, 2003). In specific, tourists' destination satisfaction is based on the comparison of their pre-travel expectations and images about the destination and their post-travel experiences at this destination (Chen & Chen, 2010). While destination expectations are formed by visitors' past experience, recommendation of friends and family, tourist information and promises of destination marketers (Kotler et al., 2006), tourists' real experiences are based on what they see, feel, and achieve at this destination (Yoon & Uysal, 2005). Based on the expectation disconfirmation theory (Oliver, 1980), if the actual performance is better than customers' expectation, this leads to positive disconfirmation and high satisfaction; on the other hand, if the actual performance is worse than their expectations, this leads to negative disconfirmation and dissatisfaction.

In the tourism destination management, tourists' destination satisfaction is the most essential element for the sustainable development of business and the importance of understanding and managing tourist satisfaction stems from the fact that tourists behave differently according to their level of satisfaction (Correia et al., 2008).

Based on the literature provided, the motivation of tourists is a main factor to predict the tourists' satisfaction. Previous studies have found relevant relationships between tourists' motivation and their satisfaction of destination.

Ross and Iso-Ahola (1991) found the correlation between motivation and satisfaction of sightseeing tourists. This correlation indicated the similarity of motivation and satisfaction dimensions which brings tourist overall satisfaction. Yoon and Uysal (2005) studied the relationship among the push and pull motivation, satisfaction, and destination. The results showed that tourists are more likely to choose destinations which are believed to fulfill their internal needs or push factors. The model also revealed structural relationship between motivation and satisfaction. Uysal and Williams (2004) tested a model looking at tourist satisfaction with destination attributes and tourist type based on travel motivation which moderates the relationship between satisfaction and attribute factors. It was indicated that motivation in the model influences relative importance of the two kinds of attributes to tourist satisfaction.

Given the literature on tourists' motivation, it is predicted that tourists' motivation will add significant variance of tourists' satisfaction on destination (Seubsamarn, 2009).

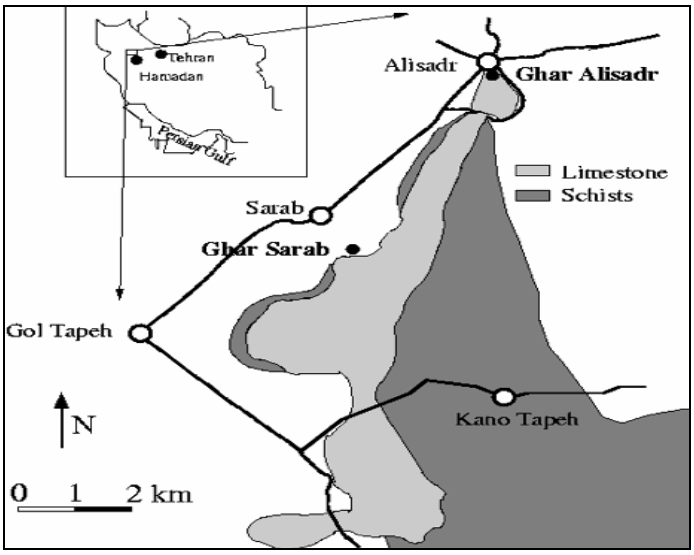

Figure 2. Loacation of Alisadr Cave at Hamadan Province, Iran

Figure 3. Boating in Alisadr Cave at Hamadan Province, Iran

Study area

The Ali Sadr Cave originally called Ali Saad (meaning dam) or Ali Saard (meaning cold) is a cave located about 100 kilometers north of Hamadan, western Iran (more accurately at 48°18'E 35°18'N) (Figure 2). It is one of the biggest and most unique water caves in the world. The cave walls can extend up to 40 meters high, and it contains several large, deep lakes. The cave has a river flowing through it and most travel through the cave system is done with a boat. Ali Sadr cave is situated between the large cities Hamadan, Tehran, and Qom making it a popular destination for Iranians (Mokarrami & Parvaneh, 2009). The cave is 2.5 km long, with the depth of water reaching 8 m in some parts. The lake water is pellucid and fresh, and the cave contains many caveroneous phenomena including a range of colourful

stalactites. It has excellent reception facilities, and tourists explore the cave by pedal boat and on foot. The presence of nearby accommodation adds to this established geotourism product, which is a major natural attraction (Dowling & Newsome, 2006).

The research model

According to the research model, intrinsic motivations have six components including knowledge, relaxation, enjoyment, novelty seeking, escape and socialization and extrinsic motivations include three components such as identified, introjected and external regulation which are shown in the figure 4. The next factor of this model is satisfaction and we try to determine whether there is a relationship between tourist motivations and their satisfaction.

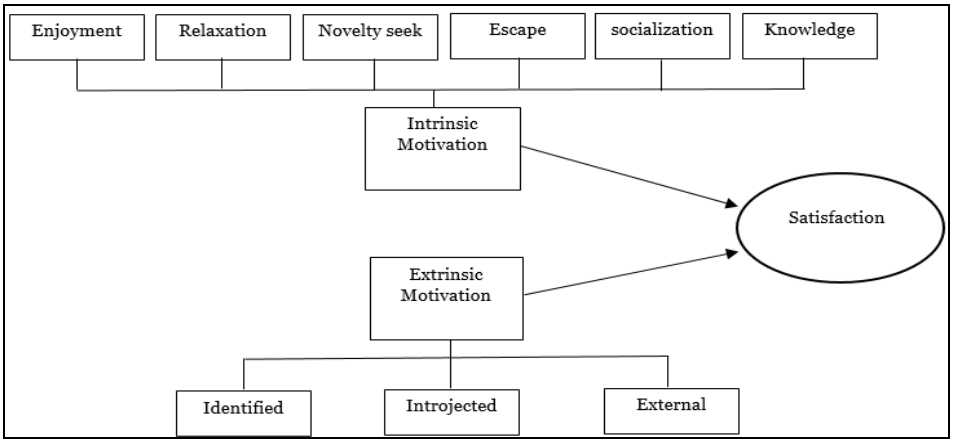

Figure 4. Conceptual model

METHODOLOGY

Questionnaire design and data collection

In this study, quantitative data collection method was applied to analyze the empirical data which were collected from the responses through using questionnaire survey. The design of the questionnaires was based on the main constructs of the self-determination theory and was adapted from the literature and previous researches.

The survey consisted of 6 questions relating to socio-demographic characteristics, 12 questions regarding intrinsic motivations, and 9 questions asking about extrinsic motivations of cave tourists. The measure was based on a five-point Likert scale with anchors ranging from “1 - Strongly Disagree” to “5 – Strongly Agree”.

In the second part, questionnaire consisted of 15 questions relating to tourists satisfaction. Each question has five options- very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied. The target population of this study is those tourists visiting the Alisadr cave on weekdays during the period surveyed, on April, 2016. The Pilot Test with N=30 was conducted to clarify the meanings of the survey’s questions and ensure the understanding for respondents. After modification, there were totally 400 cases in good quality collected within two weeks and analyzed for further research results.

Data analysis

The study used SPSS (Statistical Package for the Social Sciences) statistical software version 17.0 to analyze the data. First, Exploratory Factor Analysis (EFA) and Reliability Test were conducted to identify the interrelationships among a set of research variables and to ensure the reliability and validity of them. Subsequently, Friedman Test

were applied in order to find out Tourists' motivations Priorities and Durbin–Watson Test, Pearson's Correlation Analysis and Multiple regression were employed to explore the relationships between the tourists motivations and their satisfaction.

Factor analysis and reliability

For this study, two exploratory factor analyses (EFA) were conducted with Kaiser-Meyer-Olkin and Barltlett's test of sphericity, and Varimax Rotation of 21 items of independent variables and 15 items of dependent variables. As the results, the KMO measure of sampling adequacy for both groups of independent (KMO=.791) and dependent variables (KMO=.740) were greater than the minimum value for a good factor analysis .60. In addition, Barltlett's test of sphericity was significant (Sig.=.000), indicating the sufficient correlation between the variables.

Table 1. Factor analysis and reliability coefficients of independent variables

	Independent Variables		Motivation Factors	Factor Loadings	Cronbach's Alpha
1	**Intrinsic motivation**	Enjoyment	Do something exciting and thrilling	.736	.802
			Enjoy different scenery	.761	
		Relaxation	To refresh my mental and physical state	.826	
			To relax and reset in this place	.834	
		Novelty seeking	To seek the beauty of nature	.800	
			To explore new places	.816	
		Escape	To escape from the daily routine	.905	
			To escape from the pressures of the work and life	.821	
		Socialization	To travel with my friends, family or someone special	.781	
			To meet people with similar interests and hobbies	.877	
		Knowledge	To learn new things and enhance my knowledge	.749	
			To experience new things	.835	
2	**Extrinsic motivation**	Identified	Because I have carefully thought about it and believe it is very important for many aspects of my life	.834	.768
			Because it is consistent with my life goals	.793	
			Because I wanted to take a look what the attraction is	.844	
		Introjected	Because I wanted the others to have good impression about me	.759	
			Because I would feel guilty or ashamed of myself if I did not	.808	
			Because I wanted the others to think I am a part of their group	.766	
		External regulation	Because others would be upset with me if I did not	.623	
			Because others gave me no choice	.836	
			Because I want others to approve of me	.837	

Table 1 shows the result of independent variables, which was grouped into two components (Intrinsic and Extrinsic). All of the factor loadings of remaining items meet the minimum requirement (.50), ranging from .623 to .905. The Cronbach's alpha values used to estimate the internal consistency between items in each factor were .802 and .768. According to Pallant (2007), the Cronbach's coefficient alpha value above .60 is considered acceptable, while the more acceptable value should exceed .70.

Similarly, the factor loadings of remaining dependent items ranged from .630 to .850. The Cronbach's coefficient alpha values were .791, as shown in table 2.

TABLE 2. Factor analysis and reliability coefficients of dependent variable

Dependent Variable		Satisfaction Factors	Factor Loadings	Cronbach's Alpha
Satisfaction	tourism scale	ticket price	.843	.791
		tourist number in the cave	.673	
	environmental	beauty of the scenery	.741	
		cleanliness of the cave	.747	
	infrastructure	public toilets	.717	
		guiding marks	.718	
		safety facilities	.661	
		ticket-selling service	.630	
	management service	waiting for the boat	.680	
		knowledge of guides	.661	
		hospitality and friendliness of the staff	.753	
		possibility for shopping	.684	
	catering	convenience	.733	
		sanitation	.779	
		price	.850	

Table 3. Demographic variables of the respondents

Gender	Male	%58
	Female	%42
Marital Status	Single	%37.5
	Married	%62.5
Education	High School	%3.75
	Diploma	%29.25
	Associate Degree	%5.6
	Bachelor degree	%26.8
	Master degree	%29.3
	PHD	%5.3
Age	Below 20	%5.8
	21- 31	%32.5
	31-40	%22.7
	41 -50	%26
	51-60	%8.75
	More than 60	%4.25
Travel companions	Family	% 73.2
	Friends	%16.4
	Alone	% 10.4
Types of traveling	Independent	%79.1
	Programmed	% 20.9

THE FINDING OF STUDY

The descriptive analysis is summerized in table 3. Of the 400 respondents (geotourists) surveyed, Most of the respondents were male (58%), married (62.5%), aged 21–31 (32.5%), have master degree (29.3%) and travel with their family (73.2%). 79.1% of respondents travel individually while 20.9% travel with tours. In order to find the priorities in the intrinsic motivations, the mean of factors and Friedman test are applied. Both have similar results which are available in table 4. The mean of the intrinsic motivations ranged from the lowest mean score (2.82) to the highest mean score (4.52) (Table 4). The main factors of the intrinsic motivations behind visiting Alisadr Cave are enjoyment (4.41),

relaxation (3.97) and novelty seeking (3.83). According to Friedman test's results - last column in table 4- the enjoyment with 4.83 is in the first place and then relaxation, novelty seeking, escape, socialization and knowledge get 3.92, 3.78, 3.51, 2.82 and 2.42.

Table 4. The results of intrinsic motivations

	Intrinsic motivation	Intrinsic Motivation Factors	Mean of Factors	Mean of Scores	Friedman test
1	**Enjoyment**	Do something exciting and thriling	4.30	4.41	4.83
		Enjoy different scenery	4.52		
2	**Relaxation**	To refresh my mental and physical state	4.13	3.97	3.92
		To relax and reset in this place	3.81		
3	**Novelty seeking**	To seek the beauty of nature	3.95	3.83	3.78
		To explore new places	3.72		
4	**Escape**	To escape from the daily routine	3.68	3.61	3.51
		To escape from the pressures of the work and life	3.54		
5	**Socialization**	To travel with my friends, family or someone special	4.00	3.45	2.82
		To meet people with similar interests and hobbies	2.90		
6	**Knowledge**	To learn new things and enhance my knowledge	2.82	2.92	2.42
		To experience new things	3.02		

Table 5. The results of the extrinsic motivation

	Extrinsic motivation	Extrinsic Motivation Factors	Mean of Factors	Mean of Scores	Friedman test
1	**Identified**	Because I have carefully thought about it and believe it is very important for many aspects of my life	3.12	3.61	2.38
		Because it is consistent with my life goals	3.73		
		Because I wanted to take a look what the attraction is	3.98		
2	**Introjected**	Because I wanted the others to have good impression about me	2.56	3.34	2.29
		Because I would feel guilty or ashamed of myself if I did not	3.67		
		Because I wanted the others to think I am a part of their group	3.79		
3	**External regulation**	Because others would be upset with me if I did not	2.00	2.27	1.33
		Because others gave me no choice	2.62		
		Because I want others to approve of me	2.19		

By using mean of factors and Friedman test (Table 5), we showed the top rankings of extrinsic motivations and both results are completely similar. The highest mean scores are (3.61) which represent the identified factor. Whereas the lowest mean score is (2.27) which relates to external regulation factor. So, the major factor of extrinsic motivation is the identified motivation. Pearson's Correlation Analysis and Liner Regression Analysis were applied in order to find out the relationship among variables. Table 6 illustrates that there were positive correlations between two independent variables (Intrinsic and Extrinsic), and the dependent variable (Satisfaction). It means that the stronger Intrinsic and Extrinsic motivations the travelers had the higher satisfaction they experienced.

The result of the data revealed that there were significant positive relationships between the dependent variable and the independent variables: intrinsic motivation (r=.599**, p<.01) and extrinsic motivation (r=.335**, p<.01). The regression coefficient of intrinsic and extrinsic motivations were β=.550, p=.000 and β=.134, p=.000 respectively. This implied that intrinsic and extrinsic motivations had positive effects on destination

satisfaction at the 99% confidence level. Furthermore, intrinsic and extrinsic motivations could explain 37.5% the variation of destination satisfaction ($R2$=.375).

Table 6. The results of correlations between variables

	Intrinsic motivation	Extrinsic motivation
Satisfaction	.599**	.335**

** Correlation is significant at the .01 level (2-tailed)

Table 7. The results of regression analysis

Model	R	R Square	P-Value	Durbin-Watson
1	.612[a]	.375	.000[a]	2.072

a. Predictors: (Constant), extrinsic, intrinsic
b. Dependent Variable: satisfaction

Table 8. The results of Coefficients [a] between variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.660	.104		25.651	.000
	intrinsic	.190	.015	.550	12.904	.000
	extrinsic	.076	.024	.134	3.154	.000
a. Dependent Variable: satisfaction						

DISCUSSION

Motivation is one of the key factors behind behavior models. According to Adair (1990), motivation covers all reasons which influences the way an individual acts. Consequently, without a tourist's motivation to travel there would be no travel industry.

The mission of tourist behaviour theories is to present the prosperous areas of tourist needs, as a source of data for researchers to use in their particular investigations of "satisfaction, decision making and marketing" (Pearce & Butler, 1994, 116).

Therefore comprehending a tourist's motivation is an important factor especially in marketing in tourism studies. The findings of motivations in this study were summarized in figure 5. First the intrinsic motivations then extrinsic motivations have the most to least scores. Totally the results of this study are based on the more powerful impact in intrinsic motivations than extrinsic in visiting Alisadr cave. Since the identified with the first place among the extrinsic motivations, according to figure (1) is somewhat internal and external regulation which is the most extrinsic has the least average. Neulinger (1974) says the most studies in recreation activities shows that recreation is an intrinsic motivation and people do it for themselves not for a reward.

On the other hand, in geotourism "enjoying the beauty of geosite" and "knowledge" is the two sides of a coin as Dowling and Newsome (2006, p. 4) stressed that geotourism is "sense of wonder, appreciation and learning" (Allan, 2015). According to the table 4, the surveys show that "enjoyment" is the major intrinsic motivations whereas "knowledge" is in the last place. Meaning that tourists have the least attention to it. The matter is that if "knowledge" is not the tourist's favors, the geosite management should lead them to it. For instance the complex which has a high number of visitors needs to have information centers and to have knowledgeable tour guides so they can improve the educational level as well. Unfortunately Alisadr lacks these kinds of centers. Some of the guides are university students, whilst others leave the village for temporary work at other locations. The statistical findings showed that intrinsic and extrinsic motivations had positive

impacts on tourists' satisfaction. In addition, intrinsic motivation had more significant effect on tourists' destination satisfaction than extrinsic motivations. This means that when travelers have stronger intrinsic desires to go on a vacation and perception towards the features, attractions, or attributes of a specific destination, they may get higher satisfaction about this destination. Therefore, it was concluded that the internal and psychological forces of cave tourists attributes are more important than tourists' external forces in enhancing satisfaction. In another word, their satisfaction degrees to this destination are much depended on their own personal wants and needs.

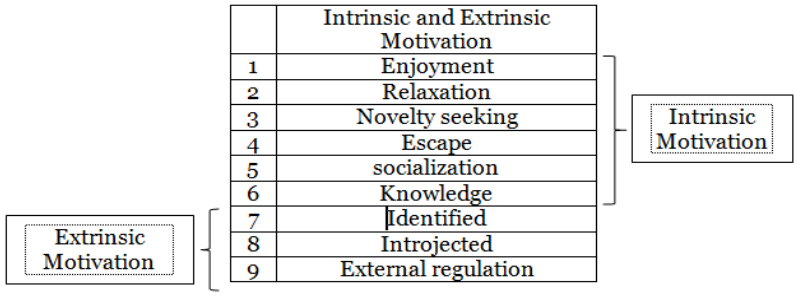

Figure 5. Priorities in intrinsic and extrinsic motivations

CONCLUSION

This study intended to identify travel motivation of tourists in Alisadr cave and investigate the relationships among the intrinsic and extrinsic motivations and tourists satisfaction. Based on previous theoretical and empirical studies, the research conceptual framework were constructed. According to research findings, it can be concluded that both intrinsic and extrinsic motivations have significant and positive influence on tourist's destination satisfaction. Intrinsic and extrinsic motivations are the effective tools to explain and predict destination satisfaction. By identifying the significant dimensions of tourist satisfaction, the tourism organizations and travel researcher can sensitively analyze the causes of general satisfaction/dissatisfaction and rectify them accordingly.

Therefore, the research's outcomes are expected to assist destination marketing practitioners who develop overall management of cave tourism resources. The findings of this research can be used as valuable and accurate information for destination marketers and managers to implement strategies and plans, to not only attract more potential visitors, but also enhance their destination satisfaction and encourage them to re-visit Alisadr cave in the near future.

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EXAMINING THE NATURE INVOLVEMENT AND GREEN CONSUMPTION VALUES OF NATURE PHOTOGRAPHY TOURISTS

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Abstract: This study examines the nature involvement and green consumption values of nature photography tourists. A questionnaire, developed and based on the literature, was used to collect data from the members of nature photography associations located in Adana and Mersin, Turkey. A total of 277 usable responses were obtained. Results suggested that attractiveness, identity expression and social bonding were the main involvement reasons for nature photographers. Results also suggested that there was a strong correlation between nature photography tourists' nature involvement and their green consumption values. Conclusions and implications were drawn based on the findings.

Key words: nature, alternative tourism, photography, involvement, green consumption values

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INTRODUCTION

Over the recent decades, it has been observed that people are much more concerned about alternative forms of tourism rather than travelling in masses. People increasingly demand services that would allow them to enjoy aesthetic, authentic, and rejuvenating experiences on the basis of their personal interests. Similarly, awareness of environmental problems and natural resources have also given rise to alternative forms of tourism. Consequently, a number of tourism types have arisen as alternatives to mass tourism, which are referred to as 'alternative' tourism (Dowling & Fennell, 2003).

Although special interest tourism has emerged as a distinct product in the 1980s, it was a neglected area for both tourism managers and researchers until 1990s (Brotherton

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& Himmetoglu, 1997). However, special interest tourism as an alternative form of tourism is expected to experience a boost as long as its importance in tourism marketing and its economic impacts are appreciated (McKercher & Chan, 2005). Therefore, developing products and services tailored according to the needs and expectations of travelers in search of alternative experiences becomes vital for the success of destinations.

Participants of special interest tourism are observed to have different profiles and motivations compared to mass tourists. Special interest tourists' motivations and decisions are shaped by their special interest when it comes to the attributes of the destination (Trauer, 2006). According to Swarbrooke and Horner (1999), special interest tourists are motivated by their desire to visit places in order to enjoy their special interests or hobbies. As such, special interest tourists travel in smaller groups, are members of middle to upper income groups, and have lower price sensitivity. They are also experienced, extroverted and adventuresome people in search of novel experiences and destinations unlike the mass tourists (Brotherton & Himmetoglu, 1997). Studies on special interest tourism suggest that these tourists travel more frequently, spend more, stay longer and participate in more activities compared to mass tourists (Mackay et al., 2002; Sezgin & Yolal, 2012). Regardless of the motivation, expectation and involvement behind travelling, photography plays a fundamental role in tourism (Scarles, 2010), and special interest tourism is not an exception.

As Haldrup and Larsen (2003: 23) note, taking photographs is an emblematic tourist practice. Therefore, tourism and photography practices of tourists have been an important topic for tourism, anthropology and sociology scholars (Hamond, 2001; Gillespie, 2006; Brickell, 2012). Several studies examined the effect of tourist photographs on attitudes towards the destination and the destination image (Human, 1999; MacKay & Couldwell, 2004; Hunter, 2008; Kim & Stepchenkova, 2015). There is also a large body of research on tourist-host interaction or picturing the others (Cohen et al., 1992; Gillespie, 2006; Caton & Santos, 2008).

As a result of increasing interest into photography, a boost in photography tours has been observed, and many travel agencies have included photography tours into their product range. Similarly, photography has been one of the pioneering activities in which tourists are involved in (Scarles, 2012). Moreover, the act of placing nature photography as the prime reason to take a tour may be an important social activity for the tourists (Markwell, 1997). This tendency can be explained by the involvement theory.

The involvement theory suggests that both the hedonic value and the symbolic or sign value of the product class are important antecedents of involvement (Beatty et al., 1988). According to the theory, highly involved people engage in certain behaviors, such as attending events, examining new services, showing interest in service or product categories and conducting ongoing searches (Beatty et al., 1988). Similarly, tourists' green consumption values and their nature involvement have strong influences on their use and perception of nature (Moisander, 2007) as a photographic object. While tourist photography is examined in various contexts, such as social and cultural consequences on the local populations, little attention has been given to the nature involvement of nature photographers and their green consumption values during nature photography tours. Therefore, this study attempts to examine nature involvement and green consumption values of nature photographers, in an effort to contribute to the growing body of literature on this phenomenon. A comprehensive review of nature photography, involvement and green consumption values literature is provided in the next section. Thereafter, methodology utilized in this study is described, and the findings of the study are presented. Finally, conclusions drawn on the basis of discussion and implications for the destination managers are provided along with the study limitations and suggestions for future studies.

LITERATURE REVIEW

Nature Photography

Photography is a major force in the manipulation of imagery in travel and tourism, and an important component of the experience itself. Photographs provide the means of recollecting the experiences of those who took the holiday, as well as sharing them with friends and relatives who did not (Garrod, 2007). The camera mediates reality for the tourist; it gives shape to his or her experience (Garlick, 2002), and moreover, it conveys the appearance of participation in the situation (Sontag, 1977). Albers and James (1988) note that travel photography formulates and institutionalizes what tourists see and how they see it and further formulate how tourists know and understand what they see. Photography is a socially constructed medium for communicating imagery in travel, and such an imagery is crucial for the tourists in order to remember the experiences and show them to others. According to Kim and Stepchenkova (2015), tourist photographs project organic destination images which are interpreted on the receiving end of the communication channel by potential tourists, influencing their tourism-related attitudes and affecting their behavior. Photography's important role in tourism (Albers & James, 1988) can be attributed to tourists' interactions with nature and environment (Garlick, 2002). Photography helps tourists to verify their participation to a special event, an occurrence or a destination, and to document their remembrance and experiences. Therefore, tourists are mostly characterized by their cameras (Sontag, 1977; Chalfen, 1979).

Although a plethora of studies have examined the relationship between photography and society, there is limited research solely focusing on photography and tourism (Sontag, 1977; Chalfen, 1979; Albert & James, 1988; Teymur, 1993; Markwell, 1997; Garlick, 2002). This may be explained by the fact that photography-based tourism has not been evaluated as a distinct tourism market segment (Palmer & Lester, 2008).

In search of authenticity, tourists seek items to gaze upon that conform to the representations of places and cultures they have internalized from home, and then record them (typically with their cameras), thus replicating and reinforcing extant perceptions (Caton & Santos, 2008). Moreover, tourist photography can be regarded as a ritualized activity, inherent in the activity of travelling, more than a goal in itself (Cederholm, 2004). Further, Cederholm notes that taking photographs has its norms and conventions. As such, tourists should take a picture of those icons or destination markers which are regarded as typical for a place. For example, people may have difficulty in understanding whether someone has visited Paris or not unless a picture of the Eiffel tower is shown in their travel photographs collection. Photography is first and foremost for remembering the framed moment. Garlick (2002) explains that photography has great significance on memory due to its intrinsic relation to time and space. However, authors also suggest that, due to recent advances in photographing and sharing technologies, it also acts as a communication and identity formation tool (Garry & Gerrie, 2005; Van Dijck, 2008). In this vein, Van Dijck (2008) explains that communication and identity formation are not novel uses but have always been intrinsic functions of photography. The construction of identity involves a relation to the past, whereby events located in another time and space bring their force to bear on the present (Garlick, 2002). Further, it is expressed that the changing role of photography is part of a complex technological, social and cultural transformation (Van Dijk, 2008). It has to be underlined that these transformations are out of our conceptualization of photography in the context of this article.

Regarding the motivations of tourist photographers, Chalfen (1979) suggests that it is uncertain how much they rely on their cameras to document or 'prove' that they have experienced some degree of authentic native life. For example, in her study on backpackers' photography experiences Cederholm (2004) determined four analytical

themes that backpacker tourists photographed: framing the unique, framing the social scene, catching the moment and the deviants among backpackers. According to the author, the first three indicate the photographic and experiential ideals of the backpackers, and the fourth underlines the norms of the backpacking culture through the narratives on the deviants. Another issue while taking photographs of native life is the willingness of people to be in that frame. In this sense Chalfen (1979) notes that not all people feel the same way about either being photographed or seeing themselves in photographs. He argues that tourists and/or hosts may be exercising conflicting ethnocentric judgements when determining appropriate camera use. In this vein, Crang (1997) suggests that the idea or practice of capturing and accumulating sights suggests opportunities to use the activities of picturing to understand people's relations to landscapes and places.

Overall, it is important to underline the distinction between the tourists that take photographs during their travels and the ones who travel for the purpose of photographing. Understanding this distinction is important for the tourism suppliers. Hence, tourists who travel for taking photos have differing needs and expectations (Palmer & Lester, 2008). These types of tourists can travel individually or they can participate in specific tours organized by specialized travel agencies. Similarly, they can take part in photo-safaris that aim to travel to see and photograph fauna or flora, cultural and folkloric wealth and the native life in a certain area (Akpınar & Bulut, 2010). As such, photography tourists have the chance to directly travel to unique places rather than touring individually, and they can easily overcome transportation, time and financial drawbacks (Batur et al., 2013). In a broader sense, most tourism may be described as nature-based tourism. In this sense, nature-based tourism is primarily concerned with the direct enjoyment or experience of a relatively undisturbed natural phenomenon. Irrespective of their interests, all tourists take photographs while they are touring in nature. As such, nature photography includes the depiction of living, untamed animals and uncultivated plants in a natural habitat, geology and the wide diversity of natural phenomena, from insects to icebergs. According to the Federation of International Artistic Photography (FIAP, 2014) "nature photography is restricted to the use of the photographic process to depict all branches of natural history, except anthropology and archaeology. In such fashion a well-informed person will be able to identify the subject material and certify its honest presentation. Human elements shall not be present, except where those human elements are integral parts of the nature story such as nature subjects, like barn owls or storks, adapted to an environment modified by humans, or where those human elements are in situations depicting natural forces, like hurricanes or tidal waves. Scientific bands, scientific tags or radio collars on wild animals are permissible. Photographs of humans who created hybrid plants, cultivated plants, feral animals, domestic animals, or mounted specimens are ineligible, as is any form of manipulation that alters the truth of the photographic statement".

In essence, nature photography aims to depict living or non-living beings in their natural environment (MEGEP, 2012). It can be argued that nature photography plays an important role to register and promote the natural wealth of destinations, and concurrently helps to create environmental awareness. In line with this, nature photographers are expected to behave responsibly, facilitate the promotion of natural sites, and concentrate on natural problems. Natural responsibility is a prime goal for the nature photographers. In so doing, they try to minimize their impact on the nature while touring.

Involvement

Involvement is defined as the perceived personal importance and/or interest consumers attach to the acquisition, consumption, and disposition of goods or services (Mowen & Minor, 1998). Involvement was an important topic for tourism researchers

during 1990s (Selin & Howard, 1988; McIntyre & Pigram, 1992; McGehee et al., 2003; Gursoy & Gavcar, 2003; Gross & Brown, 2008). Involvement is considered to be linked to consumers' interest, excitement, and enthusiasm for various aspects of the consumption process (Rothschild, 1984). Similarly, Zaichkowsky (1985) defines involvement as the internal attachment of a person towards a certain product / service / place / experience on the basis of his or her needs, personal values or interests. When applied to leisure, involvement is used in reference to people's perceived importance of various recreational activities and associated products, leisure service agencies, or settings (Havitz & Dimanche, 1997). As suggested by involvement theory, involvement occurs when a product is related to important values, need, or the self-concept (Beatty et al., 1988). Further, Beatty et al., note that greater involvement would be engendered by relating important values or the self-concept to the usage of the product.

There are three factors that determine individuals' involvement with a certain leisure activity (Zaichkowsky, 1985) personal, physical, and situational. Personal factors are related to internal interests, values or needs that motivate an individual into a certain object or action. Physical factors stem from the intrinsic attractiveness of the object or action. Finally, situational factors are related to the individual's temporary interest in a certain object or action (Zaichkowsky, 1985). Involvement has also been associated with personal values, ego-involvement, and importance and risk perceptions (Jamrozy et al., 1996). Zaichkowsky (1987) further notes that consumers assign both emotional and rational values to products or experiences.

However, as noted by Gursoy and Gavcar (2003), opinions about the dimensions of involvement are mixed and most researchers agree that the concept has a multidimensional structure. The literature suggests that different situations and contexts that individuals are in affect the level of involvement (Cohen, 1983; Andrews, 1988; Zaichkowsky, 1985). Researchers, who accept involvement as a cognitive state, have tried to measure involvement with variables such as ego, interest, risk perception and importance in purchase behavior. Finally, some scholars argue that it is sufficient to measure the importance of the product for the consumer to understand the involvement level (Arslan & Bakır, 2010). Involvement is classified as low involvement and high involvement (Silayoi & Speece, 2004). In low involvement, consumers do not search extensively for information about the brands, products and services (Kotler et al., 1996). On the other hand, high involvement requires consumers to intensively search and evaluate information before the purchase or consumption. Hence, leisure experiences require high levels of psychological involvement, where involvement is characterized by a narrowing of attention, loss of awareness of time passing, and mood elevation (Mannel, 1980 cf. Havitz & Dimanche, 1990). As such, involvement refers to a temporary experience where one is intensely engaged in a pleasurable activity and other stimuli or stresses which seem to be perceptually screened (Bloch & Bruce, 1984). In this context, photography hobbyists have a strong psychic investment in the activity, a career in developing their skill and shared knowledge base, and identify strongly with others engaged in the activity (Stebbins, 1992). Leisure tourism takes the most diverse forms and enhances, first of all the esthetical potential of the geographical area; it is easily associated with all the other types of tourism and is suitable for all ages (Gozner, 2015). Therefore, photography can be determined as a pleasurable, high involvement state where people devote much effort, time and money in photography and related activities.

Green Consumption Values

Society has become increasingly aware of environmental issues as a result of an industrial manufacturing worldwide (Chen, 2013). Therefore, sustainable production and consumption are major goals for governments, industry players, and researchers.

Although consumption is the keystone towards economic growth, it puts a twofold environmental burden on the natural environment: firstly via the depletion of non-renewable natural resources, and secondly via pollution (Abeliotis et al., 2010). However, Haws et al. (2010) note that consumers are increasingly faced with choices between 'green' products, and more firms manufacture products that are positioned as environmentally friendly. This trend has resulted in green marketing as a reflection of societal marketing whose roots go back to the 1970s (Altunöz et al., 2014). Green marketing is defined by the American Marketing Association (2015) as the marketing activities of products that are presumed to be environmentally safe, and incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, and modifying advertising. Consequently, consumers have become more concerned about whether their consumption decisions would harm the nature or contribute to sustainable approaches (Moisander, 2007).

Running parallel to the above, a study by Gilg et al. (2005) has suggested that green consumption may be more appropriately termed sustainable consumption or a component of any move towards sustainable lifestyles. However, this requires consumer involvement in environmental problems, green consumption and sustainable lifestyles. As such, green consumers search information on the new products, share their knowledge with others, and consider the environmental concerns while making decisions on their purchase behaviors (Çabuk et al., 2008). On the basis of their results, Gilg et al. (2005) conclude that move to sustainability and sustainable lifestyles will be a gradual process incorporating purchase-related and habitual elements that cross conventional behavioral boundaries. However, Kim and Choi (2005) suggest that it is important to increase consumer awareness of the environmental issues, and a continuous effort is needed to achieve a more environmental production and consumption behavior.

As a global activity and dependent on the well-being of the natural resources, tourism requires a productive and rational use of the natural resources (Cetinel & Yolal, 2009). As such, alternative tourism which is consistent with natural, social and community values (Wearing & Neil, 1999) helps to overcome problems associated with mass tourism. In this vein, ecotourism has become increasingly recognized and legitimized as a means of achieving sustainable development in destination areas (Sharpley, 2006). An ecotourist can be identified as a green tourist who has a distinct appreciation towards nature tourism and engages in nature-based activities (Sheena et al., 2015). Ecotourists help the environment and the locals while trying to reduce their impact on the environment because of their social consciousness and responsible attitude (Bădulescu & Bâc, 2009). Within the context of leisure activities, photography can be conceptualized as a pleasurable, high involvement state. Bryan (1979 cf. Bloch & Bruce, 1984) explains that: "As the photographer becomes more involved, there seem to be two divergent directions that his hobby can take. He can become a gadget manipulator or an artist. The former finds fascination in all the equipment available for purchase… In a sense, the camera and its accompanying paraphernalia become ends in themselves". Photography tourists with a higher degree of involvement are even willing to re-enact actions in order to experience the environment from the perspectives of green consumption. Moreover, a study by Mc Gehee et al. (2003) suggests that tourists with higher involvement are more active and willing to participate in activities more frequently, and they spend more at the destinations compared to tourists with lower involvement. Similarly, Pettit and Sheppard (1992) report that those tourists with higher involvement in green consumption also spend more compared to mass tourists. Therefore, understanding the nature involvement dimensions of nature photography tourists and their green consumption values is key for the managers and marketers of nature-based tourism destinations.

METHODS

Questionnaire Design

A questionnaire was developed based on the literature. The first part of the questionnaire included 15 items to measure involvement of nature photographers developed from Kyle et al. (2007). Second part of the questionnaire had 6 items to measure green consumption values of the participants and these items were developed from the study of Haws et al. (2010). The scales were measured on a five-point Likert-type scale. Respondents were asked to indicate how strongly they agree or disagree with each item in the scales. The final section of the questionnaire included items to gather information about respondents' demographic characteristics. A pilot test was conducted between the 3rd and 15th of March 2014. Necessary changes were made on the survey instrument on the basis of pilot test results.

Data Collection

The study population was comprised of the members of photography associations located in Adana and Mersin, Turkey. This population was comprised of 472 registered members in two photography associations. Data were collected utilizing a self-administered questionnaire from individuals who were registered members of Adana Association of Amateur Photographers (AFAD) and Mersin Association of Amateur Photographers (MFD) between 20th of March and 3rd of May 2014. In order to increase the response rate, both leave-and-pick (İbeh et al., 2004: 157-163) and web survey were utilized. A total of 332 questionnaires were collected by the end of data collection process. However, 45 were incomplete or inaccurate and thus eliminated from further analysis. As a result, 287 usable questionnaires were retained for the analysis.

Analysis

Data coding was followed by the controls of accuracy of data coding. Further, data were controlled for missing values. No missing values were detected for the first scale. However, it was seen that only one questionnaire had missing values in the involvement scale, and these values were replaced by the mean values of the scale items. SPSS 19.0 was utilized for data analysis. Since multivariate techniques were planned to be used to analyze the data, multiple outlier analysis was conducted for both scales. Mahalanobis distance was used to find outliers in a set of data. This method measures each observation's distance in multidimensional space from the mean center of all observations, providing a single value for each observation (Hair et al., 2010). Therefore, Mahalanobis distance measure D^2 for both scales were calculated t test approach was preferred for the purpose of detecting multiple outliers. The D^2 measure divided by the number of variables/items involved (D^2/df) was approximately distributed as a t-value (Hair et al., 2010). If any D^2 value is greater than t-value determined with a small significance level like α: 0,001, for the degree of freedom based on the item (variable) numbers is considered as a multiple outlier.

For the first scale of nature involvement, 3 observations of which D^2 were greater than t-value ($t_{15;\ 0.001}$=3.733) were identified as multiple outliers. Further, in the scale of green consumption values 7 observations of which D^2 were greater than t-value ($t_{6;\ 0.001}$=5.208) were identified as multiple outliers. They were removed from the data set. Consequently, the analysis was conducted on a sample of 277 surveys. Initially Mahalanobis distance and percentiles ((j-0.5)/n) were estimated in order to conduct multiple normal distribution test. Further, inverse cumulative chi-squared distribution values were calculated on the basis of percentiles. Finally, the data was assumed to be normally distributed if Mahalanobis distance values and chi-square values formed a line on the graph (Kalaycı, 2006; Alpar, 2011). Further, multiple normality test was conducted. Estimated correlation values were found to be 0.982 for the scale of nature involvement and 0.978 for the scale of green consumption values. These values were higher than the recommended values for the degree of freedom (Kalaycı, 2010). As such, the correlation values calculated for both scales were found to be

higher than recommended values at a significance level of p = 0.05, which means that both scales were multiple normally distributed. The missing value determination and the normality tests were followed by descriptive analysis, exploratory factor analysis and correlations on the basis of study objectives.

Reliability of the Measures

Reliability analysis of the scales were analyzed initially for the overall scale, then splitting the scale into two (Table 1). Further, odd and even numbered items were also evaluated on the basis of their Cronbach Alpha values. Moreover, item-total correlation coefficients and multiple R^2 were also calculated for the scales. It was seen that 6 itemed green consumption values scale had an item-total correlation value ranging between 0.477 and 0.668, and a multiple predictor (R^2) value ranging between 0.250 and 0.504. In line with this, 15 itemed nature involvement scale had an item-total correlation value ranging between 0.638 and 0.784, and a multiple predictor (R^2) value ranging between 0.535 and 0.859. It is recommended that item-total correlations should be higher than 0.250 (Kalaycı, 2010: 412) and multiple R^2 values be between 0 and +1, but closer to +1 and not less than 0.300 (Alpar, 2012: 391). In the green consumption values scale all the items had multiple R^2 higher than 0.400 while one item had a value of 0.250. There was no single item that would increase the reliability of the scale when deleted. When overall scale reliabilities of the scales were examined, it was seen that both scales had higher α values.

Table 1. Reliability analysis of the scales

Ceofficients	Green consumption values scale	Nature involvement scale
Number of items	6	15
Reliability of the first half of the scale	0.794	0.925
Reliability of the second half of the scale	0.695	0.905
Reliability of the odd numbered scale items	0.636	0.883
Reliability of the even numbered scale items	0.670	0.875
Reliability of the randomly selected 143 questionnaires	0.782	0.942
Reliability of the randomly selected 144 questionnaires	0.850	0.940
Least and highest item-total correlation values	0.477-0.668	0.638-0.784
Negative item-total correlation values	N/A	N/A
Least and highest multiple R^2 value	0.250-0.504	0.535-0.859

RESULTS

Table 2 presents demographic profiles of 277 respondents. Slightly over half of the respondents were male (53.4%) and more than half of them were married (52.7%). A large number of respondents were between 30 to 39 years old (62.1%). Respondents were mostly university graduates (90%). Almost half of the respondents had a monthly income between 751 to 1500 USD. Participants were asked whether they stayed overnight while they were in nature photography tours (Table 3). It was seen that almost 90 percent of the respondents participated in a nature photography tour at least once. It was also found that 42.6 percent of the participants joined a nature photography tour 1 to 3 times and stayed at the places they visited. Similarly, 29.6 percent joined a tour more than 10 times without staying. Most of the participants noted that they had a special training for photography (81.2%). Study results suggested that 74 percent of the respondents bought locally produced products when they were on the photography tour.

Participants reported that they spent at least 10USD and 100USD at most for the local products, and their average purchase was calculated to be 30 USD during a tour. Further, participants reported that they spent 300USD to 7400USD on the equipment, and their average expense was found to be 1588USD. Exploratory factor analysis was

conducted in order to reveal the underlying dimensions of green consumption values (Table 4). The exploratory factor analysis of 6 items of green consumption values yielded a single factor (and explained 53.3 percent of the variance), and labeled as *green consumption values*. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of .814 also indicated that patterns of correlation were relatively compact and yielded reliable factors. Barlett's test results (546,250) indicated the appropriateness of the factor analysis ($p<0.000$). None of the individual loading was less than 0.50, and the reliability coefficient of the delineated factor was 0.817.

Table 2. Demographic profile of the respondents

Gender	N	Percent
Female	129	46.6
Male	148	53.4
Marital status		
Married	146	52.7
Single	131	47.3
Age		
Between 18-29	62	22.4
Between 30-39	172	62.1
Between 40-61	43	15.5
Education		
High school and below	32	11.6
Undergraduate	181	65.3
Garduate	64	23.1
Monthly income (USD)		
Between 300-750 USD	81	29.2
Between 751-1500 USD	138	49.8
More than 1500 USD	58	20.9

Table 3. Respondents' participation to nature photography

Frequency	Stayed overnight		Daily	
	N	Percent	N	Percent
Never	26	9.4	2	0.7
1-3 times	118	42.6	68	24.5
4-6 times	66	23.8	55	19.9
7-9 times	34	12.3	70	25.3
10 or more times	33	11.9	82	29.6

Table 4. Exploratory factor analysis of green consumption values

Green consumption values	Factor loadings	Eigen values	Variance explained	Mean	Reliability
		3.2	53.341	4.56	0.817
I consider the potential environmental impact of my actions when making many of my decisions	0.798			4.52	
I am concerned about wasting the resources of our planet	0.769			4.52	
I would describe myself as environmentally responsible	0.759			4.59	
My purchase habits are affected by my concern for our environment	0.722			4.37	
It is important to me that the products I use do not harm the environment	0.705			4.61	
I am willing to be inconvenienced in order to take actions that are more environmentally friendly	0.615			4.65	

A similar exploratory factor analysis for the 15 nature photography involvement scale resulted in three factors: *attractiveness*, *identity expression*, and *social bonding*. These factors explained almost 77.6 percent of the variance (Table 5). Eigenvalues of these factors ranged from 6.12 to 1.05. Cronbach's alpha coefficients for all three dimensions were greater than 0.7 as suggested by Nunnally (1978). The reliability coefficients for the three factors were 0.929 for attractiveness, 0.925 for identity expression, and 0.850 for social bonding. Each item loaded on a single factor with a loading greater than 0.50. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.894 indicated that patterns of correlation were relatively compact and yielded reliable factors. Barlett's test results (3,566,482) indicated the appropriateness of the factor analysis ($p<0.000$). The first factor revealed that nature photography played an important role in the lives of the participants. Therefore, this factor was labeled as *attractiveness*. The items under this factor indicated that participants enjoyed and were satisfied by nature photography. The second factor was about how the participants wanted to be understood and perceived by others. In order to be coherent with the previous literature (Selin & Howard, 1988; McIntyre, 1989; McIntyre & Pigram, 1992) this factor was labeled as "identity expression". Finally, the third factor was about social acceptance and social benefits, and labeled as *social bonding*.

Table 5. Exploratory factor analysis of nature photography involvement

Nature photography involvement items	Factor loadings	Eigen values	Variance explained	Mean	Reliability
Attractiveness		4.101	29.292	4.33	0.929
Nature photography is one of the most enjoyable things I do	0.873			4.51	
Nature photography is very important to me	0.869			4.46	
Nature photography is one of the most satisfying things I do	0.855			4.36	
I find a lot of my life organized around nature photography	0.764			4.21	
Nature photography occupies a central role in my life	0.727			4.13	
Identity expression		4.067	29.051	3.84	0.925
You can tell a lot about a photographer by seeing them nature photographing	0.855			3.75	
Nature photography says a lot about who I am	0.844			3.86	
When I am in nature photography tours, others see me the way I want them to see me	0.839			3.92	
I identify with the people and image associated with nature photography	0.809			3.73	
When I deal with nature photography, I don't have to be concerned with the way I look	0.789			3.93	
Social bonding		2.698	19.274	4.46	0.850
Most of my friends are in a way connected with nature photography	0.855			4.35	
Nature photography tours provide me an opportunity to be with my friends	0.832			4.52	
I enjoy discussing nature photography experiences with my friends	0.635			4.61	
I can really be myself during nature photography tours	0.540			4.37	
Total variance explained			77.617		.935

Table 6 shows correlations between green consumption values and the dimensions of nature involvement. There was a significant but relatively weak relationship between green consumption value and dimensions of involvement (0.133 to 0.172). On the other hand, results suggested that there was a meaningful and significant correlation between

the dimension of identity expression and attractiveness (0.548), and between identity expression and social bonding (0.578). Similarly, a significant correlation was also found between social bonding and attractiveness (0.679).

Table 6. Correlation matrix

	Mean	SD	Attractiveness	Identity expression	Social bonding
Green consumption value	4.56	0.40533	0.133*	0.154*	0.172*
Attractiveness	4.33	0.63874		0.548**	0.679**
Identity expression	3.84	0.82926			0.578**
Social bonding	4.46	0.58652			

*Correlation significant at p<0.05
**Correlation significant at p<0.01

CONCLUSION

Although tourism and photography practices have been an important research topic, ecotourists' photography practices received little attention from tourism scholars despite the increasing importance of nature and environment in terms of both sustainability of the resources and the tourist destinations. Therefore, one of the major contributions of this study is that it examines nature involvement and green consumption values of nature photography tourists. By examining the participants' demographic characteristics and their photography experiences, this study hopefully will contribute to a growing body of knowledge on the relation of photography and tourism. Further, the study results offer valuable information for the nature based destinations in order to tailor their offerings and attract ecotourists, specifically the nature photography tourists.

Nature photography tourists are younger; most of them are under 40 years old. Gender distribution and marital statuses are quite even, and this profile is consistent with the profiles of participants in rural tourism and ecotourism studies (Park & Yoon, 2009; Wurzinger & Johansson, 2006). Considering the fact that photography is a rather costly hobby, monthly income levels of the participants are higher than the average norm. Similarly, they have higher education levels. While on tours, participants frame natural attractions such as flora, fauna and scenic beauties, they also encounter natural and manmade barriers. The study results demonstrated that green consumption values formed a single dimension. This is to say that green consumption values of nature photography tourists are strongly related to the careful use of both natural and personal resources. This finding is coherent with the study of Haws et al. (2010) suggesting the confirmation of the reliability of the scale.

The green consumption values are strongly related to the careful use of not just collective, environmental resources, but also personal resources (Haws et al., 2010). As such, participants consider the potential environmental impact of their consumption behavior, define themselves environmentally responsible, and appreciate products that do not harm the environment. This suggests several implications for the destination managers and marketers. First, it is important to protect the environment for the sustainability of the resources. This requires a collaborative approach among businesses, decision makers and most importantly, the consumers. Further, promotion of environmentally friendly actions should be encouraged at the destination level.

The results of the exploratory factor analysis showed that attractiveness itself is the prime dimension of nature involvement for the nature photographers. This may also be important for shaping the memories of the trip which is taken home. The importance of those photographs in the lives of people who travel solely for photographing cannot be underestimated. Sonntag (1979) explains that photography is a way to certify the experience: 'taking photographs is also a way of refusing it-by limiting experience to a

search for the photogenic, by converting experience into an image, a souvenir'. Therefore, protection and sustainability of the natural resources and attractions play a crucial role for the success of the destination (Vasvári et al., 2015). The results also indicated that identity expression serves as an important factor for the participants. As Larsen (2006) puts it, 'photograph performances are pleasurable and our holiday photos that celebrate the world's famous places, our achievements and personal relationships are precious belongings'. Similarly, Chalfen (1987) notes that tourist photographs are characterized as an expression of conspicuous success, personal progress and general happiness.

Social significance of photography was clearly supported earlier by Markwell (1997). In coherence with Markwell's discussions, photography seems to be a way of strengthening bonds between the photographers; places visited by the photography, cameras, lenses and related jargon speed ups the social interaction among peers. Further, the purpose of nature based tours, namely photography may also serve as a boundary between this group and the less technically oriented group (Markwell, 1997). In line with this, it is also found that social bonding is an important dimension of involvement.

Unexpectedly, dimensions of involvement showed a moderate correlation among each other. It is seen that dimensions of involvement are more important for the nature photography tourists compared to green consumption values. This result suggests that nature photographers participate in photography tours mainly for the social expectations rather than green consumption behaviors. This could be explained by the growing importance of socialization in contemporary society where individuals feel increasingly solitary. Therefore, the socializing role of nature based activities should be augmented while the green consumption values are promoted among the nature photography tourists.

Drawing data from the nature photography tourists in Adana and Mersin, Turkey, this study investigated the involvement levels and green consumption values of nature photography tourists. The findings revealed the relative importance of socializing among the participants. However, the study has some limitations. The primary limitation of the study is its relatively small sample size. Further studies with larger sample size would strengthen the results of this study. Additionally, this study examined solely the involvement and green consumption values of photography tourists. Therefore, similar studies examining the relation of involvement and other variables such as information search behavior, motivation and satisfaction will expand our understanding of nature photography tourists.

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IMPLICATIONS OF CLIMATE CHANGE FOR TOURISM IN AFRICA

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Abstract: Tourism has grabbed the attention of the policy makers and politicians in Africa to bring about labour intensive jobs, economic growth and act as a catalyst for other industries. Although the tourism industry is sensitive to external conditions in terms of its performance and it is often referred to as a contributor to climate change (UNEP and WTO, 2005). With tourism growth as an almost certainty, tourism share of pollution will increase. Climate change remains a threat towards sustainability of the tourism sector globally, and has negative impacts at the destination area, which must be managed to improve the standard of living and quality of life for the host community. This paper identifies the immediate constraints to the tourism sector regarding climate change in the African continent by juxtaposing the benefits and the drawbacks poised by climate change. There is evidence on Africa's reliance on the tourism industry. The mitigating, amicable and practical solutions on combating climate are highlighted.

Key words: climate change, tourism, Africa, sustainable development, aviation

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INTRODUCTION

Climate has an influence in the tourism industry and plays a crucial role as a motivating factor to the tourists and the tourism destinations. The tourism sector is recognised as one of the most important sectors in the economy. The direct contribution of the travel and tourism sector to the Gross Domestic Product in 2014 was 3.1% globally and is forecasted to rise by 3.3% in 2025 (World Travel and Tourism Council, 2015). The socio-economic benefits of the travel and tourism sector are noted widely as the tourists travel from one place to another. Although the natural environment of the destination offers opportunities for tourism development through natural resources such as marine, land etc; the United Nations Environment Programme (UNEP) and World Tourism Organization (UNWTO, 2012) indicated that tourism contributes to human-induced climate change and to the effects that climate change is having on the distribution of biodiversity as a consequence of changes in rainfall patterns, water availability,

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temperature and related factors. The tourism sector accounts for around 5% of global carbon dioxide emissions into the atmosphere (UNWTO, 2012).

Human capital plays a crucial role as a determining factor on benefiting from the tourism sector and dealing with the impacts of climate change.

Climate change is a major factor impacting upon local economic development futures (Rogerson, 2016). According to Wegner et al., (2009), climate change provides a generic category of threat that arises out of global human actions (in which tourism participates) but is predominantly external to the tourism system - both in terms of its causes and the remedies that are likely to mitigate it. Continuous conversations around climate change remain at the centre of negotiations in the world.

Climate change affects the entire world and its species negatively, hence the existence of the United Nations Climate Change Conference (UNCCC) held on a yearly basis forms part of an intervention by different countries to finding out solutions towards sustainable practices of adapting to the changing conditions. Climate change is recognized as a major global issue. UNCCC's objective is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (United Nations Framework on climate change, 2005). Several countries benefit in terms of hosting such events, countries such as Lima in 2014, Paris in 2015 etc. The participation and the response of the countries differ due to the resources and the deep impact of climate change.

TOURISM AN AS IMPORTANT FACTOR TO THE ECONOMY IN AFRICA

Tourism remains an underlying force in the African continent. Tourism is receiving more focus from governments, globally, as a growth strategy and a developmental tool (Sifolo, 2015). Tourism is promoted as a result of its positive economic impact that will hopefully flow to the citizens and the economy if there was proper tourism planning to ensure that tourism improves the standard of living and the quality of life of the country. Tourists in most countries could be seen as a means of diversifying the economy. Hinch (1990), states that the 1970s saw Cuba return to international tourism primarily because it was anxious to diversify its economy so as to reduce its dependence on the sugar cane industry. In the case of South Africa, Henama (2014) noted that tourism was identified by the governing African National Congress (ANC) as an engine of growth as traditional industries such as mining and agriculture had a declining share in employment and contribution to the Gross Domestic Product (GDP). Considered as part of a country's export industry, with importers such as tourists visiting the country, "tourism has the potential to unlock unnumerable economic opportunities for a country; from increased foreign currency receipts to the generation of jobs from allied industries'' (Mauela & De Vera, 2015).

Tourism has a greater economic impact on an economy, as the injection of tourism revenue has a direct, indirect and induced impact on the economy. According to Rusu (2011), the demand for local products increases as tourists often buy souvenirs, which increases secondary employment. Tourism uses "free" resources such as coastline, mountains, and natural beauty which are abundant in the developing countries of the world. Tourism is able to redistribute money as a result of tourism expenditure, hence it's imperative that tourists are geographically dispersed in a country. Tourism is a catalyst for other industries such as agriculture and construction, only if pro-poor tourism was the planning guideline for the industry. The United Nations Conference on Trade and Development (2010) noted that "tourism linkages to other economic sectors are diverse and deep. The sector requires support, for example, to build and operate hotels, restaurants, and other tourism-related facilities through backward linkages with basic

infrastructure services such as, energy, telecommunications, environmental services, agriculture, manufacturing and construction services".

The labour intensive jobs created by tourism, mean that the growth of the tourism economy is associated with the growth in employment. This is a result of the character of the tourism product offerings, which is essentially a service supported by tangible physical attributes to deliver an intangible tourism experience that is simaltenously produced and consumed. A country is free to attract tourists from any country in the world, as it's impossible to put in trade barriers on tourism. Governments are able to increase tax coffers as they can tax non-citizens, and this taxation of non-citizens can go towards the state revenue for the creation of public infrastructure and super-structure that can be used by both locals and tourists. It is for this reason, that tourism is promoted by both developed and developing countries.

The industry is highly favoured by many countries owing to its ability to boost the economic confidence. Europe was leading in international tourist arrivals at 582 million and had 509 US$ billion when it comes to tourism receipts (World Tourism Organisation, 2015). The table below indicates tourist arrival forecast by different regions (Table 1).

Table 1. Forecasts of International Tourist Arrivals Worldwide and by Region: 2010-2020 (Source: United Nations World Tourism Organization, 2009)

	Tourist Arrivals (millions)		
Regions	**2000**	**2010**	**2020**
Europe	390	527	717
East Asia/Pacific	116	231	438
Americas	134	195	284
Africa	27	46	75
Middle East	19	37	69
South Asia	6	11	19
World	692	1,047	1,602

The above table predicts an increase in international tourist arrivals from Europe within the next 4 years. South Asia is at the bottom with a forecast of only 19 million tourist arrivals. Tourism unfortunately happens primarily between developed countries in the West, with Africa receiving less than 10% of global tourism receipts. This means that the tourism benefits the countries that needs it the least, and therefore limiting the developmental ability and potential of tourism. It must however be noted that tourism is disproportionally important for African economies that are weak, and dependent primarily on extraction industries that have suffered due to the drop in commodity prices. Tourism is usually promoted for its positive economic impacts, which politicians usually over emphasise. However, the negatives should also be observed. Tourism has negative impacts at the destination area, which must be managed. Tourism has the responsibility to improve the standard of living and quality-of-life for the host community. There is still a big challenge in the developing countries, particularly, the African countries, regarding marshalling political commitment and technical capacity on climate change and tourism policies. Yet, the governments from different countries play a key role towards dealing with the adaptation of the sustainable practices towards minimising the risk on climate change policies.

IMPACT OF CLIMATE CHANGE TO THE TOURISM SECTOR

Climate change has an impact to the tourism sector, particularly in developing economies. According to the UNEP and UNWTO (2012), tourism is a significant contributor of greenhouse gas (GHG) emissions at the global scale, hence the African

continent participates in global efforts for climate change mitigation that support and broaden the policy space for sustainable development on the continent (African Union, 2014). The UNEP and WTO (2012) identified key challenges that are facing the tourism industry and its sustainability as (1) energy and greenhouse gas (GHG) emissions; (2) water consumption; (3) waste management; (4) loss of biological diversity; (5) effective management of built and cultural heritage; and (6) planning and governance.

Given the fact that the GHG emissions are highlighted as a major challenge, perhaps understanding the impact and finding ways to participate is crucial. There are measures in place like carbon tax, which is one of the economic instruments that can be used to achieve a cost-effective reduction in emissions. According to OECD Environment Policy paper (2013), carbon tax is a form of explicit carbon pricing; it refers to a tax directly linked to the level of carbon dioxide (CO2) emissions, often expressed as a value per tonne CO2 equivalent. According to OECD (2013), the international community agreed that deep cuts in global emissions would be needed to limit the increase in global average temperature as a result of human activity to 2°C above pre-industrial levels in 2010. Hence, there is an international call for governments to be ambitious and act through the policies to achieve a net zero emissions from fossil fuel combustion in the second half of this century (OECD, 2013).

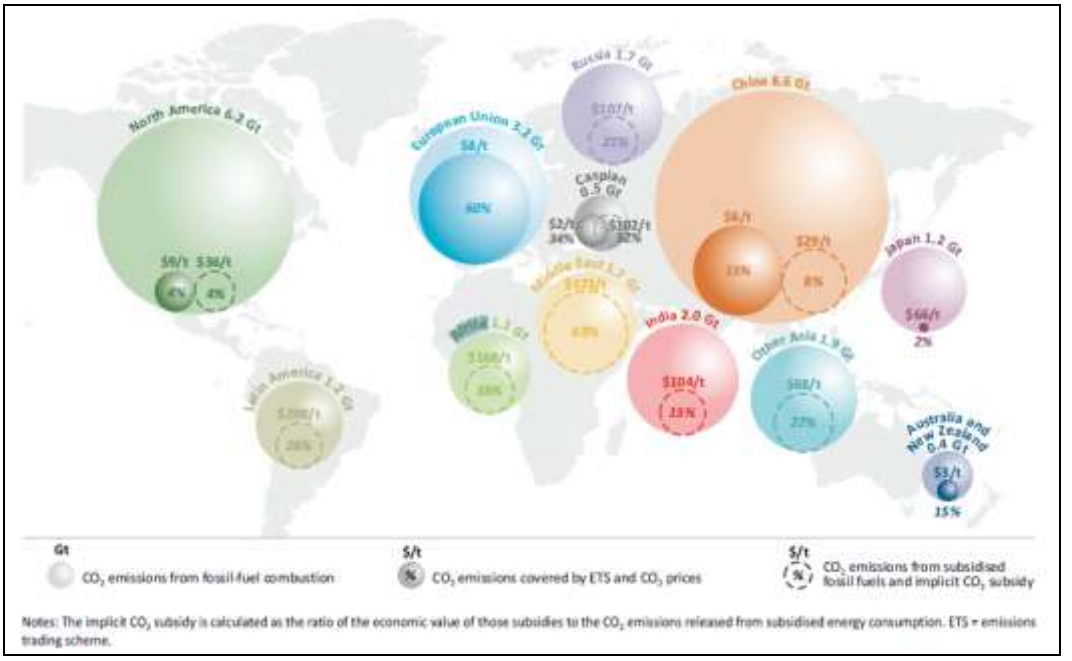

Figure 1. Energy-related CO2 emissions in selected regions, 2014
(Source: OECD/IEA, 2015)

There are countries that are implementing the carbon tax already. The British Columbia adopted the tax rate at the Subnational level in 2008, whereas all of the following countries applied the tax rate at the national level; Chile (2014), Costa Rica (1997), Denmark National (1992), Finland (1990), France (2014), Iceland (2010), Ireland (2010), Japan (2012), Mexico (2012), Norway (1991), South Africa (2016), Sweden (1991), Switzerland (2008) and the United Kingdom (2013). Figure 1 below indicates the energy-related CO2 emissions in selected regions, 2014 which covered 3.7 Gt (11 %) of global energy-related CO2 emissions and an aggregate value of $26 billion.

From the countries mentioned, Norway and Sweden were the pioneers; South Africa is the only country in the African continent that has introduced the carbon tax. This is evident as it is reflected in the insight series of the International Energy Agency (2013). According to Newham and Conradie (2013) the South African government has emphasised the need for a 'developing country' solutions to climate change that simultaneously pursue GHG reductions and socioe-conomic development.

The Rio+20 UN conference titled "the future we want" drew attention to the green economy (Reddy & Wilkes, 2015); stresses the holistic and integrated approach to sustainable development (Livina and Atstaja cited in Reddy & Wilkes, 2015), the UNEP and WTO advocated for greening of the tourism industry as a solution (UNEP and WTO, 2012); one may raise a question as to whether the entire concept of the green economy or greening of the tourism industry clearly stipulated and understood by other developing economies that are still facing intense issues such as poverty, inequality, recession, natural disasters, wars and conflicts, terrorism just to name a few.

Based on the above statement, in the developing world, the construction of knowledge about climate change vulnerabilities is still at a minimum scale. Consequent framing of climate change adaptation policy is largely driven by international actors and generic world views. Majority of developing countries remain the recipients of information from the developed countries due to the persistent challenges they are facing. As a result one is probed to ask a question on the involvement of the African countries.

EVIDENCE OF CLIMATE IN THE AFRICAN COUNTRIES

There has been confirmation on climate change effects within the African countries such as South Africa with a decrease in rain fall and high temperature and flooding disaster in the northern Algeria resulted in about 800 deaths and economic loss of about $400 million, a severe drought in the entire East Africa region said to be "the worst drought in 60 years", Mozambique etc. (Deonarain, 2014). The Climate Change Vulnerability Index for 2015 demonstrated that Zimbabwe, Sierra Leone, Madagascar, Mozambique, Democratic Republic of Congo and Malawi are at risk from climate change in Africa (Maplecroft report, 2011). The same list includes other countries from emerging markets. Africa has seen a decrease in rainfall over large parts of the Sahel and Southern Africa, and an increase in parts of Central Africa. Over the past 25 years, the number of weather-related disasters, such as floods and droughts, has doubled, resulting in Africa having a higher mortality rate from droughts than any other region.

According to Deonarain (2014), there are eight ways in which climate change is already affecting Africa (1) impacts on weather patterns, (2) Impacts on Water Supply and Quality (3) Impacts on Agriculture and Food (4) Impacts on Human Health (5) Impacts on Shelter (6) Impacts on Vulnerable Population (7) Impacts on National Security and (8) Impacts on ecosystems. One may therefore raise a question as to whether, should the African continent be worried?

According to Seneker (2012), the true motivation underlying the global warming movement is almost certainly ideological and political in nature. Based on the explanation provided by Wood, et al., 2016, there is already a poor 'fit' between policy design, UN-led support programmes, and Least Developed Country (LDC) implementation contexts means that Clean Development Mechanism– climate-compatible energy access (CDM–CCEA) beneficiaries tend to be higher-income developing countries (UNEP-Risoe, 2013d). On the other end, Eriksen et al., 2011, indicated that the developed countries are committed to the goal of jointly mobilizing USD30 billion for the period 2010–2012 (and an additional USD100 billion a year by 2020) to address the climate-related challenges of developing countries.

One may argue that based on the above mentioned ideologies, the developed countries have indicated the possible solution and are participating toward the mitigation on the effects of climate change. Eriksen et al., 2011 state that for sustainable adaptation to take place there are principles that need to be followed. These principles observe the current status of all the countries as follows; (1) recognize the context of vulnerability, including multiple stressors, (2) acknowledge that different values and interests affect adaptation outcomes, (3) integrate local knowledge into adaptation responses and (4) consider potential feedbacks between local and global processes. Consistent mitigation and adaptation issues can be attained and observed by the international community.

Perhaps paying attention and trying to find solution towards addressing pertinent issues such as the poverty rate in Sub Saharan Africa which is just under 50% of the population (UNEP & WTO, 2012) is key to warrant sustainable adaptation principles. Countries like Rwanda, Cape Verde, Zanzibar, Tanzania, Tunisia, or 300 million people (with the threshold for extreme poverty is now US$ 1.25 a day) poverty prevails (UN, 2008). The question may arise as to where should the focus be? Based on Eriksen et al., suggestion for sustainable adaptation to take place, addressing issues like poverty remain a priority. Africa was the lightest polluter and yet would suffer the worst effects of global warming. Moreover, the research by Dator and Yeoman, titled "Tourism in Hawaii 1776-2076: futurist Jim Dator talks with Ian Yeoman", raised a question as to where will the money, energy, and time come from to adapt effectively to climate change? The Pan African Parliament is hoping to speak with one voice regarding adoption and the mitigating issues related to climate change. Despite the challenges and diverse predicaments facing the African continent, the rest of developed countries have been instrumental in reducing and adapting to the means of climate change, through finance, technology as well as human capacity.

However, the opposite is true in the developing countries. This is evident from the G 77 People don't have enough knowledge and therefore must be protected against these impacts at the regional, national and international structures and speak with one voice through platforms like the Pan African Parliament (PAP). Such a platform can ensure that there is justice. Another way forward is that the African states should speak with one voice to defend the African interests because of climate change towards the mitigation and adaptation of sustainable practices.

FUTURE DIRECTION

There is a dire need for amicable and practical solutions on combating climate change whilst benefiting from the tourism industry; although the inclusion and participatory governance are not always straightforward and achievable in the context of climate policy making (Ojha et al., 2016). Perhaps sustainable tourism practices at the local level in each country and practical actions are eminent to address environmental issues such as climate change, sea level rise, water shortages, food shortages, new and renewed diseases, environmental refugees.

According to the African Union agenda 2063, the first aspiration for the continent is that "we want a prosperous Africa based on inclusive growth and sustainable development". One may argue that as part of a sustainable practice, the households in general or home dwellers must know their direct effect towards climate change. Moreover, government planning is crucial in emphasizing sustainable practices through adequate education, training and awareness. Moreover, government creates an enabling environment for tourism opportunities whilst prompting legislation on sustainable tourism practices, for example, South Africa. This includes basic issues like encouraging the use of public transportation systems and efficiency in the consumption of water and electricity. According to the AU Agenda 2063, Africa shall address the

global challenge of climate change by prioritizing adaptation in the actions, drawing upon skills of diverse disciplines and with adequate support (affordable technology development and transfer, capacity building, financial and technical resources) to ensure implementation of actions for the survival of the most vulnerable populations, including islands states, and for sustainable development and shared prosperity.

- Africa will participate in global efforts for climate change mitigation that support and broaden the policy space for sustainable development on the continent. Africa shall continue to speak one voice and unity of purpose in advancing its position and interests on climate change.
- Africa shall have equitable and sustainable use and management of water resources for socio-economic development, regional cooperation and the environment.

The Agenda 2063 (2014), further brings forth the programme of action on how to address climate change and preserve the environment which are as follows:

1. Identification of five regional technology centers, linking with national designated climate technology entities;
2. Programmes on climate change targeting women and youth;
3. A climate resilient agricultural development programme as CAADP;
4. A sustainable forest management programme;
5. National adaptation plans, systems and structures (National Designated Authorities and Implementation Entities). Given the above mentioned mitigating plans as identified in the Agenda 2063, researchers continue to differ in-terms of the leading roles and the implementation.

According to the Tourism in the Green Economy Report by UNEP and WTO (2012), the drivers of investment is sustainable strategic areas involves the sustainability drivers such as being concerned about the customer base on footprint, Host government to pay attention on policies and priorities regarding climate change mitigation and energy, uptake of Corporate Social Responsibility (CSR) and to observe the climate change impact on tourism sites. The report also highlights the implications such as increased substitution of fuels toward electricity, particularly increased investment in passive solar collectors and PV, alternative fuels for vehicles, increased number of project developers orienting business strategies toward, lower-carbon footprint, expectations of broader stakeholder base and the demand for carbon offsets and other mechanisms.

„We can't solve climate change by throwing money at it because we don't have enough money – and now enough credit – to throw anything at it but hard work and prayer" Jim Dator (2015).

Aknowlegments

Achas Safari. A Community-based Tourism, Conservation and Business Magazine. Tourism and Climate Change in Africa: Qua Vas Dis? By Pearl Portia Siyanda Sifolo in March-June 2016. Edition No: 001.

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A PRESENCE MORE AND MORE VISIBILE – THE VERY SMALL VILLAGES FROM THE DEPRESSION OF BEIUŞ, ROMANIA

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Abstract: The settlements with very small demographic dimensions from the coverage of the Depression of Beius register a consistent numerical increase in the period 1900-2011, which implies automatically also an increase of their number of population. The major causes consist of the presence of the phenomenon of depopulation from this depression area, the excessive administrative division in some cases, the insulated position in the administrative units in which are included also the morphological and morphometric characteristics of the relief. The tendencies observed in the present are, on one part, of perpetuation of this ascendant trend regarding the number of very small villages, and on the other side, is envisioned the disappearance in the close future of at least two such settlements, as a consequence of the absence of a stable population inside them. As possible solutions we can propose an agglomeration of some villages from some administrative units, but is a solution of form, not of fund, in the conditions in which the demographic rebound is impossible to be stopped, at least in the present moment.

Key words: very small villages, demographic evolutions, depopulation, Depression of Beiuş

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INTRODUCTION

The depression Beius is overlapped from the territorial point of view over the south-east part of Bihor county, being framed from three directions of mountain units: Codru-Moma (South-West), Bihor-Vlădeasa (East) and Pădurea Craiului (North-West) belonging to the Apuseni Mountains. In the North-West part is in contact with another depression space, Depression of Holod, this representing a continuation of the first one mentioned, over the altitudes of the Valanilor hills, Magura Forau and Codrului hills (Berindei et al., 1977; Bleahu & Bordea, 1981; Herman & Benchiş, 2017; Pop, 2005). The present study presents the analysis of the very small villages (under 200 inhabitants) from the perspective of the spatial distribution, of their numeric evolution and of their population, of the quantitative reports that are established between their number of inhabitants and the total population of the administrative unit from which they are part of. Is considered

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also the identification of the causes that determined their presence so consistent in this depression area, and the enunciation of some possible solutions of stopping their numerical boom (Antonescu & Popa, 2012; Erdeli & Cucu, 2005; Filimon, 2014; Ilieş & Staşac, 2000; Mălăiescu et al., 2010; Neguţ, 2011; Pop, 1995; Surd et al., 2007; Ungureanu et al., 2002; Nicoară, 1999). Depression of Beius represents a space predominantly rural, with a percentage of this type of population of over 70% from the total of population, of which 6,5% is with very small settlements (Bădescu et al., 2012).

The very small villages from the Depression of Beius, by their number and distribution, don't represent a negligible element in the beginning of this century, when the demographic evolutions from the Romanian area and not only, indicate an accentuated tendency of quantitative involution of population in both dwelling mediums (Cicharska, 2014; Muntele, 1998; Mureşan, 1999; Poenaru, 2009; Zaman & Georgescu, 2015; Safarova et al., 2008; Staşac et al., 2016). The constant increase of the number of these settlements, especially after the falling of the Communist regimen, reveal once more, if it was necessary, the size of the process of demographic ageing or even demographic dramatics that induces directly the demographic rebound. This affects much more strongly the rural area, where the demographic balances are more difficult to be maintained, so, implicitly, also these villages of reduced dimensions, that on the level of the year 2011 represented a fifth of the total of settlements from this depression (Bănică & Camară, 2011; Băcănaru et al., 2007; Ilieş et al., 2008; Pop & Benedek, 1996; Staşac & Herman, 2010; Surd, 2002). Other factors that work together to the high percentage of very small settlements are represented by the high administrative division specific to some administrative units, characteristics of the rural environment, the positioning of the villages in the units to which they belong or even on the level of this depression area.

THE MAIN CAUSES AND POSSIBLE SOLUTIONS

The causes that determined the great number of very small villages in the Depression of Beius in the beginning of this millennium are multiple, among them, being underlined the phenomenon of depopulation, the accentuated administrative division, the natural conditions, especially the elements of morphology and morphometry of the relief, but also the localization of the villages in the administrative units from which they are part of, and the level of the depression (Pop, 1995; Stoica, 2011; Staşac, 2005).

The phenomenon of depopulation of the villages has at its basis natural demographic causes, determined by the pronounced regress of the value of natality and the presence of a high mortality, caused by the high degree of ageing of the population, and mechanical causes, in the conditions when the fluxes of emigrants are more accentuated quantitatively than those of immigrants (Filimon, 2012; Giurcăneanu, 1988). This phenomenon is more visible in isolated settlements from the area of hills or mountains, having different intensities during the previous century, but with a consistent aggravation after the fall of the communist regimen.

Also as a consequence of a balance totally negative in the near future, a series of other villages will be able to be placed in this category, increasing more and more their percentage, but also of the specific population, inside this depression area. The manifestation with different intensities of this phenomenon is easy to be observed, so if we consider the temporal criteria, we can find for the communist period a certain stability of the number of inhabitants attributed to each village in part, and afterwards in the period of the postdecembrist democracy the decrease of population manpower would register a more pronounced rhythm in case of most of the villages. For example, the population of the village Câmp-Moţi is maintained over the limit of 200 inhabitants until 1992, when were registered 157 inhabitants, and in 2011 are present

only 64. The same strong regressive demographic evolutions have other settlements as: Bâlc, Coleşti, Criştioru de Sus etc. In exchange, some localities have a slower rebound of the number of inhabitants: Livada Beiuşului, Păntăşeşti, Giuleşti etc., either as a consequence of the position less peripheral in the administrative units, or as a consequence of some socio-economical or demographic factors (Pop, 1998).

The accentuated administrative division is another cause of the high number of very small villages from this depression area. A relatively recent example is that of the detach from the village Ţigăneştii de Beiuş of a new locality Păcăleşti. This was until 2008, a part of the locality Ţigăneştii de Beiuş, but following a written request of a number of over 150 inhabitants to be recreated this village, was organized a referendum in June 2007, that registered the desire of the majority of inhabitants that their locality would be repositioned on the administrative map which existed until the territorial administrative reform from 1968[1]. By the decision of the Parliament of Romania from October 2008 was recreated the village Pacalesti, as part of the commune Drăgăneşti[2], and, thus, the locality Ţigăneştii de Beiuş, from which the new village was detached, remained only with 40% of the initial population.

The relief by its characteristics, especially the altitude, inclination, exposition and fragmentation of the versants is transformed in a restrictive factor of inhabitance in some cases. The clinching example is offered in this case the villages Brusturi (still without electricity), Bâlc, Criştioru de Sus where their relative isolation had something to say by the migration of some important contingents of inhabitants to the commune seat and not only. The localization in some administrative units at large distances compared to the commune center can be another factor of the numerical involution of some villages.

Thus, along time this peripheral population tended to be close to the localities that still kept elements of economic, social or even demographic attractivity. The possible solutions are hardly to be emitted in the present national demographic context characterized by a descendent tendency of the number of inhabitants (Cucu, 2002). Thus, if viable solutions as, the increase of natality and the reduction of the fluxes of emigrants are hard or even impossible to be considered, an alternative could be the agglomeration of some neighbor localities. This is a solution of form, not of fund, in the conditions when the number of population continues to be reduced, being solved, thus, only the "problem" of the high number of very small villages from the depression area.

THE TERRITORIAL DIVISION AND NUMERICAL EVOLUTION OF THE VERY SMALL VILLAGES FROM DEPRESSION OF BEIUS

The territorial disposal of the very small villages in the coverage of the Depression of Beius indicates the presence of some higher concentrations of them in four areals (Figure 1).

- the first corresponds to the central part where it can be identified eight localities of very reduced demographic dimensions, positioned in the communes Drăgăneşti (three), Pietroasa (two), Lazuri de Beiuş, Rieni and Budureasa (each one with a village);
- the second is represented by the Western extremity, where there are located six such settlements, five included from the administrative point of view to the commune Soimi, and the last belonging to Finis;
- the third concentrates the settlements from the Southern and South-Eastern extremity, attributed to the town Vaşcău (three), to the commune Criştioru de Jos (two) and to the town Nucet (one);

[1]http://www.cdep.ro/proiecte/2008/000/50/2/doc52.pdf (consulted on 23.04.2017, 9:05).
[2]http://draganesti.ro/site/wp-content/uploads/2011/02/legea-de-infiintare-a-satului-pacalesti2.pdf (consulted on 23.04.2017, 9:10).

- the fourth situated in the North-North-Western part includes four very small villages from communes Căbeşti (two), Pocola and Remetea (one in each).

The numerical evolution of very small villages. The census of the population performed in year 2011 allows the placing of the 24 villages from Depression of Beiuş in the demographic category of very small settlements.

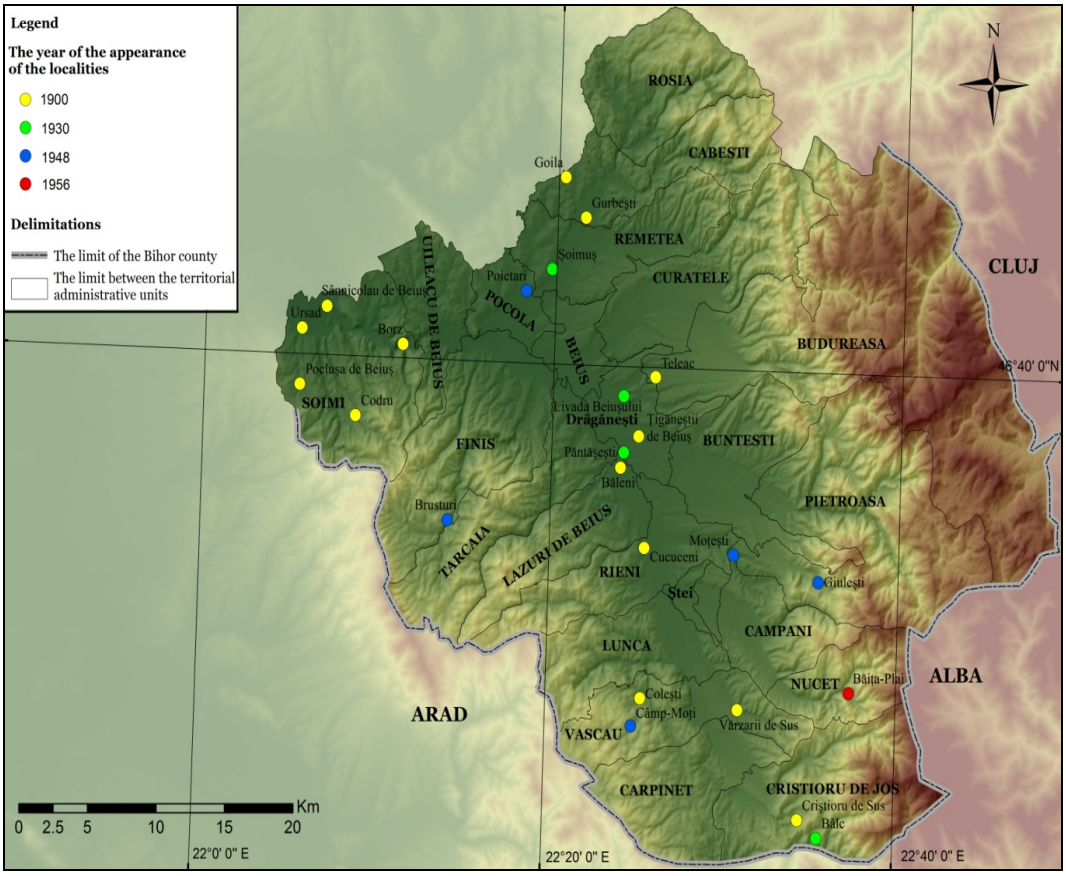

Figure 1. The geographical division and the evolution of the appearance of the very small villages from the Depression of Beius (Source: County department of Statistics Bihor)

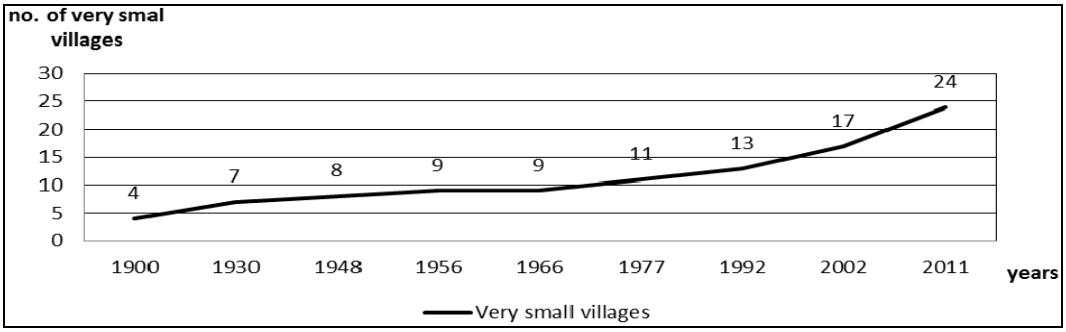

Figure 2. Evolution of the number of very small villages from Depression of Beius in the period 1900-2011 (Source: County department of Statistics Bihor)

This number still has varied in the analyzed period of time. Thus, for example, in 1900 there were only four localities with a reduced population of 200 inhabitants; in 1930 – seven; in 1956 – nine; in 1992 – 13; in 2002 – 17. If until 1956 the increase of the number of very small localities was due to the founding of new villages that still had no considerable population, after this year, but especially after 1977, the numerical growth of the very small settlements is caused by the demographic regression found in them (Figure 2).

The population of the very small settlements from the Depression of Beius registers an ascendant evolution of the values, thus, if in 1900 to the four very small villages belonged a total population of 552 inhabitants, representing only 0,8% of the population of the entire depression area, this percentage will grow slower during the previous century (1,5% in 1956, 1,8% in 1977) and more accentuated in the post communist period (2% in 1992, 4,4% in 2011) (Figure 3).

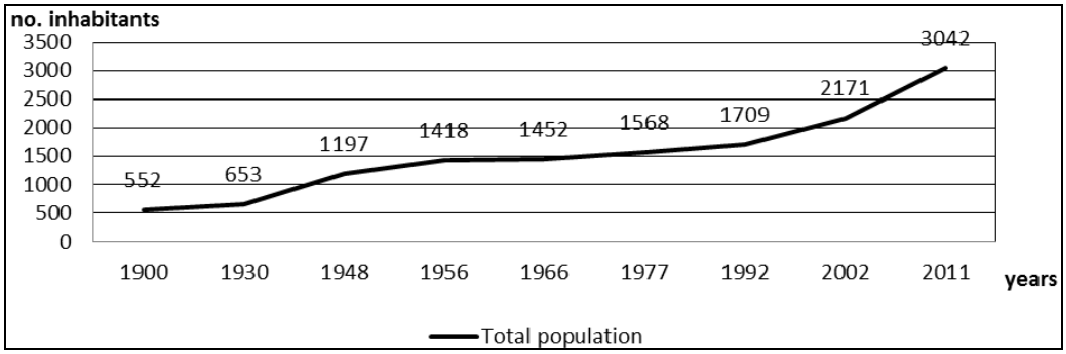

Figure 3. Numerical evolution of the population of the very small villages from Depression of Beius in the period 1900-2011 (Source: County department of Statistics Bihor)

From the four very small villages registered in the beginning of the previous century (Cucuceni, Poclușa de Beiuș, Codru, Goila), the first two will be situated in the entire analyzed period of time in this category. The third, Goila accedes between 1948-2002 in the category of small villages, while, the fourth, Codru succeeds to cross the number of 500 inhabitants beginning with the year 1930, being included in the medium villages, and afterwards a gradual demographic regression would bring it back in the initial demographic category. The transformation of some vills in settlements with legal statute determines, for year 1930, a growth up to seven of the very small villages, with a percentage of the population in the total population from the depression identical with the previous, of 0,8%. The new localities that appeared, with the number of four, don't reach the number of 100 inhabitants each (Bâlc, Livada Beiușului, Pântășești, Șoimuș).

On the level of year 1956 was created the last village placed in this demographic category, Băița-Plai, as a direct consequence of the debut of the mining exploitation from the area. Even if it registers only 150 inhabitants at that moment, its economic development is doubled also by a demographic one in the conditions when over a decade it crosses the number of 400 inhabitants.

These fulminatory evolutions are temporary, but as will be observed in the following years, when Băița-Plai reduced gradually and constantly the population effectives. In this year the population of the very small villages from the depression represent 1,5% of the total population, and in the following decades of the communist period, the percentage of this type of population would grow and also the number of very small localities. The first post communist census (1992) finds a number of 13 very small villages, with a total population of 1709 inhabitants, numbers that will be almost

double in the following decades. If in 2022 were registered 17 such villages, with a population of 2171 inhabitants, which represent 2,8% of the total population, in 2011, as we already recalled, there are 24 very small villages, with a total number of inhabitants of 3042. If we cross the rigid limit, imposed theoretically, of 200 inhabitants as upper demographic limit of the very small settlements and we analyze the data registered by the census, to these 24 localities will be added, if they hadn't already done it until the present, others, which in 2011 had a population of a bit over 200 inhabitants. For example: Saca, with 205 inhabitants; Vărzarii de Jos and Mierag, each with 208 inhabitants etc.

The rhythm of evolution of the population *number* of the very small villages calculated for the entire period included between the years 1900 – 2011 shows, particularly, for each locality the demographic tendency to which it corresponds. Thus, of the 24 villages from this category, 19 register negative values of this demographic indicator, the most decreased values being in Bâlc (-84%), Crișt ioru de Sus (-80%), Colești (-73%), Câmp-Moți (-72%) etc. Only five villages have positive numbers: Goila (6%), Livada Beiușului (13%), Păntășești (7%), Șoimuș (160%) and Codru (121%).

These, unfortunately, are not overlapped to an ascendant trend of the present population, but indicate the fact that at least for now the respective localities keep a number of inhabitants superior to year 1900. A comparing glimpse between the values of the rhythm of evolution calculated on the level of the administrative unit and the village/villages from its constituency allows the accomplishing of certain typologies, depending on the similitudes or differences found. Thus we can differentiate:

- the presence of a rhythm of evolution with negative values, on the level of the total population of the administrative unit, and in the very small villages from its constituency (Figure 4 a, b). To this specific correspond administrative units as: Vascau, with all the three very small villages from its subordination (Câmp-Moți, Colești and Vărzarii de Sus), with the mention that on their level the rhythm of evolution has strongly negative values that underline even the decrease with three quarters of the present population comparing to the initial one (Țucra, 2000);

Crișt ioru de Jos, whose very small villages, Bâlc and Crișt ioru de Sus mark also evolutions accentuated negative of the number of inhabitants, the first recalled keeping only a population of 10 persons; Pietroasa, with a more visible decrease of the number of inhabitants in the village Motesti; Budureasa; Lazuri de Beiuș and Pocola, on the level of which the situation is modified substantially, in the way that the descendent trend of the population effectives is more visible on the level of the administrative units and less in the very small villages from their constituency.

- the presence of a rhythm of evolution with positive values on the level of the administrative units and negative values in the component villages (Figure 5 a, b), specific in Nucet, where the town as administrative unit benefits of an demographic plus, while Baita-Plai registers a loss of approximately a quarter of the total population; in Rieni, which has a surplus of 10 percentage compared to the initial population, and the locality Cucuceni registers a major demographic decline; in Finis, where the village Brusturi holds only four inhabitants, with a decrease of over 90% of the population manpower.
- other types of models of evolution of this type of rhythm. In Draganesti, on the level of the administrative unit and in the two from the three very small villages, are present positive evolutions of the population manpower, and Țigănești i de Beiuș registers a bisection of the population number, following the detach from it of the new founded village Păcălești (Figure 6 a); in Șoimi, the situation is somehow reverse, in the way that UAT and the four of the five very small villages from its constituency have negative values of the rhythm of evolution, and the village Codru is the exception to the rule, with the number of over 120% (Figure 6 b).

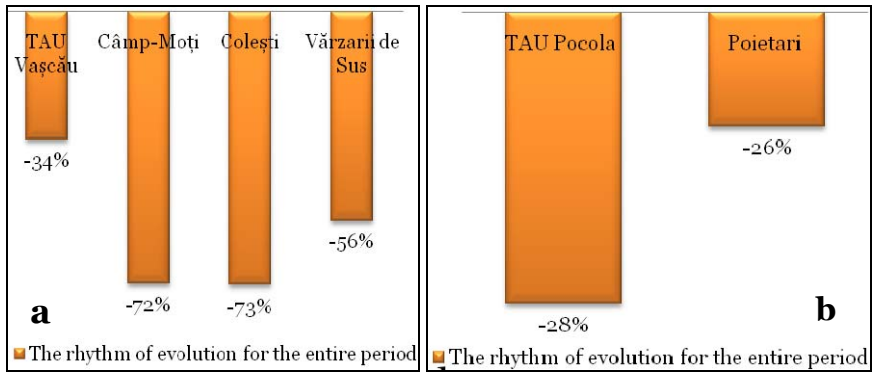

Figure 4. The rhythm of evolution for the entire period (1900-2011) for TAU[3] (Territorial administrative units) Vaşcău and the very small villages from its constituency (a) and TAU Pocola and village Poietari (b) (Source: County department of Statistics Bihor)

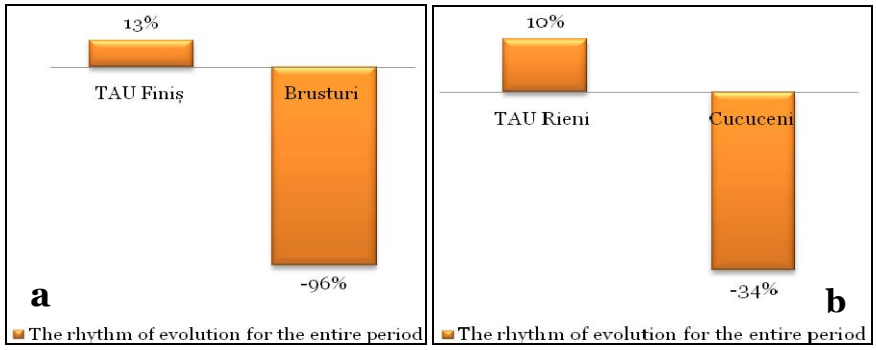

Figure 5.The rhythm of evolution for the entire period (1900-2011) for TAU (Territorial administrative units) Finis and village Brusturi (a) and TAU Rieni and village Cucuceni (b) (Source: County department of Statistics Bihor)

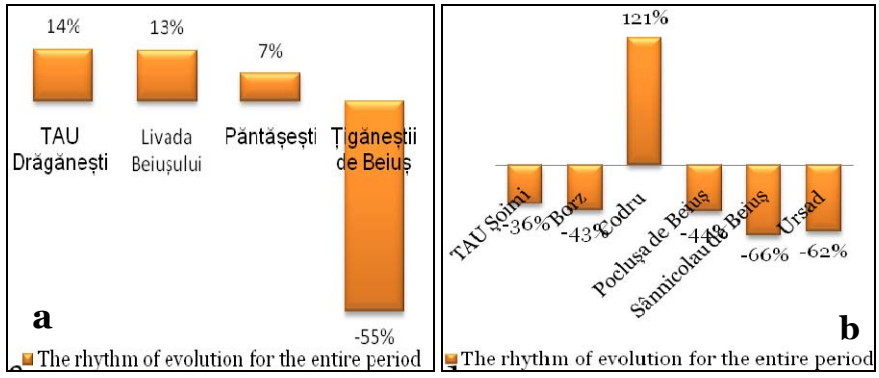

Figure 6. The rhythm of evolution for the entire period (1900-2011) for TAU (Territorial administrative units) Drăgănești and the very small villages constituent (a) and TAU Șoimi and the very small villages from its constituency (b) (Source: County department of Statistics Bihor)

To this specific are undersigned also the values of the rhythm of evolution from commune Căbești. Commune Remetea presents a different situation, in the way that on

[3] TAU - Territorial administrative units

the level of the total population is found a regress, and in village Soimus is found a substantial growth of the number of population in the analyzed period.

The annual average rhythm of evolution calculated for the eight periods of time shows the particular evolutions registered by these villages from the Depression of Beiuş (Figure 7). Thus, the synthetizing of the values obtained allows the accomplishing of a typology:

- In a first category we can include villages as: Băiţa-Plai, Câmp-Moţi, Giuleşti, Moţeşti etc., on the level of which is found a sudden decrease of numbers owned by this demographic indicator at a certain time, and afterwards the tendency of evolution of the number of population would be maintained regressive, but in more slower rhythm.

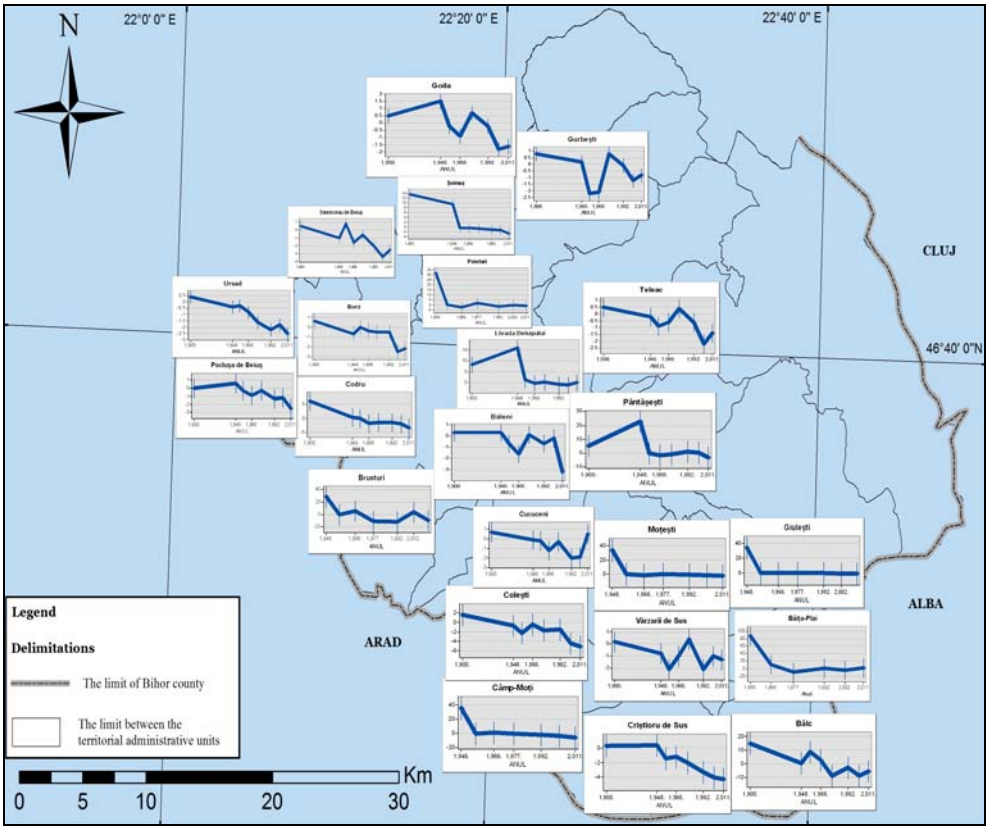

Figure 7. The annual average rhythm of evolution of the population of the very small villages from the Depression of Beius in the period 1900-2011 (Source: County department of Statistics Bihor)

- The second category corresponds to these villages that mark accentuated oscillatory evolutions of the annual average rhythm of evolution: Vărzarii de Sus, Goila, Băleni, Gurbeşti etc.
- A third category concerns the villages that own values of this rhythm that register a gradual rebound, as: Ursad, Codru, Coleşti.
- The last category proposed is that of those villages which on a general regressive fund of the average rhythm of evolution, register for the last period of time (2002-2011) a tendency of value appreciation of the percentages, for example the locality Cucuceni registers even a positive number, of 0,5%.

The percentage of the very small villages from the administrative units of which they are part of, the gap between the most reduced, respectively the most high being of 30% (Figure 8). Thus, we can accomplish a classification of the 13 administrative units that have in their constituency this type of settlements.

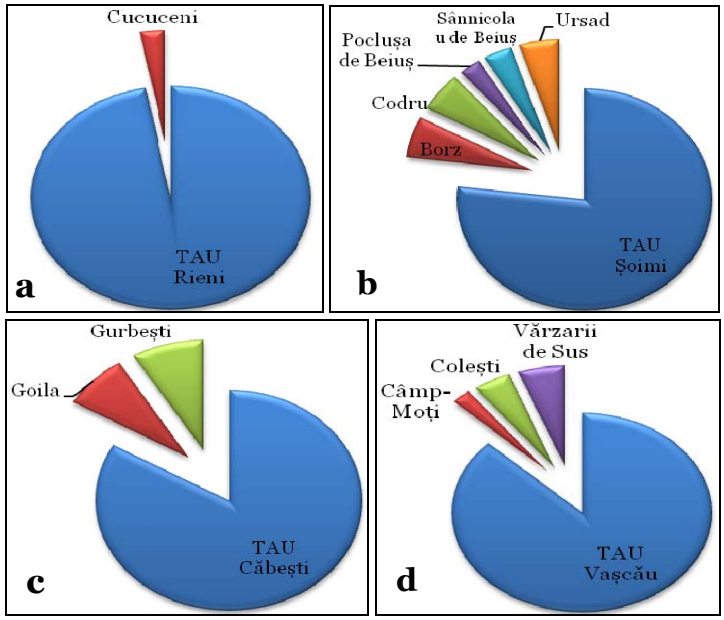

Figure 8. The percentage of the population of the very small villages in the total population of TAU in which are included in year 2011 (Source: County department of Statistics Bihor)

a. TAU with a percentage of the population of the very small villages of under 5% of their total population. These own in their administration only a single settlement of very reduced demographic dimensions and are the following: Finiș with the smallest village from the demographic point of view (Brusturi with only 4 inhabitants) with a population of 0,1% of the total; Remetea with a percentage of the population of the village Soimus of 4% of the total; Rieni with a value of 3% attributed to the population manpower from Cucuceni.

b. TAU with a percentage of the population of the very small villages between 5-10%. These are five, having in its constituency either of single settlement of this type (Pocola, with the village Poietari, which owns 7% of the total population; Nucet, with the village Baita-Plai, with 5%; Budureasa, with Teleac, with 6%), or with two such villages (Crișstioru de Jos, with the villages Bâlc and Crișstioru de Sus; Pietroasa, with Giulești and Moțești).

c. TAU with a percentage of the population of the very small villages of over 10% of their total population. This category includes five administrative units, these having two or more such villages in their administrative structure. For example: Vașcău and Drăgănești own three settlements of very small dimensions, whose population integrates a value of 14% of the total population of each administrative unit. The highest percentages of the population of very small villages in the administrative units from which they are part of are those of the communes Căbești, with 20% and Șoimi, with 30%. If in the case of the first the value is the result of the high percentage of population of each of the two village in the total population (Goila with 9,5%, Gurbești with 11,5%), in case of the second the high percentage is due to the large number of villages (5) that are in the constituency of commune Șoimi, identifying here values that vary between 4% (Poclușa de Beiuș) and 8% (Borz).

CONCLUSIONS

The depression of Beius is distinguished by the high number of very small settlements, spread especially in the central, southern, western and north-western part. Surprisingly the eastern part situated at the periphery of the mountain area, represented by the massifs Bihor and Vladeasa, don't include such settlements. From the evolution point of view, if on the beginning of the previous century this type of villages was weakly represented in this depression area, gradually their number increases by two methods, either by the transformation of some vills in villages, with legal statute, or by the numerical involution of the population of these villages. Thus, on the level of year 2011, a fifth of the settlements from the analyzed area are included in the category of very small villages, to these being allocated 5% of the total population. We can estimate that the tendency of growing of the number of these settlements will be maintained and even will be accentuated during the following centuries, in the conditions when there is a consistent reserve in the small villages, where more than 15 localities register a population of under 300 inhabitants. From the performing of a comparing analysis between the demographic evolutions registered on the level of the administrative units and the very small villages from their constituency was observed the presence of a multitude of situations, but still predominates as percentage, those in which the administrative units, and the villages included, hold a negative rhythm of evolution of population, and those in which the administrative unit that includes them is enjoying a rhythm of positive evolution and the localities of a negative one.

Regarding the percentage owned by the population of the very small settlements population in the total population of the administrative unit they are part of, is detached visibly in front of the classification the commune Soimi, in which the five constituent villages concentrate 30% of the total population, followed by Căbeşti with 20%, Drăgăneşti and the town Vaşcău, each with a value of 14%. The most reduced percentage is that of the commune Finis, where the village Brusturi with only 4 inhabitants doesn't succeed to cross 0,1% of the total population. The evolution particularities of the population manpower specific to each village, found with the help of applying the formula of annual average rhythm of evolution, show the presence of a regressive general fund of the population of these villages, with strong oscillatory evolutions or on the contrary with a tendency of gradual reducing, smooth, of the number of population manpower. The depression of Beius is placed therefore in the typical rural area, in which predominates the settlements of small and very small dimensions, specific in a great measure to this type of depression relief.

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NATURE, PHOTOGRAPHY AND TOURISM IN BIHOR-VLĂDEASA MOUNTAINS (ROMANIA)

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Abstract: The aim of the current study is to quantify the impact of the involvement of nature photography in tourism. The methodology relied on a questionnaire by which data from the tourists of the Bihor-Vlădeasa Mountains were collected. A total of 248 usable responses were obtained. The results suggested that the attractiveness of landscapes, the natural (such as forest resources and landscape resources) and man-made tourist sites, related to the historical and ethnographic cultural resources, emotions, joys, feelings and the emotional connection to certain areas of the Bihor-Vlădeasa Mountains were the main reasons for involvement in nature photography. Data interpretation revealed that there is a strong correlation between the involvement of tourists in nature photography and sightseeing, photography being a good reason for walking, movement and exploration.

Keywords: tourist sites, nature, tourist, natural milieu, man-made tourist resources

* * * * * *

INTRODUCTION

It can be said that the Bihor-Vlădeasa Mountains (Figure 1) hold a special place in the ranking of the most attractive tourist areas of the country through their spectacularity, density, originality and uniqueness of the natural (i.e. relief shapes, hydrography, biogeographical resources such as forestry and landscape resources, etc) and man-made tourist attractions (such as historical, cultural, ethnographic resources,

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etc). The local interest resorts of Arieşeni, Stâna de Vale, Beliş - Fântânele (Figure 4) and tourist destinations such as The Limestone Plateau Padiş, Vlădeasa, Ruginoasa Grove, Drăganului Valley (Figure 2), Sighiştelului Valley, Remeţi and Lesu Lake belong to the high tourist potential areas' category given their natural landscape and altitude, the slopes' exposure, the length of the slopes, as well as the cold but not very humid summers, favorable to hiking and winters with a stable snow layer favorable to winter sports and thus to tourism in general (Figure 3).

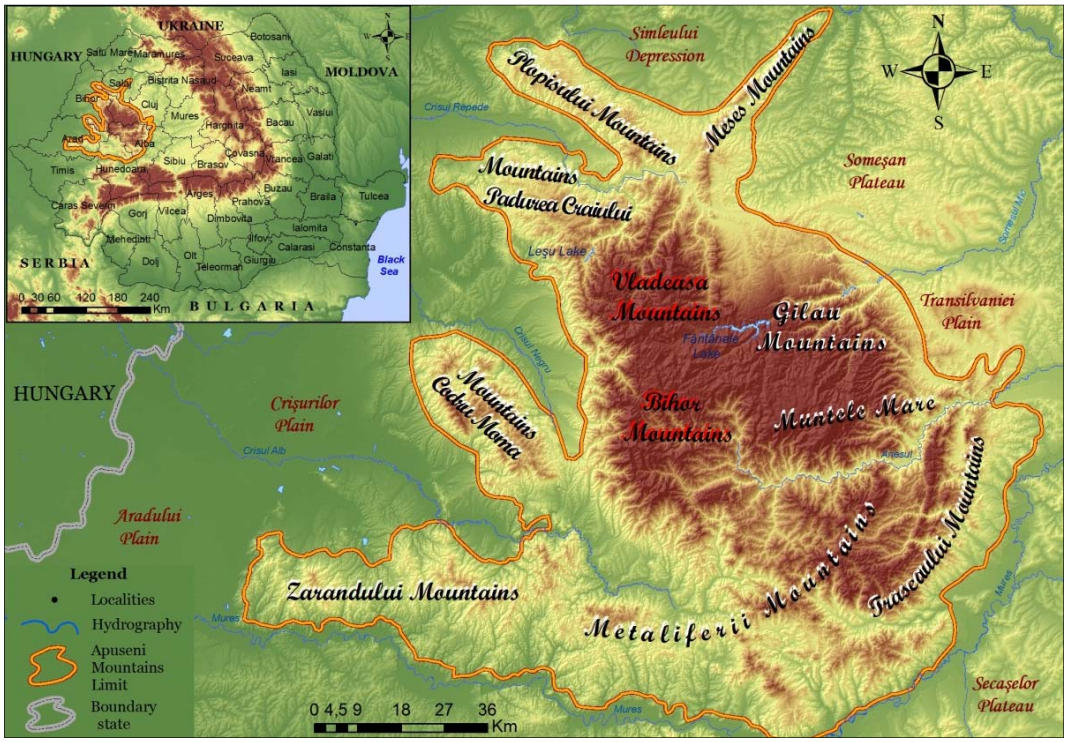

Figure 1. Geographical layout of the Bihor Vlădeasa Mountains within the Apuseni Mountain range and Romania

Figure 2. The dam and reservoir on the Drăgan Valley (left) and the reservoir of Leşu Lake (right)

In order to carry out the current study on the involvement of nature photography in tourism, a series of geographic research classic methods, as well as modern means have been used. After the reference documentation, field work (Cocean, 2004, 2005, 2017; Ianoş, 2000; Kothari, 2004), and after conducting a survey on this topic, the impact of the involvement of nature photography in tourism was quantified. In making the questionnaire, we proceeded from generally valid hypotheses and relying on them questions were formulated so as to produce viable feedback on the subject. The time taken to evaluate the questions was relatively scarce because tourists who are on vacation for rest and recreation are not always willing to waste time filling out the questionnaires. The survey was designed so as to maintain the interviewees' anonymity (Sandu et al., 2009).

Figure 3. Vlădeasa Mountain landscape, during the winter (left) and summer (right)

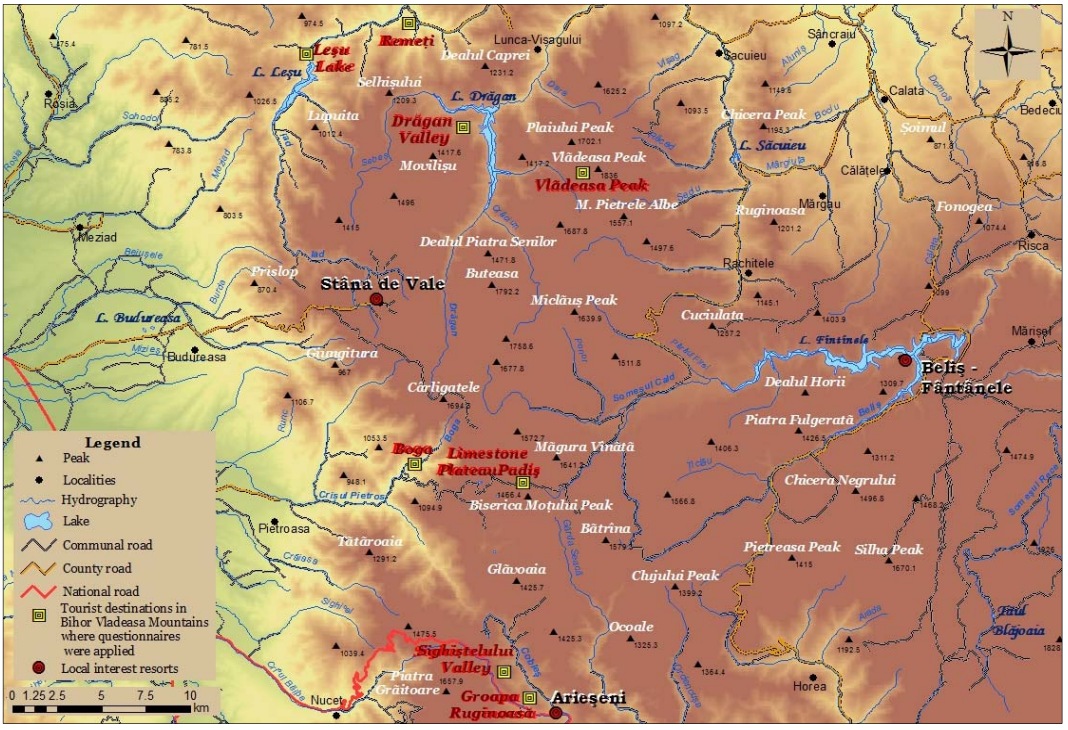

Figure 4. The local interest resorts and tourist destinations of the Bihor-Vlădeasa Mountains

METHODOLOGY

The mental sphere features of tourists, their motivation and satisfaction degree were captured by the questionnaire and survey (Gheorghilaş, 2008), the attention being focused on the tourists'behavior (Chirs, 2004). The data collection was carried out by applying questionnaires to tourists who visited the local interest tourist resorts and tourist destinations (Figure 3) between January 2015 and December 2016. Thus a number of 260 questionnaires were applied, out of which 248 were kept for analysis and 12 were inaccurate being removed from further analysis. The cartographic material was developed by using specialized software such as Arc Gis, Adobe Photoshop and Microsoft Excel (Clifford et al., 2010) and the synthesis method led to conclusions on the relations between nature, photography and tourism.

DISCUSSIONS AND RESULTS

Table 1 shows the demographic profile of the 248 respondents. More than half of the respondents had Romanian nationality (68%). Hungarian tourists were present at a rate of 21%. A larger number of respondents were between 30 and 44 years old (41%) and more than half were married (58%). Respondents were mostly graduates of secondary and university education (77%) and 23% were students. The demographic profile (Ilieş & Staşac, 2009) of the respondents was graphically represented in the figures 5, 6, 7, 8, 9 and 10.

Table 1. Demographic profile of the respondents

	Number of tourists	Percent (%)
Nationality of tourists		
Romanian	169	68 %
Hungarian	52	21 %
Other	27	11 %
Age of tourists		
Between 15-29	87	35 %
Between 30-44	102	41 %
Between 45-65	59	24 %
Gender of tourists		
Female	116	47%
Male	132	53%
Marital status		
Married	156	58 %
Single	112	42 %
Occupation of tourists		
Employees with higher education	59	24 %
Employees on their own / employer	27	11 %
Civil servants / technicians	31	12 %
Worker / Farmer	28	11 %
Retiree / Housekeeper	21	8 %
Student	56	23 %
Unemployed / disengaged	14	6 %
Other	12	5 %
Education of tourists		
No studies	11	4 %
Mandatory minimum studies	19	8 %
Vocational school	28	11 %
High School	41	17 %
Post secondary school	52	21 %
University studies	97	39 %
	248	

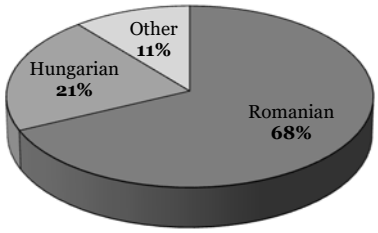

Figure 5. Nationality of tourists

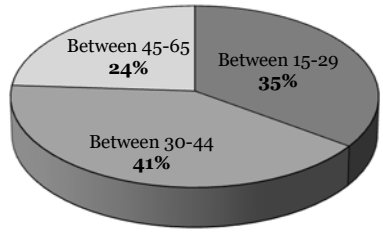

Figure 6. Age of tourists

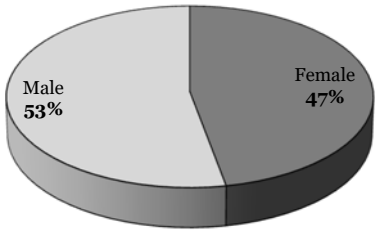

Figure 7. Gender of tourists

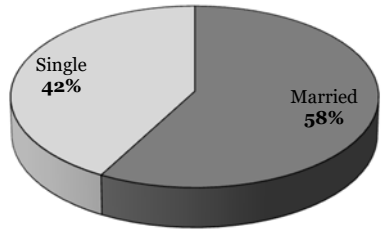

Figure 8. Marital status

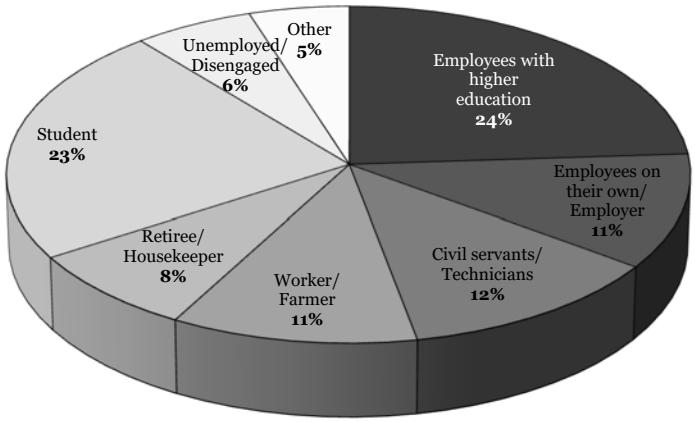

Figure 9. Occupation of tourists

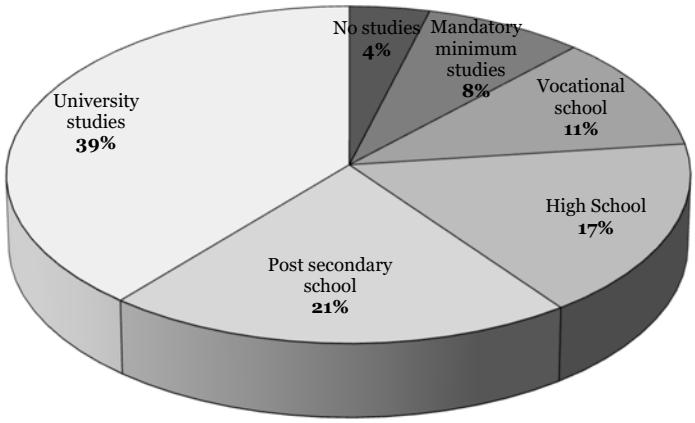

Figure 10. Education of tourists

By its content and role, tourism represents today a distinct field of activity, a first rank component of the economic and social life. Due to the fact that tourist resources are practically inexhaustible, tourism is one of the economic sectors with real long-term prospects for development (Baias, 2013; Ilies et al., 2014, 2015, 2016, 2017; Herman & Wendt, 2011; Herman & Gherman, 2016; Ilieş & Josan, 2009; Ungureanu, 2015). When deciding on our holiday destination each of us uses his/her own alternatives. But the image that a particular tourist destination has to convey is one of the most impact elements on the decision about the holiday destination, for spending the weekend or for leisure. In other words, PHOTOGRAPHY is an important element that helps creating the image of a tourist destination. The photo can also be said to speak for a thousand words.
For over a century and a half, photography has been the most popular and widespread means of making images (Becker, 2015) but the medium by which they are disseminated nowadays has changed as most photos are digital and posted online. Many leisure travellers shooting nature and man-made attractions use the social network sites to post their photographs (SheungtingLo et al., 2011) as a predilect media.

Table 2. Responses' centralisation related to photography and tourism

	Entirely agree	Agree	Partially agree	Neutre	Disagree	Entirely disagree	Unimportant	
The photo takes part in keeping your travel memories	231	12	5	0	0	0	0	6.90
Nature photography is one of the most enjoyable and relaxing things	138	53	29	25	3	0	0	6.20
I do not imagine a vacation without photography	132	61	27	24	4	0	0	6.18
The photo is a way of promoting tourist sites	112	85	38	8	5	0	0	6.17
Through my photos, I want to participate in the promotion of tourist sites	151	49	21	17	10	0	0	6.26
Nature photography is very important to me	163	25	22	24	14	0	0	6.20
The photo is the key element of any escape in nature	126	67	32	16	7	0	0	6.16
Photo is a good reason for walking and exploration	184	36	16	3	9	0	0	6.54
Nature photography plays a central role in my life	148	16	44	31	11	0	0	6.08
I agree with the phrase "A photo speaks for a thousand words"	211	29	8	0	0	0	0	6.81
Nature photography is an expression of identity of the tourist site	197	26	14	9	2	0	0	6.64
Most people that I know are interested in nature photography	214	26	8	0	0	0	0	6.85
I like to talk to my friends about nature photos	158	34	25	19	12	0	0	6.23
Sharing life experiences with loved ones through photography	132	74	23	12	7	0	0	6.25
Photo sessions in nature provide the opportunity to be with friends	186	11	18	27	6	0	0	6.38
Photo is the emotional connection with the visited areas	225	17	6	0	0	0	0	6.88

The 248 questionnaires applied within the Bihor-Vlădeasa Mountains provides the necessary data for the analysis of the photo-related involvement level in tourism. A set of statements was made on nature footage (photography) and tourism, the current investigation object, using a scoring system to allow for the calculation of standard averages and deviations. A scale of 7 values was used because many specialists claim that it has a higher degree of accuracy. The Likert scale is widely used in research studies, being a bipolar scale in the sense that it measures the attitude or appreciation of a subject both by positive and negative responses (Babbie, 2005; Harja & Ţimiraş, 2010; Wuensch, 2005). The surveyed tourists specified the level of agreement and disagreement (Table 2) with the statements in the questionnaire. By using the scoring system from 1 to 7, it was possible to calculate the weighted arithmetic mean (the grade corresponding to the step with the number of persons that indicated the respective scale is weighted).

The average was over 6 at all questions, some reaching up to 6.90 (the photograph takes part in keeping travel memories) 6.88 (photography is the emotional link to some visited areas) etc. Regardless of the motivation to travel and the practiced type of tourism, the photo behind the trip plays a fundamental role in tourism (Scarles, 2010). Shooting nature or nature photography encompasses a wide range of scapes such as landscapes; seascapes; underwater; underground; wildlife and flora; close-ups of flowers and insects; and representations of climates, weather, and seasons, among others (Eastaway, 2007). The promotion of natural sites and the geoheritage (Cayla et al., 2014) is done with modern digital tools (Hoblea et al., 2014). Most people taking photos are young, better educated and earn more than those who do not (SheungtingLo et al., 2011).

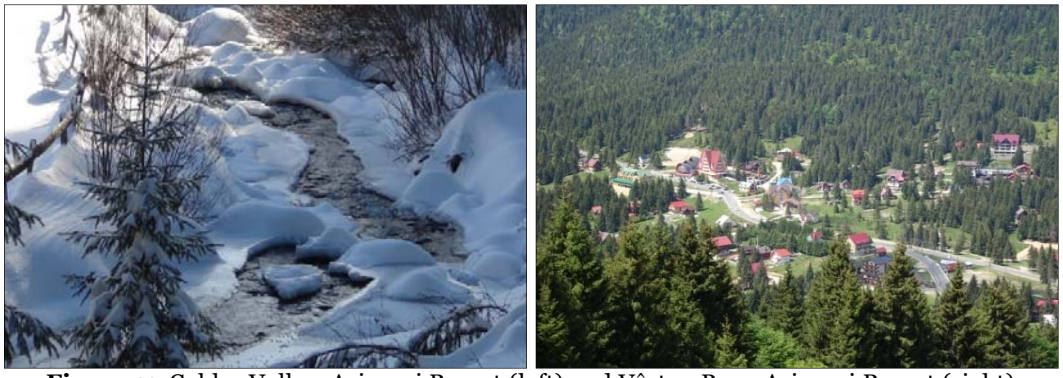

Figure 11. Cobleș Valley, Arieșeni Resort (left) and Vârtop Pass, Arieșeni Resort (right)

Figure 12. Ciclotourism, Remeți, Bihor (left) and autumn landscape, Boga, Bihor (right)

Figure 13. Groapa Ruginoasă Gully, Arieșeni (left) and Poieni Peak, Stâna de Vale Resort (right)

Figure 14. Sighiștel Gorge, a national interest protected area, in the summer (left) and winter (right)

CONCLUSIONS

The results of the analysis have shown that the tourist attraction resource of the natural and man-made tourist sites represents the main element around which the tourist phenomenon develops, these being the main reasons for involvement in choosing the tourist destinations in the area under investigation as well as nature photography. During trips, tourists take photos of natural attractions such as flora (Figure 16), fauna, vegetation (Figure 17), lakes, waterfalls etc, man-made attractions such as religious edifices, folk architecture, villages, hamlets, historical and ethnographic cultural attractions, local events, folkloric events, etc.

The analysis revealed that about 42% of the surveyed people use more than two sources of information simultaneously to choose certain tourist destinations in the Bihor-Vlădeasa Mountains (Arieşeni - Figure 11, 13; Stâna de Vale - Figure 13; Beliş - Fântânele - Figure 1; Platoul Carstic Padiş - Figure 15; Vlădeasa - Figure 3, Groapa Ruginoasă - Figure 13; Drăgan Valley - Figure 2; Sighiştel Valley - Figure 14; Remeţi - Figure 18, 12; Leşu Lake - Figure 2; Boga - Figure 12).

Figure 15. Padiş Tourist complex seen from Biserica Moţului Peak - Bihor-Vlădeasa Mountains (left) and Padiş Limestone Plateau (right)

Figure 16. The meadow with globeflowers (*Trollius europaeus*)

Figure 17. Poisonous mushrooms (*Amanita muscaria*)

Figure 18. Remeţi tourist destination (Bihor County). Autumn (left) and winter (right) landscape

More than half of the respondents (53%) turn to the Internet, relatives' recommendations and other people as sources of information. It is worth mentioning that 31% of tourists consider travel agencies to be the source of information and 16% use tourist guides, leaflets about the region and hotels, catalogues, ads from newspapers, magazines, radio, TV. The study will be further developed in the future for other areas.

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BIODIVERSITY CONSERVATION, COMMUNITY DEVELOPMENT AND GEOTOURISM DEVELOPMENT IN BROMO-TENGGER-SEMERU-ARJUNO BIOSPHERE RESERVE, EAST JAVA

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Abstract: The objective of the paper are to identify levels of bio-geodiversity of Bromo-Tengger-Semeru-Arjuno area, describes local community and factors triggering biodiversity disturbance and declines, and establishes recommendations for geotourism development in Bromo-Tengger-Semeru-Arjuno Biosphere Reserve, Indonesia. This study cundected a series of field observation, secondary data analisys and interview at the local and regional levels. Result shows that Bromo-Tengger-Semeru-Arjuno has high biodiversity and is the most diverse highland region in East Java Province. There are a large number of flora-fauna and geological phenomena, reflecting the importance of biodiversity conservation and geotourism development in this area. While there are many positive impacts from tourism, there are also environmental problems. A number of identified problems encompass unsustainable agriculture practices, illegal hunting, illegal logging, forest fire, illegal plant collections and tourism. A large number of visitors at some attraction locationsare a critical issue in the biosphere reserve area. The development of other tourist spots has been important to reduce human impact to the biophysical environment of biosphere reserves. The challenges facing the development of sustainable geotorism in Bromo-Tengger-Semeru-Arjuno Biosphere Reserve are to find a balance between conservation and tourism as well as involve local people as active participants in tourism development.

Key words: Sustainable tourism, Sustainable development, Mountain conservation, Geotourism, Volcanoes.

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INTRODUCTION

In Indonesia, the development and economic growth from 1970 to 1997 have had a major impact on the forest. According to statistical data, rapid removal of the forest appears to have occurred after 1997. From the perspectives of forest conservation, the consequences

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of the economic crisis at the end of 1997 should not be underestimated. The major areas suffering the greatest losses in forest cover were the lowland forest areas (Angelsen, 1995; Sunderlin, 1996; Departemen Kehutanan, 2002). In the northern area of East Java many mangrove forests have degraded and been converted into shrimp aquaculture and human settlement. Scholars have pointed out that many animals and plants are susceptible to the negative impact of forest degradation. In the lowland mountain forest, some species have disappeared during the last decades, including Javan tiger *Panthera tigris sondaica* and endemic palm *Pinanga javanica* (Whitten et al., 1996).

While biodiversity habitats have been declining in lowland areas, the highland areas have remained less disturbed. The highland ecosystems of East Java contain a large amountof biodiversity (Whitten et al., 1996; Van Steenis, 2006). There are two significant highland and mountainous forest protected areas, namely Bromo Tengger Semeru National Park and R. Soerjo Grand Forest. The contribution of such areas in the highland and mountain biodiversity conservation has been significant (Departemen Kehutanan, 2002). There is, however, no integrated management strategy for these two protected areas. Most of the studied documents and literature have evidenced significant conservation management problems. Progress in conserving mountain biodiversity has been partial. These highland ecosystem conservation efforts faces some challenges, including funding for research and a protection program. There is also alack of public consensus for forest protection and conservation. Both protected areas alone would not have been capable of financing a mountain forest conservation program.

Recently, there has been strong interest and concern for tourism, local community development and forest sustainability at all levels in East Java. In such a case, the development of the biosphere reserve has been viewed as one of the significant tools to promote regional sustainable development (Cochrane, 2006). Bromo-Tengger-Semeru-Arjuno Biosphere Reserve (BTSA-BR) was firstly proposed by East Java Provincial Government in 2014 and approved by UNESCO in 2015. The biosphere reserve concept was introduced and prioritized in order to build integration and understanding among local, provincial, central government levels and local stakeholders. This new biosphere reserve consists of two protected areas: Bromo Tengger Semeru National Park and R. Soerjo Grand Forest area. The reserve aims to conserve eastern Java's biodiversity from extinction and to improve the socio-economic welfare of communities living within the BTSA-BR boundary in sustainable ways. In this context, the role of the biosphere reserve is to encourage sustainable regional development (East Java Forest Office, 2015).

Scholars have pointed out that there is a relationship between biodiversity, community and tourism development. This relationship is a complicated and sensitive process, but important for sustainable development (Gössling, 1999; Eagles et al., 2002; Kiss, 2004). Geotourism has been viewed as important for tourism (Pralong, 2006; Piacentini et al., 2011; Cappucci et al., 2015). In BTSA-BR, however, such issues have been poorly discussed. Geotourism has been documented as one of the important strategies to support biodiversity conservation, but its relationship with biodiversity and local people is poor. The database system was poor and biodiversity was not mapped comprehensively. There are also poor understandings and documentation related the contribution of local people to biodiversity. In the context of sustainable tourism development, these issues have been identified as important. This paper attempts to describethe biodiversity of the new biosphere reserve in East Java and examine the relationship between society and the biosphere reserve. We then identify a human aspect which has led to a biodiversity decrease in the BTSA-BR area. The paper ends with a synthesis of geotourism development agendas of the biosphere reserve.

METHODOLOGY

This study utilizes both primary and secondary data collected from January 2014 to June 2015. A review of these documents aims to provide valuable insight into the value of BTSA-BR biodiversity. Biodiversity data related to species diversity and conservation status were collected through document examinations. The purpose was to describe and illustrate the biodiversity value of the study sites. The secondary data collection was done in Bromo Tengger Semeru National Park office and R. Soerjo Grand Forest office in Malang, East Java. Additional data were obtained from the Forestry Office of East Java Province in Surabaya. Primary data were collected from semi-structured interviews with the head of the national park, head of R. Soerjo Grand Forest, head of forestry office of East Java Province, head of PERHUTANI, NGOs and community elders. Statistical reports and documents related to the management plan for Bromo Tengger Semeru National Park and R. Soerjo Grand Forest were assessed to determine the biodiversity status of the study area. The semi-structured questions were designed in order to generate information and responses regarding the following themes: (1) levels of biodiversity in the study area, (2) local community and factors triggering biodiversity disturbance and declines, and (3) recommendations for geotourism development in biosphere reserve area. The interviews took place at the national park office, grand forest office, village office and local working group secretariat. Interviews were also conducted with local people in homes and orchard fields. Interviews were conducted in *Bahasa Indonesia* and Javanese language. Besides interviews, field observations were carried out at some locations and villages in the periphery of the biosphere reserve area. Data was analyzed descriptively.

RESULT AND DISCUSSION

Biodiversity of biosphere reserve area

The BTSA-BR is located in the heart of the East Java Province. The biosphere reserve represents two mountain biodiversity hotspots (Bromo Tengger Semeru National Park and R. Soerjo Grand Forest Park) and some famous nature-based tourism destinations (Figure 1). It was selected as a biosphere reserve because it is considered to be one of the most bio-geo-ecologically important sites. From the perspectives of management practices, the BTSA-BR has been divided into three zones, namely core zone, buffer zone and transition zone. The zoning was established on biodiversity and ecological aspects, official forest management and land tenure consideration. The core zone consists of two main protected areas: the Bromo Tengger Semeru National Park (50,276.20 ha.) and R. Soerjo Grand Forest Park (27,868.30 ha.). This area constitutes the primary forest area for mountain biodiversity conservation. Surrounding the core area are buffer zones (96,349.56 ha.). It is mainly a protected forest and production forest under PERHUTANI (a state-owned enterprise in the forestry sector) management, community forest garden, monoculture orchards, and rural settlements. The transition zones include rural and suburban areas of Malang, Pasuruan, Probolinggo, Lumajang, Mojokerto, Jombang, and Kediri regency and Batu City. The residents of these areas interact in various ways with natural resources of the buffer and core zones (East Java Forest Office, 2015).

Ecologically, the core and buffer zones of BTSA-BR show great variation in altitude, topography, soil and vegetation. There are three active volcanoes inside the core zone, namely Mt. Semeru (3,676 m asl), Mt. Bromo (2,392 m asl) and Mt. Welirang (3,100 m asl). The core area of the biosphere reserve is the hotspot of mountain biodiversity. The number of identified higher plants species in BTSA-BR forest is estimated at 800 species. About 226 orchid species were found in Bromo Tengger Semeru National Park. About 137 bird species were recorded in the park area. The dominant vegetation in the core area consists of a

humid mountainous tropical forest. The vegetation varies from lowland tropical forest to sub-alpine. These may occur as a consequence of altitudes and local climates of the places. Structurally, the forest vegetation of BTSA-BR is multi-layered. Each layer is an important habitat for different animals and epiphytes species. The layers are distinguishable mainly on the basis of plant and vegetation structure (Whitten et al., 1996; Van Steenis, 2006).

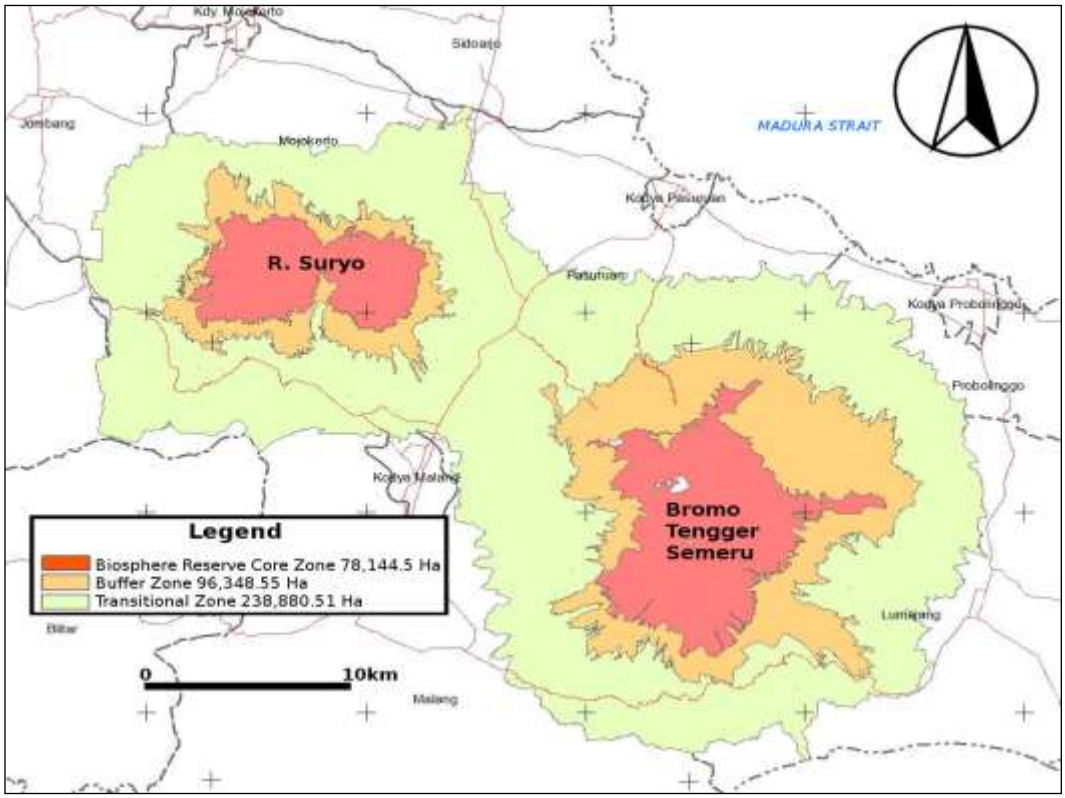

Figure 1. Map of Bromo-Tengger-Semeru-Arjuno Biosphere Reserve

The mountain forest of BTSA-BR can be classified into three forest categories, namely lower mountain forest (1200-1800 meters), upper mountain forest (1800-3000 meters) and subalpine zone (area beyond 3000 meters). The lower mountain forest provides habitat for a rich variety of mammals, including *Macaca fascicularis*, *Manis javanica*, *Mydaus javanensis, Rusa timorensis, Felis benghalensis, Muntiacus muntjak, Panthera pardus, Tupai javanica,* and *Herpestes javanicus*. The lower mountain forest vegetation consists of numerous plant tree species, including *Artocarpus elasticus*, *Erythrina subumbrans, Kleinhovia hospita, Bischofia javanica, Toona sureni, Spondias pinnata* and 23 species of *Ficus*. There area wide range of plants associated with the industry, including *Agathis dammara*, *Altingia excelsa, Cinchona pubescens, Cinnamomum burmanni,* and *Swietenia macrophylla*. BTSA-BR is one of the most important orchid centers in Java Island. The lower mountain forest on thesouthern slope of Mt. Semeru is home to some endemic plant species such as *Malaxis purpureo nervosa*, *Grammatophyllum* spp., *Meleolawetteana*, and *Liparis rhodochila* (Van Steenis, 2006; B.T.S, 2015).

The upper mountain forest contains a wide range and number of plant species. The upper mountain forest contains a number of endemic orchids, including *Appendicula imbricata and Hebenaria tosariensis*. The humidity of the area isrelatively high (90 - 97%). Between 1800 to 2200 m asl., the plant tree species are numerous and comprise many family and genera. Important plant tree species include *Acer laurinum, Acmena acuminatissima, Astronia spectabilis, Casuarina junghuhniana, Dacrycarpus imbricatus, Engelhardia spicata, Omalanthus giganteus*, *Lithocarpus sundaicus*, *Lithocarpus korthalsii*, *Macropanax dispermum*, Myrsine korthalsii, *Trema orientalis*, and *Turpinia sphaerocarpa*. These plants tree species are an important habitat for many orchids such as *Appendicula imbricata* (endemic), *Bulbophyllum lepidum*, *Bulbophyllum longiflorum*, *Calanthe zollingeri*, *Ceratostylis radiata*, *Dendrobium linearifolium* and *Eria lamonganensis* (Whitten et al., 1996; Van Steenis, 2006). In the upper mountain forest above 2200 meters, the principal tree species are *Casuarina junghuhniana*. Shrubs and grasses are dominant, including *Imperata* cylindrica, *Eupatorium riparium*, and *Dicranopteris linearis*.

The Bromo Tengger Semeru National Park is commonly known for its wide caldera and two active volcanoes, namely Mt. Bromo and Mt. Semeru. In the Tengger caldera (2100-2150 meters), the dominant grasses and shrubs are found in extensive areas including *Imperata cylindrica, Verbena brasiliensis* and *Foeniculum vulgare*. These species are probably dominant as a result of forest fires. The growth of trees in the caldera is limited by organic matter, water availability, and fire intensity. In caldera Tengger, a high risk of fire isreported in the dry season, especially during July to August. Fire is an important aspect of the ecology of Tengger caldera (Van Steenis, 2006). Four highland lakes have been found in Bromo Tengger Semeru National Park, namely Ranu Pani, Ranu Regulo, Ranu Kumbolo and Ranu Tompe (B.T.S., 2015).

The area above 3,000 meters in elevation is classified as sub-alpine. The vegetation is limited in this area above 3,000 meters. With gradual increase of altitudes, trees are replaced by shrubs and grasses such as *Imperata cylindrica, Vaccinium* sp., and *Anaphalis* spp. The sub-alpine forest consists almost entirely of grasses and ferns. In Mt. Semeru, Mt. Bromo and Mt. Welirang, the vegetation of the sub-alpine has been restricted by volcanic ash and poisonous gases from a crater due to volcanic activity. So far, the sub-alpine ecosystem has had little influenced from humans (Van Steenis, 2006).

Eupatorium inulifolium is one of the most abundant and important exotic plant species in the mountain forest. The establishment and spreads of exotic plant species is greatly assisted by degradation of the forest canopy which is ecologically caused by degradation of the forest. The invasion of exotic species may become a major limiting factor in the natural vegetation succession process. Under heavy invasion, seed germination will be reduced and followed by failure of native plant population establishment in invaded areas. Evidence of the invasion of exotic plant species is particularly found in the Ranu Pani.

Society and protected forest

The buffer zone area of Bromo-Tengger-Semeru is inhabited by the Tenggese who are distinguished from other Javanese by the traditional customs and belief system. The Tenggerese were the first people to live and use forest resources in Tengger Highland. Recently, the Tenggerese live in eighteen small villages throughout Tengger highlands, namely Ngadas-Sukapura, Jetak, Wonotoro, Ngadirejo, Ngadisari, Ledokombo, Pandansari, Wonokerso, Tosari, Wonokitri, Sedaeng, Ngadiwono, Podokoyo, Keduwung, Argosari, Ranu Pani and Ngadas (Hefner, 1990; B.T.S., 2015). The main activity of the

Tenggerese is agriculture in the highlands. The main crops are potatoes, leeks, and cabbages. The buffer zone of R. Soerjo Grand Forest is inhabited by the Javanese. The livelihoods of some people depend on natural resources found in and around the forest. In East Java, numerous studies have shown that humans contribute to biodiversity and forest disturbance. According to respondents, there is no single cause for the forest and biodiversity degradation. A number of factors contribute to forest degradation. Increasing human population and expanding agricultural fields have contributed to the rapid forest cover changes. Growing population can result in an expanding settlement area. The consequence is rapidly declining forest cover, increasing agricultural intensity, and increasing soil pollution. In Ranupani Villages, unsustainable agriculture practices are clearly having a dramatic impact on the Ranu Pani Lake and forest ecosystems (Whitten et al., 1996). According to respondents, poverty is one of the most significant triggering factors for the forest and biodiversity decline.

The issue of poverty surrounding BTSA-BR has been complex. In some instances, poverty has increased and spread from the consequences of the economic crisis in late 1997. Poverty is also linked to a lack of human resources, including lack of competency and skills. Poor human skills are influenced by a limited number of schools and education access. These conditions have been major issues for debates among academics, conservationists, national parks, the local government, and NGOs. Living in the remote mountainous environments, the Tenggerese are highly dependent upon firewood as a source of energy. The Tenggerese use numerous plant biomass for making fire, commonly including *Acacia decurrens* and *Casuarina junghuhniana*. In the past, local people collected brush and deadwood in the forest adjacent to the village. According to park rangers, this has contributed negatively to the natural plant community regeneration.

Forest land tenure conflict was found in some sites in the PERHUTANI forest area. Local people established orchards of coffee, corn and cassava. Biodiversity loss as a consequence of the forest disturbance has been confirmed by numerous authors. Conflict causes biodiversity to decrease in various ways, through (1) intensive withdrawn forest resources and (2) conversion of forest into farmland.

Humans are the prime threat to the forest and biodiversity through habitat modification and conversion, exploitation and pollutions. All interviewed informants from the forest authority claimed that forest resources are being depleted at accelerated rates, especially in some accessible areas along the boundary of the protected areas. The illegal logging of numerous valuable forest woods has increased significantly. BTSA-BR forests contain several commercially valuable timber species such as *Toona sureni*. Other important forest resources, i.e. orchids, medical plants and birds, have also become an object of protection concern. The exploitation of such forest resources can lead to the biodiversity degradation and local extinction.

So far, punishment has not been effective and enforcement remains weak. To reduce pressures on resources, some strategies have been promoted and applied to the forest management scenario in the last several years. More specifically,community-based forest management (locally called *Pengelolaan Hutan Berbasis Masyarakat* PHBM) has been implemented widely in the PERHUTANI production forest. The concept of PHBM was derived from the principles of community-based forest management (CBFM) and resources based forest management (RBFM). When CBFM was practiced in the 2000s, local communities become involved in the PHBM program. From 2001 to 2012, PERHUTANI estimates that 5,278 villages or 97% of villages in Java and Madura Island were involved in the PHBM program (Djajanti, 2006).

According to PERHUTANI officials interviewed for this study, the company has formally agreed to build collaboration and give access to the forest land to the local community for agriculture practices for a certain number of years. During the field survey, however, planting was being done with land clearing, including burning. The interviewed PERHUTANI officials pointed out that farmers have no commitment to implement community-base forest management principles or to practice sustainable farming in allocated forest areas. Attempting to grow forest tree seedlings has failed since the tree seedlings were less managed. Seedling mortality was significant.

Some notable aspects related to environmental degradation

Unsustainable agriculture practices

Unsustainable agriculture practices are a special concern. In the last decades, intensive agriculture activity has increased. Farming in Tengger highland is mainly on dryland with many orchards established onsharp sloping lands. Agricultural land in Tengger highland was managed under the monoculture system. A particular risk associated with unsustainable agriculture practices in sharp sloping lands is the massive land erosion. In Tenggerese villages, most of the inorganic fertilizer and chemical pesticides were used intensively on vegetable orchards. Numerous chemical pesticides were introduced from Malang and Surabaya to control the orchard pests. The introduction of chemical fertilizer in Tengger highland in the 1970s is a problematic agricultural practice (Figure 2).

Figure 2. Unsustainable farming practices on sharp sloping lands with intensive chemical fertilizer applications

Illegal hunting

The significance of biodiversity of BTSA-BR in the context of local and national development has been widely reported. Many biodiversity spots in BTSA-BR suffer from human activity. There was recently an official list of rare or endangered species in BTSA-BR published. Illegal hunting may play an important role in the decline of wildlife under

the international and national regulation. Conservation consideration focuses mainly on the loss of wildlife habitat. In Mt. Arjuno, conservation attention is being given to the Javan Hawk-eagle *Nisaetus bartelsi* due to rapid habitat degradation and illegal hunting. BTSA-BR is famous as an important habitat for *Nisaetus bartelsi*. Depending on its species, hunted and trapped animals are illegally sold, consumed or captived.

Illegal logging

Illegal logging is a source of forest disturbance. Many woody plant species have been exploited as timber. The major areas suffering from illegal logging were around the perimeters of the PERHUTANI forest and core area of BTSA-BR. According to respondents, residents from the rural villages in the perimeters of the forest make extensive use of natural resources, including wood. The most frequently targeted species of illegal logging include *Toona sureni* and *Casuarina junghuhniana*. Illegal loggings are increasing due to economic conditions. Orchids, insects, birds and small mammals may be suppressedwith lost canopy. The situation becomes critical with numerous plant trunks and the canopy is the habitat for endemic orchids.

Forest fire

The growth of recent forest fire intensity is also a concern for the ministry of forestry, local government, and local peoples. In BTSA-BR, forest fire has been one of the most important factors driving forest degradation. The use of fire to open orchards is practiced near forests. As a result of this practice, the number of barren lands has increased. In the rainy seasons, the barren land was invaded by exotic plant species. Numerous wildlife species are especially vulnerable to the impact of forest fire. These include large and small mammals, birds and insects. Efforts have been made to reduce forest fires, including developing local community working groups to reduce forest fire. The national park alone has often failed to control forest fire.

Ornamental and medical plants collection

The emergence of ornamental and medical plant collections poses new threats to biodiversity. The following medical plant species are commonly collected by local people: *Usnea barbata*, *Tamarindus indica*, *Alyxia reinwartti*, and *Caroxylon formasum*. Many plants produce active compounds which are used in traditional healing. There is an abundance of mountain herbs in Mt. Semeru. From interviews with Bromo Tengger Semeru National Park officials, many ecosystems in the park are acrucial habitat for medical plants.

Tourism

Tourism activity in BTSA-BR may have important environmental and social implications. According to informants, tourism activities are able to increase waste volume, posing serious threats to the terrestrial and aquatic ecosystem in BTSA-BR. The loss of biodiversity in lake ecosystems may accelerate as a result of water pollution. Tourists contribute significantly to water pollution. This is easily observed in Lake Pani and trekking corridors from Ranupani Village to Mt. Semeru. Tourism has had great consequences for the vegetation structure and diversity, especially in Tengger caldera. Lake Kumbolo was reported to be under stress from tourism forces. Very large populations of exotic ornamental plant species ar ecommonly found in Ranupani, Ngadas, Wonokitri, and Cemoro Lawang.

Geotourism in BTSA-BR

Throughout the world, geotourism has been promoted as one of the tools to support conservation and development in protected areas and geological heritages sites, including the biosphere reserve. Geotourism focuses on geological and landscape aspects as a tourist attraction (Dowling & Newsome, 2006; Farsani et al., 2011; Yolal, 2012; Lazzari & Aloia, 2014; Pletsch et al., 2014; Cappucci et al., 2015). Geo-

morphological aspects of BTSA-BR provide rich resources for geotourism development. The potential geological features include active volcanoes of Mt. Bromo and Mt. Semeru, wide sand sea caldera, highland lakes, savanna, steep agricultural land, mountain forest and alpine forest. In some places, there are still large areas of Edelweiss shrub-lands. The geological phenomena of Mt. Bromo and landscape of Tengger caldera are key tourist attractions in BTSA-BR. Over the last decade the growth in the number of tourists to BTSA-BR has been about 51.72%. The recent tourist growth opportunities within BTSA-BR have been significant. International tourist numbers to the national park have increased from 551,710 in 2013 to 570,145 in 2014.

These tourists come from at least 35 countries (B.T.S., 2015). Nearly all tourism activity occurs within the northern part of caldera, between Penanjakan point, Mt. Bromo, Mt. Batok and Ngadisari. The southern part of the caldera is a habitat for numerous wild flowers, but less utilized by tourists. In the northern slopeof Mt. Semeru, Lake Pani, Lake Regulo and Ranupani village have recently been visited by both national and international tourists. Located in the remote areas with poor infrastructure, these areas are generally only accessible using 4WD in the dry season. In the peak season, the mountain trek from Ranupani to Mt. Semeru becomes very crowded. Statistical data records that Ranupani Village was visited by thousands of tourists every year. The most common tourist activities in Ranupani area were sightseeing landscape, viewing lakes, and trekking to Mt. Semeru.

The development of tourism beyond Mt. Bromo has been a crucial issue. It is especially important as a strategy to reduce tourist stress in Mt. Bromo and its surrounding area. In such a case, potential sites for further development include the mountain ecosystem of Mt. Semeru, Mt. Arjuno, Mt. Penaggungan and Mt. Welirang, the highland lakes ecosystem, such as Ranu Pani, Ranu Regulo, and Ranu Kumbolo, the Javanese temples complex of Penanggungan, and mountain waterfalls, such as Coban Pelangi, Coban Rondo and Coban Trisula. The lower mountain forest of the biosphere reserve is one of the region's most bio-geologically diverse areas which has the potential to be promoted as a tourist attraction. The potential tourism attraction includes bio-geodiversity tour, bird-watching and farm tour with local communities surrounding BTSA-BR.

In BTSA-BR, geotourism is facing problems related to the conservation of natural resources. An important issue that requires attention is the control of the number and behavior of tourists in Bromo crater and caldera environments. A number of tourists in Ranupani area might have environmental effects, including vegetation clearing, illegal fishing and illegal flora harvesting. Vandalism continues to be aserious problem, especially in sites with abundant rock walls. Collection of Edelweiss flower is another problem. With its high number of tourists in the peak season, Lake Regulo is currently under disturbance. Eutrophication of lakes has long been a problem in BTSA-BR, especially in Lake Pani. These aspects potentially reduce the quality of the geotourism product.

Conservation and community-based geotourism development

One of the primary goals of geotourism in BTSA-BR is to foster local economic growth. According to statistical data, the presence of tourists in natural and rural areas can affect local economic growth. More than one thousand families have received income from working as a guide and other jobs related to the tourism industry. The accommodation and transportation business provides employment and income for more than five hundred families (B.T.S., 2015).

Community involvement and development are essential to the planning development of geotourism in BTSA-BR. In some areas in BTSA-BR, the support for

collaboration in the initiation and management of sustainable tourism practices appears to be growing. With funding from the Indonesian government and several donors, some local NGOs have successfully initiated tourism development in a number of rural areas. NGOs have played a crucial role in educating and campaigning against some of the negative impacts of forest degradation and promoting sustainable use of resources. NGOs help local people understand, discover, and define the local community interest in development programs, including tourism (Cochrane, 2006).

The quality of biodiversity and integrity of the environment is the key feature for geotourism success. These aspects greatly influence destination sustainability, local business competitiveness and tourism satisfaction (Stokes et al., 2003; Newsome & Dowling, 2006; Piacentini et al., 2011; Chen et al., 2015). Community involvement and development should be addressed to support environmental conservation.

According to respondents, one of the crucial problems is the inadequate participation perceived by communities in the management of natural resources to create a sustainable destination. Lack of opportunities for involvement in planning, and decision making in nature conservation and geotourism development will severely reduce community respect in community-based tourism.It is especially important for local people in the Tengger highland. For the Tenggerese, Mt. Bromo and Tengger caldera ecosystems are not just mountain landscapes. According to the informal leader of a local community, Mt. Bromo and Tengger caldera are a place of sacred significance for the Tenggerese. Community development programs should be aimed at improving human skills, ranging from destination planning to guiding services. In geotourism, geological phenomena interpretations are important, and their successful service is dependent upon a wide range of knowledge and skills.

There should be consideration of skilled guide training systems that increase knowledge and competency. These should be integrated into community development planning and implementation (Erkuş-Öztürk & Eraydın, 2010). Linking geotourism development, biodiversity conservation and community development helps reduce resource degradation and increase the sustainable local economic development (Newsome & Dowling, 2006; Chenet al., 2015). Strategic planning for sustainable geotourism in BTSA-BR are necessary in this case, especially to ensure that geotourism does not threaten the geologically and biologically rich area. Effective strategic planning requires a clear vision and commitment fromstakeholders. Attention should be given to stakeholders who have numerous potential ways to support sustainable geotourism implementation in BTSA-BR.

CONCLUSION

The spectacular landscapes of Mt. Bromo, Tengger caldera and Mt.Semeru are clearly a major reason for domestic and international visits to BTSA-BR. The presence of tourists in natural and rural areas can affect local economic growth.With the increase of tourism in BTSA-BR there is also a growing environmental impact. Managing geotourism in Bromo-Tengger-Semeru-Arjuno activities requires a comprehensive understanding of the geological and socials aspects of this mountain ecosystem. Preservation of the mountain forest has beneficial effects for sustainable and competitive tourism destinations. Effective management of natural resources for geotourism in BTSA-BR in the future will depend on human resource quality, especially the local people surrounding the BTSA-BR area. Community development is a vital aspect of resource management and sustainable geotourism implementation. Interpretation in geotourism programs is crucial and should be promoted to increase tourists' knowledge and appreciation of nature.

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GEOSITES AND PARKS FOR THE SUSTAINABLE DEVELOPMENT OF INNER AREAS: THE MATESE MOUNTAIN (ITALY)

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Abstract: The paper focuses on the potentiality of geosites valorisation in supporting a sustainable rural development strategy. An inner area in Southern Italy with a valuable naturalistic and geological, heritage is considered. The area is analysed under demographic, economic, environmental, agricultural and tourism profiles to bring out limits and strengths that a strategy of geological valorisation can meet. Results highlighted the fragility of the Mountain in terms of depopulation, ageing, unemployment and low firm density, that has not been affected by a proper tourism development. The valorisation of geosites can achieve its potential if all components of local heritage are reinforced and built around common peculiarities.

Key words: Geosites, protected areas, tourism, inner areas, Italy

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GEOSITES AND PARKS IN RURAL INNER AREAS

Starting from the 90_s, rural areas in Europe were affected by a transformation process that involved both socio-demographic, economic and environmental spheres in the framework of sustainable development paths. Rural amenities are crucial resources

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for the revitalization of rural areas, especially in territories where there is a demand of good and services linked to the local environmental, cultural and gastronomic heritage.

Natural resources have an important role for the sustainable development of inner areas. Besides contributing to the conservation of biodiversity, natural resources have gained various functions such as educational and cultural, scientific and recreational functions that go beyond the necessity to preserve nature (Pletsch et al., 2014). A high environmental quality is a necessary base for many tourism activities (Mastronardi & Cipollina, 2009). These activities, while supporting the economic growth, on the other hand they should protect the natural resource on which they base their existence. At this regard, the institution of a natural park is the assignment of an "environmental quality label" that could attract the ecotourism market (Ceballos-Lascurain, 1996; Marangon et al., 2002). As part of the natural heritage, an increasing attention is paid to geological resources and to their protection and valorisation.

At international level, in 2015, 195 Member States of UNESCO have ratified the creation of a new label, the UNESCO Global Geoparks (UNESCO, 2016). This label expresses governmental recognition of the importance of managing outstanding geological sites and landscapes in a holistic manner. Together with World Heritage sites and Biosphere Reserves, the UNESCO Global Geoparks label adds another sustainable development tool that may contribute to the realization of the 2030 Sustainable Development Goals. 120 UNESCO Global Geoparks in 33 countries are actually recognized. At European level, the Geoparks Network comprises 69 Geoparks from 23 European Countries, of which ten Geoparks are located in Italy (http://www.isprambiente.gov.it/it). In all these experiences, a common challenge is the ability to create a strong connection among Geoparks, tourism and rural development, in order to contribute to the accomplishment of the European Strategy 2020 goals in terms of an intelligent, sustainable and inclusive growth.

Due to the multiple profiles involved, the valorisation and management of Geoparks require the use of multidisciplinary, integrated and locally rooted approaches. The contribution of economic and managerial disciplines is essential both from a supply perspective, e.g. when assessing if geosites in their environmental landscape and cultural values could create favorable conditions for developing an offer of good and services in rural and inner areas (Forleo et al., 2017); and from a demand perspective, for example, by analyzing current and potential tourist flows and the experiential characterizations that the local heritage could evoke in visitors (Palmieri & Forleo, 2015; Štrba, 2015).

Geosites can stimulate the birth of new economic activities based on the geological environment through the implementation of conservation, management and development strategies (Lena & Carbone, 2016). Geoparks can favour a sustainable growth and the geotourism development, and create socio-economic benefits for the local communities (Cucuzza, 2016). Among the socio-economic benefits, the increase in the direct and indirect employment rate (Aloia & Burlando, 2013) may be a positive externality of Geoparks. The indirect effects of a Geopark are in the job opportunities offered by tourism firms, small hotels, bed & breakfast, restaurants and other activities connected to the increase of tourist flows (Pforr & Megerl, 2006). Even the production of local handicrafts, if directly linked to the peculiarity of local areas, should be strongly connected with the Geopark and its geological resources. Moreover, agritourism and agricultural sectors offer to visitors the possibility to appreciate local resources and to buy high quality food productions (Cianflone & Cardile, 2014).

Anyway, the reliance upon the tourism potential of geosites requires many efforts to realise its benefits and multiplying effects and must be locally proven. The valorization of the geological heritage in a tourism and multisectorial perspectives is a topic on which

territorial planning and management policies should focus more (Miccadei et al., 2014). In Italy, a not so active integrated approach and the museological vision with which geological heritage has been perceived so far, both by users and institutions, have strongly limited geosites potentialities (Coccioni, 2009).

This paper aims to bring some contributions to the debate of geosites potentialities in supporting an integrated strategy of rural development. A systematic approach that links resources, actors and activities, within the rural *puzzle* is proposed and referred to an inner rural area. This approach is framed in the Italian strategy for inner areas (Barca et al., 2014) that fosters a more sustainable and inclusive national growth. A case study of the inner area of the Matese Massif, Italy, is the context for paper analysis.

MATERIALS AND METHODS

The Matese Massif (Figure 1) is an interesting case study concerning a mountainous area located in Southern Italy. Due to the high value of its environmental heritage, this area was declared a priority in the National Biodiversity Plan. In fact, the Matese mountain is has an abundance of biodiversity, of plant (anemone, grape hyacinth, wild orchid; elms and beeches) and animals species (wolves, foxes, salamanders, owls and other precious birds). The Massif is one of the most important mountain of the Southern Apennines, whose morphology is typical of a vast karst plateau divided lengthwise into two ridges that fall into two different regions, and a central crack. Due to this morphology, the Matese area is a “broken” mountain located between Molise and Campania regions and runs across four provinces (Caserta and Benevento in Campania region; Isernia and Campobasso in Molise region). This area includes a total of 37 municipalities (of which 22 are located in Campania and 15 in Molise).

Figure 1. The studied area of Molisian Matese (in red) in the national context and in Molise Region (in green)

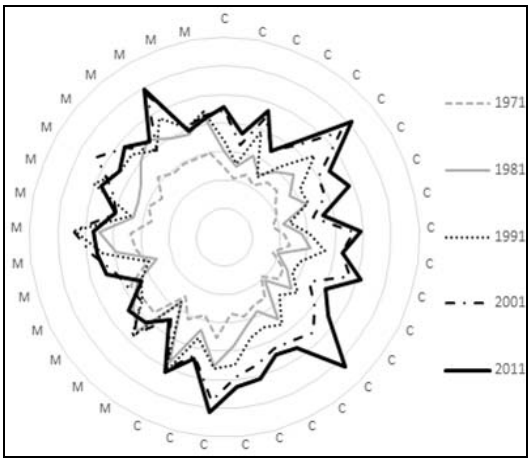

Figure 2. The old age index in the municipalities of Matese, 1971-2011. The C and M letters refer to the 37 municipalities of Matese area respectively located in Campania and Molise regions. Each circle measures a rate of 5% from 0 up to 35% (Source: ISTAT data)

From North to South, the Massif has an extension of about 60 km, while from East to West it is about 25 km; the highest peaks reach 2000 meters above sea level. In the Matese area, there are many archaeological sites of the ancient Sannio that make this territory very interesting even under paleontological and historical profiles.

Based on the study case, paper aims to analyze the multiple profiles of territorial contexts, in order to give cues for discussion about opportunities and obstacles that a tourism valorization of geosites in rural area may face in local contexts. Paper approach and findings may give insights regarding actions and tools needed for an integrated assessment and valorization of the territorial heritage that moves from its natural and geological resources. The analysis begins by presenting the demographic and economic profiles that characterize the whole mountain area. Subsequently, the study focuses on the Molisian slope of the Matese Massif and to its natural and geological heritage together with agricultural and tourism profiles. The attention devoted to the Molisian slope of the Massif has two reasons. The first reason is that the Campanian slope is a Regional Park since 2002, while the Molisian area has never received a similar protection status. Currently, the Italian Parliament is discussing a law on the establishment of the National Park of Matese, including both areas of Campania and Molise.

In addition, the Molisian slope of Matese area has been selected by Italian institutions as one of pilot areas for the implementation of National Strategy for Inner areas (SNAI). Within this National framework, this study could be useful to understand the potentiality of development and critical issues. The different profiles of the study area are analyzed in terms of weakness and strength factors. Finally, paper findings are discussed by focusing on the potentiality of such factors in creating obstacles or providing opportunities for local sustainable development paths and for a valorization strategy based on the geologic resources of the area. The following analyses give a descriptive picture of the study area. In particular, indicators for the different profiles have been developed in order to analyze their dynamics using both census data (from 1971 to 2011) and cyclical data (from 2002 to 2014) of the National Institute of Statistics-ISTAT which offers a data source comparable in time and detailed at municipal level.

THE VULNERABILITY OF MATESE AREA: POPULATION AND ECONOMIC ACTIVITIES

In order to describe the territorial system of Matese area, it is important to begin by drawing attention to its demographic and economic characteristics. The main demographic and socio-economic indicators show that the Matese system presents many vulnerable characters. Strong processes of depopulation happened in the last forty years, from 1971 to 2011. Overall, the representation of the demographic profile on the map gives back an image of the Massif that is composed of three transversal bands crossing Molise and Campania regions, of which the central band showed an intermediate situation (Forleo et al., 2017). Throughout the period, the annual variation of population was from -12/1000 inhabitants to a maximum value of 7/1000 (Table 1). The "less critical" group of municipalities (one/third of towns) had a population growth per year with a negative value (-1‰ to the maximum of 7‰). Furthermore, rural settlements are very small and are located in the valley zone of the Massif where there is a high concentration of human activities. The depopulation process of the mountain area was coupled with an increase in the aging population that in 2011 was between 17.3% and 31.3% of total population in the municipalities of Campania region, and between 16.8% and 29.6% in the Molise municipalities. Looking at the dynamics of elder people in Figure 2, two aspects may be underlined. Firstly, it emerged that the radial design is quite similar over the four decades, so indicating that the overall profile

of the area has not significantly changed over the years. On the other hand, the distance between the area referred to year 1971 (inner circle) and the area for year 2011 (outer circle) expanded in the decades. In other words, the old-age index in the Matese municipalities increased between 1971 and 2011 (especially in the Campania towns, showed in the right hand side of Figure 2), while it decreased just in few municipalities (mainly located in Molise Region, with a decreasing rate ranging from-0.8% to -4.7%).

Table 1. Annual population change rate in Matese area
(Data source: ISTAT Italian Institute of Statistics - Census Data)

Towns- Campania Region	Province	Annual variation rate/ 1000 inab.	Towns- Molise Region	Province	Annual variation rate/ 1000 inab.
Ailano	Caserta	-6,5	Bojano	Campobasso	2,3
Alife	Caserta	4,6	Campochiaro	Campobasso	-0,8
Capriati a Volturno	Caserta	-2,9	Guardiaregia	Campobasso	-5,6
Castello del Matese	Caserta	4,0	San Massimo	Campobasso	3,9
Fontegreca	Caserta	-3,5	S. Polo Matese	Campobasso	-0,3
Gallo Matese	Caserta	-11,6	Sepino	Campobasso	-4,9
Gioia Sannitica	Caserta	-0,9	Cantalupo nel S.	Isernia	-3,5
Letino	Caserta	-5,8	Castelpetroso	Isernia	-1,8
Piedimonte Matese	Caserta	1,0	Castelpizzuto	Isernia	-3,8
Prata Sannita	Caserta	-4,7	Longano	Isernia	-9,3
Raviscanina	Caserta	-2,1	Monteroduni	Isernia	-1,2
S. Gregorio M.	Caserta	-5,1	Pettoranello del M.	Isernia	6,6
S. Potito S.co	Caserta	3,8	Roccamandolfi	Isernia	-6,4
Sant'Angelo d'Alife	Caserta	-2,7	Sant'Agapito	Isernia	6,7
Valle Agricola	Caserta	-11,5	S. Maria del M.	Isernia	0,1
Cerreto S.ta	Benevento	-1,5			
Cusano Mutri	Benevento	-1,0			
Faicchio	Benevento	-1,2			
Morcone	Benevento	-10,0			
Pietraroja	Benevento	-5,6			
San Lorenzello	Benevento	2,1			
Sassinoro	Benevento	-3,6			
MATESE AREA		Minimum value	-11,56		
		Maximum value	6,72		
		Media	-2,24		
		33% threshold	-3,89		
		66%= threshold	-0,93		

The economic profile, based on the entrepreneurial density (Figure 3a) and the employment rate (Figure 3b), shows other vulnerability factors of Matese area. Compared with the demographic trend, the economic indexes return a more articulate representations, where the most critical situations are located in the Northern part of Molise area. Finally, small sized enterprises prevail in the local production system. This situation, when coupled with the absence of any phenomena of aggregation and cooperation, limits the availability of human, financial and technological resources that are essential factors for any innovation and development process.

THE STREGHT FACTORS OF THE MOLISIAN MATESE: THE QUALITY OF THE ENVIRONMENT AND OF FOOD PRODUCTS

The territory of Molise region is highly heterogeneous and vary from mostly hilly to mountainous inland, to plain and low hills in coastal areas; this strong environmental gradient gives different natural landscapes, types of cultivation and land uses, moving from the inner side of the region to the Adriatic coast. From a naturalistic point of view, in the Molisian Matese is located a Site of Community Importance (SIC) – named “La

Gallinola-Miletto Mountain-Matese Mountain" (IT7222287)- that is the largest in Molise Region (25 thousand ha). This area is characterized by a high integrity of natural environments: the variety and the extension of habitat of Community interest, large forests of beech, high pastures, protected wildlife areas, the survival of the wolf and several species of prey birds, are some important natural assets of the Matese. In addition, 61.6% of "Matese-Bojano Valley – Sepino" hosts protected areas (Table 2), such as natural reserves and Special Protection Areas (SPA).

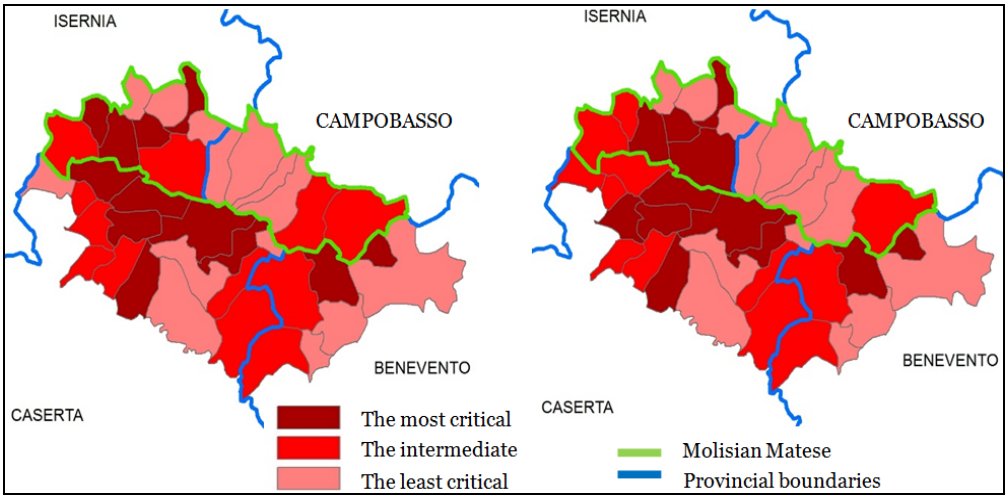

Figure 3. Firm's density and employment rate in the municipalities of Matese area, 2011
Entrepreneurial density index (n. of firms/Population), (left), and Employment rate (right)

From environmental and cultural points of view, area is particularly interesting for the existence of the Royal Tratturo "Pescasseroli-Candela", an ancient transhumant tracks that are still preserved in many parts. At this regard, a reconsideration of the conservation and management policies implemented in the past is urgent both to recover what remains unchanged over time and to promote responsible uses (Paone, 2001). Finally, many areas of historical interest were discovered in Matese, among which a particular mention is deserved to the archaeological site of "Altilia" and to the "Santuario Italico d'Ercole Quirino" related to the Samnite period and subsequent Roman domination. With reference to the geological heritage, a recent survey (Rosskopf, 2014) has identified 99 geosites in Molise Region that are mainly concentrated in the study area, namely in the "Matese-Bojano Valley-Sepino" (32%), (Table 2).

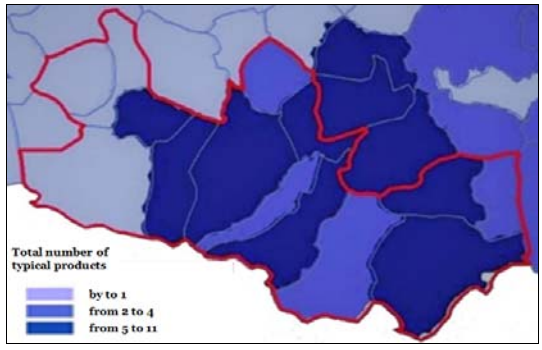

Figure 4. Typical food products in Matese area (Source: Genovese, 2014)

Table 2. Geosites in Molise Region

Areas	Areas (km^2)	Protected sites (in km^2)	Protected sites (in %)	Geosites (in %)	Geosites density (N. Geosites/km^2)
High Molise	452.02	142.04	31	17	0.038
Mainarde- Venafro Montain_High Volturno	559.20	139.12	35	16	0.029
Montagnola of Frosolone	245.38	95.66	39	7	0.028
Matese- Bojano Valley_Sepino	**411.89**	**253.38**	**62**	**32**	**0.075**
Molise central	1499.06	243.78	16	16	0.011
Sourthen Molise	672.97	242.93	36	5	0.007
Shoreline	598.26	85.02	14	7	0.012
Molise Total	4438.82	1201.95	27	100	0.022

Other strength points of the Matese territorial system are in some elements of the local agricultural system. This system counts 1,196 farms for 14,258 hectares of utilized agricultural area and about 24,353 hectares of total agricultural area (ISTAT, 2010). The local agriculture has a strong specialization on forage crops, meadows and permanent pasture and woods. The livestock sector is based on dairy (Palmieri et al., 2017) and sheep cattle. In the study site, there are many wild truffle areas. The structure of farms' system registers a percentage of young farmers (15.0%) that is higher than the percentages in regional and national inner areas (10.1% and 10.4% respectively) (Molise Region, 2014). Local food production has a high quality level that is strongly linked to the environmental context and that dates back to the cultural heritage of the territories. Within the regional framework, the study area is characterized by the abundance of traditional food products (Figure 4) that are an expression of established secular traditions (ARSIAM, 2001).

In conclusion, on the one hand, Matese area shows a weak demographic and socio-economic framework; on the other hand, it has many strength elements both in the agri-food system and in the environmental, geological and archeological heritage. Vulnerability and strength points can represent constraints and opportunities to consider in the definition of strategies and approaches for a local development based on the tourism valorization of geosites and other natural resources.

THE MATESE MASSIF IN MOLISE REGION: TOURISM AND PROTECTED AREAS

Within an integrated approach towards a sustainable local development, tourisms may interact with the natural system in many ways and its development may be driven by the environmental heritage. Tourism can play a central role in revitalizing rural development (Briedenhann & Wickens, 2004; European Commission, 2007), especially in areas where the demand for tourism is linked to the environmental and agro-food production. In order to develop a geologic tourism it is essential to move from the situation of tourism offer in the area. Secondly, in order to assess this tourism potential, a comparison between geologic and environmental resources (i.e. Geoparks and Natural Parks) may be useful to investigate the connection between the establishment of protected areas, and the size and dynamics of the local accommodation offer. Although based on a preliminary descriptive approach, results of the analysis could suggest in-depth studies to verify if the environmental and geological context is able to positively impact on local tourism sectors and dynamics.

In this regard, within the territory of Molisian slope of Matese Mountain there are two protected areas. The first area is the Regional Natural Reserve of Guardiaregia-Campochiaro, established in 1997 as a WWF Oasis, that is largest peninsular protected areas by the WWF Italy with a total of 3,135 hectares. The second area is the Natural

Reserve of Callora creek, covering 50 hectares, that is managed by the environmental Italia Nostra Association. The first area is mainly characterized by natural attractors (craters and forests, caves of speleological interest), while the second area has mixed attractions (canyons, ancient ruins, ski tracks).

The tourism offer in Matese territory was measured by the number of beds in accommodation facilities per Km^2, by distinguishing between different types of hotels and lodging options (Table 3). The main reason for this distinction is related to the different characteristics of the two types of accommodation. The hotel-style accommodation is usually associated with traditional forms of tourism, often in urban areas. Other lodging options (i.e. farmhouses, bed & breakfast, camping and mountain retreats) are usually disseminated in areas with a low anthropic pressure; these accommodation types are associated with a tourism demand sensitive to sports and activities in the rural open air, such as hiking, horseback riding, inland fishing (UNEP, 2005; Kachniewska, 2015). Among the types of rural tourism, it has to be mentioned the agro-tourism that, besides being an interesting economic opportunity for agricultural farms, has a low environmental impact on biodiversity, landscape and natural resources (Giaccio & Mastronardi, 2011; Mastronardi et al., 2015). In view of the different characterization of tourism supply, it is expected that the institution of protected areas could promote more lodging options than hotels. In the study case, tourism accommodation facilities in the protected sites and in the rest of the Matese area are few in number, if not completely absent. Data in Table 3 clearly shows that accommodation facilities and lodging options are very scarce in the protected areas.

Furthermore, tourism settlements are concentrated in few specific locations. In this territorial system, the municipality of San Massimo stands out as a winter tourism and skiing area, with a significant presence of hotel capacity to which other lodging options were added in recent years. The winter tourism in this area is predominantly of commuting type. It is a form of tourism that normally does not create a positive interaction with the natural environment; moreover, it has low spillover effects and only marginally it has boosted other sectors, such as handicraft and typical food production. Other municipalities with hotel facilities are some small towns (i.e. Bojano) and religious centers (i.e. Castelpetroso).

Absolute changes in the number of beds per unit area were measured from 2002 (the base year; three years interval) to 2014 in order to highlight the dynamic of tourism accommodation over time. Results are represented in Figure 5. Municipalities within the protected areas have registered both an increase of lodging offer (i.e. farmhouses, bed & breakfast, camping and mountain retreats) in the Regional Reserve of Guardiaregia-Campochiaro, and an increase of hotel accommodation in the Natural Reserve of the Callora creek. In the Callora protected area, the presence of hotels does not contrasted the initial hypothesis because the area has mixed attractive factors that can explain the existence of hotels accomodation. In the municipalities outside protected areas, the number of hotels declined, while the number of other lodging options increased (especially in winter ski municipalities). Data analysis, although of exploratory nature, suggests a deeper investigation in order to verify if the institution of protected areas is positively associated with the development of tourism offer.

In particular, the Guardiaregia-Campochiaro Reserve may have acted as a driving factor for the development of sustainable tourism both within the protected area and in the surrounding territories. Here, the naturalistic attractor in the Reserve added to historical and archaeological assets and to religious attractors inside the area, helping to promote the localization of new tourism settlements. The above results about the scarcity of tourist offer and the slow dynamics of the sector in the Matese Mountain and in

protected areas should be strongly considered before defining any strategy of tourism promotion based on geological resources and Geoparks. Finally, in order for this strategy to be successful, an assessment of the tourism demand is a necessary precondition.

Table 3. Tourism offer by type of attractiveness and accommodation (number of beds / 10 km^2) in the protected areas and in the rest of Molisan Matese (Data source: ISTAT data)

AREA	Type of Attractiveness	Surface (Km^2)	Beds / 10 km^2									
			2002		2005		2008		2011		2014	
			H	L	H	L	H	L	H	L	H	L
RN Guardiaregia-Campochiaro (1997-2000)												
Guardiaregia	N	43,7	0	0	0	5	0	4	0	4	0	10
Campochiaro	N	35,7	0	0	0	0	0	0	0	0	0	1
RGC Total		**79,4**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**2**	**0**	**6**
RN Callora Creek (2003)												
Roccamandolfi	M	53,7	0	1	0	1	3	0	3	0	3	0
RTC Total		**53,7**	**0**	**1**	**0**	**1**	**3**	**0**	**3**	**0**	**3**	**0**
Remainder of Matese												
Bojano	M	52,6	35	0	40	0	37	0	33	0	33	0
Cercepiccola		16,8	0	0	0	5	0	9	5	9	0	14
Colle d'Anchise		15,7	0	0	0	0	0	0	0	20	0	17
San Giuliano del S.		24,0	0	10	0	10	0	9	0	9	0	11
San Massimo	I	27,3	175	8	175	8	175	16	175	46	175	46
San Polo Matese		15,3	0	0	0	0	0	0	0	0	0	0
Sepino	S	61,4	17	4	17	4	0	8	0	13	0	13
Spinete		17,8	0	0	0	0	0	0	0	0	0	0
Cantalupo nel Sannio		15,6	0	0	0	0	0	0	0	0	0	0
Castelpetroso	R	22,7	32	0	32	0	32	0	48	0	48	0
Santa Maria del Molise		17,2	0	0	0	0	0	0	0	3	0	3
Remainder of Matese (RDM) Total		**286,5**	**29**	**0**	**30**	**3**	**26**	**5**	**27**	**10**	**27**	**10**
Matese Total (MAT)		**419,6**	**20**	**2**	**21**	**3**	**18**	**4**	**19**	**7**	**19**	**8**

Legend: Type of attractiveness: N= naturalistic; S=cultural-historic; I= winter sports; R= religious; M=mixed; Type of accommodation: H=hotel; L= other lodging options; RN= natural reserve

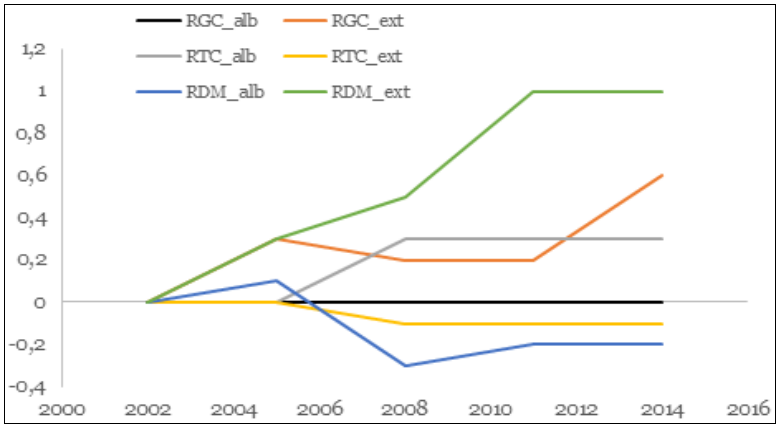

Figure 5. Absolute variation in tourism settlements in the municipalities within and outside the protected areas of the Molisian Matese (period 2002-2014), (RGC RNR Guardiaregia-Campochiaro; RTC RN Callora Creek; RDM rest of the Matese; MAT Matese Total; H_hotel; L_lodging options), (Source: ISTAT data)

DISCUSSION

The safeguard and valorization of the geological heritage it is highly recognized at international and national level as an important driver of local development. Geosites are

resources with a strong regional identity and could represent a competitive lever for a sustainable spatial development (Lazzari & Aloia, 2014). In this perspective, development strategies and approaches should be properly defined and implemented on a solid scientific basis in order to realize expectations and potentialities of geotourism.

The richness of geosites in the territorial context of the Molisian Matese measures the potentiality of geological resources in driving the development of the local system. A tourism based on geosites could increase the degree of attractiveness of a territory and retain the "geological memory" of a non-renewable natural resource (Lena & Carbone, 2016). Within the study area, the abundance of geosites should be combined with the richness in other natural resources, with the quality of cultural heritage and of local food productions; all these strength factors should be linked in the framework of a sustainable local development project. On the other hand, the study area has many vulnerable elements, such as in the demographic and the economic systems, whose roots date back in time (Forleo et al., 2007) and may obstacle development processes.

The analyses carried out suggests that in order to get positive externalities and foster local development, the valorization of the geological and natural heritage may face some obstacles. Removing these obstacles may require the support of structural measures (public spending, legal and institutional regulatory framework) that simulate people to reside, to work and to stay in inner areas. It is clear that the institutional recognition of a protected area it is not sufficient to trigger development processes, as other studies reported (Burlando et al., 2011). Furthermore, paper findings are in line with several case studies that highlight the need to activate synergies between local resources, for example between protected areas and Geoparks (Errami et al., 2015; Cucuzza, 2016) in order to develop territorial systems. In the study area, the design and implementation of natural itineraries and guided tours in the geosites locations might be based on a “common theme” where the conservation of the geological heritage of the Apennines is linked with the valorization of its environmental resources and with other territorial peculiarities. This common theme may have the strength to develop the tourism sector and other related economic activities in the local context (Bentivenga et al., 2015). In this respect, useful insights come from the development of the agriculture sector that has taken on a new and multifunctional role in responding to a globalization that eliminates any territorial peculiarities and productive diversity (Van der Ploeg, 2009) and in supporting the sustainability of rural areas (Forleo et al., 2015; Garrod et al., 2006). These synergies are more important in an inner area rich of geologic, natural and cultural resources, but fragile in its demographic and economic activities, as in the case of the investigated area.

Paper findings lead to in-depth investigation to highlight the potential role of geological resources in enhancing the degree of attraction of rural areas (Cawley & Gillmor, 2008; Forleo & Mastronardi, 2008). The integration of different tourism drivers, such as the cultural heritage (Gregori & Piccinini, 2004) and the geosites resources (Tapiador, 2008), is critical. This integration seems very weak in the study area that, despite being characterized by many natural assets, has an overall inadequate receptivity index and tourism supply. In other words, in the Matese area a tourism development based on geological resources appears be more a potential opportunity than a concrete reality. The environmental and geological richness of the area by itself does not represent a driver able to activate economic development paths. Few exceptions were in some limited areas where the environmental quality has a complementary role and it is associated to recreational uses, to winter sports, or to religious attractors. This exploratory analysis underlines the need to scientifically support any strategy of local development and confirm the expectations assigned to the establishment of Matese National Park, under discussion in the Italian Parliament.

Finally, the valorization of geosites requires a new economic and cultural approach, from -programming-protection-management, to programming-knowledge-valorization-development, through an augmented awareness, not only among scientists and institutions, but also within the whole society (Coccioni, 2009).

CONCLUSION

Development strategies for the inner Matese area may undoubtedly leverage on the promotion of geological resources. These strategies may be useful to spread the environmental and geological culture through an emotional experience and a conscious knowledge of the values of natural goods. Within an integrated framework of measures and instruments, the geosites may have all potentialities to support the development of the study area and to organize a tourism offer that attracts visitors driven by the interest in geology and in other local resources. The Matese area is suitable for an integrated supply of multiple tourism types (geological, *en plein air*, sport, gastronomic, cultural, thermal and religious). In order to realize all these potentialities, the feasibility, complementarity and congruence of different forms of tourism should be assessed by focusing on a set of strong and identitarian attractors. The unique environmental characteristics of the Matese Massif just led in the late 70s and early 80s to debate about the establishment of a regional park and to formulate projects designed to enhance the economic development of the most disadvantaged inner areas in Molise Region.

In 2015, a renewed attention to the study area was stimulated by a law proposal for a Matese National Park and by the National Strategy for Inner Areas that selected the Matese Mountain as the first pilot area in Molise region. Both the Park and the Strategy may focus on geosites and on their valorization. Anyway, weaknesses in the socio-demographic and economic systems must be faced in order to activate a development process. Furthermore, measures and actions must be integrated and placed along a process of sustainable rural development spread over a long-term period and shared among local stakeholders. Nowadays, there are not enough human, financial and technological resources to allow interventions that overlap according to a fragmentary list of tools, that refer to a wide and repeated measure's implementation, and, finally, that occur on an occasional base.

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MODERN CHANGES IN ZHEZKAZGAN CITY: POSITIVE AND NEGATIVE FACTORS OF TOURISM DEVELOPMENT (KAZAKHSTAN)

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Abstract: The aim of the research is to address the issues of tourism development in Zhezkazgan city. The mono-specialization (mining and processing) of this city, located in the central part of Kazakhstan, the non-diversification of the economy, the underdevelopment of new fields of service, including tourism, emphasizes the relevance of the research. The systematic approach to the study of urban environments has identified the factors of tourism development in Zhezkazgan. That is, mono-specialization of the city's economy and its dependence on city-forming enterprises, the bad condition of the environment are described as the factors that constrain the development of tourism; advanced transport infrastructure, spatial advantage, sufficient tourism potential in the city and suburban areas make up a group of factors that contribute to the development of the tourism. By analyzing the current state of the city, positive and negative factors for development of tourism were identified, analyzed and evaluated.

Keywords: monotown, city-forming enterprise, economy diversification, tourism potential, tourist sites, development models.

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INTRODUCTION

In the modern world, human resources development and issues of effective territorial organization of economy are closely connected with cities. The cities where the successes of human development are concentrated influence not only the settlements near those cities, but also social and economic condition of the whole region and country. For researchers, on the one hand, studying the role of the cities in territorial development, on the other hand, studying the vital safety of complex natural and technogenic system and regularities of economic development are paramount. While the well-known scientist Glaeser in his scientific works calls the cities as the environment making people happier (Glaeser, 2011), the former mayor of Denver (Colorado State) Wellington E. Webb states: "The 19th century was a century of empires. At that time, the empire defined the future development of all planets. The 20th century was a century of nation states. In those days national development of the state was important. The 21st century will be a century of cities" (Wade, 2009). D. Cetindamar and A. Gunsel state: "In a global world in which the waves of globalization have forced the introduction of strategies to enhance innovativeness and competitiveness; the role of cities as a regional innovation centers becomes more and more significant. In recent years, there have been increasing concerns over the formation and outcomes of cities as global innovation centers" (Cetindamar et al., 2015). That is why study of issues of sustainable development of urbanized territories is the main requirement of our time.

According to the data of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan (Committee on Statistics, 2016), 56.6% of the population (total population of 17.7 million people) live in urban areas. 16.8% of the population in urban areas are living in 27 monotowns approved by the Monotown Development Program for 2012-2020 of the Republic of Kazakhstan (Programma razvitiya monogorodov, 2012). The turning point in the market economy in the years of independence and the impact of the financial and economic crisis in the country led to the weakening of the economy of monotowns and worsening of social situation. As a result, the Monotown Development Program was developed for sustainable socio-economic development of montowns in the medium and long term. Among the 27 cities covered by the Program is city of Zhezkazgan (Nurlanova et al., 2012).

Zhezkazgan is a city in Kazakhstan that has high potential of the industry where important non-ferrous metallurgy centers, educational and cultural centers are concentrated. Territory of Zhezkazgan city can be characterized as *a territorial-production complex* that has certain natural resources and production sites and specialized in non-ferrous metallurgy production.

The city was founded in 1954 during an industrialization era that started in the 2nd half of XX century. The main distinctive feature of this city is that system of production directly depends on specialization factors. Typically, there are one or more businesses in such towns, which influence living standards of the local population. Thus, these cities are called monotowns or single-industry towns that are one-way specialized towns. These cities usually have a close relationship with large city-forming enterprises that influence all important aspects of the city life (Murphy & Boyle, 2006; Wendt, 2011a). Since these cities are directed at development of just one sector, they face big difficulties in development path. In order to improve the competitiveness of the Republic of Kazakhstan, it is very important to develop such areas with existing industrial structure. Therefore, in order to maintain a post-industrial sustainable development of the city, there is a need for efficient use of tourism potential (Bramwell & Rawding, 1994; Ashworth & Page, 2011; Ilieş & Wendt, 2015). It is important to note positive and negative factors of tourism development (Wendt, 2016). If spatial advantages, natural-tourism potential, transport infrastructure of

the city are favorable factors, then environmental pollution and dependence on the city-forming enterprises are unfavorable (limiting) factors of the development of tourism (Herman & Wendt, 2011; Wendt, 2011b; Atasoy et al., 2017).

MATERIAL AND METHODS

In his work "The Third Wave", the American sociologist Alvin Toffler says: "Information and knowledge are becoming the main strategic resources. It, first, leads to capital changes in arrangement of territorial production forces. If during the period prior to industrialization the cities emerge in joint points of trade ways, during the industrial period they are located near raw materials and energy sources, and during the post-industrial period the cities are located near the large scientific and research centers" (Toffler, 1980). Based on the analysis of world and domestic experience, it can be noticed that the formation of monotowns corresponds to the industrial period. For example, the cities in developed countries such as Tennant Creek, Woodcutters (Australia), Flint, Birmingham, Youngstown (USA), Kamaishi (Japan), Ostrava (Czech Republic) and etc. are located near the sources of raw materials and energy (Kaimuldinova et al., 2015). Under the influence of various factors (raw materials exhaustion, world financial and economic crisis etc.) the economy of these cities was depressed over time. As a result of effective implementation of strategic plans, effective use of a geographical location and economic diversification, the cities started to develop in the direction of innovation (the tourism and service center, the innovative business center, the technological center, the transport and logistics center, etc.). Formation period of monotowns (Zhezkazgan, Tekeli, Saran, Zhanaozen, etc.) in Kazakhstan starts in the industrialization era. The difference from development model of monotowns in the developed countries is that monotowns in Kazakhstan still depend on the city-forming enterprises, non-diversification of the economy, and uncertainty of a post-industrial development model.

The issues of a sustainable development of the monotowns located near raw materials and energy sources are reflected in essential scientific works and concepts (Bone, 1998; Wilson, 2004; Carson et al., 2014; Gordon, 2015; Green, 2010; Pyankova, 2011; Lappo, 2013; Turgel, 2014). Kazakhstan scientists are conducting researches to classify monotowns and identify their main advantages and difficulties in the development of monotowns. The vast majority of these studies are of economic nature. Social, environmental, technological and innovative aspects of development of monotowns are not studied yet (Nurlanova, 2012; Amanbekov, 2015; Taizhanov et al., 2016; Mukhambetov, 2014). The results obtained during system analysis of foreign and domestic scientific works were the basis for analysis of the current state of Zhezkazgan monotown and determination of a post-industrial development model (tourism aspects).

The methods such as comparative and geographical methods, systematization of statistical information, system analysis of geoinformation, geographical forecasting and mapping were used for the research based on the fundamental research "Development of conceptual basis of effective models of sustainable development of monotowns in Kazakhstan" (a case study of Tekeli and Zhezkazgan). In addition, the results of shooting during scientific expedition to the city of Zhezkazgan were used.

TOURISM POTENTIAL OF ZHEZKAZGAN CITY AND ADJACENT TERRITORIES

More than 1500 monuments of history and culture have been found on the territory of the Zhezkazgan region. A lot of them are along the Sarysu and Sary-Kengir Rivers. A historical and cultural complex includes Zhezkazgan historical and archaeological

museum, a museum of history of mining and smelting business, a memorial house-museum of Kanysh Satpayev, the first Academician of Sciences of Kazakhstan (Visit Kazakhstan, 2017). Young Zhezkazgan University named after O.A. Baykonurov and Zhezkazgan musical and medical colleges are preparing highly qualified specialists. There are more than 20 cultural sites including Zhezkhazgan Kazakh musical and dramatic theater named after S. Kozhamkulov and Young Spectator's Theatre (Programma razvitiya goroda Zhezkazgan, 2011).

A distinctive feature of Zhezkazgan is Ulytau Mountains, which are not far from the city. Ulytau Mountains (Great Mountains) is the historical center of the Kazakh people, the epicenter of the nomadic culture of steppe civilization. Magnificent mounds, cemeteries, mausoleums of Begazy-Dandybay culture, rock paintings, petroglyphs, mining, metallurgical furnaces in which copper, tin, silver, gold were melted and other ancient monuments found and studied by scientists indicate that Ulytau was the center of the Kazakh Uplands and whole steppe since ancient times. Ulytau is a national shrine of the Kazakh people, which has absorbed a thousand-year spirit of our ancestors, covered with legends, sung by poets, which have been fascinating people for many centuries. The greatness of these ancient mountains lies in the significance of the events of the national history of Kazakhstan. Ulytau was a favorite place for khans of nomadic tribes.

The greatness of these ancient mountains lies in the significance of historical events of Kazakhstan. Ulytau was a favorite place of the Khans (kings) of nomadic tribes. General headquarters of Zhoshi Khan, the eldest son of Genghis Khan, was located here and here Batu Khan started his aggressive campaign to Eastern Europe. In Ulytau, the mausoleums of Zhoshy Khan and Alasha Khan were erected, the founders of the Turkic-speaking tribes. Here, Tokhtamysh, Khan of Golden Horde, and great Horde commander Emir Edigu, were buried. The names of these people were immortalized in oral folk art (folklore) of Altai (Zhensikbayeva et al., 2017), the Urals, the Crimea, Northern Caucasus and Uzbekistan. On the stone slab of Ulytau mountain, Altynshoky, the Great Tamerlan left a memory of his stay in the spring of 1391 (Mazbayev, 2016; Kazakhstan. Natsional'naya enciklopediya, 2007). Ulytau district of the Karaganda region has become a Mecca for foreign tourists who are interested in the history of culture and the geography of the settlements of the peoples of the East and Eurasia. The monuments, which Ulytau keeps in itself, date back to the Paleolithic and Neolithic epochs (Tursinbayeva et al., 2013). On the territory of the district, there are about 636 monuments, 282 of which are included in the historical and cultural map of the "Ulytau" museum fund. Archaeologists have found numerous sites of primitive people and their tools. On the bank of the river Kara-Kengir, the largest workshop of the Paleolithic era in Kazakhstan was found.

In the river valleys were found monuments of the Bronze Age - settlements, necropolises, burials of ancient culture. To this day, the mystery of "burial mounds with a mustache" has not been solved. Some archaeologists assume that these are tombstones; others believe that they are an ancient observatory (Kazakhstan. Natsional'naya enciklopediya, 2007). Archaeological excavations show that even three thousand years ago local tribes were engaged in mining and metallurgy and exported copper, tin, silver and gold to Iran, India and Greece. The botanical and geographical studies revealed 617 species of plant (including 90 medicinal species) on the territory of Ulytau. The Ulytau is called "country of lakes and springs". The healing properties of the mountain spring water of Ulytau were known far beyond this region (Kazakhstan. Natsional'naya enciklopediya, 2001). The main directions of tourism development in the city of Zhezkazgan are beach tourism (Kengir reservoir), ecological tourism (Ulytau zoological reserve), sports tourism (pedestrian, orienteering, climbing), cultural and educational tourism, business tourism, and weekend hikes.

RESULTS AND DISCUSSIONS

The city of Zhezkazgan, the large center of nonferrous metallurgy, is located in the central part of Kazakhstan, in the small hilly, low mountainous region in the south-west of Saryarka, in the lower reach of Kara-Kengir River, a large branch of the Sarysu River. A natural landscape is a desert zone. The relief of the territory (300-400 m above sea level) includes plains, steppes, and hilly areas.

The origin of the city's name is directly connected with mining. Ancient mines of alloys of copper, tin, iron, gold, silver and the remains of their processing were found in this territory. The development of the world's largest copper mine was a reason for formation of city name. The city name comes from the words "zhez" (copper) and "kazgan" "digging, excavation" (Kaimuldinova et al., 2014).

There are copper deposits at distance of 12-50 km from each other in the northwest and east regions of Zhezkazgan. Depending on the industrial importance and geological structure, these deposits are divided into two types: *Zhylandy* (Taldybulak, Kopkudik, Karashoshak, Kipshakbay, Ayranbay, Saryoba, Kulmen, Donyzauyz, Itauyz) and *Zhartas* (Bektas, Sorkudik). All of them are concentrated on the gray sandstones of the lower layers. Recently, it has been called Zhylandy horizon. The main metals are copper and lead, silver, cobalt, molybdenum etc. City-forming enterprises work on this specified branch of metal ores production and processing. The main enterprises are "Kazakhmys Corporation" LLP enterprises and "Zhezkazgansirekmet" Republican State Enterprise.

Zhezkazgan copper-smelting factory of "Kazakhmys Corporation" LLP, one of the large enterprises in copper industry, produces in average 250 000.0 tons of pure copper per year. The main product is 99.99% pure cathode copper which is in great demand in the world market. It is exported to Holland, Sweden, Turkey, Japan, China and CIS countries. Also, the factory produces lead dust, gold, and silver (Karagandy oblysy, 2006).

"Zhezkazgansirekmet" is the only enterprise in the CIS countries which produces valuable metals such as rhenium and osmium. The production of the abovementioned non-ferrous metals has become the reason for the transformation of Zhezkazgan into the non-ferrous metallurgy center. The location of Zhezkazgan in the central part of Kazakhstan can be characterized as the spatial advantage ("strength"). Connection of the North, the South and the West through highways and railway tracks, implementation of freight and passenger traffic between regions will become the beginning of transformation of Zhezkazgan into the large transport and logistics center. The "Zhezkazgan-Sekseul-Beyneu" railway line which was launched in 2015 interconnects regions such as Karaganda, Kyzylorda and Mangistau. If the construction of "Kyzylorda-Zhezkazgan" and "Zhezkazgan-Arkalyk" highways starts, the city will be formed as the large transport and logistics center. Abovementioned conditions will be a basis for economic diversification and development of tourism in the region. Tennant Creek (Australia) can be an example for abovementioned conditions. Tennant Creek is a town located in the central part of the Northern Territory of Australia. It was one of the centers of gold production in Australia in 1930s. The exhaustion of natural wealth was a reason for the investment companies to leave.

Worrying about crisis, the authorities started to implement a set of measures for economic rehabilitation. These measures included effective use of geographical location, environmental conditions and infrastructure. The construction of new automobile and railways in the region led to the development of transport services and the city became the logistics center. Besides, the effective management of an environment brought the development of tourism. Soon, the small city was transformed into the tourism and logistics center. This policy of local authorities was regarded as a successful step in the direction of economic diversification (Kaimuldinova et al., 2015).

Mining and manufacturing industries, search of new deposits, new investments, human resources, a population growth (Figure 1) in recent years can be considered as the main driver in economy.

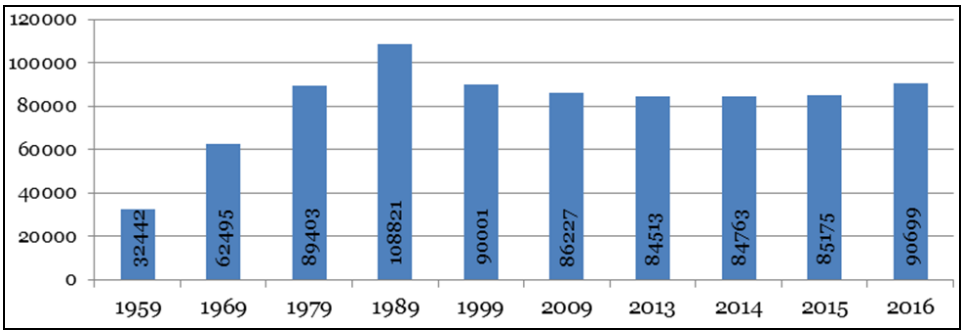

Figure 1. Dynamics of population in the city (SDKR 2016)

Technological support of the city-forming enterprises, development of the sectors of economy, including knowledge-intensive industry and the third sector of world economy (strengthening the role of service), and economic diversification determines the "opportunities" for the development of the city.

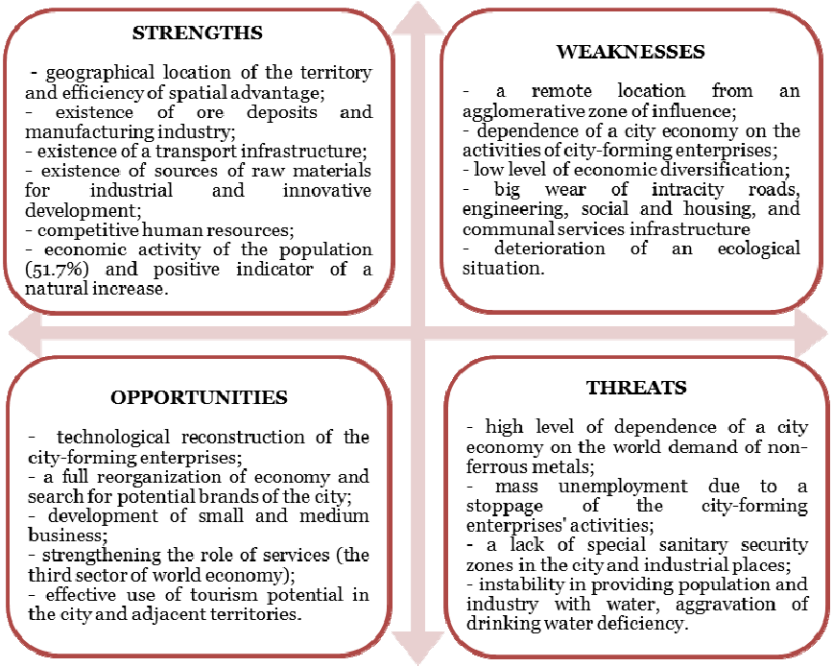

Figure 2. SWOT analysis: current state of the city

Besides, rational management of historical and cultural monuments in the city and adjacent territories (Ulytau district) and natural resources generate opportunities for the development of tourism (Zhakupov et al., 2016; Saparov et al., 2017). One of the weak points of development of tourism in Zhezkazgan is the farness from large sales markets, a remote location (550 km) from the Karaganda agglomerative influence zone. Lack of

transport and bad condition of highways further complicate the development of city. Today, dependence of a city economy on city-forming enterprises activity, low level of economic diversification, wear of the city infrastructure, untimely cleaning of household waste, an aggravation of ecological situation are considered as factors constraining the development of tourism in the city. The unstable situation in the world market forms the basis for emergence of new threats. This circumstance is a hard blow for a city like Zhezkazgan, which depends on activity of the city-forming enterprises. One of the main reasons for negative changes is a decrease in the world prices for products due to reduction of demand for the products of the export-oriented enterprises such as "Kazakhmys Corporation" LLP and "Zhezkazgansirekmet" RSE owing to financial and economic crises. These reasons will lead to stoppage of city-forming enterprises activity and mass increase in number of the unemployed. The rarity of the Green veil in the city and a decrease in level of water in Kengir reservoir from year to year form a set of new threats. The results of the research of the current state of the city can be shown in the Figure 2 below.

One of the main problems of the formed monotowns associated with development of mineral resources is an aggravation of an ecological situation. The main goals of a state policy stated in state development programs of the Republic Kazakhstan is the stabilization of environment quality, formation of the favorable environment for human life, and protection of natural resources for future generations.

One of the major factors hampering a sustainable development of Zhezkazgan monotown including the development of tourism is the bad quality of environment. The main issues of ecological inconvenience are pollution of atmospheric air, untimely cleaning of household waste, accumulation of ash dumps, a large volume of dumps and storage points of remains of the manufacturing enterprises, and the coppers working at solid fuel which produce polluting substances (Figure 3).

Figure 3. Ash dumps on waste banks

Figure 4. Distribution of pollutants in Zhezkazgan

The level of atmospheric pollution is assessed by analyzing and processing samples taken from control points. Pollution level of the atmosphere is determined by an air pollution index (API_5) and threshold limit value (TLV) in accordance with class of danger (Table 1).

Table 1. Assessment of air pollution index (IB 2016)

Level	Pollution level of the atmosphere	Air pollution index	Assessment
I	low	API	0–4
II	average	API	5–6
III	high	API	7–13
IV	very high	API	≥ 14

According to the data given by the Environmental Control Department, "Kazhydromet" RSE, the level of dangerous substances has been high in atmospheric air in Zhezkazgan for the last four years. According to the data of 2016, Zhezkazgan is among 7 highly polluted cities in Kazakhstan (Karaganda, Temirtau, Lisakovsk, Almaty, Uskemen, Shymkent), ($API_5 \geq 7$).

According to the Statistics Department of Karaganda region, the number of sources polluting the atmospheric air is 247 units. In 2016, the volume of harmful substances from the sources polluting the atmosphere was 27 300 tons (SDKR 2016). We witnessed this fact by seeing the smoke directed to houses in the research area (Figure 4).

There is a high volume of sulphurous anhydride, carbon monoxide, nitrogen oxide in liquid and gaseous substances. The volume of harmful substances in the atmosphere decreased by 33.7% in 2016 compared to the volume in 2012 (IB 2016).

Enterprises of “Kazakhmys Corporation” LLP make an industrial strip of Zhezkazgan city. They are: “Zhezkazgan non-ferrous metallurgy” concentrating factories No.1 and No.2, copper-smelting plant, “Kazkat” plant, Zhezkazgan thermal power center, ferroconcrete plant, Zhezkazgan specialized construction-repair administration, the experimental and manufacturing installations space for production of xanthogenate, automobile enterprise No.1, railway transport enterprise, construction-repair administration, administration on construction and repair of power technological equipment, oxygen station, electric repair shop, the road-building enterprise, heat and water supply enterprise, “Eaglet” children's sanatorium for somatic diseases etc.

The abovementioned manufacturing enterprises of the city of Zhezkazgan are located in the western, southern and east parts of the city. The main substances polluting the atmosphere in the industrial zone territory are inorganic dust (which contains sulfuric copper, sulfuric lead), nitrogen oxide, sulfur dioxide, carbon monoxide, coal dust, parts of zinc, lead, copper and aluminum, wood dust, sulfuric hydrogen, carbon sulfur etc.

During the research, it was revealed that the most manufacturing enterprises of “Kazakhmys Corporation” LLP polluting air are located in east and southeast of the city (Figure 5). The location of the sources polluting atmospheric air along railway in the direction of *East - South - West*, the distribution of harmful substances limits the existence of city residents. The sources polluting the air are chimneys of 14 meters to 46 meters high. Therefore, it was found that the distance between the enterprises and houses did not conform to the ecological requirements at all:

1. Concentrating factory No.1 - 1390 meters;
2. Concentrating factory No.2 - 800 meters;
3. Copper-smelting factory - 1600 meters;
4. Casting and Mechanical Plant - 1300 meters;
5. "Kazkat" plant - 500 meters;
6. Construction-repair administration - 4900 meters;
7. Ceramic materials plant - 2200 meters.

The absence of sanitary protection territories between the enterprises and houses leads to free flow of polluting substances to the city center due to winds. The direction of a wind from the area of main polluting sources and the location of the main part of the city on lowlands aggravate the environmental condition in the city.

The ecological consequences of industrial development of Zhezkazgan are pollution of atmospheric air, chemical pollution of the soil, drinking water, fishes in reservoirs, and increase in diseases of the population. The hydrochemical condition of surface water was that the water in Kengir reservoir had a high rate of pollution and a pollution rate in Kara-Kengir River reached the level of emergency (WPI>10.0). The main polluting ingredients are copper, zinc, manganese, and sulfates (IB, 2016). Growth of "ecological" diseases

(diseases of respiratory organs, heart-vascular system, an illness of digestive organs) for the last decade caused social tension in the Zhezkazgan industrial monotown which is rich in natural resources. Therefore, social and economic, environmental issues of monotowns are closely connected with effective policy of the city. Therefore, there is a need for a comprehensive and systematic assessment of development of territorial-industrial sphere of monotowns, updating of social infrastructure, improvement of level and quality of life of local population, and involvement of population in industrial and public life.

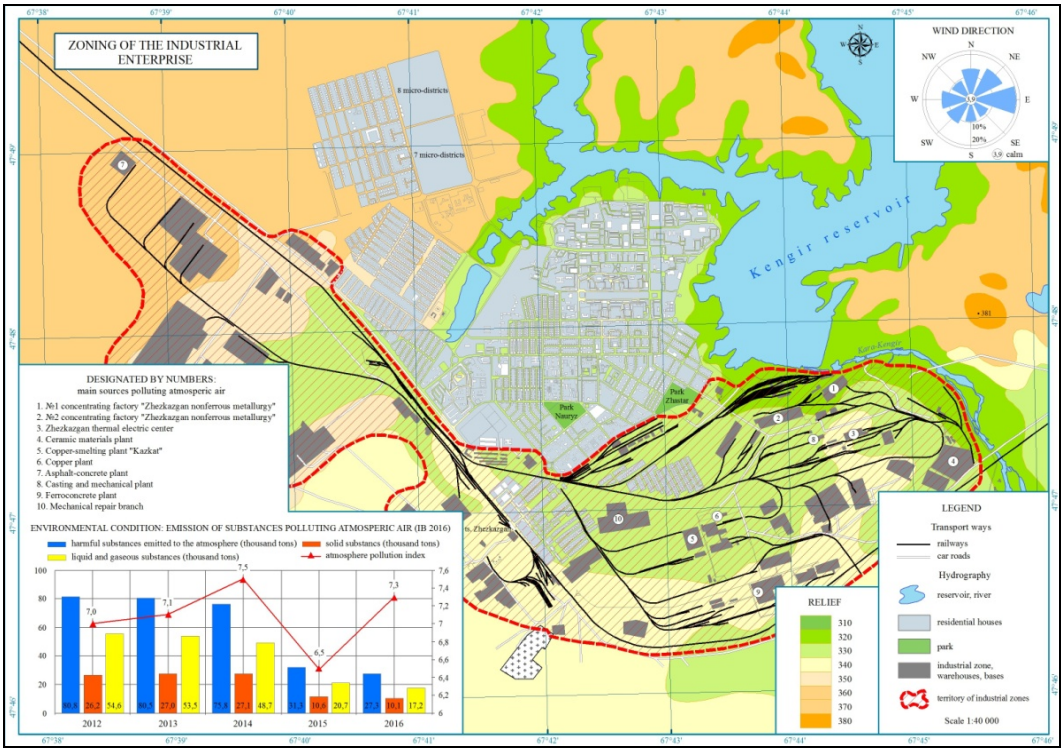

Figure 5. Map of zoning of the industrial enterprises and environmental condition (Source: based on IB 2016, SDKR 2016)

CONCLUSION

The main conclusions and results obtained during the research can be summed up as follows:

– Decline in demand in raw materials in the world market today, decrease in price of non-ferrous metals caused social and economic tension in the cities such as Zhezkazgan that specialized in mining and processing. If we take into account the instability in the world markets and repetition of a crisis, then it is necessary for monotowns to diversify their economy and reconstruct a development model. Zhezkazgan, the large center of nonferrous metallurgy in the country, has an opportunity to become the transport-logistics and tourism center during post-industrial development. We were convinced of this fact during our research of spatial advantage, transport infrastructure and tourism potential of the city. Besides, in order to find solutions to the complicated social and economic problems in the city, it is not just sufficient to develop the transport-logistics activity, tourism services but it is also necessary to diversify the economy, produce innovative products by supporting small and medium businesses and forming human capital;

– Generally, the economic success of Zhezkazgan is based mainly on the existence of rich fund of raw material resources in the territory as well as on their production and processing. Effective use of natural resources was done only in the direction of raw materials production. This one-sided specialization is considered as a deterrent to the development of other industries. Therefore, it is necessary to get rid of the dependence on raw materials, and search for the ways of effective use of the environment. For example, environmental condition of the city has a golden opportunity to develop alternative energy sources. If the average annual sunshine is 2753 hours, the average speed of a wind per year is 4-5 m/s (Medeu, 2010). Such strengths of an environment will be favorable for construction of solar and wind power stations. The mentioned case provides the city with energy and gives a chance for effective use of "future" energy;

– If the environmental and spatial advantages of geographical location of the city and tourism potential are considered as opportunities for the development, the bad environmental condition is characterized as the factor that slows down sustainable development. The data obtained for the research of current state of the city gave the chance to make SWOT analysis. Non-compliance with the ecological requirements by the enterprises located on an industrial strip, mistakes at city and industrial planning, lack of sanitary protection territory make Zhezkazgan the most polluted city of Kazakhstan. The analysis of the data provided by the official organizations and the results of systematization of information during research gave the chance to make a map of relation between the manufacturing enterprises and city environment. The results obtained during research are of great importance in the development of a sustainable development strategy of the city of Zhezkazgan.

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LISBON AND THE ALCÂNTARA NEIGHBOURHOOD CHANGES: IS TOURISM INVADING OR RENOVATING?

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Abstract: Alcântara neighbourhood in Lisbon has good conditions to develop as a tourist destination in the next few years. It is probably the best district of Lisbon to recall the industrial era. The aim of this article is to understand what is currently going on in the heritage and tourism sector, and what is foreseeable to happen in the near future. A qualitative-quantitative approach has been used. The qualitative part has been based upon the direct observation of the analysed area. The quantitative part has been based upon the figures related to accommodation in Lisbon supplied by Turismo de Portugal. We believe that Alcântara district will fit profitably into the tourist boom that Lisbon has been experiencing for a number of years, thanks to several factors: Its diversified resources; Its dynamic and "trendy" neighbourhood image; Its barycentric position; Its good accessibility; The rapid increase in the receptive supply.

Key words: Lisbon, Alcântara, urban tourism, heritage, post-industrial

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INTRODUCTION

Contemporary tourism is characterised by an increasing segmentation of demand, in terms of income, age, consumption, habits, places of residence, education levels, motivations, attitudes. Analysts agree that the global demand for tourism is likely to diversify further in the medium and long terms (Bădulescu & Rusu, 2009; Wilson, 2011). The supply, therefore, should evolve towards increasingly specific products. Consequently, new forms of tourism and tourist accommodation will emerge and develop (Avdienko & Kuznetsova, 2014), and new ways of interpreting and living the traditional ways will come to the forefront (King, 2016). The reasons behind this evolution are both technological (better accessibility to a growing number of destinations thanks to the development of transport; wider information due to the Internet), and motivational (search for alternative destinations; desire of experiencing the "otherness"; aspiration to expand one's own sphere of action).

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Cultural tourism is the best suited segment to design new tourist products, thanks to the fact that the term "culture" is now understood as any sensible manifestation of human action (Smith & Robinson, 2006; Richards, 2007). Therefore, if tourism is no longer seen as just simple leisure or holiday, but also as an opportunity to experience a deep personal satisfaction and to reach a complete knowledge of the destination, then even the traditional benchmarks of the tourist supply are questioned. Until a few years ago, for example, cultural assets were only intended as historical, artistic, archaeological and architectonical evidences to be preserved, protected and visited because of their beauty and uniqueness, whereas today they are considered as witnesses of values, memories, identities which are capable to attract tourist flows and to act as factors of development and economic growth for the territory they belong to. And so, cultural tourism has shifted to "heritage tourism".

"Most researchers accept that heritage is linked to the past, that it represents some sort of inheritance to be passed down to current and future generations" (Timothy & Boyd, 2003). Heritage can be categorised as tangible immovable resources (e.g. buildings, natural areas); tangible movable resources (e.g. objects in museums, documents in archives); or intangibles such as values, customs, ceremonies, lifestyles, festivals and cultural events (Timothy & Boyd, 2003). Thus, heritage tourism can be defined as an immersion in the natural and cultural history of a place, made perceptible to human senses by a specific mix of tangible and intangible resources that represent the basic elements upon which values, memories and identities are built (Marcos Arévalo & Ledesma, 2010). The heritage tourism experience is influenced and shaped by a mix of elements: supply and demand, the nature of the heritage landscape, the impacts heritage creates, heritage management and interpretation (Timothy & Boyd, 2003; Gozner, 2014). Heritage tourism, therefore, pushes the contemporary tourist to seek diversity and to encounter genuine and authentic cultures, landscapes and *genres de vie*: in the case of this paper, the focus is on the transition from an urban industrial "lifescape" to a post-industrial one, and on the role that tourism can play in such a transition (Bujok et al., 2014; Bujok et al., 2015).

According to several authors (Ashworth & Tunbridge, 2000; Orbasli, 2000) the tourism sector is crucial for the rehabilitation of the urban spaces. Tourism is seen as a force of regeneration (Tiesdell et al., 1996) that reverses the loosing process, introducing new functions, creating employment and local wealth, attracting young population with different patterns of behave and consumption. On the other hand, tourists give a great importance to the elements that reflect the essence of the place, such as the public space and the architecture, the gastronomy and the everyday life of the local communities. They seek for integration in the local cultural life and want to enrich their experience taking advantage of the local atmosphere. Therefore, the distinct character of the historic city and the unique experiences are key resources of a city or neighbourhood (Boavida-Porugal & Kastenholtz, 2017). However, the quantity of heritage existing in a certain place is not by itself directly related to the development of tourism. Although it is a necessary condition for success, it is not sufficient to make it happen. Other items are becoming more and more relevant such as the environment preservation, the existence of urban open-spaces, entertainment, bars and restaurants, concerts and performances, arts and emotions and the sense of uniqueness (Costa & Albuquerque, 2017).

The tourist image of Lisbon and its uniqueness was shaped through the existence of "popular neighbourhoods", spaces of intense and unchangeable social life where the above-mentioned elements of cultural life are present as a landmark of each different space. Alcântara, Bica, Alfama, Mouraria, and Madragoa are examples of traditional Lisbon neighbourhoods, which today continue to be closely associated with specific representations of the city and of its people's ways of life within the city (Cordeiro &

Costa, 1999). Alcântara neighbourhood has very good conditions to develop as a tourist destination in the next few years. Situated by the river Tagus, next to the museum district of Lisbon (Belém), and not far from the town centre (Baixa), it presents a different tourist supply – besides the traditional local heritage, composed of monuments, palaces and museums, it is probably the best district of Lisbon to recall the industrial era, its buildings, activities and ways of life. To confirm it, in the recent past, as a reaction to the increasing demand of the tourists, several hotels, apartments and other types of local accommodation have emerged. If a tourist was a "specimen" hard to find in the area some years ago, now they are becoming part of everyday life in Alcântara. Tourists seek for the trendy local restaurants, unique libraries, modern business opportunities and young entrepreneurs' shops, which concentrate in Alcântara, in places such as LX Factory and Village Underground. Young people are present not only during the day but also in the evening and during the night, because Alcântara neighbourhood offers many attractions such as restaurants, bars and discos.

Besides being well situated, Alcântara is currently served by different means of transport, such as the train (the line Lisbon-Cascais leads both to the centre, to the museum district and to the seaside), and Alcântara-Oriente a direct line to the interface station of Lisbon and the north of the town. The city bus and the tram are also available in the area and the underground will probably reach Alcântara in a couple of years. On the other hand, interesting museums and heritage sites can be found in Alcântara. Just to name some of them we can climb up the hill to see the view over the Tagus river from Santo Amaro Chapel, go for a walk in the park of Tapada da Ajuda or in the gardens of Pestana Palace Hotel, see the church of S. Pedro de Alcântara, or just stroll along the river docs to have an aperitif or diner in one of the open-air restaurants. For those who like museums the choice goes from the Orient museum to the Lisbon transports museum, among others. Besides, new sites are planned to the area: The Art Nouveau and Art Deco museum and the Interpretation Centre of the 25th of April bridge over the Tagus, which will include a lift and the possibility of crossing the bridge on foot. Given this reality, the tourist development of Alcântara is only predictable. Therefore, the aim of this article is to leave a testimony of these transition days of Alcântara, narrating how it was in the past, what is currently going on in the heritage and tourism sector, including tourist spots, accommodation and facilities and what is foreseeable to happen in the near future.

METHODOLOGY

To carry on the research, a qualitative-quantitative approach has been used. The research method is partly bibliographical and documentary. The bibliographic investigation was based on the search for clarification and discussion based on material already published (Gil, 2010). Examples include printed materials, legislation, such as books, magazines, newspapers, theses, dissertations, and annals of scientific events. Other types of publications can be added, such as disks and all material made available on the Internet. The above-mentioned sources were used for the construction of the theoretical framework, interconnecting them with the practical part of the work. Documentary research was performed through the use of several types of documents as data source (Severino, 2007). Documentary research is the collection of data in primary sources, either written or not, belonging to public archives; private archives of institutions and households, and statistics. The qualitative part, aimed at evaluating the tourist offer in terms of heritage, facilities and landmarks, has been based upon the direct observation of the analysed area. This process will be illustrated in the next chapter through a visit to the neighbourhood and its symbolic places. The visit is a central practice of tourism. Tourists travel to visit or, according to the Latin definition of *visitare*, they go to see

(Vidal, 2014). To reach this goal, a field research initially took place, in order to have a good understanding of the neighbourhood's geography, social environment, cultural features and overall atmosphere. The quantitative part, discussed in the following chapter and aimed at assessing the neighbourhood's tourist offer in terms of accommodation facilities, has been based upon the figures related to accommodation in Lisbon supplied by *Turismo de Portugal* and listed in the *Registo Nacional de Turismo* (National Tourism Registration), with special reference to a kind of accommodation called a*lojamento local*, for the most part consisting of apartments intended for tourist accommodation.

Finally, the qualitative elements achieved through on-field activity were related to aforementioned figures in order to shape a clear notion of what is happening in the neighbourhood and how tourism is contributing to its visible changes.

ALCÂNTARA NEIGHBOURHOOD'S HISTORICAL AND URBAN EVOLUTION

The borough of Alcântara counts a population of 13.943 (2011) people in an area of 4.40 Km[1]. The civil parish was created in 1770 with the name S. Pedro de Alcântara, when the old parish church of S. Pedro, in the Alfama neighbourhood, was destroyed by the earthquake of 1755[2]. The name Alcântara comes from the Arabic word *Al-quantãra* meaning "the bridge", due to an ancient roman bridge that still existed here when the Arabs occupied Lisbon (718-1147), which disappeared during the reign of John V. The bridge was actually located at the corner of *Rua de Alcântara* and *Rua Prior do Crato*[3].

Pre-historical vestiges were found in the area, especially along the Alcântara ravine at Alvito hill and Tapada da Ajuda. During the Roman era, the local area was called *Horta Navia* in honour of the Roman divinity Nabia, a goddess of rivers and water. The area was notable for the above-mentioned Roman bridge across the Alcântara ravine.

Alcântara was the battlefield of several conflicts with Spain, mainly in the 14th century, when King Ferdinand fought against John I of Castile and in the late 16th century, when António Prior do Crato, was unable to defend the entrance of Lisbon's harbour, exactly in the area of Alcântara, from the attack of Philip II of Spain, leading to sixty years of Spanish government of Portugal, from 1580 to 1640. Until the 17th century, the Alcântara area and its people lived on agriculture, with the production of cereals and wine, and on the exploitation of limestone quarries. In the 17th century the Royal Palace of Alcântara was built, a country residence complemented by the royal grange (Quinta Real). The palace was sold and destroyed in the 19th century. Nowadays, the only memory of that grandeur is the *Tapada da Ajuda*, the old royal hunting grounds. After the earthquake of 1755 the king as well as several noble families moved to Alcântara, Belém and Ajuda, because these areas were not affected by the quake. In those days Junqueira, a long street within Alcântara neighbourhood, became very trendy and still today we find there several palaces dating back to that period[4]. The Portuguese industrial revolution of the 19th century radically changed the life in Alcântara. Between 1807 and 1824, members of the Ratton family erected a porcelain factory in Calvário square. New factories of tanneries, chemical products, cereal grinding, and textiles were founded around that area and therefore Alcântara became one of the most important industrial districts in the Lisbon region.

"In the second half of the nineteenth century, the Alcântara neighbourhood of Lisbon became one of the most important industrial centres in Portugal. In this territory, located at that time on the periphery of the capital, were gathered some of the greatest companies and factories in the country: textiles, mechanics, and chemicals, among

[1] www.cm-lisboa.pt (retrieved 11 May 2017).
[2] www.jf-Alcântara.pt (retrieved 11 May 2017).
[3] www.cm-lisboa.pt (retrieved 11 May 2017).
[4] http://www.jf-Alcântara.pt (retrieved 11 May 2017).

others" (Vidal, 2014). To support the industrial development, a new railway was inaugurated in 1887, connecting Alcântara-Terra to Sintra. Extended to the station at Alcântara-Mar in 1891, the rail-line was completed after public sanitation works along the beach of Alcântara (1876), which resulted in the recovery of an additional 500 meters of land from the Tagus River, quickly expropriated by factories, docks and warehouses. The workers of these industrial plants contributed to Alcântara's associative movement and its popular character that subsists still today. 1910, when the Republic was implanted, a large number of republicans who participated in the fights came from Alcântara.

"During a period in which the Republicans prospered, their results in Alcântara were well above the Lisbon average although they did not match the extraordinary landslides achieved in the Socorro and São Cristóvão neighbourhoods" (Vidal, 2015). In the end of the 20th century, as industrial heritage became more appreciated by the tourists worldwide, and as a "culture of pleasure") became more valued and fashionable, Alcântara became a trendy place for restaurants, pubs and discos, mainly because its outer area is mostly commercial, and the noise generated at night would not disturb its residents. Today, some of these areas are slowly being taken over by loft development and new apartments that can profit from its river views and central location.

ALCÂNTARA – HERITAGE AND TOURISM RESOURCES

Alcântara is surely not the most visited neighbourhood in Lisbon. Its monuments, museums, churches, and other tourism resources are not well known if compared to Belém district, Baixa (downtown) or the castle hill. Yet, a closer look at the whole quarter and near surroundings may show a different scenario and change the idea that one has about its attractions, which are all and all worth of at least a long full-day visit. Therefore, in order to understand the potential of this neighbourhood, we propose an itinerary that starts at the hills of Alcântara and slowly arrives down to the tourist attractions situated near the river Tagus[5]. Although not included in the perimeter of Alcântara neighbourhood, but still in a walking distance from it, the belvedere in front of **Palácio das Necessidades** (Necessidades Palace) is the best place to start a visit to the Alcântara district, so that one can have a notion of the whole area. Besides the Palace and its chapel, "the sole royal residence that resisted to the earthquake of 1755" (Santana & Sucena, 1994), the picturesque view overlooking the Tagus, the 25th of April Bridge and Lisbon's harbour, also includes the whole area of Alcântara. The belvedere is actually a peaceful garden with a beautiful fountain that dates from 1748. If you turn your back to the river, you will see the long pink façade of the 18th century palace that is from 1950 the Ministry of Foreign Affairs, as well as its chapel and bell tower that once belonged to the Convent of St. Philip Nery, known as the Oratory Congregation. "The priests had to teach Christian doctrine, grammar, rhetoric, moral theology and philosophy" (Santana & Sucena, 1994). If you are lucky enough to visit the chapel, that is closed most of the times, you will find a baroque interior with paintings, marbles, gilt woodwork and sculptures signed by Agostini Giusti e de José de Almeida. On the west side of the palace, there is an entrance to the so-called *Tapada das Necessidades*, a charming park where one can walk or just relax before a 10 minutes' walk down the hill to the next stop[6].

The **Church of S. Pedro de Alcântara** was built in replacement of the primitive church, dedicated to St. Peter, located in *Alfama* since 1344, which suffered total ruin in the earthquake of 1755. Queen Mary I promoted the construction of the current church in 1780. The building, with a rectangular plan and a single nave, is considered an 18th century relic, representative of a Portuguese late baroque. Inside, in the main chapel there

[5] http://www.patrimoniocultural.gov.pt/pt (retrieved 11 May 2017).
[6] http://www.patrimoniocultural.gov.pt/pt (retrieved 21 June 2017).

is a baroque sculpture representing St. Peter and several symbols related to the life of the saint. You can also see remarkable paintings by Bento Coelho da Silveira[7].

The next attraction is **Tapada da Ajuda** (Ajuda hunting grounds), which is situated in the perimeter of the old Necessidades Convent (Santana & Sucena, 1994) and occupies a total surface of 11 Km². It was created as a royal hunting reserve by king John IV, in 1645, then on lands of the Alcântara Royal Palace. King Joseph I called it *Tapada da Ajuda*, sponsored its afforestation and the renewal of the fauna and flora. Currently, this area is in charge of the Higher Institute of Agronomy and here some of the best examples of specific civil architecture of the second half of the 19th century were built, such as the Exhibitions Pavilion (1881) or the Astronomical Observatory of Lisbon, created twenty years earlier (1861) and inaugurated by King Peter V. Inside the walls of the *Tapada*, there is a Natural Botanical Reserve, named António Xavier Pereira Coutinho (botanist), which consists on a calcareous knoll, located above the Exhibitions Pavilion, known as *Alto da Casa Branca*. The reserve was founded in 1923 and is representative of the local flora. In 1951 it acquired the current designation.

A visit to the *Tapada* includes, among other places: a) the Exhibitions Pavilion with a singular structure in iron and glass where several cultural activities take place; b) The water mines, built in the 18th century; c) The amphitheatre, or stone auditorium built in the 1940's, seating 3000 people; d) Lisbon's Astronomical Observatory situated at 100m high, an idea of the Frenchman Faye, built in 1850; e) The old Coach house and Queen Amelia *Chalet*; f) The belvedere at 135m high, decorated with glassed tiles and built on a cistern used for the water that comes from the mines, in front of the botanical reserve.

About 10 minutes walking from the Tapada, on top of Santo Amaro hill, **Vale Flor Palace** is one of the most beautiful romantic buildings in Lisbon, dating from the early 20th century. José Constantino Dias, a Portuguese emigrant who grew richer as a farmer in Sao Tome and Principe islands, ordered its construction when he returned to Portugal and received from King Carlos I the title of Marquis de Valle Flôr. The project of the building was given to the Italian architect Nicola Bigaglia. In 1992, the palace was acquired by the Hotel Group Pestana, to transform the space into a five-star hotel unit. The hotel project retained the original features of the space. The central body is divided into four floors, with Parisian style attics. In the main façade stands the sumptuous entrance space in marble with iron and glass doors, which is accessed by a wide Portuguese limestone sidewalk. In the gardens of the palace, besides the swimming pool and the sculptural pieces, stands out the House of the Lake, a pavilion of oriental taste[8].

Not far from the hotel, implanted on a hill overlooking the Tagus, near the Alcântara valley, the **Chapel or Hermitage of Santo Amaro** (Figure 1) was built in 1549, as indicated by the inscription placed on the main door of the temple. The project of this centralized plant hermitage, in Mannerist style is unique in the city of Lisbon, and is attributed to Diogo de Torralva (Markl & Pereira, 1986; Moreira, 1995; Serrão, 2002), one of the great Portuguese architects of the 16th century.

It is not sure if this shrine of pilgrimage was instituted by a group of Galician sailors or a brotherhood founded in this place in 1532 by friars of the Order of Christ, (Cortez, 1994). The temple is inspired on an engraving by Sebastiano Serlio that represents the Mausoleum of the Crescenzi family, in Via Appia, Rome (Moreira, 1995). The nucleus of the structure is the circular space of the chapel, surrounded in half of its area by the semi-circular galilee that composes the facade. The galilee is covered by a dome. The walls of this space are fully lined with late-Mannerist polychrome tiles, organized in two registers alluding to Saint Amaro. The circular nave is covered by a semi-

[7]http://www.cm-lisboa.pt (retrieved 11 May 2017).
[8] http://www.patrimoniocultural.gov.pt (retrieved 11 May 2017).

spherical dome and lantern. The sacristy is contiguous to the chancel. Held on January 15, Saint Amaro pilgrimage was one of the busiest in the city, and took place for the last time in 1911. With the advent of the Republic in 1910, the chapel had been abandoned and looted, even serving as charcoal. In 1927, it was delivered to the Brotherhood of the Blessed Sacrament, and the following year the space was rehabilitated for worship[9].

Figure 1. The Chapel of Santo Amaro

Walking down the stairway from the chapel, at the corner between Calçada de Santo Amaro and Rua 1º de Maio, **Palace Pinto Basto** is noteworthy. Built in 1716 to Pinto Basto family, it was inhabited by the founder of *Vista Alegre* porcelain and glass factory, who lived there with his 14 children. The factory still exists today and it produces the best quality porcelain in Portugal. In the beginning of Junqueira Street (nr. 30) there is the Macao Scientific and Cultural Centre[10], a research and high-dissemination unit of the Ministry of Education and Science, for scientific and cultural cooperation with China. The most complete and specialized Library about China in Portugal, the only historical-cultural **Museum of Macao** outside China, as well as a unique collection of Chinese Art are to be found there. The Museum of History and Art houses a collection of about four thousand objects, classified in several categories, such as: ceramics, painting, furniture, textiles, graphic documents, numismatics and goldsmiths. The permanent exhibition of the Museum is divided in two parts: The Historical-Cultural Condition of Macao in the 16th and 17th centuries and the Chinese Art Collection. The built complex keeps a tile record, with the representation of Saint Antony and the inscription Vila de Santo António, on one of the walls of the building that faces the garden. The Vila de Santo António was a social work created by the Count of Burnay for the workers of the Tramway Company, of which he was the largest shareholder and director. The building, which is developed over five floors, was prepared to house the Museum, the Auditorium, the Cafeteria, the Multipurpose Room and work offices.

The walk proceeds along **Junqueira Street**, where several palaces and noble dwellings are to be found. In the 13th century, the name *Junqueira* already appears in official documents published by king Dinis (Santana & Sucena, 1994). From the beginning of the 16th century, noble families moved to this part of the town, building

[9] http://www.patrimoniocultural.gov.pt (retrieved 11 May 2017).
[10] http://www.cccm.pt/(retrieved 13 May 2017).

several summer residences. But most of them were built after the earthquake of 1755 because the Portuguese aristocracy wanted to live close to King José I, who had just moved to Ajuda hill and had a Royal Wooden Palace (*Real Barraca*) built there, because he was afraid of earthquakes - this area had not been as much affected as the centre of Lisbon. Besides the beautiful palaces, one also finds picturesque 18th and 19th century popular houses, which facades are often decorated with glazed tiles, alongside with trendy shops, pleasant open-air bars and gourmet restaurants. Halfway between Alcântara and Belém, a 19th century fountain also decorated with tiles is worth a note.

But before arriving there our attention goes to **Palace of Ribeira Grande** (nr. 66) (Figure 2), built in the early years of the 18th century, by the Marquis of Nisa and deeply altered in the 20th century to host the Secondary School Queen Amelia. The next attractive building is **Palace Burnay** (nr. 86) (Figure 3), originally built on the initiative of D. José César de Meneses in the early 18th century. After the earthquake of 1755, the property was sold to the Patriarchate of Lisbon, who adopted it as a summer residence of the position titular. In the end of the 19th century the palace passed into the possession of Henry Burnay, who undertook a total renovation of the interior. In 1940 it was acquired by the Portuguese State, which installed several organisms there. The gardens are partially occupied by modern buildings of the Institute of Tropical Scientific Research.

Figure 2. Palace of Ribeira Grande

Figure 3. Palace Burnay

Not far from Palace Burnay, **Palace Ponte** (nr. 94) belongs to the Port f Lisbon. It belonged to the Counts of Ponte, the Melo Torres family, who served the Portuguese Royal House for several generations. From 1762 until 1950, the property was owned by Posser family. In the 1950's, the palace would pass to the possession of the Port of Lisbon. In the interior, much modified by the current functions, the panels of tiles, placed at the entrance of the building, signed by Jorge Colaço, represent King Dinis and his wife, the Holy Queen Isabel; there are still two other compositions made by the famous Viúva de Lamego tiles factory. A little further, **Palace Pessanha/Valada** (nr. 112) was built in the 18th century for the Pessanha family, and bought by the second Marquis of Valada in the 19th century, who was an erudite, depute and 1st official of the royal house. **Quinta das Águias** (nr. 138) dates back to 1731. Diogo de Mendonça Corte-Real obtained the rights to the estate that later came to be known as Quinta das Águias. In the following decades, the Quinta (farmhouse) had several owners and in 1841 it passed to the possession of José Dias Leite Sampaio, Viscount of Junqueira. The next interesting property is **Palace Lázaro Leitão Aranha** (nr. 194-196), built in 1734 by the principal of the Lisbon's Cathedral and Lens of the University of Coimbra, Lázaro Leitão Aranha. Carlos Mardel

was the architect responsible for the project. The palace, built in the shape of an L, develops parallel to the Rua da Junqueira, and consists of a central body with a single floor. There is also a chapel built in 1740. The original plan of this noble house has been the target, over time, of enlargements and adaptations. Today it is the Lusíada University.

A short turn can be made to have a look at **Palace Ega** (Boa Hora). The original construction of the Ega Palace dates back to the 16th century, as indicated by a 1582 inscription on a fountain at the entrance of the main house. The current organization of the building, with three clearly distinct bodies, is due to the great reform of the 18th century. The famous Pompeii Hall dates from that period, decorated with Dutch tiles from the first half of the 18th century, alluding to views of European ports. New works in the 19th century gave to this Hall the appearance that it holds today, with the erection of the false cupola, which replaces the old 18th-century ceiling. The property had several owners until it was finally acquired by the Portuguese state. Since 1931, the Arquivo Histórico do Ultramar (Overseas Historical Archive) has been operating there.

Crossing Junqueira Street to the riverside we find the **Centro de Congressos de Lisboa**[11] (Lisbon Congress Centre) or CCL inaugurated in 1957. According to the statistics of the "International Congress and Convention Association"[12] Lisbon is in the ninth place in the world ranking for number of congresses, which makes this kind of tourism an extremely important resource for the city's economy. Lisbon has numerous structures for such events, some of which are very modern, but the one boasting the most illustrious tradition is the above-mentioned one. Located alongside the Tagus River, in an accessible area near the four star Vila Galé Ópera Hotel, the CCL is equipped with five pavilions, eight auditoriums, seven foyers, 34 meeting rooms, a restaurant for 400 people and two car parks with 1.100 parking lots. The main building (*Pavilhão do Rio*) has been classified as "architectural heritage of Lisbon". After the creation of more modern structures on the occasion of the EXPO 98, the importance of CCL decreased, but it has kept its somewhat vintage charm intact. The greater centrality that the district of Alcântara will presumably gain after the construction of the new tourist attractions - the *Museu Berardo Art Nouveau and Art Déco*, and *Experiência Pilar 7* (see further below) - might restore part of the CCL's former role as a congress centre.

The **Art Nouveau and Art Deco Museum** "is under construction"[13], in Rua 1º de Maio. It will feature the entire Berardo's Art Nouveau and Art Deco collection although there is not yet a precise date of inauguration. This new Lisbon museum will house about 300 pieces from the collection of the Madeira Island's businessman Joe Berardo. Among the works of art are decorative pieces by artists such as Lalique, Leleu, Perzel, Brandt, Porteneuve and Ruhlmann, from a collection that has already been exhibited in spaces such as the Serralves Museum (Oporto) or the Berardo Museum itself (Belém, Lisbon).

Right next to the future Museum, there a long red building that used to be the **Flamengas Convent**, built under the orders of Philip II in 1582 to give shelter to a group of nuns who were expelled from the Nederland with the arrival of Protestantism. The façade and the church are very simple. Above the entrance there is the coat-of-arms and the crown of Portugal. Inside the single nave church, there are interesting glazed tiles depicting the tribulations of the Flemish nuns (1760). The floor is made of polychrome marbles and in the main chapel the image of Our Lady of Quietação is displayed. The convent is currently adapted to collective housing[14].

[11] http://lisbonvenues.pt/centro-de-congressos-de-lisboa/ (retrieved 30 May 2017).
[12] https://www.iccaworld.org/dcps/doc.cfm?docid=1951 (retrieved 30 May 2017).
[13] http://www.dn.pt/artes/interior/berardo-vai-abrir-novo-museu-em-lisboa-com-art-deco-em-2017-5453459.html (retrieved 11 May 2017).
[14] http://www.cm-lisboa.pt (retrieved 11 July 2017).

The **Centro Interpretativo da Ponte 25 de Abril – Experiência Pilar 7** (25th of April Bridge Interpretation Centre – Pillar 7 Experience)[15] (Figure 4) was inaugurated in 27th September 2017, a facility that will allow visitors to experience the bridge "from within", thanks to a panoramic lift and terrace built in correspondence with a pillar (*pilar 7*) located in Alcântara. In all likelihood, this facility will further increase the bridge's importance as an urban landmark and will enhance the tourist relevance of the whole district. The **25 de Abril Bridge**, with an overall length of 2.278m and the longest main span in Europe, links the two banks of the Tagus in close proximity to the estuary and surely represents one of the most important and well-known urban landmarks in the city of Lisbon. Inaugurated in 1966 with the name of Salazar Bridge[16], it was renamed *25 de Abril* Bridge after the day when the Carnation Revolution[17] took place in 1974. It is very similar to San Francisco's *Golden Gate*, because it was built by the same company that built the Californian bridge. The *25 de Abril* bridge, despite being visible from almost every panoramic viewpoint in the city, manifests itself in all its grandeur especially in Alcântara: in fact, one of the entrances from Lisbon's side is located in this district, which grants the visitor a visual experience definitely more intense than anywhere else in the city, both from right below the bridge, in the area of the *Docas de Santo Amaro* (see further below), and from what might be its most interesting outlook, which is from the belvedere in *Bairro do Alvito* (see further below).

Figure 4. Centro Interpretativo da Ponte 25 de Abril (under construction)

Figure 5. Village Underground

"How down-at-heel Lisbon became the new capital of cool": Thus, an on-line article of 16 April 2017[18] published in the English newspaper *The Guardian* was headlined. Part of the answer is in the Alcântara district: here is located the now famous **LX Factory**[19], a successful experiment to repurpose an industrial complex into a multifunctional space. Inaugurated in 2008, the LX Factory occupies a former industrial area of around 23.000m² (a central avenue with two big lateral structures), where important companies, among which the *Companhia de Fiação e Tecidos Lisbonense* (Lisbon Fabrics and

[15] http://www.cm-lisboa.pt/noticias/detalhe/article/ponte-25-de-abril-vai-ter-um-miradouro-panoramico (retrieved30 May 2017).
[16] António de Oliveira Salazar, Portuguese dictator from 1932 to 1968
[17] The nonviolent regime change implemented in 1974 by soldiers of the progressive wing of the Portuguese army, which put an end to the long authoritarian regime founded by Salazar.
[18] https://www.theguardian.com/artanddesign/2017/apr/16/lisbon-new-capital-of-cool-urban-revival-socialist-government-poor-antonio-costa?CMP=share_btn_fb (retrieved 30 May 2017).
[19] http://www.lxfactory.com/PT/welcome/ (retrieved 30 May 2017).

Threads Mills) and the *Gráfica Mirandela (*Mirandela Printing Shop*)*, were located. The complex, after a long period of inactivity, has undergone an intelligent recovery, which has preserved its former "factory" feel, although according to a contemporary formula: in fact, it hosts various design offices, art *ateliers*, start-ups, restaurants, cafés, bookshops, night clubs, co-working spaces, and even a hostel. It also hosts workshops, concerts, cultural activities and a Sunday market of vintage and biological products. Nicknamed from time to time "cultural incubator", "creativity factory", "creative isle", the LX Factory is to its users - the residents of the neighbourhood and the whole city, but also the increasingly numerous tourists - an interesting and pleasing place where to spend a Saturday night or a Sunday morning in a mood that some - like *The Guardian* - would define as "cool". We can close this paragraph with the words of Xie (2015): LX Factory "experienced a process of gentrification from factory production to tourism" (Xie, 2015, p.174). It "is viewed as both an industrial icon and an ideal location for the logical transition to a service economy via the reinvention of traditions" (Xie, 2015, p.191).

The same can be said about the **Village Underground**[20] (Figure 5), reproduction of the homonym English space: located in a neighbouring area to the LX Factory where the *Museu da Carris* lies too (see further below), the Village Underground is made up of 14 disused containers and two old buses turned into offices, co-working spaces and even a coffee shop. Many have chosen to establish an operating centre there: among them, the band *Macacos do Chinês*, the Portuguese division of the magazine *Vice*, and the artist AkaCorleone. The Village Underground hosts cultural and musical events, in addition to being the location of commercials. To complete the picture of Alcântara's museum equipment, we need to mention the **Museu da Carris**[21], the Society providing public urban transport in Lisbon since 1872. Perhaps it's not a coincidence that this museum is in Alcântara, since transport, in its many forms, is particularly relevant in this district. Inaugurated in 2012, the Museu da Carris is divided in two sections: in the first one, more like a traditional museum, the evolution of the Society, and therefore of public transport in Lisbon, is described through an exhibition of documents, projects and technical drawings, tickets, uniforms and other objects of historical interest. The second one, however, is located inside warehouses and consists of particularly representative samples of buses and historic trams, which also testify the technological evolution that public transport in Lisbon has undergone over time.

It is appropriate to mention what could be defined as a "diffused" artistic heritage, the so-called "**street art**" or "**urban art"**. For several years now Lisbon has been emerging as one of Europe's most representative venues for this form of expression, with many important examples in the district of Alcântara[22]: some artists, now internationally famous, such as **Vhlis, Bordalo II, How and Nosm** and **AkaCorleone** carried out important works which are displayed on the facades of buildings and masonry all over the neighbourhood, as well as inside the LX Factory and the Village Underground, while the underpass of the Alcântara-Mar railway station leading to the *Docas* (peers) is entirely covered with murals painted by the *Associação Portuguesa de Arte Urbana*. As an evidence of the tourists' interest towards this kind of art, we can mention the guided tour, "The Real Lisbon Street Art Tour", organized by the travel agency Estrela d'Alva, which also crosses the district of Alcântara.

The **Docas de Santo Amaro** (Saint Amaro Peers) are located under the first section of the bridge and were completely renewed during the restoration works of the port of Lisbon, completed in 1887. Their function almost ended as the port progressively

[20] http://vulisboa.com/ (retrieved 30 May 2017).
[21] http://museu.carris.pt/ (retrieved 30 May 2017).
[22] http://www.lisbonlux.com/magazine/lisbon-street-art.html (retrieved 30 May 2017).

shrank over time, so that in the beginning of the 20th century the *Docas* merely harboured small boats. In 1995, in the context of a larger recovery project of abandoned or underused port facilities for cultural and recreational aims, the *Docas de Santo Amaro* were converted in a lively area of restaurants, bars and clubs, attended both by residents and tourists, especially in the evening and at night, which contributes to make Alcântara one of the poles of Lisbon's nightlife. The *Docas* also feature a modern and well-equipped marina, with a capacity of 330 boats and water games facilities. Something similar happened in Paris, where the quays along the River Seine, that once where used to unload deliveries, since 2013 have become a walk for pedestrians (Xie, 2015).

Nearby the *Docas de Santo Amaro* there is one of the main cargo terminals of Lisbon's port and a terminal for cruise ships, which makes the whole area an important junction for the transport geography of the city of Lisbon. To emphasize this role there is the *25 de Abril* Bridge, literally overhanging the *Docas* and providing a visual and audible impact that cannot be found anywhere else in the city. Right in front of the cargo area, an old building of the Port of Lisbon, designed by the architect João Simões from 1939 onwards, where cod was stored, currently houses the **Museu do Oriente** (Museum of the Orient). The building was part of the rationalist and functionalist spirit that represented one of the great tendencies of the time.

It was built from scratch to store and preserve dry cod and fresh fruit, with a structure of slabs and reinforced concrete beams designed to support the weight of these products. It was divided into 50 differentiated cold rooms and several food treatment areas, as well as warehouses, engine rooms, and even a gym for the workers. On the outer walls, panels with low-reliefs of the master Barata Feyo are preserved. It functioned as a cod warehouse until 1992, when it was closed down. Its requalification, by the architects Carrilho da Graça and Rui Francisco (with a landscape setting of Gonçalo Ribeiro Telles) was conceived to house the Museu do Oriente. The museum has six floors and basement, with two floors of exhibition area, reservations, auditorium and panoramic restaurant. It welcomes the art collection of the East Foundation and the private collection of the French sinologist Jacques Pimpaneau, made up of thousands of pieces of popular art from different Asian countries.

Figure 6. The *25 de Abril* Bridge from the *miradouro* of the *Bairro do Alvito*

This tour in Alcântara may be concluded with a brief visit to the **Bairro do Alvito**, which, like the bridge, was originally named "Salazar". It is a group of popular houses of modernist style designed in 1937 by the architect Paulino Montez. The area is inside the perimeter of the **Parque Florestal de Monsanto**, which, with its almost 1.000 hectares, represents the true "green lung" of the city of Lisbon. The *Bairro do Alvito* has an odd triangular shape, and without a doubt it may be of some interest to contemporary architecture scholars and enthusiasts. However, the main interest in the *Bairro do Alvito* resides in its peri-urban and hilly position. The "explorer" tourist who happens to reach this far - not only in the sense of physical, but also cultural and mental distance - from the "traditional" routes of Lisbon's urban tourism, will discover an unusual and certainly unfrequented naturalistic itinerary, as well as a different view of the *25 de Abril* Bridge (Figure 6): typically, only its profile is visible, with the three spans separated by the main pillars surmounted by high towers; instead, from the *miraduro* of the *Bairro do Alvito* the perpendicular and elevated outlook allows to observe its whole structure and see its curvature, unperceivable from other viewpoints.

ACCOMMODATION IN ALCÂNTARA: FEATURES AND TRENDS

As mentioned in the introduction, the district of Alcântara, besides being a secondary pole of tourist attraction based on the resources described above, as well as a *trait d'union* between two strong tourist areas (the Baixa - Chiado - Cais do Sodré districts on one side, and Belém on the other) thanks to its intermediate position and its good location within Lisbon's transport geography, is now turning into an additional nucleus of accommodation[23], although semi-peripheral and residual compared to the central ones. The development of this new phenomenon will depend to a large extent on the actual conception of some rail transport facilities, currently at the planning stage[24], and on a desirable strengthening of the district's image in the tourists' mental map, which has been quite vague until recent times. However, it is possible to outline its features and evolution of the last years thanks to the figures of the *Registo Nacional de Turismo* (National Tourism Registration)[25], where all accommodation facilities are sorted by year of opening and location.

As for the hotel services, there is not much to report. The facilities available in Alcântara are just two, though large in size and of high quality:

- Pestana Palace Hotel, in Vale Flor Palace, the historical and cultural importance of which has been discussed above, active since 2005, 5 stars, 194 rooms and 388 beds, equipped with a conference facility of its own;
- Vila Galé Ópera Hotel, renovated in 2014, 4 stars, 259 rooms and 518 beds, located near the Lisbon Congress Centre.

More interesting, and definitely more dynamic, is the situation of accommodation facilities defined as a*lojamento local*[26]. In order to understand its evolution and diffusion it is appropriate to first analyse the city context as a whole, before going into details about the districts, with special reference to Alcântara.

In the city of Lisbon, by 31 March 2017, 7.198 *alojamento local* facilities were open to the public, with a total of 16.105 rooms and 41.170 beds. It should be stressed, however, that almost all of these lodgings (6.805, equal to 94,5%) started their activity between 2014 and

[23] According to Jean-Pierre Lozato-Giotart's definition (2003), we can state that Lisbon is turning into a great multipolar tourist destination, with a tourist supply based on diversified poles of attraction, and also a multinuclear one, thanks to numerous districts for tourist accommodation.

[24] Connection between the railway lines of Lisbon-Cascais and Alcântara-Oriente through the creation of an underground station in Alcântara-Terra; extension of the subway unto Alcântara.

[25] https://rnt.turismodeportugal.pt/RNT/ConsultaAoRegisto.aspx (retrieved 9 April 2017).

[26] As for Alcântara, the only facilities of *alojamento local* which are not tourist apartments are the hostel The Dorm, located inside the LX Factory, with two dormitories for 32 total beds, and the Lisbon Student's Inn, with 11 rooms and 16 total beds.

2017 (750 in 2014, 2.096 in 2015, 3.297 in 2016, 662 in the first 3 months of 2017), or most likely they formalised it through registration into the *Registo Nacional de Turismo* in order to avoid the risk, recently arisen, of fiscal and administrative sanctions.

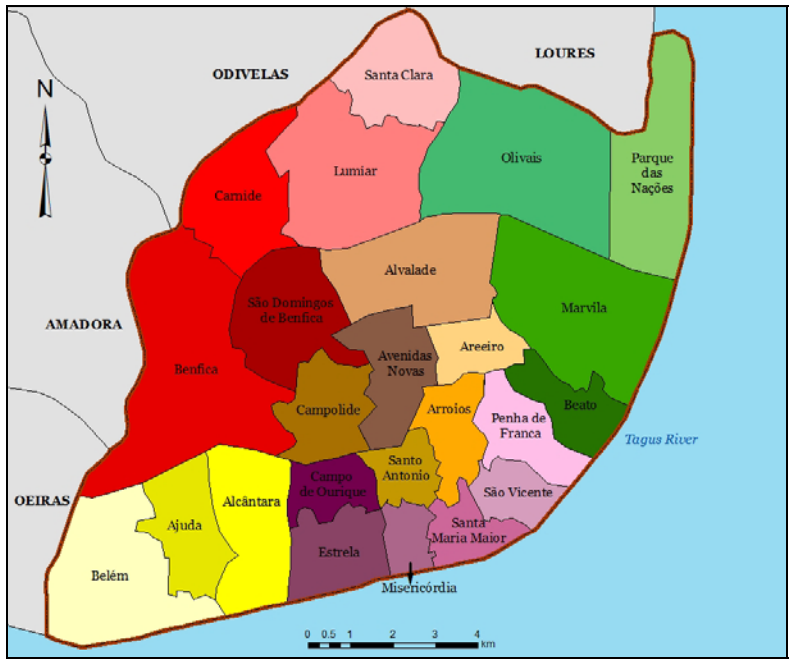

Figure 7. Lisbon civil parishes (*freguesias*)

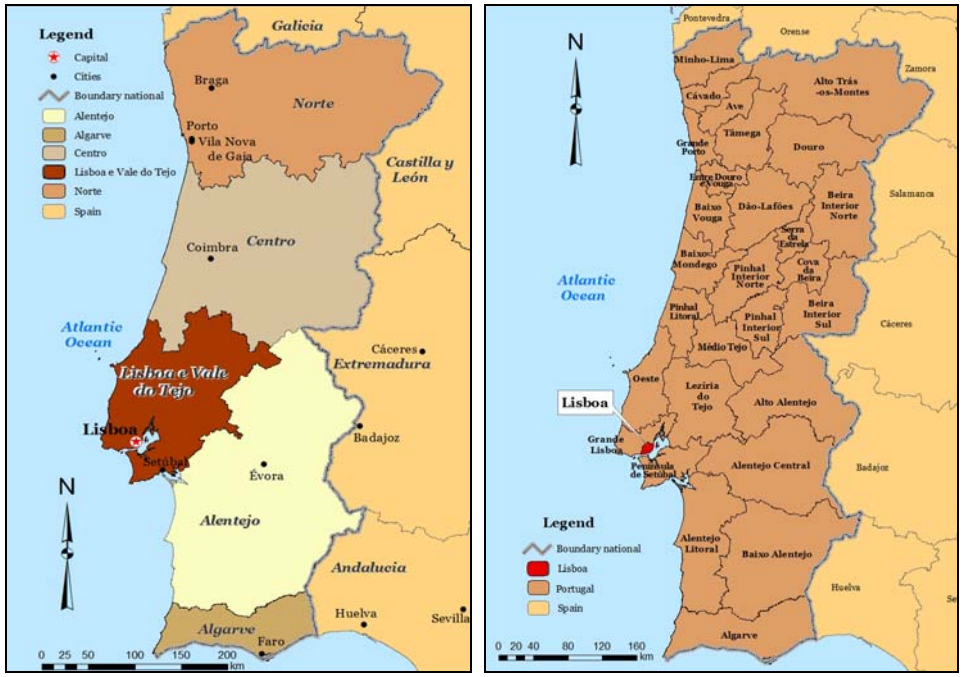

Figure 8. Administrative organization of Portugal, regions (left) and districts (right)

These data point out the increasing importance of this kind of accommodation, not only for the tourism market but also for the local and national taxation. As for Lisbon as a whole, it is interesting to note that the phenomenon - predictably – is stronger in the central civil parishes, or *freguesias* (Figure 7) (Santa Maria Maior, 2015; Misericórdia, 1.641; Arroios, 718, Santo António, 674; São Vincente, 55), inside which are the most important tourist areas: Baixa, Chiado, Cais do Sodré, Bairro Alto, Príncipe Real, Alfama, Santa Apolónia, Mouraria, Martim Moniz, Almirante Reis, Avenida da Liberdade, Marquês de Pombal, to mention the main ones. As one moves away from the most central areas, the phenomenon obeys to the "decay distance"[27]: in a second ring just outside the very centre, with 100 to 500 facilities, are the *freguesias* of Estrela (394), Avenidas Novas (200), Campo de Ourique (159), Beato (152) and Penha de França (114). With the exception of Parque das Nações (157) and Belém (152)[28], every *freguesia* located outside this second ring displays definitely smaller numbers, and under the 100 units anyway: besides Alcântara, which will be discussed later on, within this group are Ajuda (60), Areeiro (84), Alvalade (64), Campolide (46) and São Domingos de Benfica (40). It is quite clear that centrality and accessibility are fundamental requirements for the location of this kind of activity. As for Alcântara in particular, by 31st March 2017, 85 non-hotel facilities, with 177 rooms and 447 beds, have been counted out. First of all, an evolution trend akin to that of the city of Lisbon can be noted: out of the 85 facilities, 83 have been open to the public since 2015 (22 in 2015; 48 in 2016; 13 in the first 3 months of 2017)[29]. The majority of them (58) operates as an individual enterprise, which suggests the prevalence of small entrepreneurship as an integration of personal and familiar income. Basically, all of them, with just one exception, are run under various legal titles[30] by physical or juridical Portuguese persons.

In conclusion, the district of Alcântara can count an overall accommodation (hotel and non-hotel) of 630 rooms with 1.353 beds (Table1). Even though most accommodation is ascribable to the two above mentioned hotels, the non-hotel component shows a definitely livelier trend, in witness of an ongoing phenomenon: the increasingly more structural and consistent presence of Alcântara in Lisbon's tourism geography, not only in terms of resources, but also as a convenient location for tourist accommodation.

Table 1. Alcântara: accommodation by 31.03.2017, (Source: Turismo de Portugal data, 2017)

Hotel			Alojamento local			Total		
no.	rooms	beds	no.	rooms	beds	no.	rooms	bed
2	453	906	85	177	447	87	630	1.353

CONCLUSIONS

The study carried out in the paragraph dedicated to tourism resources clearly shows that the urban landscape of Alcântara, rather than a more traditional and historical-cultural heritage, no doubt remarkable, finds its distinctive trait in tangible manifestations of Post-industrial, port and transport dimensions, which brand it as a unique reality in the Lisbon context (Figure 9). As mentioned in the introduction, Alcântara is first of all a neighbourhood of contrasts: ancient noble mansions and prestigious palaces dating from the 16th century to today are a short distance away from popular buildings and dilapidated housing environments. The amenity - due to the proximity of the river, the Tapada da

[27] The weakening of a phenomenon is proportional to the distance from the central nucleus.
[28] These two districts, despite their peripheral position, benefit from their role as strong tourist poles. Also, Parque das Nações benefits from a strong accessibility via subway, which cannot be said of Belém.
[29] Also in the case of Alcântara we believe that there are fiscal and administrative reasons for the timing of the registration into the *Registo Nacional de Turismo*.
[30] 44 as properties, 30 for rent, 7 as loan, 1 as usufruct, 3 as other titles.

Ajuda and the Monsanto Park - that one can breathe in some areas of the neighbourhood, as well as the "scenographic" quality of the hilly part of Alcântara, are in conflict with the real life and its material accomplishments (dismantled factories, sheds, port and rail structures, the bridge itself). This is due to the historical evolution of Alcântara that has been characterized by the industrial revolution, begun in the 19th century, which has radically altered its urban, social and economic structure. The construction of the *25 de Abril* Bridge completed the landscape transformation of the neighbourhood.

The inevitable deindustrialization that followed has left an often degraded legacy susceptible to recovery and reconversion. It becomes evident that it is exactly in this functional reconversion that the authorities are investing for several years, aiming at revitalizing what is becoming more and more one of the trendy areas of Lisbon, both in terms of nightlife and in terms of the lifestyle in general. The corollary logic of this evolutionary parable is the image of dynamism and constant transformation that the neighbourhood transmits in comparison to the static reproduction of traditional and popular "*genres de vie*"[31] that characterizes "historical" areas such as Alfama, Mouraria and Bairro Alto. The dynamism of which the neighbourhood is pervasive arises not only from the intense recovery and reconstruction of discontinuous areas and structures, still in progress, but also from the urban planning itself, strongly marked by the presence of important transport infrastructures (the bridge 25 de Abril, surface rail lines, the commercial port, the cruises terminal, the marina, the railway stations of Alcântara-Terra and Alcântara-Mar), which contribute, even metaphorically, to generate that idea of movement and tension towards other places and other ideas. Somehow, Alcântara is the neighbourhood of a future that is going on, unlike, for example, Parque das Nações, which is the neighbourhood of a future that has already been completed and therefore, somehow, more "static".

Figure 9. Overview of Alcântara neighbourhood

The multifaceted nature of the neighbourhood and the diversity of its resources correspond to various types of tourists interested in visiting it and possibly staying there: Traditional tourists, directed towards the restaurants of *Docas* and, in perspective, to Experiência Pilar 7, a future "great attraction"; Tourists belonging to the younger age groups, recalled by nightlife and the musical and cultural events taking place in the LX Factory and in the Village Underground; Explorers, searching for unusual or at least

[31] For example, fado culture, the popular saints' festivals, traditional handicrafts and typical gastronomy, all often weakened because of tourism and therefore partially artificial.

peripheral itineraries as compared to the "mass" flows that characterize the central neighbourhoods; Congressmen; Even Eco tourists, attracted by the green and less known areas such as Tapada da Ajuda and Bairro do Alvito.

We therefore believe that Alcântara district, which today represents a sort of "new frontier" of tourism in Lisbon, will fit profitably and organically into the tourist boom that the city has been experiencing for a number of years, thanks to several factors: Its diversified resources; Its dynamic neighbourhood image, "trendy", but still authentic; Its barycentric position between two "strong" areas (between the historic city and Belém); Its good accessibility, still being strengthened; The rapid increase in the receptive supply, which is also a fairly clear signal of the phenomenon that has been attempted to describe in this article. Future research could analyse the changes regarding the accommodation and catering facilities of Alcântara district as well as their typologies. Much more should be known about the type of tourists who visit Alcântara, as well as about the role of public administration, namely the *Junta de Freguesia* and *Câmara Municipal*, in the tourist development of the area.

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THE RURAL TOURISM CHALLENGE IN PESCARA'S HILLY LANDSCAPE, ITALY: AWARENESS, INTEGRATION, SUSTAINABILITY

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Abstract: The Pescara's hilly area encompasses 21 towns around the metropolitan area of Pescara (Abruzzo, Italy) and represents an interesting case study with which to analyse its unexpressed potential for rural tourism in the light of a growing interest in authentic, identity-focused and country tourism. After discussing emerging rural profiles from demographic, agricultural and morphological point of views, this paper aims to offer an overview of the current characteristics of tourism offer (accommodation, attractions, promotion and integration strategies) and tourist demand (arrivals and overnight stays). A fundamentally descriptive approch was implemented: carrying out a SWOT analysis strengths and weaknesses, potential opportunities and threats are analytically observed. Results shows that although rural tourism represents a clear opportunity for local development, the hilly landscape of Pescara suffers both of unawareness of its own potential and lack of offer's integration. Sustainability issues are also relevant. A'systemic' view of rural tourism and potential in the overall regional tourism offer could better promote and valorize the local heritage of the Pescara's hilly landscape.

Key words: rural tourism, awareness, integration, sustainability, hilly landscape, Pescara

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RURAL TOURISM: THE COMPLEXITY OF A MULTIFACETED PHENOMENON

The understanding of 'rural' has undergone a radical transformation since the 1970s: from an undifferentiated perspective which accorded the countryside the exclusive function of food producing area, an increasingly differentiated vision of agriculture has taken shape (Wilson, 2007; 2008) which attributes it with roles involving reproducing and safeguarding the natural and human environment, as well as transforming and trading agricultural products (Belletti & Berti, 2011; Sun et al., 2011). At the same time changes have taken place in tourist demand with a growing interest in forms of tourism

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more distant from mass tourism, more responsible and attentive to sustainability, to farming life, and interested in authentic, identity-focused and local tourism experiences (Dincă, 2016; Fuschi, 2012; Fuschi & Di Fabio, 2012; Fuschi & Pascetta, 2015).

Rural tourism is therefore a complex phenomenon (Lane, 1994) as a result of the substantial difference between tourism in rural areas - characterised by a mere geographical coincidence between countryside and tourism - and rural tourism based on rural characteristics themselves, however subjective and indeterminate. This difference is made even more ambiguous by identification methodologies for 'rural' which vary not simply from nation to nation but also in literature. Dernoi (1991) and Oppermann (1996), in particular, have defined rural tourism according to accommodation type, Sharpley & Roberts (2004) in terms of socio-cultural framework, and Lane (1993) in terms of 'rural character'. The significance of rural tourism as a fundamental component in territorial development is promoted at European level (Hjalager, 1996). The Leader initiative set the foundations for a new vision of agriculture as multi-functional and diversified, while the Cork Conference of 1996 identified the principles of rural development namely endogeneity (understood as traditional features, excellence and recognisability), inter-generational sustainability and product-countryside integration (Cawley et al., 2008). The Cork Declaration 2.0 (2016), emblematically entitled 'A Better Life in Rural Areas', identified 10 programmatic points including prosperity promotion in rural areas by means of innovation and integration of rural activities, enhanced accessibility, sponsoring the agricultural chain, safeguarding the environment and the countryside and improvements in development process governance.

In this paper authors adopt a fundamentally descriptive approach: after the geographical definition of the case study area (section 2), the overview of the characteristics of the Pescara's hilly landscape (section 3) and the reconstruction of the main features of the current rural tourism offer and demand (section 4), a SWOT analysis is carried out (section 5) in order to discuss awareness, integration and sustainability issues.

THE RURAL CHARACTER OF THE PESCARA'S HILLY LANDSCAPE: CATEGORISATION CRITERIA FOR A SYNTHESIS

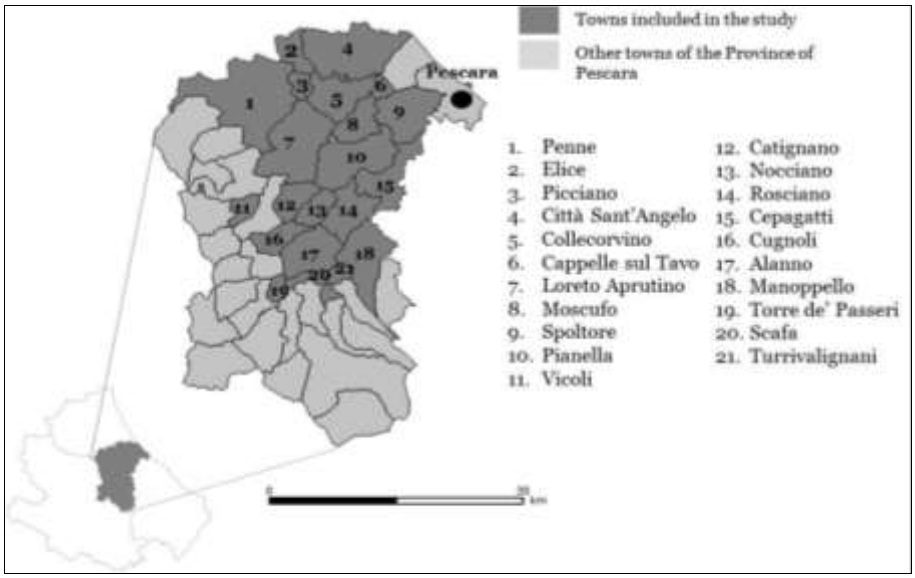

Figure 1. The hilly towns of Pescara's landscape, (Source: ISTAT)

In order to geographically circumscribe the case study, an altitude criterion was adopted defining as hilly those towns in the Pescara's Province which are not on the coast[1] and less than 600 above sea level in altitude, in line with the parameters of the Italy's National Statistics Institute. 21 towns were thus labelled hilly end encompassed (Figure 1).

Subsequently, to observe the rural dimensions of this circumscribed hilly context, two indicators were implemented, legitimated not solely by the literature (Tinacci Mossello et al., 2011; Randelli et al., 2014) but also by the National Rural Network[2] : the average population density and the agricultural specialisation. The general threshold adopted by average density is equal to or lower than 150 inhabitants per Km^2. Beyond this threshold a town is no longer considered rural. We chose to use agricultural specialisation as a parameter in relation to the regional average. More specifically, agriculture's added value was calculated in relation to the added value of other activities in the same town, comparing them with the same ratio on a regional scale.

Formula (also adopted by CRESA)[3]:

$$\frac{AV(A)m}{AV(O)m} \times \frac{AV(O)r}{AV(A)r}$$

In which:
AV(A)m= added value of agriculture in every town
AV(O)m= added value of other activities in every town
AV(O)r= added value of other activities on a regional level
AV(A)r= added value of agriculture on a regional level

Simultaneously adopting the demographic criterion and the agricultural specialisation one, as many as 7 towns (Scafa, Turrivalignani, Torre de' Passeri, Città Sant'Angelo, Cappelle sul Tavo, Spoltore and Cepagatti) should be considered non-rural. We however included these towns in the study due to their geographical proximity and characteristics and also on the basis of the National Rural Nework's classification which numbers them as intermediate rural and intensive agricultural towns (Figure 2).

THE CHARACTERISTICS OF THE LANDSCAPE

The observed landscape falls within the 'sub-coastal clayey and sandy hilly landscape', morphologically characterised by flattish high ground, divided up by deep valleys and steep slopes in which flysch and equally landslide phenomena are commonplace. In functional terms this landscape falls within the agricultural regionalisation corresponding to the Pescara coastal hills (8 towns), Media Pescara (6 towns) and Penne hills (7 towns). Human settlement has undergone alternating fortunes here: from a high population in the 19th century, organised around the hill towns and sharecropping, to the depopulation resulting from long and short distance emigration, the latter towards the provincial capital and, in general, towards coastal towns and those along the roads being built in the valleys above all in the post- Second World War.

But already in the early 1980s this hilly country strip was the location of choice for those suburb building processes, initially, and then peri-urbanisation, later, starting from Pescara, redesigned the geography of the hilly country sites and redefined the urban-countryside relationship. In fact, the demographic growth of the hilly towns - sustained by a

[1] An exception was made for Città Sant'Angelo which, though encompassing a small coastal strip, stretches around 62 square kilometres inland and is strongly oriented in this direction
[2] This is the programme with which Italy has taken part in the 'European Rural Network Programme whose objective is to facilitate exchanges of experience and know-how between those living and working in rural areas
[3] CRESA is the Center for Regional Studies on economic and social issues of Abruzzo Region. The Center periodically collects and elaborates data about occupation and economic trends.

parallel decentralisation process in economic-manufacturing activities and in part by a local entrepreneurial vocation - registered a population growth of around 32% and an increase in urban hill density with as many as 4 towns over the 10,000 inhabitant threshold (in 1981 there were only 2) while settlement characteristics showed an overall urban design deriving mainly from speculative real estate logics generally not consciously planned.

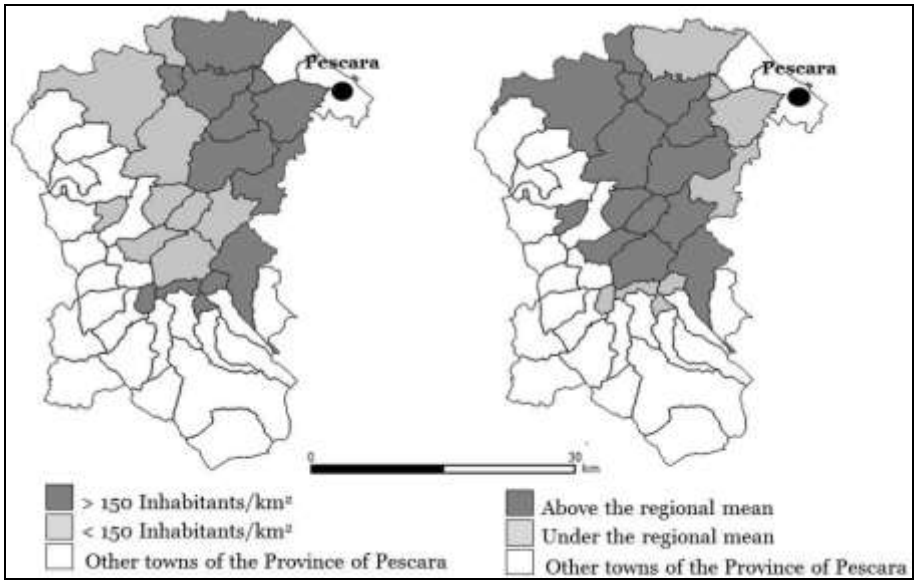

Figure 2. Rural character in the hilly towns of Pescara's landscape (average population density on the left, agricultural specialisation on the right), (Source: ISTAT and CRESA)

Therefore the residential framework represents the progressive adaptation of the local population to the changing processes at work on the hill strip, confirming a mixed structure revolving around 'centres, nuclear settlements and scattered houses' which, if on one hand reiterate the connection with the area's agricultural vocation, on the other they reflect the great transformations which have taken place guided by the extraordinary growth in industrial and tertiary sector activities principally located in the valley bottoms on a continuous network and in a succession of towns, manufacturing plants and large scale distribution retail outlets. Today the area is a mixed landscape: more compact and spatially continuous the sub-coastal hilly area, where greater population density is accompanied by a more marked co-penetration between urban and rural spaces -in all their physical, economic and social characteristics-, more diluted, fragmented and discontinuous the inland hilly areas where the breadth of agricultural space and more marked production specialisation is reflected by a higher added environmental value (despite the greater economic unbalances in the central, more congested central spaces).

THE TOURISM OFFER AND THE CHARACTERISTICS OF THE TOURIST DEMAND

In order to understand the characteristics of tourism in this area the special features of its accommodation, potential tourist attractions and promotion and integration strategies have been analysed. In the case study area there are overall a total of 164 accommodation facilities offering 2,569 beds. They are especially no strictly hotels accommodation typology (guest houses, holiday farmhouses, youth hostels, B&Bs) which

account for around 84% of the total accommodation facilities but with just 51% of total beds of the area. Holiday farmhouses and B&Bs merit a separate mention. The former are regulated nationally in Italy by Law no. 730 (1985), partially amended by Law no. 96 (2006). From a strictly legal perspective holiday farmhouse refers to accommodation offered by agricultural business people using their own business means and in an interconnected and complementary way (crops, forestry activities, cattle breeding) with agricultural activities which have to remain the main source of income. This type of accommodation - around 15% of the total Abruzzo holiday farmhouse offer - would appear to be especially well-suited to the rural tourism paradigm, in that it generally has a low environmental impact, preserves the area's agricultural and/or natural identity and can be brought to fruition the conservational restoration of pre-existing buildings. Furthermore, by eating home-made food and drink and participating to farmers' organized recreational or cultural activities, tourists can explore and experience local authenticity to the full and live the rural tourism life (Cianfalone & Cardile, 2014; Sims, 2009). B&Bs are also common (around 8% of the regional offer) and, whilst less structured than farm holiday hotels, enable the rural landscape and its attractions to be enjoyed in a way which is more independent from the tourist perspective but not necessarily less related to the area's rural characteristics. The area's holiday farmhouses and B&Bs, together with other non-hotel accommodation types, are decidedly widespread: with the exception of Città Sant'Angelo and Penne, whose provision is 22% and 15% of the total respectively, the average provision percentages are up to 9% (Table 1).

Table 1. Overall accommodation provision (Data source: Abruzzo Region, 2014)

Type of accomodation		Number of facilities	Beds
Hotels	5 stars	1	68
	4 stars	6	350
	3 stars	10	545
	2 Stars	3	134
	1 stars	6	154
Others	Camp sites	0	0
	Holiday villages	0	0
	Guest houses	16	286
	Agritourisms	55	547
	Youth hostels	2	115
	B&Bs	65	370
Total		164	2569

The distribution of the 26 hotels is especially concentrated: Città Sant'Angelo contains more than 42% of the case study area's hotels, a capacity of 49% of beds. Next come Loreto Aprutino and Cepagatti which together constitute 18% of the overall available beds. In addition to tourist accommodation, rural tourism services also encompass attractions which, in the literature analysed (Fuschi & Pascetta, 2015; Garrod et al., 2006; Ilieș & Ilieș, 2015; MacDonald & Jolliffe 2003; Richards, 2002), can be grouped into three main types (landscape and nature, food and wine and cultural heritage), strictly interconnected and integrated from a tourist perspective (Figure 3).

The beauties of the landscape are attractions in themselves because they evoke the 'back to nature' ideal and satisfy the need for relaxation of an increasing tourist demand. In the case study the landscape's beauty and historic value has been confirmed by the Italian Department for Agriculture, Food and Forestry Policy which has inserted the Loreto Aprutino's olive groves into the Italian Historic Rural Landscapes list. In addition the high natural importance of this landscape is protected by the Regional Nature Reserve

'WWF Oasis' in Penne and the Natural Local Park in Vicoli. The range of wine and food attractions is especially wide. 'PDO Aprutino Pescarese' safeguards one of Italy's most famous extra-virgin olive oils, made from the olive cultivars Dritta, Leccino and Toccolana. The variety of 'Colline Pescaresi' PGI wines (Montepulciano, Trebbiano, Pecorino, Cococciola, Passerina) is equally fine as is the food local specialities (charcuterie specialties, 'Pasta alla mugnaia'). A full analysis of the cultural heritage present in the 21 towns of the case study would be a complex matter. Limiting ourselves solely to material cultural heritage, there are 15 churches of historic and artistic interest, 4 archaeological sites, 6 castles and a noteworthy range of museums.

Furthermore Città Sant'Angelo and Penne have been included in the Most Beautiful Towns in Italy list[4] and Brittoli, Cappelle sul Tavo in the Authentic Italian Towns list[5]. Accommodation and attractions' availability do not in themselves lead to tourism and must be accompanied by effective promotion strategies in order to create tourist perceptions and images in peoples' minds and thus activate demand (Smith, 1994; Wilson et al., 2001; Kotler & Gertner, 2002; Kotler et al., 2006; Shafiei et al., 2017).

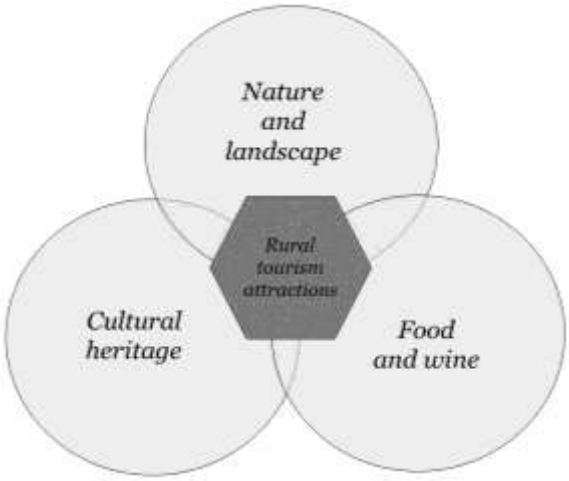

Figure 3. The rural attraction 'cornerstones'

Lastly, the official internet sites of each town, the participation of individual towns in rural type tourist itineraries and being listed as Destination Management Companies (DMC)[6] have been analysed for an understanding of whether tourist promotion and integration strategies coherent with the area's emerging rural identity exist or otherwise (Hopkins, 1998). In-depth analysis shows that - at the moment - only 3 towns (Pianella, Città S. Angelo, Manoppello) have web pages entirely devoted to tourism in general, and these do not promote rural identity as their distinguishing characteristic. Others show sporadic and disorganised indications on restaurants, accommodation structures and local food and wine. This shows a limited awareness of the tourism potential more consistent with the area's landscape and historic characteristics, and in general an equally limited attention to the local development implications of tourism services.

[4] This is a nationwide association set up in 2001 enjoined by towns with high urban quality standards and the desire to promote their tangible and intangible cultural heritage

[5] Set up in 2007, it's a nationwide association of towns and organizations with the aim to promote responsible models of tourism respecting local traditions and the living standards of local people

[6] DMCs are organisations which perform local governance and tourist project management roles as well as networking between the interests, demands and activities of the public and private players involved, in accordance with regional, national and EC tourist planning objectives

As far as towns' participation in tourist itineraries is concerned: 7 towns (Alanno, Manoppello, Scafa, Città Sant'Angelo, Elice, Picciano, Penne) have signed up to the so-called 'Colline Aprutine' and 'Tremonti e Valle Peligna' Wine Roads project (Fuschi & Di Fabio, 2012) while Pianella, Moscufo, Loreto Aprutino, Città S. Angelo and Manoppello are part of 2 cultural itineraries (Romano, 2005). More recently (June 2016) 5 towns (Penne, Elice, Città S. Angelo, Catignano and Spoltore) have signed up to the DMC 'Terre del Piacere' while a further 6 (Scafa, Manoppello, Turrivalignani, Vicoli, Loreto Aprutino and Penne itself) have chosen the DMC 'Terre Pescaresi'. Moving on to an analysis of demand, it can be observed that in 2013 (latest available data) 47,388 tourist arrivals (134,137 overnights) were registered - around 3% of the regional arrivals and less than 2% of regional overnights. Around 87% of tourists are Italian (77% of overnights) while 13% are foreigners, well above the regional average of foreign tourists (4%). More than 86% of tourists prefer to stay at hotel accommodation. This indicates that tourists themselves are not aware of the 'rural' character of tourism they could experience in the area.

Demand is markedly concentrated into specific towns as a result of alternative tourism services provision which seems more attractive than a fully deniable rural offer.

Città Sant'Angelo, in particular, with its proximity to the seaside, registered 37,537 arrivals (approximately 79% of the case study's total) while Loreto Aprutino, famous for its cultural heritage and the availability of conference facilities, registered a total of 5,764 arrivals (around 12% of the case study). A further relatively successful destination (608 arrivals) is Manoppello, a well-known pilgrimage centre with its 'Basilica del Volto Santo'.

A PERSPECTIVE INSIGHT VIA SWOT ANALYSIS: AWARENESS, INTEGRATION AND SUSTAINABILITY

The special features of the tourism offer and demand prompt a series of considerations on the current rural tourism status quo in the Pescara's hilly landscape and give us a perspective vision of potential local tourism development trajectories. A useful tool, to this end, is so-called SWOT analysis, widely used in tourism studies (Kotler et al., 2006). The strengths of this case study include, first and foremost, good accommodation and attraction accessibility by means of a wide-ranging road network (provincial, state and motorway) and a regional airport nearby (Table 2). A second strength is the wealth and variety of attractions which typically connote the rural tourism paradigm and good natural environment conservation despite the previously cited suburbanisation and peri-urbanisation processes. On the demand side, the area is attractive to foreigners probably as a result of a certain renewed interest in the Abruzzo landscape in the international press.

Major weaknesses (Table 2) include the limited awareness of local tourist potential by institutions emerging both from scarce planning skills and a lack of fully integrated promotion strategies. If local areas are viewed as 'project' (Dematteis, 1995) and 'intent' (Miani, 2008) the development processes, especially in relation to external tourism factors, need to be agreed, shared, governed and integrated. In the case study's area institutional, network and strategy fragmentation weakens local social capital (Trigilia, 1999; Gastaldi, 2005) and deprives the admittedly limited co-operation processes of effectiveness (Jamal & Getz, 1995). In essence, as the absence of full awareness of specifically rural attractions and tourist choices shows, the case study area is more a question of tourism in rural areas than rural tourism *per se* (Pollice, 2012).

Rural tourism *per se* undoubtedly represents an autonomous and intrinsically heterogeneous development opportunity for this area. Demographic growth linked to suburbanisation and peri-urbanisation processes notwithstanding, the hilly towns still

show a clear economic and functional dependency from the proximate more developed urban area. It is thus by means of a self-aware rediscovery of the local area and its agricultural and artisan vocations that endogenous, shared and sustainable development trajectories can be identified (Briedenhann & Wickens, 2004).

If in fact sustainability is to be understood not simply from an environmental but also from the social and cultural perspectives, rural tourism could represent an ideal opportunity for identity re-appropriation and thus sustainable development. Such a challenge, however, can only be taken on successfully if local players and institutions activate a bottom-up network perspective capable of bringing together the fragmentary and broken up tourist provision and attraction elements in a clearly recognisable tourist 'product' (Fanfani, 2001) accepted by the local community (Bramwell, 1994). Lastly, in a systematic vision of the regional development trajectory the Pescara's hilly landscape could, enrich the regional pre-existing tourism offer, somewhat frozen in the sea-mountain dualism and extend the tourist season.

The opportunities observed are not, however, risk free. The atavistic lack of governance which is such a historic feature of Abruzzo tourism could impact even more negatively on this territory, a complex and diversified landscape of great natural and historic value which requires safeguarding and management not simply in economic and functional terms but also as regards its symbolism, identity and attractiveness (Grillotti Di Giacomo, 2007). The risk is that development 'at any cost' decisions are made which aren't coherent with a sustainability ideal, intimately bound up with an orthodox vision of rural tourism (Sun et al., 2011). Finally, the preciosity of the case study's landscape could be undermined by the wide-ranging suburbanisation processes currently underway.

Table 2. SWOT analysis results

Strengths	**Weakness**
Easy accessibility Wealth and variety of tourist attractions Good natural environment conservation Tourism demand from abroad	Limited awareness of local tourist potential Limited planning skills Lack of fully integrated tourist promotion strategies Weak social ties and cooperation strategies Tourism in rural areas rather than rural tourism
Opportunities	**Threats**
Autonomous development from powerful economic areas Heterogeneity of the potential development trajectories Chance to develop collateral activities (for example artisan crafts) Co-operation culture development Regional tourism provision enrichment Complementarity to other forms of tourism	Lack of governance Development 'at all costs' ideal Suburbanization processes Environmental sustainability problems

CONCLUSIONS

For the Pescara's hilly landscape rural tourism represents a development perspective which has yet to be explored despite the fact that all the fundamental elements required for this type of tourism exist: amenities of landscape, 'low impact' accommodation (holiday farmhouses and B&Bs), good infrastructure, historic and cultural sites and attractions in line with post-modern tourist demand requirements. But currently the Pescara's hilly landscape is for the most part a mere label of an area in which 'other' forms of tourism are experienced. The marked tourism polarisation expressed by certain towns is revealing.

The case of Città Sant'Angelo is emblematic, with around 80% of visits attracted by its proximity to seaside tourism while Loreto Aprutino owes much to neighbourhood urban-conference centre tourism (Pescara-Chieti urban area). At a time in which rural areas are acquiring again a strategic value and rural spaces are taking pride of place in agricultural reorganisation and the wider re-composition of the landscape, the central role to be played by rural tourism in rediscovering and re-valuing shared local heritage is clear. In the case study area, rural tourism could play a decisive role favouring progressive re-appropriation - in awareness terms - of a rural substrata capable of:

- targeting and/or re-launching local development processes with employment opportunities (especially for the young and women);
- translating marginality of many inland hill towns into opportunity by means of a new understanding of the urban-countryside relationship;
- contributing to redesigning the urban shape of suburban and semi-urban developments;
- ensuring heritage status for the hilly landscape in terms of development sustainability and local long term survival.

The raison d'etre for transforming this hilly landscape into an area with a rural tourism vocation is hindered by the reiterated inability to act on its varied potential revealing a serious social capital weakness, incapable of putting forward shared integrated projects and of involving the participation of the local area's many players.

The potential is there, however, as is a certain rural tourism attractiveness as expressed in a though slow-growing foreign tourist demand. The challenge, then, is to attempt a more wide-ranging approach within the whole regional tourist system (in terms of decongestion of the strongest areas, a longer season and greater integration) and also considering the role of rural tourism in the natural landscape conservation (just think to the hydrogeological instability issues).

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