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Urban Resident Views About Open Green Spaces: A Study in Güzelyurt (Morphou), Cyprus

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Abstract
A dramatic demographic shift regarding urbanization is occurring globally. Between 2000 and 2050, the ratio of individuals in urban spaces is projected to rise from 46.6 % to 69.6%. Environmental pollution, urban heat island effect and climate change are among the hazardous effects of urbanization. Critical ecosystem services can be provided with urban green areas such as parks, roof gardens, streams, forests and community gardens etc. Walking, running or biking activities, psychological well-being and public health of urban inhabitants can also be supported via green space. Urban landscape areas are also significant for Cyprus as there is an on-going remarkable urbanization. Particularly, due to urbanization, the importance of green spaces in cities is becoming important. During this study, open and green space as urban landscape areas in Güzelyurt (Morphou) was investigated. This is the first study to examine user satisfaction and views of open and green spaces in Güzelyurt (Morphou) region, Cyprus. A questionnaire with 60 participants were conducted in order to understand respondents' suggestions about several aspects of existing open and green spaces in Güzelyurt, north Cyprus. According to the findings, respondents were mostly dissatisfied about urban and open spaces in the city. Our results indicate that local authorities or municipal organizations should legalize the planning of urban parks, open spaces and green areas with long term perspective.

Keywords: Urbanization, Green space, urban park, landscape, Güzelyurt, Cyprus

1. Introduction

The world as a whole is experiencing serious environmental catastrophes nowadays (Asilsoy et al., 2017). Urbanization activities that have been accelerating since the Industrial Revolution are one of the main reasons of the environmental crisis that we are facing currently as the humankind. Therefore sustainable urban development and planning has become a key concept for the 21st century agenda. Such that for the measurement of quality of life issues, which are vital to the various definitions of urban sustainability, modern cities have developed their own sustainability indicators. Hence urban green spaces can deliver social services for quality of life and are considered a key component for the concept of sustainability (Lee and Kim, 2015).
Ecosystems provide essential human resources. Nonetheless, human actions are jeopardizing ecosystem capacity to support human population. Another such movement is that of urbanization (Niemelä et al., 2010). Although humanity is more and more urbanised, it still continues to rely on Nature for the survival (Bolund and Hunhammar, 1999). Degradation of the provision of ecosystem services in urban areas and reductions in both urban biodiversity and the quality of life of urban humans are all possible consequences of increased urban density ramification (Tratalos et al., 2007).

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The impact of urban area and urban development on the protection of biodiversity is localized but totally significant, with all affected important eco-regions, rare species, and preserved areas. The global eco region data perhaps displays this situation definitely. Eco-regions that cover almost two-thirds of the Earth's land surface are essentially unaffected by urban area, and will probably remain unaffected by future urban growth. However, those eco-regions most affected by urban space or urban growth tend to be small, but contain significant concentrations of rare species. It may also reflect the general tendency of small eco-regions, which have unique flora and fauna, to be near great human settlements, part of the general correlation among biodiversity and human population (McDonald et al., 2008).

Urban area vegetation may play a role in sequestration of carbon dioxide, and thus mitigation of climate change. Therefore municipalities must aim at decreasing CO_2 emissions with appropriate land-use planning. Wide and contiguous core natural areas, smaller green areas and ecological connections between them are the essence of regional ecological networks, and are significant for the protection of interconnected species ecosystems and therefore biological diversity. Therefore, ecological networks at both local and regional level are critical to sustaining ecosystem services in urban regions (Niemelä et al., 2010).

As another point with regards to nature in the urban environments is that, the potential role of the natural environment in human health and wellbeing is becoming increasingly of interest. Landscape and urban planning have been a key source of insight into the importance of the natural environment for human wellbeing (Matsuoka and Kaplan, 2008). However, assessment of the evidence for specific and direct health or well-being profits of activity in comparison with natural and synthetic environments has not been systematically made. There are numerous possible ways in which natural areas may support public health. As a result of providing an environmental context for a sport or exercise program, natural environment can thus promote increased physical activity and thus public health (Wolch et al., 2014). Obviously, the evidence is well established that fitness and physical activity alone have positive impacts on health. In other words, physical activity has been displayed to lead to improved physical fitness and health. There is also proof that physical activity can have positive profits for mental health, decreasing depression for instance (Bowler et al., 2010).

Urban green space is a vital component of cities to be complete. Green spaces influence the city's overall physical and built environment, making cities attractive places not only for their own people but also for foreign tourists and investment. In other words, urban green spaces can achieve a role in improving the quality of urban life, creating an attractive 'urban image' and advancing the city's competitiveness (Arvanitidis et al., 2009). There is researches' abundant empirical evidence indicating that urban parks and green spaces foster a wide array of species, stimulate a large range of roles for the human population and are beneficial with regards to social, economic and environmental sustainability in cities in various ways. Furthermore, environmental services such as air and water purification, wind and noise filtering and microclimate stabilization are also among important roles of urban parks and green spaces. Both economic benefits and the aforementioned social and psychological benefits can be obtained via the functions of

urban parks and green spaces. The attractiveness of the city and its tourism potential can be promoted via the aesthetic, historical and recreational values of urban parks and green spaces, thus empowering employment and revenues.

Figure 1: An image of urban green space in the city centre of Krakow, Poland

Green space helps recover mental tiredness, serves as a tool for physical activity, decreases mortality and stress rates (Schipperijn et al., 2010). Such that the word 'green space' should stretch beyond parks and gardens to include rural surroundings, vegetable gardens and orchards, green courtyards and sports fields etc. This may support functionality of the green spaces in the city. The greatest asset of the multi-functionality of urban green spaces is that of boosting environmental quality, especially in bigger urban environments. These spaces function as the "green lungs" of a city (Sanesi and Chiarellob, 2006). It was suggested that individuals living in a city having the lack of green spaces had more stress, concern, and sorrow than the ones living in rural and forest areas, in a research carried out in Switzerland (Yılmaz et al., 2007).

A research was done focusing on the recreational behaviour of residents living in Helsinki (n=367), and their visits to close-to-home outdoor recreation areas. Nearly all of the residents surveyed in Helsinki (97%) had outdoor recreation throughout the year. Half of them embarked on a regular, or every other day, leisure trip. Walking was the most typical close-to-home activity for pleasure or fitness. Cycling, jogging, dog walking and outings with children were other popular activities. Physical or fitness activities accounted for nearly 90 per cent of all near-home outings. The amount of green areas in the locality of the residence of the participant and the short distance to green areas appropriate for recreational use increased the number of near-home outings among residents of Helsinki. This finding achieves proof for the suggestion that opportunities' good provision encourages an active lifestyle. Therefore it can be argued that, locating recreation areas and facilities close to residential areas is essential for providing safe, comfortable and year-round access for daily outings (Neuvonen et al., 2007). At this point, it must also be suggested that the quality and accessibility of green space as environmental factors affect its usage for physical activity (Lee and Maheswaran, 2011).

In addition, to limit the spatial extent of urban areas by developing more compact urban

forms is one of the approaches for reducing the impact of urbanisation. Such that there has been much recent discussion over the "compact city" hypothesis, with its aims of consolidating services and reducing urban sprawl, and significant long-term social and ecological benefits have been proposed (Tratalos et al., 2007).

Unlike western European countries, Turkey had no history of green space before the Republican Era. While there were palace gardens in Istanbul, those areas were for the use of the Sultan only. The ordinary people, on the other hand, satisfied their leisure needs through visiting private gardens, orchards and promenades having beautiful natural scenery. As we understand them today, the development of urban parks is considered to have started with the Republican Era (from 1923 onwards) that provided public spaces to create a new city as part of the Republican initiative (Oguz, 2000).

It can be argued that green/open space planning, design and applications are not sufficient and adequate also in north Cyprus. All current six districts (Nicosia, Famagusta, Kyrenia, Güzelyurt, İskele and Lefke) have experienced a massive urbanization process especially in the last twenty years and these activities have affected the open/green spaces of the cities which were already deficient and unqualified. However urban green spaces must be on all of the political agendas including north Cyprus.

Within this framework, this study aimed at examining user preferences and views about urban open green spaces in Güzelyurt, Cyprus. After providing a review of the relevant literature, it then evaluates the research context. Next, the methodology and the findings are displayed and discussed. Finally, conclusion and recommendations are made.

2. Methodology

2.1 Research Context

Cyprus is the third largest island after Sicily and Sardinia in the Mediterranean. Latitudes 30.33 and 35.41 and longitudes 32.23 and 34.55 is the geographical location of the island. In Northern part of Cyprus covers an area of 3,355 km². The neighbours of North Cyprus are Turkey, 65 km to the north, Syria, 100 km to the east and Egypt, 420 km to the south (Nadiri and Hussain, 2005).

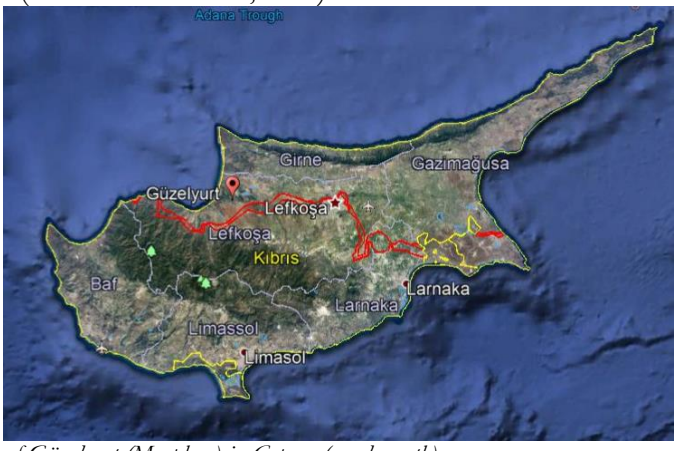

Figure 2: Location of Güzelyurt (Morphou) in Cyprus (google earth)

This study was carried out in Güzelyurt (Morphou), as one of the six main districts of the island of north Cyprus (Figure 1). Güzelyurt as a district separated from Lefkoşa (Nicosia) in the year 1998. Later in the year 2016, Lefke (Lefka) separated from Güzelyurt. The city of Güzelyurt having the same name is the centre of the district. According to 2011 census, Güzelyurt's total municipal population was 18,946 excluding Lefke district (http://devplan.org).

The study area as Güzelyurt (Morphou) district has a slightly sloping coastal plain of topography. Agriculture is mainly practised in the central part of its land surface with an almost flat topography. From the northeast to the south, the region has elevated hills rising. In addition, the elevation of the superficial catchment area ranges from sea level along the coast to around 300 m in the north-eastern region, and to 400 m in the south-western part of the Troodos (Trodos) mountains. The average elevation is around 65 m above (mean) sea level (Ergil, 2000).

Figure 3: Images of urban green spaces in Güzelyurt (Morphou)

2.2 Research Design, Measures and the Sample

The research is based on a questionnaire including two main parts. In the first part, socio-demographic data such as age, gender, etc. of the participants was collected. 6 questions were asked to determine the demographic data.

In the second part, opinions and views of the participants about open and green spaces as urban landscape areas in Güzelyurt were examined. This second part involves twelve items and these items aim to learn participants' perceptions and views about issues such

as the adequacy and functionality of existing open and green spaces, cycling and pedestrian routes, sport fields, urban furniture and municipality's role on urban landscape planning implementations etc. All items of the first section were Likert type five-point scale (strongly disagree to strongly agree) and the responses for each item were recorded directly on the questionnaire.

In total, 60 people were interviewed. They were chosen randomly among Güzelyurt residents. As Güzelyurt has a municipal population of 18,946, according to 2011 census (http://devplan.org), it has been suggested to be sufficient as sampling amount of the research. Hence, for instance a study aiming at measuring environmental attitudes among local people via a user survey in Famagusta, north Cyprus (having a population of 47,538) used a random sample of 165 residents (Asilsoy and Oktay, 2016). In addition, in Neuvonen et al. (2007) involving a survey with a sample of 367 participants, as an article cited in our study, had a focus on Helsinki with a population of almost 642,000 residents.

3. Results

3.1 Findings of Section 1

In this section, the findings of the questionnaire's first part are displayed. There were 5 items examining gender, age, place of birth, education and duration in Güzelyurt in this first part.

3.1.1 Participants' demographic data

Gender: Regarding the gender profile, 66.25% of the participants were female and the rest 33.75% were male. See Table 1.

Table 1: Gender profile of the participants

Gender	Female	Male
Participants	66.25%	33.75%

Age: According to the findings, 47.5% of the respondents were between 26-40 years old, 21.25% were between the ages of 16-25, another portion of 18.75% were 41-55 years old, another 8.75% were between the ages of 56-65 and the rest 3.75% were among 66-75 years old. See Table 2.

Table 2: Age profile of the participants

Age	16-25	26-40	41-55	56-65	66-75
Participants	21.25%	47.5%	18.75%	8.75%	3.75%

Education: 33.75% of the participants had high school degree, the other 31.25% had university degree, 23.75% graduated from elementary-middle school, and another 6.25% had master degree and the rest 3.75% had PhD degree. See Table 3.

Table 3: Education profile of the participants

Education	Elementary-Middle School	High school	University	Master Degree	Ph. D
Participants	23.75%	33.75%	31.25%	6.25%	3.75%

Place of Birth: 81.25% of the respondents had a place of birth as Cyprus and the rest 18.75% had born in Turkey. See Table 4.

Table 4: Place of birth profile of the participants

Place of Birth	Cyprus	Turkey	Foreign countries
Participants	81.25%	18.75%	0%

Duration in Güzelyurt: 62.5% of the respondents had duration in Güzelyurt for more than 20 years**.** Another 22.5% had lived in Güzelyurt between 11-20 years, 7.5% had duration in the city for 1-5 years, 5% had lived in Güzelyurt for less than 1 year and the rest 2.5% had duration in Güzelyurt for 6-10 years.

Table 5: Duration in Güzelyurt profile of the participants

Duration in Güzelyurt	Less than 1 year	1-5 years	6-10 years	11-20 years	20 + years
Participants	5%	7.5%	2.5%	22.5%	62.5%

3.2 Findings of Section 2

3.2.1 Data about suggestions and views of the participants about open and green spaces in Güzelyurt

The second part contains twelve Likert type five-point scale (strongly disagree to strongly agree) items. These items aim to learn participants' perceptions and views about issues such as the adequacy and functionality of existing open and green spaces, cycling and pedestrian routes, sport fields, urban furniture and municipality's role on urban landscape planning implementations etc.

For the first item '*I think that the open spaces in Güzelyurt region are sufficient',* 45.5% replied strongly disagree, 36.25% disagree 7.5% replied unsure while 5% agreed and another 3.75% strongly agreed.

For the second question of section 1 which was '*I think that the green areas in Güzelyurt region are sufficient',* 45% strongly disagreed, 41.25% disagreed, 2.5% replied unsure, 6.25% agreed and the rest 5% strongly agreed.

30% of the respondents replied strongly disagree, 40% disagreed, 13.75% was unsure, 12.5% agreed and 3.75% strongly agreed with the item '*I think that the function areas within the parks serve the purpose'.*

In addition, 58.75% of the participants strongly disagreed, 32.5% of them disagreed, 2.5 were unsure, 2.5% agreed and the rest 3.75% strongly agreed with the item '*I find the amount of walking and cycling routes in the city sufficient'.*

When the question *'Urban furniture equipment in the city can meet the needs'* was asked to the respondents, 26.25% strongly disagreed, 36.25% disagreed, 18.75% was unsure. Merely 16.25% agreed and 2.5% strongly agreed with this item.

53.75% of the participants strongly disagreed, 28.75% disagreed, 8.75% of them were unsure, 5% agreed and only 3.75% strongly agreed with the item *'Individuals with disabilities are also taken into consideration in each open and green space design'.*

Furthermore 25% strongly disagreed, 48.75% agreed, 6.25% was unsure, 15% agreed and 5% strongly agreed for the item '*There are green areas (neighbourhood park, playgrounds, etc.) that I can easily access'.*

For the item *'I am pleased with the services and practices of the municipality regarding urban open and green spaces',* 22.5% suggested 'strongly disagree', 43.75% 'disagree', and 16.25% of the respondents replied 'unsure', 2.5% agree, 5% 'strongly agree'.
As the last question of the first section, 2.5% replied 'strongly disagree', 7.5% 'disagree', and 1.25% was unsure, 18.75% agreed and 70% strongly agreed for *'I demand the continuation of urban open spaces and green space designs and applications that improve people's quality of life'*. See Table 6.

Table 6: Findings of the second section of the questionnaire having twelve items

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
I think that the open spaces in Güzelyurt region are sufficient	45.5%	36.25%	7.5%	5%	3.75%
I think that the green spaces in Güzelyurt region are sufficient.	45%	41.25%	2.5%	6.25%	5%
I think that the function spaces within the parks serve the purpose.	30%	40%	13.75%	12.5%	3.75%
I find the amount of walking and cycling routes in the city sufficient.	58.75%	32.5%	2.5%	2.5%	3.75%
Urban furniture equipment in the city can meet the needs.	26.25%	36.25%	18.75%	16.25%	2.5%
Individuals with disabilities are also taken into consideration in open and green space design.	53.75%	28.75%	8.75%	5%	3.75%
There are green areas (neighbourhood park, playgrounds, etc.) that I can easily access.	25%	48.75%	6.25%	15%	5%
I am pleased with the services and practices of the municipality regarding urban open and green spaces.	22.5%	43.75%	16.25%	2.5%	5%
I demand continuation of urban open spaces and green space designs and applications that improve people's quality of life.	2.5%	7.5%	1.25%	18.75%	70%

According to the findings, respondents are mostly dissatisfied about urban and open spaces in the city. For instance in total 91,25 % replied 'strongly disagree' or 'disagree' for the item *'I find the amount of walking and cycling routes in the city sufficient'*. 82,5 % suggested 'strongly disagree' or 'disagree' for the item '*Individuals with disabilities are also taken into consideration in open and green space design'*. In addition they highly demanded continuation of urban open spaces and green space applications. 70% of the respondents suggested 'strongly agree'. And in total, merely 7,5% agreed or strongly agreed that *'they are pleased with the services and practices of the municipality regarding urban open and green spaces'*.

4. Discussion

Sustainable urban development and planning is very significant for current agendas of cities as nearly half of the world's population now resides in urban areas (Oktay, 2012; Sharifi, 2016). And urban green spaces in particular, is one of the main dynamics of sustainable urbanism. In other words, urban green spaces can be a

significant part of the sustainable cities. There are several benefits of urban green spaces: environmental benefits (ecological, pollution control, biodiversity and nature conservation), economic and aesthetic benefits (energy savings, property value), social and psychological benefits (recreation and well-being, human health). It is well known that well-designed public open space can encourage physical activity and this potentially contribute to the health of local residents (Billie et al. 2005). However the distance from urban green spaces and accessibility has effect on their active use by local residents (Kaczynski and Henderson, 2007). Also, the number of features within the urban green spaces such as parks may promote their usage. These features can be defined as playgrounds, basketball courts, walking paths, cycling tracks, shade etc.

On the other hand neighbourhood characteristics such as mix of land uses, pedestrian connectivity, and traffic and safety issues are also important aspects of urban planning and it correlates with physical activity of urban residents (Mc Cormack et al. 2010). Therefore planning and design of urban open green spaces should be handled within a multı dimensional perspective involving all these disparate issues. Additionally, new planning initiatives should also consider the importance of the locality of urban parks within the urban matrix. There is also evidence that walking distance from parks and open space is contrariwise associated with use (Kaczynski and Henderson, 2002). Therefore, creation of more neighbourhood parks within walking distance to most residents could encourage usage of the green spaces. However, not only the neighbourhood parks but also different open green spaces serving different urban scales of the city should also be targeted for the future urban development and planning initiatives.

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