

Investigating the citizens' views and perceptions about the urban forest infrastructure and services of Komotini, Greece

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Abstract: - Urban and suburban forests are vital for the citizens' quality of life. Several beneficial functions of forests are provided to the city dwellers if the proper infrastructures and services are efficiently designed or improved in urban forests. The case study investigates the urban forest of Komotini city in Greece according to its citizens' views. The assess the existing infrastructures and with the use of hierarchical log-linear analysis the typology of their visit, the infrastructural status and safety issues are associated to provide a better understanding in the citizens' attitudes. Also factor analysis is applied, while random sampling was implemented in the research. Major findings reveal that certain policies should be designed for the effectively utilization of the urban forest for fitness and recreation reasons. Also, the safety conditions ought to be enhanced as most of the citizens are unsatisfied.

Key-Words: - urban forest, forest recreation, infrastructure, safety, accessibility, quality of life, citizens, views, Komotini, forest policy

Received: March 1, 2020. Revised: August 1, 2020. Re-revised: August 8, 2020. Accepted: August 10, 2020.
Published: August 10, 2020.

1 Introduction

Urban forests are pivotal ecosystems with a plethora of benefits for the citizens in the cities and metropolitan areas. Some of the various important functions of urban forests include tolerance of air and noise pollution, metal accumulation, dust capacity, protection from floods and extensive natural hazards, as well as resilience to climate change impacts [1-3]. While, another important strength for the citizens' quality of life is forest recreation. It is evident that urban and periurban forests provide the perfect environments for stress relief - a common phenomenon characterizing the hectic way of life in cities - and serve as therapeutic mean for both mental and physical health [4].

Therefore, creation, preservation and improvement of urban green infrastructures in urban forests, is a critical matter for citizens in order to be able to enjoy the natural environment and fulfill their needs for forest recreation. The infrastructures in forest recreation should be design and be able to meet the visitors'- both locals' and tourists' - needs for physical activity, socialization, relaxation, exploration of nature - cultural and historical assets [5].

While, accessibility and safety conditions could be turned to be primary reasons for visitation flows in urban forest areas [6].

As urbanization expands and megacities start to evolve, urban forests receive increased loads of pollution and recreation demands. Habitat fragmentation and soil compaction are respectively two impacts of urbanization and increased recreation pressure in these areas [7].

The citizens' views in areas with urban forests should be examined and further analyzed on a constant basis. In fact, individual citizens' features are associated with the environment and the provided spaces in urban forests [8]. Recent findings indicate that forest managers will be able to better set priorities and monitor the effectiveness of forest management objectives if they comprehend the visitors' views and attitudes [9].

The current study addresses the importance and role of urban forests for its beneficiaries. It stresses the need for incorporating modern urban planning and urban development in the field of forestry in line with the citizens views. To this end it examines the case of Nimfaia Urban forest in a modern Greek city Komotini, situated in the northern part of the country, close to the borders with Bulgaria and Turkey. A

special focus is given on the citizens satisfaction with the existing infrastructure, activities and services. Also, it was analyzed the potential of establishing special policy for urban forests of semi-urban and urban centers in Greece, as urban forest management in Greece encounters serious problems based on the absence of an integrated system – inventory, depicting with accuracy the boundaries and ownership status especially as regards urban and suburban forests. This is a common challenge in the Mediterranean Region, which also distinguishes its forest ecosystems of high vulnerability to climate change impacts [10]. The necessity to create a forest inventory across Europe is underlined by Buras and Menzel [11], stressing the need for protecting and properly managing the fragile forest ecosystems in Italy and France. In the same ground, Doukalianou et al [12], highlight the importance of Mediterranean forests in mitigating climate effects. Martínez-Jauregui et. [13], have proven the utility of an inventory in Spain, which combined with Information and Communication Technologies such as ArcGIS1 software and big data in general- provide an efficient forest monitoring tool, able to contribute towards effective policy making. Also, another study conducted by Du et al in China [14] revealed that the existence of a forest inventory is of outmost importance in terms of forest policy planning.

Furthermore, livestock farming activities, such as illegal and over pasture, have negatively impacted Greek urban forests and majorly the ones that suffered forest fires. In fact, forest fires are listed as a common - and one of the most serious threats for the Mediterranean, caused both by natural or human sources [15,16]. In particular, degraded *maquis* in the Mediterranean region is indicative for forest degradation due to urbanization and overgrazing [17]. To this end, monitoring systems are vital in dealing with forest fires prevention and management [18].

Moreover, illegal dumping sites in forests constitute a major problem for many countries such as Poland [19] and Romania [20]. Especially, for the case of Romania, it was observed that the respective national legislation, aiming to mitigate waste pollution in forest ecosystems, was something difficult to put in practice. The same claimed that this was attributed to insufficient collection systems, and majorly due to the lack of waste treatment facilities [20]. Illegal, uncontrolled landfills in Greece are also apparent in forest lands, demonstrating poor management and depicting the negative littering culture adapted by the citizens. While also, it is evident that the forest sector is disregarded by the government. Unfortunately, underfunding and insufficient financial provisions in

forest management, confirm the scenario of political indifference in Greece. Added to that, the new environmental law 4685/2020 introduced in Greece on May 2020 received strong opposition and negative criticism among others by NGOs and the research community for its questioning aim on the Greek forests' protection and preservation. The lack of political will and economical support in the forest field is also a constraint for developing countries. In Tanzania, the so-called community-based forest management that is considered as an efficient managerial model, has not met its ends yet due to challenges faced in funding and policy issues [21]. Integrated conceptualization by the government is also acknowledged in order to achieve effective forest management in Indonesia, by the inclusion of strategic efforts by the state, to establish forest inventory, mitigate stakeholders' conflicts and develop management plans [22]. Eventually, Zhu et al. [23] have recently surveyed the potential of new investments in forest sector in rural China as they argue that forest income is important for many countries in the developing world.

The aim of the study is to reveal proper urban forest management policies, strategies and special measures for urban areas such as Komotini and other cases with similar characteristics, according to the citizens' views.

2 Materials and Methods

2.1 Research area

The Municipality of Komotini consists of Komotini, Aigeiro and N. Sidirochori, with an area of 288.5 km² and a population of 66,580 inhabitants, according to the census of 2011. It extends to the north from part of the Rhodope Mountains and the Greek-Bulgarian borders, to the shores of the Thracian Sea. Nimfaia Urban Forest (NUF) is a suburban forest, managed by the Forest Service of Komotini. It is located in the north of Komotini, with a distance of about 4 km from the city center (fig.1). It is a primary pineforest mainly used for walking, sports or relaxation. Several infrastructures are established in Nimfaia to meet its visitors' needs, seeking for forest recreation. Namely, there are special outdoor spaces including gazebos, tables, benches, paved paths, fountains, basketball, volleyball and tennis courts. Not to mention, its Tourist Kiosk, which is a landmark for the city, as being a former Byzantine Castle. The Kiosk has a large parking space, a restaurant, a cafeteria, a snack bar and hall provided for various occasions such as seminars, lectures, cultural events and others (fig. 2).



Fig. 1. The map of the Municipality of Komotini and Nimfaia Urban Forest (Source: Google Maps)



Fig. 2. Nimfaia Urban Forest and its Tourist Kiosk (Source: IN KOMOTINI News <https://inkomotini.news/eleftheri-ksana-apo-simera-i-prosvasi-sto-dasos-tis-nimfaias/>)

2.2 Methodology

Simple random sampling was applied and within its formulas, specific values were estimated namely: the numerical mean (y); the standard error (s) for quantitative variables; the population proportion (p); the standard error of the population proportion (s_p) addressing qualitative variables [24, 25]. The survey included personal interviews that were conducted by the aim of a questionnaire. The “population” that

took part in the survey was the total of the citizens in Komotini.

The evaluation of the sample size was applied after a pre-sampling procedure with a population size of 50 individuals. Therefore, it was determined the variation or the standard error for every quantitative variable. Respectively, for every qualitative variable, the proportion was calculated.

The sample size was estimated based on the rules of simple random sampling by repetition [24-26]. The correction of a finite population can be disregarded because the size of the sample n is large, in relation to the size of the population N [26,27]. The questionnaire use is not restricted to the estimation of a single variable of the population, yet an estimation of several variables could be achieved.

Thus, the largest sample size was estimated at 400 citizens (for probability $(1-\alpha) 100 = 95\%$, $e = 0.049$ and without correction of the finite population. The collection of the data took place in 2016 and the statistical package SPSS was utilized for the data processing.

Hierarchical Log-linear Analysis was used to examine two groups of variables. Prior to the application of Hierarchical Log-linear analysis, the expected frequencies in the contingency table were examined [28]. The classes were grouped together in order to satisfy the criteria mentioned by Tabachnick and Fidell [29].

As regards the multivariable assessment of recreation facilities, reliability and factor analyses were applied. More specifically, in order to find out the internal reliability of the questionnaire [30], i.e. if our data had the tendency to measure the same thing, we used the alpha co-efficient (or Cronbach’s alpha reliability coefficient) [31]. When the alpha coefficient is 0.70 or higher, is regarded as satisfactory [31]; While, if it is higher than 0.80, is regarded as very satisfactory. In practice, lower reliability coefficients, with values no higher than 0.60, are also commonly accepted [28].

Factor analysis is a statistical method which aims to discover the existence of common factors within a group of variables [32,28]. The selection of the number of factors is a dynamic process that presupposes repeatedly the estimation and evaluation of the model. In particular we employed the criterion of smooth slope on scree plot. [33]. Furthermore, we used the matrix rotation of the main factors and we applied Kaiser’s method of maximum variance rotation.

Table 1. Demographic characteristics of the locals.

Gender	male	female		
	57.5% (s _p = 0.0247)	42.5% (s _p = 0.0247)		
Age	18–30	31–40	41–50	>50
	31.8% (s _p = 0.0233)	29.3% (s _p = 0.0227)	23.3% (s _p = 0.0211)	15.8% (s _p = 0.0182)
Marital status	unmarried	married	divorced or widowed	
	46.8% (s _p = 0.0249)	46.3% (s _p = 0.0249)	7.0% (s _p = 0.0128)	
Childhood				
without children	one child	two children	three children	more than three
54.3% (s _p = 0.0249)	19.0% (s _p = 0.0196)	19.0% (s _p = 0.0196)	6.3% (s _p = 0.0121)	1.5% (s _p = 0.0061)
Educational level	primary school	Secondary school	technical school	
	1.0% (s _p = 0.0050)	7.5% (s _p = 0.0132)	6.8% (s _p = 0.0125)	
	high school	technological ed.	University	
	39.3% (s _p = 0.0244)	17.0% (s _p = 0.0188)	28.5% (s _p = 0.0226)	
Profession	farmers			
	private employee	public servants	livestock farmers	pensioners
	26.3% (s _p = 0.0220)	17.3% (s _p = 0.0189)	6.3% (s _p = 0.0121)	6.3% (s _p = 0.0121)
	freelancers	students	housewives	unemployed
	18.8% (s _p = 0.0195)	11.0% (s _p = 0.0156)	3.8% (s _p = 0.0095)	10.5% (s _p = 0.0153)

3 Results

3.1 Demographic characteristics of the locals

The demographic characteristics of the locals are illustrated on Table 1. Most of respondents are men (57.5%) between 18-40 years old (18-30 31.8%, 31-40 29.3%), married (46.8%) or unmarried (46.3%), highly school (39.3%) and university graduates (28.5%). As regards their occupation, they are mainly private employees (26.3%). The majority consider that they are less satisfied (39.8%) with their income (Table 1).

The citizens profile was enriched by their attitude towards participation in urban green spaces management. Therefore, they were asked to affirm their willingness in taking part voluntarily in actions involving the supervision and care of the urban green spaces in their city. Approximately half of the respondents (47.5%, s_p = 0.0250) are positioned quite positively, 19% (s_p = 0.0196) are less positive, 16.8% (s_p = 0.0187) are very positive, 9% (s_p = 0.0143) are very positive and 7.8% (s_p = 0.0134) not at all positive.

3.2 The visit typologies and satisfaction

Nimfaia is the urban forest of the city of Komotini, located in northern part of the city about 4 km far from the city center. The typology of the citizens' visit in the NUF was examined and also the citizens' satisfaction. In particular, three out of ten the citizens (30.3%, s = 0.0230) use to visit the NUF once a year. A similar visitation rate is valid for the visit at the

NUF once a month (29.5%, s_p = 0.0228). Furthermore, 22.8% (s_p = 0.0210) visit it once a week and only 17.5% (s_p = 0.0190) state that they rarely visit NUF. The average visit duration is 80.46 minutes. While, the minimum visit duration lasts 10 minutes and the maximum lasts three hours.

The ranking for the citizens satisfaction with their visit to the NUF is importantly high. The majority (46.8%, s_p = 0.0249) of the respondents' state that they are satisfied with their visit to the NUF; while, 34.5% (s_p = 0.0238) claim to be very satisfied, and 13% (s_p = 0.0168) are absolutely satisfied. Only a small percentage of 5.8% (s_p = 0.0116) of the citizens argue that they are less satisfied, when no one stated as being not at all satisfied.

The motivation for their visit was then analyzed and it was found that most of them are self-motivated to make a visit to the NUF. More specifically, 62.5% (s_p = 0.0242), stated that their last visit took place by their own willingness. As regards their friends' willingness and encouragement, this was observed by the 19.5% (s_p = 0.0198) of the citizens. While, 10.3% (s_p = 0.0152) are said to have last visited the NUF triggered by their partners' willingness or encouragement, and the 7.8% (s_p = 0.0134) by their children's encouragement, accordingly.

Hierarchical Log-linear analysis was applied for the variables "satisfaction with the visit", "frequency of visit" and "willingness for the visit". There was no interaction per 3 criteria, because the X² for Pearson's test is 0.442 with probability (p) = 0.506, and because

the X^2 likelihood ratio is 0.443 with probability (p) = 0.506. The representations occurred are the following:

- Citizens, who state that they are absolutely satisfied with their visit, tend to visit the park several times a week or a month. While, citizens who claim to be satisfied and less satisfied with their visit, follow lower visitation frequencies. They visit the NUF sometimes per year or more seldom.
- Citizens, who state that they are absolutely and very satisfied with their visit have shown a self-motivated reason for visiting the NUF. While, citizens who are satisfied and less satisfied with their visit, tend to visit the NUF after the encouragement and due to the willingness of others (friends, partners and children).
- Citizens, who visit the NUF sometimes a week or a month, have proven to make a self-motivated visit in the NUF. Furthermore, the citizens whose visitation frequency is low - sometimes a year or more seldom use to visit the NUF motivated by third parties. (friends, partners and children).

Eventually, another important characteristic to define the visit typology in the NUF, was the seasonality of the visitation. Indeed, spring season receives the highest rankings, as 42.5% ($s_p = 0.0247$) of the citizens consider spring to be the best season to visit the NUF, 24.8% ($s_p = 0.0216$) prefer autumn, 20.5% ($s_p = 0.0202$) winter and 12.3% ($s_p = 0, 0164$) the summer.

Annoyance by overcrowding in NUF, was another parameter that was examined. In particular, most of the citizens (59.5%, $s_p = 0.0245$) feel indifferent for the existence of other visitors to the NUF; while, an important percentage of 38% ($s_p = 0.0243$) stated that people who gather in the NUF entertain them. Finally, a very low percentage of 2.3% ($s_p = 0.0074$) is said to be annoyed by the existence of other visitors and 0.3% ($s_p = 0.0025$) indicate that they feel something else.

3.3 Assessment of infrastructures and services

The citizens were then asked to evaluate the existing infrastructures and the provided services in the NUF. Recent studies identify the major importance of involving key stakeholders in policy planning and management of forest recreation infrastructures [34]. In the case study the recreation area the NUF is managed by the Forest Service, mainly with the aim of protecting it and providing leisure services to the citizens. Regarding the infrastructures in the

recreational areas of the NUF, citizens rated from 1 (lower acceptance) to 10 (higher acceptance) their efficiency (fig. 3). Primarily, it is obvious that there is a low ranking addressing the total existing infrastructures in the NUF. Whereas, it should be noted that paths, parking areas, water provision, infrastructures for recreational activities (benches, etc.), waste bins and cleanliness are evaluated in a more positive way. In the ranking list follow sports areas, informational signs and playgrounds. Very low ratings receive the restrooms and the first aid spots.

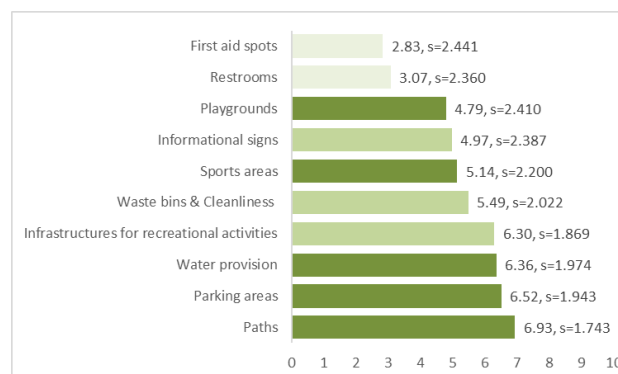


Fig. 3. Assessment of the infrastructures in the recreation areas of the NUF according to the citizens' views (The different colors in the variables represent the three factors of extracted by the factor analysis that follows).

In the variables engaged in the assessment of the infrastructures in the recreation areas of the NUF, reliability and factor analyses were applied. In fact, reliability analysis was applied to the abovementioned variables of fig.3, after completing all the necessary checks. The value of the reliability coefficient alpha is 0.847. This constitutes a strong indication that our data has the tendency to measure the variables with the same way. In fact, this is also supported by the significantly high partial reliability coefficients alpha after the deletion of any variable, since even then no increase of the reliability coefficient is observed. Moreover, before proceeding with the application of factor analysis, all the necessary tests were conducted. The value of the Keiser-Meyer-Olkin indicator is 0.798. It is suggested that the KMO indicator should be higher than 0.80 but values higher than 0.60 are also acceptable [32]. Furthermore, Bartlett's test of sphericity rejects the null hypothesis that the correction table is unitary and that the partial correlation coefficients are low. The fact that the Measures of Sampling Adequacy (MSA), to the Table of Anti-image Correlation, have high to very high values also supports the view that the factor analysis model is acceptable. The factors extracted are three. Table 2 reveals the loads that are the partial

correlation factors of the ten variables with each of the three factors resulting from the analysis. The higher the load of a variable in a factor, the more this

factor is responsible for the total degree fluctuation of the considered variable.

Table 2. Table with factor burdens, before and after rotation.

Variables	Factor loadings		
	1	2	3
Water provision	0.821	-0.004	0.204
Sports areas	0.465	0.421	0.330
Paths	0.725	0.270	-0.134
Waste bins & Cleanliness	0.413	0.647	0.245
Restrooms	0.100	0.183	0.877
Infrastructures for recreational activities	0.209	0.852	0.082
Parking areas	0.677	0.183	0.066
First aid spots	0.065	0.230	0.891
Playgrounds	0.568	0.246	0.474
Informational signs	0.051	0.745	0.299

The burdens given in bold show which variables are included in each factor

The first factor includes the variables “Water provision”, “Sports areas”, “Paths”, “Parking areas” and “Playgrounds” and it can be termed as *Infrastructures similar to urban recreation*. These infrastructures are the ones that are usually found in parks that are established in the rural environment of cities. The second factor consists of the variables “Waste bins & Cleanliness”, “Infrastructures for recreational activities (benches, etc.)” and “Informational signs” and it could be named as *Infrastructures that mainly support daily trips*. These kinds of infrastructures are majorly utilized by people who are outdoors within a daily nature-based trip. They usually utilized by outdoor visitors to have their meals in nature. The third factor titled *Special infrastructures of organized recreational areas*, includes the variables “Restrooms” and “First aid spots”. It should be underlined that, the variable

“Waste bins & Cleanliness” receives high load in the first factor (0.413). Respectively, “Sports areas” receives high load in the second factor (0.421). This means that these two variables are serving like a bridge between the first and second factor. In the same ground, the variable “Playgrounds” receives also high loads in the third factor (0.474) and functions as a bridge between the first and third factor.

The evaluation of the NUF - uses was then investigated in terms of efficiency. Thus, according to Table 3. it could be explained that citizens consider sports as the most preferable use of the NUF, followed by its use as space for recreation with friends and family. It is also regarded as a place of isolation and meditation, yet not as a place to meet with people and socialize.

Table 3. Evaluation of the NUF uses in terms of efficiency

		Very much	Much	Moderately	Less	Not at all
Isolation and meditation place	%	18.0	42.5	33.3	5.5	0.8
	s_p	0.0192	0.0246	0.0236	0.0114	0.0043
Place for recreation with friends and family	%	21.8	43.5	26.8	7.5	0.5
	s_p	0.0206	0.0248	0.0221	0.0132	0.0035
Place to meet with people and socialize	%	2.5	17.3	34.0	35.3	11.0
	s_p	0.0078	0.0189	0.0237	0.0239	0.0156
Sports space	%	36.0	36.0	23.5	3.5	1.0
	s_p	0.0240	0.0240	0.0212	0.0092	0.0050

Effective forest park management is closely affiliated with efficiency in its uses. More specifically, there

are factors that play a critical role in this procedure including safety conditions, overall supervision and

policing issues. Moreover, the proper maintenance of the existing infrastructures is of outmost importance when efficient management of the forest park uses, is aimed [35]. To this end the citizens were asked to assess the existing conditions of guarding and policing of the NUF, and the main findings reveal a negative perception. In fact, 42.8% ($s_p = 0.0247$) state that they are less satisfied, 36% ($s_p = 0.0240$) satisfied, and the 17.5% ($s_p = 0.0190$) of the citizens are not satisfied at all. While, only a minority (2.8% $s_p = 0.0082$) of the citizens are claimed to be very satisfied and only 1% ($s_p = 0.0050$) are absolutely satisfied with the safety conditions in the NUF.

Regarding the maintenance of the existing infrastructures, the situation is characterized by the citizens as quite superior. In particular, almost half of the citizens (49.5%, $s_p = 0.0250$) are said to be satisfied, 34.8% ($s_p = 0.0238$) are less satisfied, 9.8% ($s_p = 0.0148$) are very satisfied, 5% ($s_p = 0.0109$) are not at all satisfied and 1% are absolutely satisfied.

Hierarchical Log-linear analysis was implemented for the variables "Visit frequency", "Infrastructure maintenance" and "Provided security and safety". There was no interaction per 3 criteria, because the X^2 for Pearson's test is 2.608 with probability (p) = 0.271, and because the X^2 likelihood ratio is 2.578 with probability (p) = 0.275. The representations arose are the following:

- Citizens who state that they are absolutely satisfied with the security and safety provided, also consider that they are absolutely satisfied with the maintenance of the NUF infrastructures. While, citizens who consider themselves as less to not at all satisfied with the security and safety provided, are accordingly less to not at all satisfied with the maintenance of the NUF infrastructures.
- Citizens who believed to be absolutely satisfied or satisfied with the security and safety provided, visit the NUF sometimes a year or more seldom. While, the citizens who declare that they are less to not at all satisfied with the provided security and safety, visit the park sometimes a week or a month.

4 Conclusion

The research aimed to record the citizens views in the urban area Komotini, where NUF is situated in a close proximity from the city center. This effort was focused in the evaluation of the existing infrastructures and the provided services, in order to acquire valuable insights for the proper urban forest management.

The findings revealed that the demographic profile of the respondents addresses mainly to citizens that would prefer a better financial level with rather positive views towards self-empowerment in urban green management. The existence of an urban forest in a close proximity might positively impacted their attitudes, as they seem to acknowledge the importance of green spaces for their quality of life.

In fact, most of them declare satisfied from their visits in the NUF. While, there is a correlation in citizens' satisfaction with their visit, visitation frequency and self-motivation for the visit in NUF.

In addition, there was a low assessment as regards the existing infrastructures in NUF and more specifically, addressing the restrooms and the first aid spots in the recreational area. With the use of reliability and factor analysis it became evident that the existing infrastructures are grouped in three categories, characterized by the visit typology and certain activities, such as enjoying a meal in the nature.

Another important point to consider is the safety conditions of the NUF that certainly require a better management by the Forest Service. In fact, guarding and policing of the NUF are not sufficient, for almost half of the citizens of Komotini.

Indeed, the unsatisfied citizens with security and safety provided in NUF, share also the same negative views for the maintenance of the existing infrastructures. This was the last finding of the survey - whereas, it is not the least important. Indeed, citizens arguing for inefficient infrastructural status and for unsafe environment in the NUF, are the ones that visit the NUF more frequently and consequently they seem to have a clearer view regarding the overall situation.

Whilst, forest recreation should be listed as top priority for this region. The close proximity of the urban forest and its accessibility are strengths for this area in order to further develop forest industry and majorly its forest recreation potential. Whereas, specific weaknesses emerged from the research, which should be properly managed by the Forest Service including infrastructural maintenance and safety conditions.

All the above-mentioned should be taken into consideration by the Forest Service of the city, in order to design new policies aiming to the citizens participation in decision making. Also, it is highly recommended to plan community based programmes that would engage citizens in urban green management.

Finally, it is expected that the findings could serve as a useful tool in other areas with similar characteristics such as the Mediterranean region. While, certain

deficiencies addressing the institutional and policy framework in forest management, appear to have similarities for various developing countries compared to the existing ones in Greece. Last but not least, the major role of forests in climate change is widely acknowledged. This means that also in developing countries, re-planning of forest management is a top priority for policy makers. New

investments both on forestry and the recreation is a necessity in order to move towards new policies, climate-neutrality oriented [36]. It should be acknowledged that in this effort - local communities are vital parts of the forest ecosystem identity.

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Contribution of individual authors to the creation of a scientific article (ghostwriting policy)

Veronika Andrea designed the research and coordinated all the phases for its effective implementation.

Stilianos Tampakis designed the methods and materials used for the conduction of the survey.

Paraskevi Karanikola designed the questionnaire and coordinated the data collection.

Giannakopoulos Dimitrios was responsible for the implementation of fieldwork. He implemented the interviews and the data collection with the use of the questionnaire.

All authors cooperated for the manuscript writing and review and finally approved the final version submitted for publication

Sources of funding for research presented in a scientific article or scientific article itself

This research received no sources of funding.

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