

# ORGANIZATION AND SELF-FINANCING OF THE CITY PARKS OF THESSALONIKI FOR RECREATION PURPOSES

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Every society is vitally concerned with the role of outdoor recreation. That concern has been heightened by the 20th century industrial revolution.

The forces of economic development have radically altered the demand for recreation resources in this century. On the demand side, the growth in population and per-capita income, the shorter work week have increased participation in recreation activities. The fact of increased demand for outdoor recreation facilities is related to the necessity for organization of recreation areas. In this paper the current situation in the city parks of Thessaloniki (Greece) is exhibited in terms of demand for recreation as well as the views of visitors regarding the organization and management as a contribution to the effort for their development. In addition, in recent times the managers of recreation areas have also begun to see revenue obtained from visitors as a means of financing the development of individual sites or parks, promoting their attractions, or protecting them from the effects of budget cuts (Clawson and Knetsch, 1966; Bovaird et al., 1984; Lewis and Kaiser, 1991).

It has been estimated that over 1,500 city and country agencies in the U.S.A. levied user charges at their parks in 1960. The indications are that user charges will be used increasingly in the future for self-financing outdoor recreation programs (Clawson and Knetsch, 1966; Papastavrou and Makris, 1985).

In this paper the potential for self-financing the development of the city parks of Thessaloniki for recreation uses by visitors themselves is also investigated. The city parks under research are the public parks the called: "Kedrinof Lofos", "Panorama", "Hortiatis", "Exohi", "Asvestohori", "Regiki", "Philiro", "Oreokastro", "Liti"

## ABSTRACT

In this paper the current situation in the city parks of Thessaloniki (Greece) is exhibited in terms of demand for recreation as well as the views of visitors regarding the organization and management as a contribution to the effort for their development.

In addition, the potential for self-financing the development of these parks for recreation uses by visitors themselves is investigated.

## RÉSUMÉ

*Dans cette communication nous exposons la situation courante dans les parcs naturels régionaux de Thessalonique (Grèce) sur le plan de la demande pour détente ainsi que les opinions des visiteurs concernant l'organisation et la gestion comme contribution à l'effort de leur développement.*

*Nous examinons de plus, la possibilité d'autofinancement du développement de ces parcs ouverts à l'accueil et à l'agrément des visiteurs.*

and "Melissohori".

These parks are at the most 15 kilometres far from the urban area of Thessaloniki.

## METHODOLOGY

### General

In this research, information was collected using personal interviews and questionnaires from each of the 15 municipalities / communities that make up the urban area of Thessaloniki of which the total "population" runs to 231,460 households

(N.S.S.G., 1989).

The size of sample (number of households) was separately estimated for each municipality / community and more precisely located on the consumers' lists of domestic electric current.

These lists were more up - to - date than those of other services.

### Sample determination

The size of the sample was estimated for each municipality / community on the basis of the following formula of the simple random sampling (Gofas, 1970; Filias et al., 1977; Karteris, 1984; Karameris, 1987; Matis, 1988):

$$n = \frac{t^2}{d^2} \cdot S^2 \quad (1)$$

Where:

n: size of sample

d: absolute error

S: standard deviation

2.145 = t: the value of STUDENT distribution for 0.05 probability and 14 degrees of freedom.

The parameters d and S were estimated with the help of a pilot sampling (Dalianis, 1972), where a sample of 15 observations was taken from each municipality / community.

Particularly, the quantitative variable "visit frequency of

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city park per year”, which was used as a standard deviation (S) in the above formula (1) was selected. The absolute error (d) was taken as being equal to 5% of the mean. So, for each municipality / community, the mean (X), the absolute error (d) and the standard deviation (S) of the above variable were estimated. From these, the size of sample (n) for each municipality / community was obtained. The total size of sample (n) for all the urban area of Thessaloniki was estimated in 3,265 households. The households of the sample were then precisely located (full name and address) with systematic sampling on the basis of the above lists. In all cases, the first sample was randomly taken from the 24<sup>th</sup> position on each list. In the households selected, a personal interview and filling in of questionnaires was employed. The analysis of the data was carried out with the help of the programme for Personal Computers, SPSS/Win (Statistical Package for Social Sciences).

## PRINCIPAL RESULTS AND DISCUSSION<sup>(1)</sup>

### Demand for recreation and organization of the city parks

78.4% of the population of Thessaloniki visits the ten city parks round it. The mean frequency of visits to these parks runs to 22 times per year. Whether to make a visit or not to these parks depends directly on the number of family members, car ownership, income, educational level of the city's citizens and on the degree of organization of the city parks, something that becomes very clear from the statistically significant differences (on the level of 5% for  $X^2_7 = 124.71$ ,  $X^2_1 = 143.75$ ,  $X^2_6 = 860.51$ ,  $X^2_3 = 317.23$  and  $X^2_{36} = 2,025.03$  respectively) which were ascertained by comparison of the relevant distributions. According to the opinion of the majority of visitors, the city parks “Hortiatis” (87.2%), “Asvestohori” (90.7%), “Oreokastro” (96.4%), “Melissohori” (95.2%), “Liti” (93.3%), “Philiro” (95.3%), “Exohi” (96.1%) and “Regiki” (98.6%) are not organized as recreation grounds and they are almost entirely lacking in recreational facilities. On the other side, the city parks “Kedrinos Lofos” (63.7%) and “Panorama” (68.2%) are the only ones in Thessaloniki equipped with almost all the kinds of essential recreation facilities although there is a deficiency in the quantity of facilities per unit of fre-

(<sup>1</sup>) Details can be found in Michael Tsatiris “Self-Financing and Management of the City parks of Thessaloniki for Recreational Purposes”, MSc Thesis, MAI Chania, 1994.

**Table 1** Frequency of maintenance of the existing recreational facilities in the city parks of Thessaloniki.

Frequency of maintenance	Percentage of replies (%)
Regular	10.2
Irregular	45.6
Non-existent	44.2
<b>Total</b>	<b>100.0</b>

quented area in relation to that quantity which is recommended by visitors. Maintenance of the existing facilities in these city parks (**table 1**) ranges from irregular (45.6%) to non-existent (44.2%).

“Kedrinos Lofos” (55.8%) and “Panorama” (19.4%) as more organized than the other city parks (24.8%) are preferred by the greatest part of visitors. Especially “Kedrinos Lofos” as the closest city park to the urban area of Thessaloniki experiences the highest loading by visitors (2,375.4 visits / Ha / year), which is four times higher than the mean loading of all the city parks of Thessaloniki (583.1 visits / Ha / year). This loading is in reality much higher because visitors are mainly gathered within a small radius round the entrance point of each city park and they are not uniformly distributed over the whole area. This crowding decreases the satisfaction of visitors and can result in excessive damage to these sites; damage to vegetation as well as soil compaction which may easily lead to accelerated runoff and increased erosion. Removal of the negative effects of overloading could be attained through rational planning by the construction of essential access roads and the distribution of visitors over the whole area.

In general, the main reasons for infrequent visits to these parks (**table 2**) are in descending order, the lack of time, non-organization as recreation grounds as well as the visits to other nearer green belt areas.

Examining and comparing the reasons for infrequent visits to these parks by category of visitors (“visitors”, “non-visitors”), significant differences have been noted

**Table 2** Reasons for infrequent visits to the city parks of Thessaloniki.

Reasons	%		
	Visitors	Non-visitors	Total
You visit other nearer green belt areas	40.1	44.6	41.0
The city park is not organized as a recreation ground	46.2	51.3	47.3
The existing urban means of transport do not serve you	14.3	22.0	15.9
You don't have a car	20.9	31.8	23.2
You don't have time	59.4	42.6	55.7
Family reasons	8.9	12.1	9.6
Economic grounds	2.6	6.3	3.9
Health reasons	3.1	5.4	3.6
The area does not generally appeal to you <sup>(*)</sup>	4.2	7.7	4.9
Other reasons	2.0	5.2	2.7

(<sup>\*</sup>) Because of reduced aesthetic value (refuse-dump), steep slopes or existence of boggy places.

between distributions ( $X^2_9 = 364.12$  a level of 5%). This means that the refusal to visit or infrequent visits to these parks is determined by different reasons. So, for the category "visitors", infrequent visits are mainly determined by: a) the lack of time (59.4%), b) the non-organization of the city parks as recreation grounds (46.2%) and c) visits to other nearer green belt areas (40.1%). On the other side, the refusal to visit of "non-visitors" is mainly determined by: a) the non-organization of the city parks as recreation grounds (51.3%), b) visits to other nearer green belt areas (44.6%) and c) the lack of time (42.6%). The high percentage for the reason "non-organization of the city parks as recreation grounds" and especially the positioning of this reason in first place among the reasons of "non-visitors" refusals, indicate the necessity for organizing these city parks as recreation grounds and indirectly the future tendency of increase in the demand for forest recreation in case these parks are well organized. Similarly, the acquisition of a car by the great majority of the Thessalonians as well as the operation of adequate public transport which will have bus-stops near the city parks, would contribute to more frequent visits to these parks.

The majority of visitors (71.7%) suggest the Forestry Service as the vehicle of management and conservation of city parks (**table 3**), since it is the pre-eminently competent vehicle in matters of forests and green belt areas. Also, municipality / community is recommended for this purpose by a large percentage of visitors (55.2%), since such a vehicle would probably care for its neighbouring city park better than the Forestry Service which deals with a great number of forest issues and draws funds almost exclusively from the overburdened state budget. On the contrary, most visitors (90.7%) do not trust the private sector as a vehicle of management and conservation of city parks, and this is because the visitors feel that the primary concern of the private sector is not genuinely conservation or management but rather the making of a profit. The various facilities serve specific purposes of outdoor recreation as a) walking tours, b) enjoyment of nature, c) pic-nics - relaxation and d) outdoor games - field sports. The three first kinds of activities take mainly place in these recreation grounds (Karameris, 1987). The kinds of recreation facilities which should exist in these parks, as suggested by the majority of visitors, are the following (**table 4**): distrib-

**Table 4** *Kinds of essential recreational facilities for the city parks of Thessaloniki by preference.*

Kinds of facilities	Preference (%)
Adequate external access	87.6
Adequate internal access	79.2
Parking lots	71.0
Children's playgrounds	84.2
Gazebos	62.5
Signs	67.3
Seats for resting	96.2
Sites suitable for pic-nics	58.4
Tables with seats for pic-nics	76.1
Barbecues for preparing meals	58.4
Distributed water supply points	98.8
Public toilets	91.3
Telephone cabins	78.1
Places for table tennis	5.3
Tennis court	6.7
Football ground	10.6
Basketball court	10.9
Volleyball court	8.3
Golf link	3.2
Restaurants	19.2
Litter-baskets	62.2
Fire hydrants	89.1

uted water supply points (98.8%), seats for resting (96.2%), public toilets (91.3%), fire hydrants (89.1%), adequate external access (87.6%), children's playgrounds (84.2%), adequate internal access (79.2%), telephone cabins (78.1%), tables with seats for pic-nics (76.1%), parking lots (71.0%), signs (67.3%), gazebos (62.5%), litter - baskets (62.2%), sites suitable for pic-nics (58.4%) and barbecues for preparing meals (58.4%). These kinds of essential facilities contribute to the creation of infrastructure in these parks. On the contrary, in this case, restaurants (19.2%) are not essential because of short distance ( $\leq 15$  Km) of these parks from the urban area of Thessaloniki and the possibility of preparing meals within them. In addition, sports grounds ( $\leq 10.9\%$ ) are not essential because only a low percentage of visitors (12.8%) go to these parks for athletics. The number (value of the most frequent occurrence) of the various essential recreation facilities that could exist on a hectare of a frequented area of a city park and according to the especial activities of each area is on the basis of visitors' statements the following: 28 seats for resting, 4 gazebos, 4 telephone cabins, 5 water supply points, 38 litter - baskets, 32 fire hydrants, 2 public toilets, 2 children's playgrounds, 6 barbecues for preparing meals, 20 tables with seats for pic-nics. Each site for pic-nics is usually equipped with tables with seats, litter-baskets, public toilets, gazebos, water points and barbecues. In general, the recreational facilities must be rationally distributed on the ground. The precise situation of installation of the various facilities is determined in such a way that the character of forest environment is not significantly altered and good service, safety and ease of movement is offered to visitors.

**Table 3** *Vehicle of management and conservation of the city parks of Thessaloniki by preference.*

Vehicle	Preference (%)
Forestry Service	71.7
Municipality / Community	55.2
Private Sector	9.3

## Self-financing of the city parks

The factor "adequate organization" of the city parks influences to some degree the willingness of visitors to pay recreational fees ( $X^2_1 = 850.76$  a level of 5%). In addition, the number of family members ( $X^2_4 = 496.77$  a level of 5%) as well as the income of visitors ( $X^2_6 = 190.93$  a level of 5%) influence this willingness. Concerning the payment of recreation fees, only a low percentage of visitors (15.6%) would agree to it, given that most part of Thessaloniki's parks (80%) are unorganized at present. Of the visitors who agree to pay recreational fees, 52.6% of them prefer payment through municipal taxes, 27.0% through payment of entrance fees and 20.4% through payment of parking fees for their car. If these city parks were "sufficiently organized", then 35.7% of visitors would like to pay recreational fees, of whom the majority (58.7%) would prefer to pay recreational fees in the form of municipal taxes, whereas only 24.2% and 17.1% of them would like to pay entrance fees and parking fees respectively. The visitors willing to pay fees for forest recreation activities would accept the following sums on the average<sup>1993</sup>: 275 drachmas as an entrance fee, or 125 drachmas as a parking fee / hour, or 242 drachmas as a bimonthly municipal tax. If the payment of recreation fees in the form of municipal taxes became obligatory, then the sum of 336,070,000 drachmas<sup>1993</sup> would be available annually for the satisfactory operation of these parks as recreation grounds. The main reason for the refusal to pay recreational fees in the city parks is (table 5) the view of visitors that it is the right of every citizen to enjoy the forest recreation facilities free of charge (82.5%), since they consider city parks as a public property. Other reasons for refusing to pay recreational fees are the lack of comforts (20.1%) and organization (20.1%) of these parks, given that the majority of visitors assert that they gain some benefit from such a visit.

**Table 5 Reasons for refusing to pay recreational fees in the city parks of Thessaloniki.**

Reasons	%
You believe that it is the right of every citizen to enjoy the forest recreation facilities free of charge	82.5
Lack of organization	20.1
The comforts offered don't entirely satisfy you	20.1
Economic grounds	7.3
The city park offers you nothing	0.0
You believe that it is not worth the trouble	1.8
Other reasons	2.7

## CONCLUSION

The organization of the city parks of Thessaloniki will cause an increase of visits to them. The city parks "Kedrinofos" and "Panorama" must be enriched

both in the number of some recreation facilities and the regular maintenance of existing facilities will ensure a more qualitative recreation. The high loading of these city parks requires the construction of essential access roads so as to distribute visitors over the whole area and to offset the negative effects of overloading. On the other side, all the other city parks which are at present unorganized should be equipped with the essential kinds and number of recreation facilities in the near future so that the existing natural resources round Thessaloniki can be utilized for outdoor recreation purposes. Besides the Forestry Service which is known for its contribution in the conservation and management of parks, municipality / community could play under state supervision a similar role for its neighbouring city park. The greatest part of visitors of these parks disagree on the payment of recreation fees even if these parks are sufficiently organized.

Should the need arise in the near future for financing the development of these parks or for their satisfactory operation as recreation grounds, the most popular solution is raising money through municipal taxes for recreation purposes. ●

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