

## **AIR QUALITY IN THE CITY OF NIŠ: CITIZEN PERCEPTION AND OBJECTIVE INDICATORS**

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**Abstract.** *Currently, air pollution is one of the most significant environmental issues and it can be considered as an important etiological and contributory factor for the development of phenomena and processes leading to environmental degradation and conditions for the development of respiratory, cardiovascular, and malignant diseases, as well as other defined or undefined pathological conditions in the exposed population of urban areas. Therefore, it is necessary to implement organized air quality monitoring and make available the timely, clear, and adequate public information about air pollution levels in order to prevent and/or mitigate the effects of potential risks. This paper uses the data on air quality in Niš and analyses the perception and degree of informedness of the citizens of Niš about air quality. For that purpose, we conducted a survey on 121 respondents at three locations, which were designated in previous studies as zones with measured or predicted high pollutant concentrations in ambient air. Using descriptive and nonparametric statistics, we learned that citizens assess their informedness as poor and limited, but that they properly perceive environmental issues in the city. In their opinion, air pollution is the most important environmental issue in the city as a whole and in their specific areas of residence, which correlates with the official data on the level of air pollution.*

**Key words:** *air pollution, informedness, City of Niš, perception of air quality.*

### 1. INTRODUCTION

Causes and effects of air pollution, one of the most significant environmental issues, are the topic of numerous multidisciplinary scientific studies. Such high interest is based on the fact that air pollution has multiple negative effects. Air pollution affects human health. There are increasingly fewer infectious diseases, whereas diseases of the

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respiratory, cardiovascular, immune, and endocrinal systems, as well as malignant diseases, have increased in frequency and significance. In addition to the negative impact on human health, air pollution also negatively affects flora and fauna, as well as the elements of material culture, such as buildings or monuments. Negative effects of air pollution are also found in the economic sphere. For instance, increased health risk increases the number of working days lost and the expenses for medical treatment and health care of the ill. Likewise, air pollution lowers crop yields.

Qualitative and quantitative alterations of physical, chemical, and biological properties of natural air occur due to air pollution, which disturbs the principles of self-regulation in ecosystems and originates from both natural and currently prevalent anthropogenic processes [see 1, 2, 3]. The following factors are believed to increase air pollution: population growth; energy obtained from fossil fuels; industrial development; urban development; traffic, etc. The combination of these factors contributes to high air pollution levels, particularly in urban areas, because urban areas contain a variety of pollution sources concentrated in small areas, emitting sulphur dioxide, nitrogen oxides, carbon monoxide, suspended particulate matter, and other specific pollutants depending on the technological processes of industrial facilities in a given area.

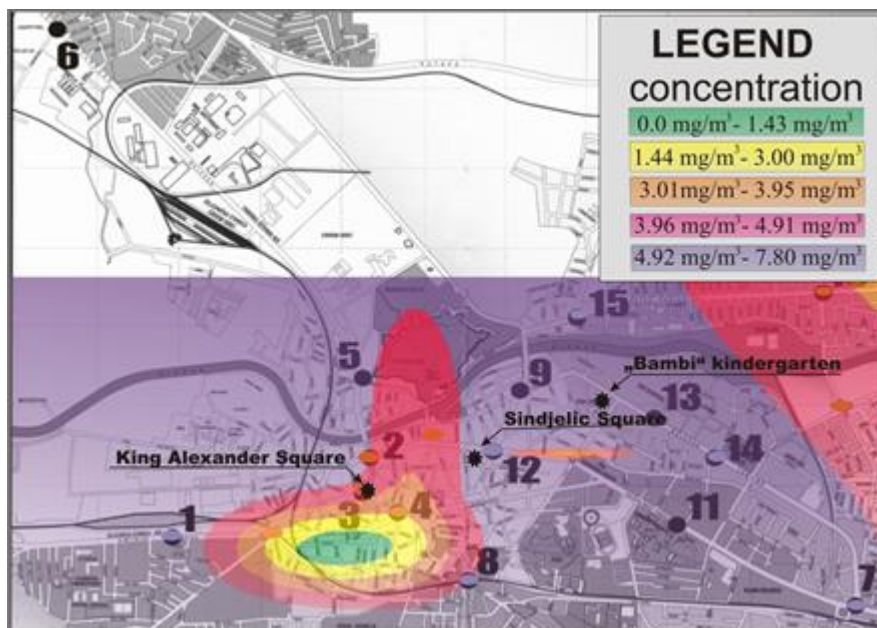
#### 1. AIR QUALITY MONITORING IN THE CITY OF NIŠ

Air quality monitoring in the City of Niš has been conducted since 1965, usually for the presence of sulphur dioxide and suspended particulate matter in ambient air. Air quality and concentrations of formaldehyde, nitrogen oxides, and carbon monoxide have been monitored since the 1970s. Since 1988, heavy metal concentrations in the air have also been monitored. The air quality monitoring program for Niš and Niška Banja was adopted in 1992 and harmonized with the existing Serbian legislation. Since then, specific pollutants and pollutants involved in the formation of photochemical smog have also been monitored.

The analysis of air quality in Niš was conducted until 2009 based on a statistical analysis of determined air pollutant concentrations over a given interval according to the programme introduced by the Serbian government (Official Gazette of the Republic of Serbia, No. 54/92, 30/99, and 19/2006). This air quality monitoring program did not define the impact of specific concentration levels on general human health, which is why such air quality assessment is not sufficiently criterion-based, resulting in mere approximations of the actual air quality and its impact on general human health. The passing of the new Law on Air Protection in 2013 (Official Gazette of the Republic of Serbia, No. 36/2009 and 10/2013) and the Ordinance on Monitoring Conditions and Air Quality Requirements (Official Gazette of the Republic of Serbia, No. 11/2010, 75/2010, and 63/2013) did not produce any improvements.

Currently, air quality monitoring in the city is conducted by means of two automatic monitoring stations, owned by the Environmental Protection Agency of the Government of the Republic of Serbia, which register hourly short-term pollutant concentrations within one hour. Automatic monitoring stations also provide information on suspended particles 2.5 and 10  $\mu\text{m}$  (PM<sub>2.5</sub>; PM<sub>10</sub>) in diameter.

Annual air quality reports for Niš and Niška Banja, issued by the Public Health Institute in Niš, reveal that the mean annual concentrations of sulphur dioxide have not been exceeded from 2000 onward, whereas the limit concentrations of soot particles, nitrogen oxides, and carbon monoxide have been exceeded at some monitoring locations. In 2002, 2003, 2008, 2010, and 2011, CO concentrations in Niš exceeded the limit values, with a note that there was no CO monitoring from 2004 to 2008. Since 2012, no data have been provided on the monitoring of CO and HCHO, whereas NO<sub>x</sub> concentrations were below the allowed limit in 2012 and 2013. It is possible to use a radial basis function (RBF) network to establish the zones with high concentrations that exceed the limit, to establish air pollution health risk zones, and to map air quality fields. Figure 1 shows the map of air quality fields with air pollution health risk zones for carbon monoxide as the dominant ambient air pollutant in Niš. The RBF network was used to predict mean annual CO concentrations in health risk zones, ranging from 3.28 mg/m<sup>3</sup> to 7.8 mg/m<sup>3</sup>.



**Fig. 1** Predicted mean annual CO concentrations in ambient air in the City of Niš with health risk zones (orange, red, and purple fields) “Bambi” kindergarten

Measurements of concentrations of suspended particulate matter PM<sub>2.5</sub> and PM<sub>10</sub> in Niš also reveal high concentrations that often exceed the allowed limits. Mapping of air quality for these suspended particles using the RBF network is not feasible due to an insufficient number of measuring locations. The monitoring network for suspended particulate matter in Niš includes only two measuring locations.

In 2012 and 2013, the Faculty of Occupational Safety in Niš conducted measurements of PM<sub>2.5</sub> concentrations in ambient air, as part of the project III 43014, funded by the

competent Serbian Ministry. The measurements were performed by means of the airpointer® automatic monitoring station at “Bambi” kindergarten (part of the Preschool Institution “Pčelica”), located in the immediate vicinity of the intersection of Bulevar Nemanjića and Vojvode Mišića Street (Figure 1). The measuring results are presented as eight-hour concentrations between 8 a.m. and 4 p.m. PM<sub>2.5</sub> concentrations between May 2012 and April 2013 exceeded the allowed limits within the range from 43.11% to 107.4% [5]. We also measured PM<sub>10</sub>, as well as CO, NO<sub>2</sub>, and SO<sub>2</sub> concentrations, between 28 November and 27 December 2013. PM<sub>10</sub> concentration measurements show that they exceeded the allowed limits, with the maximum concentration three times higher (191.6153 µg/m<sup>3</sup>) than the allowed limit. During 23 of all measured days, concentration exceeded 50 µg/m<sup>3</sup>, which could have significantly affected the health of the exposed population [5]. On specific days, CO concentrations either exceeded the allowed limits or were approaching them. NO<sub>2</sub> concentrations were below the allowed limits and only approached them on specific days, while SO<sub>2</sub> concentrations were well below the allowed limits.

We attribute this trend of pollutant concentrations to mobile pollution sources, i.e. traffic.

In addition to the implementation of legislation pertaining to air pollution reduction, it is also necessary to raise the citizens' environmental awareness by informing them about the sources and effects of air pollution, and options for its reduction. Disseminating information on both mass and individual scale increases the informedness of the recipient. To what extent the dissemination of information will increase the informedness depends on a number of circumstances, such as content, importance, interestingness, manner of presentation, language, recipient culture and ideology, technical means for dissemination, etc. [6]. In the process of communication, recipients acquire new knowledge through information with the purpose of changing points of view, motivating, and organizing human behavior. Thus the individual constructs the system of values, beliefs, convictions, and world views [see e.g. 7, 8]. If the information pertains to environmental issues, it implies the acquisition of environmental knowledge and formation of environmental values, opinions, and worldviews. Adequate informedness can help develop “environmental habits”, such as using public instead of individual transport in order to reduce exhaust emissions from motor vehicles, cleaning parks, sorting waste, recycling, etc. In fact, people often “need additional information about social events and their outcomes to become aware not only in terms of the context in which the events occurred but also in terms of the roles they themselves played in those events”. It is only through verified information that people can dispel their misconceptions and alter the subjective perception of their own roles [8].

Starting from the data on air pollution in Niš and the existence of health risk zones, we established the research subject: the analysis of citizens' subjective opinions regarding air quality in their immediate surrounding and their informedness about environmental issues, particularly about air pollution. The aim of the research is to assess the degree of informedness, the dominant manner of disseminating air quality information to the citizens of Niš, and the correlation between subjective perception of air quality and objective indicators.

This research is based on our hypothesis that limited informedness of citizens about air quality results in their misconstrued subjective assessment of the level of air pollution in the city.

When we reviewed the literature, we did not find any references involving similar research, but we did find references offering data on air quality in Niš, on the health impact of air pollution, and on the informedness of the citizens of Niš about environmental issues.

## 2. RESEARCH METHOD AND SAMPLE

We used a survey to collect data on air quality and informedness. We designed a combination of closed ended and mixed questionnaire containing 27 questions. The first portion of the questionnaire pertains to demographic properties of respondents, the second to subjective perception of air quality and ranking of environmental issues in the city, and the third to subjective assessment of informedness about air quality.

The research included 121 respondents. The sample was accidental, selected from the locations designated as air pollution health risk zones through official measurements: residents of the high-rise buildings at the intersection of Bulevar Nemanjića and Vojvode Mišića Street in the immediate vicinity of “Bambi” kindergarten; residents of the high-rise buildings at 1-9 Trg Kralja Aleksandra (King Alexander Square); and residents of the high-rise building at 24 Vožda Karađorđa Street, overlooking Sinđelićev trg (Sinđelić Square) (Figure 1).

We conducted the survey in mid-April 2014 and used SPSS software to process the data. We used descriptive and nonparametric statistics (Pearson chi-square for the threshold of significance of .05) to present and interpret the obtained data. A portion of the data obtained in the survey was compared to the official data on air pollution in Niš for 2013 because data for 2014 were not available.

## 3. RESULTS AND DISCUSSION

### 3.1. Structure of respondents

Out of 121 respondents, 56.2% were female and 43.8% male. The sample included respondents of different age: from 18 to 30 – 28.9%; from 31 to 45 – 28.1%; from 46 to 65 – 23.1%; and 19.8% over 65. Most respondents completed secondary education (46.3%), 36.4% were university educated, 10.7% completed college education, and 6.6% completed only primary education. The majority of the respondents have lived at the measured locations around 30 years (30.6%), 22.3% have lived there since birth, 17.4% around 20 years, and 11.6% around 10 years.

### 3.2. Respondent opinions about environmental issues and air quality in Niš

The respondents were given a scale from 1 to 7, with 1 being the highest rank, to rank the biggest environmental issues in the city and the parts of the city in which they live. The obtained data revealed that the majority of the respondents ranked air pollution the highest both for the city as a whole and for the parts in which they live (Table 1).

**Table 1** Ranking of environmental issues in the city and in the area of residence in [%]

The biggest environmental issues in Niš	1	2	3	4	5	6	7
Air pollution	26.4	23.1	10.7	14.0	15.7	7.4	0.8
Water pollution	.8	11.8	18.5	11.8	25.2	28.6	3.4
Soil pollution	5.1	7.6	16.9	24.6	23.7	21.2	.8
Waste	31.7	15.8	20.0	20.8	5.0	5.0	1.7
Noise	23.3	25.8	10.8	10.0	17.5	11.7	.8
Not enough greenery	4.1	10.3	21.6	22.7	13.4	26.8	1.0
Other (specify what)			5.9	11.8	11.8	5.9	64.7
The biggest environmental issues in the specific area of residence	1	2	3	4	5	6	7
Air pollution	42.9	17.6	16.8	10.1	4.2	8.4	
Water pollution	22.7	14.3	10.9	26.9	21.8	3.4	
Soil pollution	1.7	4.2	21.0	22.7	31.9	17.6	.8
Waste	21.8	16.8	21.8	22.7	8.4	5.0	3.4
Noise	29.4	28.6	8.4	8.4	16.8	7.6	.8
Not enough greenery	3.4	7.6	16.9	25.4	8.5	38.1	
Other (specify what)	13.3	13.3	6.7	13.3	13.3	40.0	

Only 33 respondents chose 'other' as the biggest issue in Niš, and as few as 15 made that choice for their specific area of residence. The issues of stray dogs, lack of cycle lanes, and poor parking infrastructure were specified as 'other' in both categories.

There is no statistical significance of the relationship between gender, level of education, and length of residence in a specific part of the city and the ranking of major environmental issues. The only statistically significant connection was observed between the ranking of noise and respondent age at the level of significance (Asymp. Sig.) of .005. Noise is the biggest issue (ranked 1) for 29.4% of the respondents, whereas only 0.8% ranked noise as 7th.

The data shown in Table 2 reveal that ranking depends on respondent age and that the highest percentage of the 46-65 age group chose rank 2, whereas the highest percentages of all the other age groups chose rank 1. None of the respondents aged 18 to 45 and over 65 ranked noise as 7th.

**Table 2** Environmental issue ranking according to respondent age

Respondent age group	In your opinion, what are the biggest environmental issues in Niš? Rank the given answers by importance from 1 to 7, with 1 denoting the highest importance							
	1	2	3	4	5	6	7	Total
18-30; % within age group	25.7	22.9	8.6	8.6	11.4	22.9	.0	100.0
31-45; % within age group	41.2	29.4	8.8	5.9	14.7	.0	.0	100.0
46-65; % within age group	18.5	44.4	11.1	14.8	7.4	.0	3.7	100.0
Over 65; % within age group	30.4	17.4	4.3	4.3	39.1	4.3	.0	100.0
Total % among all age groups	29.4	28.6	8.4	8.4	16.8	7.6	.8	100.0

Respondent ranking of air pollution as an environmental issue is in keeping with their assessment of air quality. Most of them think that air in their area of residence is polluted

or heavily polluted (Table 3). The obtained data do not indicate any statistical significance in the relationship between gender, age, and level of education and the assessment of air quality in a specific area of residence.

**Table 3** Assessment of air quality for specific areas of residence

Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Air is clean	21	17.4	17.4	17.4
Air is polluted	74	61.2	61.2	78.5
Air is heavily polluted	26	21.5	21.5	100.0
Total	121	100.0	100.0	

According to 82.6% of the respondents, the biggest source of air pollution is traffic, followed by district heating plants, and household fuel combustion (Table 4).

**Table 4** Major sources of air pollution in specific areas of residence

Valid	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Traffic	100	82.6	82.6	82.6
Household fuel combustion	6	5.0	5.0	87.6
Heating plants	12	9.9	9.9	97.5
Other	3	2.5	2.5	100.0
Total	121	100.0	100.0	

The majority of the respondents (50.4%) assess their health as good, 34.7% as excellent, and 14.9% as poor. There is statistical significance (Asymp. Sig. .000) in the relationship between age and subjective health status assessment, which was expected (Table 5). The majority of the youngest respondents assessed their health as excellent, while the opposite was true for most of the eldest respondents.

**Table 5** Age and health status assessment

Respondent age group	How would you assess your health?			
	excellent	good	poor	Total
18-30; % within age group	77.1	22.9	.0	100.0
31-45; % within age group	29.4	58.8	11.8	100.0
46-65; % within age group	10.7	75.0	14.3	100.0
Over 65; % within age group	8.3	50.0	41.7	100.0
Total % among all age groups	34.7	50.4	14.9	100.0

The obtained data also indicated a connection between health status assessment and level of education, but only bordering on statistical significance (Asymp. Sig. .012).

**Table 6** Level of education and health status assessment

Respondent level of education	How would you assess your health?			
	excellent	good	poor	Total
Primary education %	.0	62.5	37.5	100.0
Secondary education %	28.6	58.9	12.5	100.0
College education %	23.1	46.2	30.8	100.0
Higher education %	52.3	38.6	9.1	100.0
Total % within level of education	34.7	50.4	14.9	100.0

The highest percentage of respondents relates their health status to air quality in their area of residence. Over a half of them (56.2%) think that air quality in their area of residence affects their health to a great extent, 21.7% think that it affects their health to a very great extent, 18.3% think that it affects their health to a small extent, and only 3.3% think that air quality has no impact on their health. There is statistical significance (Asymp. Sig. .009), although borderline, in the relationship between age and level of education (Asymp. Sig. .005) and the association of the area of residence with air quality and health. The majority in each age group think that air quality affects their health, while none of the respondents over 65 think that it affects their health to a small extent and none aged 46 to 65 think that air quality has no health impact (Table 7).

**Table 7** Opinion on the impact of air quality on health

Respondent age group	In your opinion, to what extent does air quality in your area of residence affect your health?				
	To a very great extent	To a great extent	To a small extent	No impact	Total
18-30; % within age group	14.3	60.0	22.9	2.9	100.0
31-45; % within age group	5.9	70.6	20.6	2.9	100.0
46-65; % within age group	32.1	42.9	25.0	.0	100.0
Over 65; % within age group	43.5	47.8	.0	8.7	100.0
Total % among all age groups	21.7	56.7	18.3	3.3	100.0

A half of the respondents with primary education and more than a half of the respondents with secondary and higher education think that air quality in their area of residence affects their health to a great extent, whereas the majority of college educated respondents think that it affects health to a small extent (Table 8).

It should be noted that there is no statistically significant connection between length of residence and air quality assessment, health, and air quality impact on health, but there is borderline statistical significance (Asymp. Sig. .015) in the relationship between length of residence and sources of air pollution (Table 9).



**Table 8** Level of education and assessment of the impact of air quality on health

Respondent level of education	In your opinion, to what extent does air quality in your area of residence affect your health?				Total
	To a very great extent	To a great extent	To a small extent	No impact	
Primary education %	50.0	50.0	.0	.0	100.0
Secondary education %	23.2	66.1	7.1	3.6	100.0
College education %	7.7	30.8	53.8	7.7	100.0
Higher education %	18.6	53.5	25.6	2.3	100.0
Total % within level of education	21.7	56.7	18.3	3.3	100.0

**Table 9** Length of residence and air pollution sources

How long have you lived in this part of the city?	In your opinion, what is the primary source of air pollution in your area of residence?				Total
	Traffic	Household fuel combustion	Heating plants	Other	
Since birth %	66.7	11.1	18.5	3.7	100.0
ca. 30 years %	91.9	.0	5.4	2.7	100.0
ca. 20 years %	90.5	4.8	.0	4.8	100.0
ca. 10 years %	57.1	7.1	35.7	.0	100.0
Less than 5 years %	95.5	4.5	.0	.0	100.0
Total %	82.6	5.0	9.9	2.5	100.0

The data from Table 9 show that over 90% of the respondents living at their present location for less than 5, ca. 20, and ca. 30 years think that traffic is the primary source of air pollution. There is some deviation among respondents who have lived at their present location since birth and for ca. 10 years, although more than a half of them share the opinion of other categories.

### 3.3. Assessment of informedness about air quality

Most respondents (56.2%) assess their own informedness about air quality as poor, 35.5% as limited, and 8.3% as good. As much as 86% stated they were not informed about air quality in their area of residence, and only 14% said they were informed. The biggest source of information is television, followed by newspapers, official city website, 'other' – predominantly the Internet, and the radio (Table 9).

**Table 9** The major sources of information about air quality

Information sources	Share %
Newspapers	41.3
Television	72.7
Radio	1.2
Official website of the City of Niš	12.4
Other / the Internet	6.6

There is no statistically significant relationship between gender, level of education, and length of residence and the assessment of own informedness about air quality in one's area of residence, but the obtained Asymp. Sig. .008 indicates a statistical significance in the relationship between age and assessment of informedness.

**Table 10** Assessment of informedness about air quality

Respondent age group	How do you assess your own informedness about air quality in your area of residence?			
	Good	Limited	Poor	Total
18-30; % within age group	17.1	40.0	42.9	100.0
31-45; % within age group	.0	47.1	52.9	100.0
46-65; % within age group	.0	21.4	78.6	100.0
Over 65; % within age group	16.7	29.2	54.2	100.0
Total % among all age groups	8.3	35.5	56.2	100.0

The highest percentage of respondents (54.5%) thinks that the local media do not give sufficient attention to reporting on environmental quality. There is a high level of significance in the relationship between age and opinion regarding the presence of content about environmental quality (Asymp. Sig. .003) in the local media (Table 11).

**Table 11** Opinion regarding the presence of environmental content in local media

Respondent age group	In your opinion, do local media sufficiently report on environmental quality in Niš?			
	Yes	To a certain extent	No	Total
18-30; % within age group	2.9	31.4	65.7	100.0
31-45; % within age group	.0	52.9	47.1	100.0
46-65; % within age group	3.6	35.7	60.7	100.0
Over 65; % within age group	25.0	33.3	41.7	100.0
Total % among all age groups	6.6	38.8	54.5	100.0

More than 60% of the respondents (62.8%) think that the local media do not provide any educational environmental content.

#### 4. CONCLUSION

According to the respondents' answers, they do not differentiate between environmental issues in the entire city and the issues in their immediate surrounding (as they provided almost identical answers), which is not surprising, because they are directly exposed to the effects of environmental issues mostly in their area of residence. Likewise, their answers revealed that they are aware of the issue of air pollution, as they specified it as the key environmental issue in the city and in their area of residence.

The data obtained from the survey conducted on citizens living in air pollution health risk zones showed that citizens of Niš recognize air pollution as an environmental issue both in the entire city and in their area of residence. Most of them think that the air in their area of residence is polluted or heavily polluted (cumulative percentage 82.7), so they ranked air pollution as 1 and 2 out of 7 (Tables 1 and 3). Their assessment correlates with the data on PM10 concentrations, which exceeded the allowed limit by three times ( $191.6153 \mu\text{g}/\text{m}^3$ ). The limits were exceeded 23 times in 2013. PM2.5 concentrations from May 2012 to April 2013 exceeded the allowed limits within the range from 43.11% to 107.4%. Therefore, subjective assessment of citizens' opinions on air pollution in the city with the data obtained from air quality measurements.

Motor vehicle exhausts in Niš show a constantly increasing trend and constitute the primary source of pollution. According to the presented data (Table 4), most respondents (82.6%) think that the air in their area of residence is polluted primarily from traffic, followed by district heating plants and household fuel combustion (cumulatively 14.8%), which also correlates with the obtained data and the conclusion that increased pollutant concentration is caused by the movement of mobile pollution sources, i.e. traffic. Designation of traffic as the primary source of air pollution is not surprising, since the volume of traffic in the studied parts of the city is high.

According to the Report on Strategic Environmental Impact Assessment, the level of air pollution in urban areas depends on motor vehicle exhaust concentrations. Air is most heavily polluted in the inner city, constituting a serious problem for citizens, but pollution levels drop towards the suburbs, primarily due to lower traffic volumes. Citizens' subjective assessment of air quality and designation of pollution sources correlates with the official data.

The results of this research indicate that most respondents think they are ill-informed, one third thinks they are partially informed, and only 14% think they are well-informed about air quality in their area of residence. They designated television as their major source of information, but more than a half of them think that the local media provide insufficient information about environmental and air quality. Nevertheless, the highest percentage of respondents properly assesses air quality and thinks that air in their immediate surrounding is polluted, specifying traffic as the primary pollution source. Therefore, the citizens are aware of the presence and gravity of the issue of air pollution, but their awareness is less due to continuous supply of information from the local media and more due to their everyday exposure to air pollution.

Based on the obtained data, we concluded that the first part of our hypothesis has been confirmed, but not the second part. Despite the respondents' assessment of their own informedness as poor, their subjective assessment of air quality in their area of residence is in accordance with the official air pollution data.

In our opinion, it is necessary to improve the quality and availability of information about air quality, which can be accomplished in several ways, e.g. by organizing public forums, setting up information desks and stands, or canvassing. Considering that the mass media, primarily television, are the basic sources of information, it is necessary to educate and train editors and journalists to report on environmental quality, and to establish cooperation between the media, inspectorates, municipal police, and other relevant local institutions.

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### KVALITET VAZDUHA U NIŠU: PERCEPCIJA GRADJANA I OBJEKTIVNI POKAZATELJI

*Zagađenje vazduha predstavlja jedan od najznačajnijih problema današnjice i može se uzeti kao bitan etiološki i favorizujući faktor za nastanak i razvoj pojava i procesa koji dovode do degradacije životne sredine i formiranja uslova za razvoj respiratornih, kardiovaskularnih, malignih bolesti, ali i drugih definisanih ili nedefinisanih patoloških stanja kod eksponiranog stanovništva urbane sredine. Iz tih razloga je potrebno sprovesti organizovani monitoring kvaliteta vazduha i omogućiti dostupnost blagovremenih, jasnih i adekvatnih javnih informacija o stepenu zagađenja vazduha u cilju sprečavanja i/ili ublažavanja posledica mogućih rizika. U radu se polazi od saznanja o kvalitetu vazduha u Nišu i ispituje percepcija i procena stepena informisanosti građana Niša o kvalitetu vazduha. U tu svrhu obavljeno je anketno ispitivanje u kome je učestvovao 121 ispitanik na tri lokacije koje su u prethodnim istraživanjima definisane kao zone u kojima je izmerena ili predviđena visoka koncentracija zagađujućih supstanci u ambijentalnom vazduhu. Na osnovu deskriptivne i neparametriskog statistike došlo se do saznanja da građani procenjuju svoju informisanost kao lošu i delimičnu, ali da pravilno percipiraju ekološke probleme u gradu. Zagađenje vazduha je po njihovom mišljenju najznačajniji ekološki problem u Gradu i delu grada u kome žive što je u korelaciji sa zvaničnim podacima o stepenu aerozagađenja.*

**Ključne reči:** *aerozagađenje, informisanost, Grad Niš, percepcija kvaliteta vazduha*