

NOISE POLLUTION IN ALBANIA TOWARDS EUROPEAN STANDARDS

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Abstract

Noise pollution is disturbing noise with a harmful impact on the activity of human or animal life. Noise nuisance is a global phenomenon that generates a sense of resentment associated with any agent or condition that is recognized or trusted by an individual or group of individuals to adversely affect them. The health impacts of environmental noise are a growing concern for the general public as well as policymakers in Europe. Unwanted noise can damage psychological health, can cause hypertension, high levels of stress, hearing loss, sleep disturbances and other harmful effects. Albania ranks among the countries with the highest acoustic pollution in Europe. Every citizen has the right to be protected from the harmful effects of environmental noise. The institutional responsibilities for disciplining noise-generating activities are related to the ministry or authority responsible for licensing. The protection applies to noise, which exposes people to the environment where they live, in residential areas, in public institutions, in public parks, in nature, in children's institutions, health's institutions, educational, cultural, religious institutions and others environments similar to them. This paper aims to analyze the legal, administrative and organizational measures taken to manage environmental noise in Albania, as well as to comply with the requirements of the EU Basic Directive and other related directives, identifying problems related to this sector. The methods used to carry out this paper are descriptive, analytical, and comparative.

Keywords: environmental noise, transport, public services sector, public health.

JEL Classification: K32

1. Introduction

Environmental noise is defined as “an unwanted and harmful external noise caused by human activities, including noise emitted by vehicles, road traffic, rail traffic, air traffic and industrial activities to which people are exposed, especially in residential areas, public parks or other quiet closed areas, in quiet areas, in open areas, near schools, hospitals and other noise-sensitive areas and buildings”.² The main sources of environmental noise are: urban traffic, industry, trade, construction and noise in service buildings, neighbors near home, entertainment activities.³ Environmental noise has been on the rise and the situation is becoming problematic, especially at night resulting in rates above the European Union's allowed.

Albania is ranked 23rd among 98 countries analyzed by Numbeo for noise pollution index.⁴ In Tirana the capital of Albania, the trend of noise pollution over the last years (2010-2017) results in significantly higher values, reaching over 70 dB by day and 63 dB by night. These values are higher than the rates recommended by the World Health Organization and the European Union at 55 dB as acceptable values for population health.⁵ Noise peak is reached in the Lapraka area at 73.8 dB during the day, while EU permitted rates should be 55 dB per day. After Tirana, the cities of Durres, Fier, Shkodra, Vlora, Saranda and Korça are listed. The causes of high levels of environmental noise are: the large influx of vehicles moving during the day and night making a major contribution to increasing acoustic pollution; movement of heavy vehicles above 10 tonnes; significant shortage of temporary or permanent parking spaces; outdated motor condition of vehicles in circulation etc.⁶ Enhancing sound pollution is unbearable, because it has negative effects on health. It also affects future generations and has implications for socio-cultural, physical and

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² Raporti “Vlerësimi i prevalencës së çrregullimeve të gjumit dhe bezdisjes së popullatës nga zhurmat e trafikut urban në qytetet kryesore të Shqipërisë”, pg. iv. Marrë nga adresa <http://www.ishp.gov.al/wp-content/uploads/2015/04/Raporti-i-vleresimit-te-crrregullimeve-te-gjumit-dhe-bezdisjes-sepopullates-nga-zhurma-e-trafikut-rrugor.pdf>. (consulted on 30.07.2019).

³ Ibid., pg. 4-5.

⁴ Ndotja akustike, Shqipëria e 23-a mes 98 vendeve, një projekt kundër “borive”. Marrë nga adresa: <https://www.monitor.al/ndotja-akustike-shqiperia-e-23-mes-98-vendeve-nje-projekt-kunder-borive/>, 06/03/2018. Aksuesuar më (consulted on 30.07.2019).

⁵ Botim periodik i Qendrës Rajonale të Mjedisit (REC) - Shqipëri, Mjedi Sot, Nr. 155, 2018, pg. 14.

⁶ Marrë nga adresa: <https://www.monitor.al/ne-kryeqytetin-e-zhurmes/>. Aksuesuar më (consulted on 30.07.2019).

economic effects.⁷ Constant noises affect mental health causing psychophysiological effects and due to noise beyond the permissible norms can also cause deafness. According to the Regional Environmental Center, noise pollution is one of the main causes of stress for citizens. The number of children with disabilities in Albania reaches about 200 children each year.⁸

2. Legal framework for the protection of the population against noise

At the national level, noise protection in the environment is ensured through:

1. Law no. 9774, dated 12.7.2007 “On the evaluation and management of environmental noise”.
2. Instruction no. 8, dated 27.11.2007 “On the noise levels in certain environments”.
3. Decision no. 587, dated 07.07.2010 “On the monitoring and control of noise level in urban and tourist centers”.

Law no. 9774, dated 12 July 2007 “On the assessment and management of environmental noise” has partially transposed Directive 2002/49/EC of the European Parliament and the Council of 25 June 2002 on the assessment and management of environmental noise. This law aims to protect the health and the environment from noise, by specifying the manner of avoidance and measures to prevent, reduce and eliminate the harmful effects of exposure to them, including noise annoyance.⁹ According to this law it is the municipality that drafts and implements local noise reduction plans and announces quiet areas through bylaws. It also urges natural and legal persons to take preventive measures to respect the minimum noise limit in urban areas. But the reality today shows that this is a competence not exercised by locals especially the traffic and use of trumpets at intersections and places without regulated signage.¹⁰ In relation to environmental noise policies, a task force for noise pollution has been set up in urban centers and coastal tourist areas.¹¹ The administrative capacity to prepare strategic noise maps and action plans needs to be strengthened.¹²

The law requires the Institute of Public Health to create a new noise sector as a reference unit for noise measurement and evaluation. The National Environmental Agency conducts quality control for the measurements and collects, processes and maintains noise monitoring data at the level. The monitoring of urban noise for 2017 shows that in the cities of Fier, Kukes and Pogradec we do not exceed the level of noise in the day compared to the standard of the World Health Organization and Law no. 9774, dated 12.07.2007 “On the assessment and management of environmental noise”.¹³ While monitoring the noise at night we do not exceed the standard of the World Health Organization and the Albanian law in the cities of Fier, Kukës, Pogradec and Korça. In all other cities, monitoring results show that there is a high level of noise for day and night compared to WHO standard and Albanian law.¹⁴

At European level, following a proposal from the Commission adopted in 2000, Parliament and Council adopted Directive 2002/49/EC on the assessment and management of environmental noise on 25 June 2002. The Directive aims to establish a common approach in order to avoid, prevent or reduce the harmful effects, including nuisance, of exposure to environmental noise. It also aims to provide a database of measures to reduce noise emitted from sources, such as road and

⁷ Ibid.

⁸ Ibid.

⁹ Ligji Nr. 9774, datë 12.7.2007 “Për vlerësimin dhe administrimin e zhurmës në mjedis”.

¹⁰ Ndotja akustike, Shqipëria e 23-a mes 98 vendeve, një projekt kundër “borive”. Marrë nga adresa: <https://www.monitor.al/ndotja-akustike-shqiperia-e-23-mes-98-vendeve-nje-projekt-kunder-borive/>, 06/03/2018. Aksesuar më (consulted on 30.07.2019).

¹¹ Komisioni Evropian, Dokument Pune i Stafit të Komisionit, Raporti i Progresit të Shqipërisë për vitin 2015, Bruksel, 10.11.2015, SWD(2015) 213 final, pg. 68.

¹² Komisioni Evropian, Dokument Pune i Stafit të Komisionit, Raporti i Progresit të Shqipërisë për vitin 2019, Bruksel, 29.5.2019 SWD(2019) 215 final, pg. 91.

¹³ Agjencia Kombëtare e Mjedisit, Raporti i gjendjes në mjedis, 2017, pg. 14.

¹⁴ Ibid.

rail vehicles, aircraft, external and industrial equipment, mobile vehicles and so on.¹⁵ The main focus of the European Union's noise policy is to reduce noise through the use of mandatory technical standards for products. The most important legal remedies consist of a set of directives that set the noise emission limits for specific products: motor vehicles, motorcycles, aircraft, household appliances and outdoor equipment.¹⁶

In line with its main aims, Directive 2002/49/EC applies to noise, to which people are exposed, especially in residential areas, public parks or other quiet areas where there are crowding, near schools, hospitals, in other noise-sensitive areas and buildings. The Directive does not apply to noise caused by the exposed person himself, noise from indoor activities, noise generated by neighbors, noise at workplaces or noise inside vehicles or due to military activities in military areas. Some excluded areas, e.g. regarding noise at home are guaranteed by other policy instruments, both at national and EU level, such as those related to health and safety at work.¹⁷

3. The main sources that cause noise in the environment

The main sources of noise generation in the environment are: transport (road, air, rail); social service activities (nightclubs and discos, bars, restaurants); equipment and machines (metal processing, metal cutting, saws, generators, electric motors, compressors, pneumatic hammers, etc.).¹⁸

a) Road transport. Road transport in Albania constitutes the main sector of transport in terms of inland transport of goods and people. This includes the transport of goods throughout the country, including exports and imports. Pursuant to the law on noise management in the environment, vehicles must be audited for noise levels in the environment and the Ministers responsible for the environment and transport must draft and approve the appropriate guidance on the procedures for the auditing and technical control of vehicles for noise.¹⁹ Noise monitoring should be part of the national monitoring scheme and, in accordance with the relevant methodologies, select the most representative points to enable data collection and processing.

In compliance with the law on administration and evaluation of environmental noise as regards the transport sector lacks legal basis related to technical control procedures of noise from vehicles, lacking the appropriate instruction for this purpose. There is also a lack of guidance on the technical control of new vehicles that must be equipped with the relevant environmental noise emission level certificate before being introduced into the market.

Legal changes are also required in legislation related to noise monitoring in the environment and the designation of indicators and sources that generate noise that should be part of the monitoring process. Improvements and interventions should also be made in the road code and the law on road transport. These changes should also affect the specific requirements for road traffic noise rules. For this purpose, it is necessary to anticipate the interference in road signaling and to include noise-related signals as well as to set these signals at specific points.

b) Air transport. Air transport in Albania is operational only in Tirana and is intended for civil transport only.²⁰ The Kukes airport is currently completed, which has not started yet but may start in the future. Air transport is one of the sectors with significant increases in both the number of flights and passengers. These two factors are sufficient to conclude that it is a sector to which special attention should be paid. Although the monitoring system indicates permissible noise levels

¹⁵ Raporti "Vlerësimi i prevalencës së çrregullimeve të gjumit dhe bezdisjes së popullatës nga zhurmat e trafikut urban, në qytetet kryesore të Shqipërisë", pg. xxii. Marrë nga adresa <http://www.ishp.gov.al/wp-content/uploads/2015/04/Raporti-i-vleresimit-te-crregullimeve-te-gjumit-dhe-bezdisjes-sepopullates-nga-zhurma-e-trafikut-rrugor.pdf>. (consulted on Aktesuar më 30.07.2019).

¹⁶ Regional Environmental Center and Umweltbundesamt GmbH, Handbook on the Implementation of EC Environmental Legislation, 2008, pg. 1031.

¹⁷ Raporti "Vlerësimi i prevalencës së çrregullimeve të gjumit dhe bezdisjes së popullatës nga zhurmat e trafikut urban, në qytetet kryesore të Shqipërisë", pg. xxiv. Marrë nga adresa <http://www.ishp.gov.al/wp-content/uploads/2015/04/Raporti-i-vleresimit-te-crregullimeve-te-gjumit-dhe-bezdisjes-sepopullates-nga-zhurma-e-trafikut-rrugor.pdf>. (consulted on 30.07.2019).

¹⁸ Plani Kombëtar i Veprimt për Menaxhimin e Zhurmave në Mjedis, Tiranë 2010, pg. 6.

¹⁹ Ibid., pg. 7.

²⁰ Ibid., pg. 16.

this is not sufficient to justify the measures taken to date. For this sector it is necessary to make the assessment of the population exposed to these noises and especially the residents of neighboring areas as well as sensitive institutions from noise such as schools, nurseries, kindergartens etc.

c) Rail transport. Albania has a 447 km railway network, which lies on the north-south axes and the east-west axis. The railway lines connect the main cities of Albania and specifically, the cities of Vlora, Fier, Lushnje, Kavaja, Durres, Tirana, Lezha, Shkodra, Elbasan, Pogradec.²¹ The rail network and the noise it causes results in a dense urban area and under its influence is a population that reaches a considerable level. Estimating the number or frequency of train movements in line with EU directives shows that they are at low levels. Considered also in other aspects related to the technical condition of the railways and trains, it results that the noise generated by this sector, although compared to the European Union countries and the noise directive are relatively low, still the noise generated is relatively high.

d) Public Services Sector. The public services sector also constitutes the most problematic sector of noise generation after road transport. This is due to their location near urban centers as well as to the time of noise they generate. These activities are for the most part licensed by local government units and in the licensing terms there are no specific requirements for the permissible level of noise that they must observe. The requirement for environmental permit equipment is provided only by the law on environmental noise management. The law provides not only the allowed noise levels but also the allowed hours. Disciplining this sector as the most problematic in noise generation in the environment requires some concrete steps to be taken.

e) Equipment and machinery. Noise generated by machinery and especially various equipment is another area where specific measures are required to manage the noise at their source. The industrial sector includes many industrial activities that generate noise but in our country this sector is very limited and therefore the noise generated by it are inconsiderably. The most important and at the same time the most problematic part remains the noise generated by the equipment that has been exposed in public places.

4. Consequences of environmental noise on population health

Environmental noise is a threat to public health, which causes adverse effects on human health and well-being.²² The health impacts of environmental noise are a growing concern for the general public as well as policymakers in Europe. Environmental noise is defined as the noise emitted from all sources except industrial activity. The EU Directive on environmental noise management adds industrial zones as sources of environmental noise.²³ The health effects of noise pollution are divided according to specific effects: nuisance, sleep disorders, communication interference, decreased performance, risk for cardiovascular disease, hearing loss, etc.

Noise disturbs sleep through direct and indirect pathways. Even at very low levels, the physiological responses (increased heart rate, body movements and awakenings) can be measured reliably. It has also shown that arousal reactions are rare, but occurring at a higher level than physiological reactions.²⁴

Social and behavioral effects include: changes in daily behavioral patterns (eg, closed windows, listening to TV and Radio aloud); negative changes in social behavior; negative changes in social indicators (movement of residents, hospitalization, drug consumption, accident cases); and the changes in mood.²⁵

²¹ Plani Kombëtar i Veprimit për Menaxhimin e Zhurmave në Mjedis, Tiranë 2010, pg. 22.

²² Raporti "Vlerësimi i prevalencës së çrregullimeve të gjumit dhe bezdisjes së popullatës nga zhurmat e trafikut urban, në qytetet kryesore të Shqipërisë", pg. v. Marrë nga adresa <http://www.ishp.gov.al/wp-content/uploads/2015/04/Raporti-i-vleresimit-te-çrregullimeve-te-gjumit-dhe-bezdisjes-sepopullates-nga-zhurma-e-trafikut-rrugor.pdf>. (consulted on 30.07.2019).

²³ Ibid., pg. vi.

²⁴ Ibid., pg. vii.

²⁵ Raporti "Vlerësimi i prevalencës së çrregullimeve të gjumit dhe bezdisjes së popullatës nga zhurmat e trafikut urban, në qytetet kryesore të Shqipërisë", pg. viii. Marrë nga adresa <http://www.ishp.gov.al/wp-content/uploads/2015/04/Raporti-i-vleresimit-te-çrregullimeve-te-gjumit-dhe-bezdisjes-sepopullates-nga-zhurma-e-trafikut-rrugor.pdf>. (consulted on 30.07.2019).

Epidemiological data show that those who are chronically exposed to high levels of environmental noise have an increased risk for cardiovascular disease such as myocardial infarction. Thus, acoustic pollution is considered for man not only an environmental annoyance but also a threat to public health.²⁶

Noise nuisance is accepted as an environmental noise effect that can be taken as a basis for assessing the impact of noise on the exposed population. Public health experts believe that severe forms of noise annoyance are considered important environmental issues, affecting well-being and quality of life.²⁷

5. Conclusions

Experts of the field agree that the involvement of institutions in reducing the noise level is low, but according to them is also important civic engagement. A phased program on noise reduction should be implemented, especially in specific environments such as schools, housing, hospitals, etc. Proper consideration of noise levels is about their discipline, the prevention of polluting effects and their environmental adaptation. Nervous disturbances, stress, insomnia and cases of its reduction are associated with noise. Traffic noise is a major concern of urban cities and noise reduction is achieved by efficiently adjusting traffic levels, acoustic screens, green spaces, etc.

Measures to reduce the impact of noise on Albania's urban community should be given high priority. For this purpose, work should be strengthened to implement the standards set for the urban noise and continuous monitoring of them; provision of facilities and measures to reduce urban noise should be promoted as (providing green protective belt and planted with trees spaces between residential areas and the main road, one of the most eco-friendly measures to reduce pollution, to be determined by regulation the distances between roads and housing, to attempt to reduce the noise in the design of new buildings, where the orientation of the bedrooms are on the quiet side of the building becomes noise insulation in windows exposed to it; improve and intervene in the road code; improve urban governance through increased transparency and accountability for the successful implementation of all urban management and planning policies; educating the public is the most important requirement of society. Noise reduction intervention programs may not succeed without population participation. Modern means of communication should be used to generate mass awareness of the negative impact of noise pollution.

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8. Plani Kombëtar për Veprimet për Menaxhimin e Zhurmave në Mjedis, Tirane 2010.

²⁶ Ibid., pg. xi.

²⁷ Ibid.