

## Noise Pollution: How to Reduce the Impact of an Invisible Threat?

David Bro Day\*

Department of Science and Environmental Health, Universities of Israel, Israel

### Letter To Editor

Noise pollution is generally defined as regular exposure to elevated sound levels that may lead to adverse effects in humans or other living organisms. According to the World Health Organization, sound levels less than 70 dB are not damaging to living organisms, regardless of how long or consistent the exposure is. Exposure for more than 8 hours to constant noise beyond 85 dB may be hazardous. If you work for 8 hours daily in close proximity to a busy road or highway, you are very likely exposed to traffic noise pollution around 85dB [1].

Atmospheric pollution is not the only type of contamination that is harming living beings on the planet. According to the World Health Organization (WHO), it is one of the most dangerous environmental threats to health. And according to the European Environment Agency (EEA), noise is responsible for 16,600 premature deaths and more than 72,000 hospitalisations every year in Europe alone [2].

Rivers honking the horn, groups of workers drilling the road surface, aircraft flying over us in the sky. Noise, noise and more noise. Cities have become the epicentre of a type of pollution, acoustics, which, although its invisibility and the fact that coronavirus crisis reduced it until almost yearn it, is severely damaging to human beings. So much so that the European Environment Agency estimates that noise is responsible for 72,000 hospital admissions and 16,600 premature deaths every year in Europe alone [3].

Not only does it hurt humans, it is bad for animals, too. According to the National Park Service (NPS) in the United States, noise pollution has an enormous environmental impact and does serious damage to wildlife. Experts say noise pollution can interfere with breeding cycles and rearing and is even hastening the extinction of some species [4].

Not all sound is considered noise pollution. The World Health Organization (WHO) defines noise above 65 decibels (dB) as noise pollution. To be precise, noise becomes harmful when it exceeds 75 decibels (dB) and is painful above 120 dB. As a consequence, it is recommended noise levels be kept below 65 dB during the day and indicates that restful sleep is impossible with night time ambient noise levels in excess of 30 dB.

International bodies like the WHO agree that awareness of noise pollution is essential to beat this invisible enemy. For example: avoid very noisy leisure activities, opt for alternatives means of transport such as bicycles or electric vehicles over taking the car, do your housework at recommended times, insulate homes with noise-absorbing materials, etc. Educating the younger generation is also an essential aspect of environmental education [5].

Governments can also take measures to ensure correct noise management and reduce noise pollution. For example: protecting certain areas — parts of the countryside, areas of natural interest, city parks, etc. — from noise, establishing regulations that include preventive and corrective measures — mandatory separation between residential zones and sources of noise like airports, fines for exceeding noise limits, etc. —, installing noise insulation in new buildings, creating pedestrian areas where traffic is only allowed to enter to offload goods at certain times, replacing traditional asphalt with more efficient options that can

reduce traffic noise by up to 3 dB, among others [6].

Many people don't realise noise pollution is an important problem, impacting human health, including theirs. Of course, there are many more premature deaths associated with air pollution than for noise. However, noise seems to have a larger impact on indicators related to quality of life and mental health. In fact, according to some World Health Organization (WHO) findings, noise is the second largest environmental cause of health problems, just after the impact of air pollution (particulate matter) [7].

In some countries, there is still a high percentage of data missing in terms of noise maps and action plans. Noise problems cannot be properly evaluated and addressed if countries, regions and cities don't produce the noise maps or the action plans required by the directive [8].

Our oceans are no longer quiet. Thousands of oil drills, sonars, seismic survey devices, coastal recreational watercraft and shipping vessels are now populating our waters, and that is a serious cause of noise pollution for marine life. Whales are among the most affected, as their hearing helps them orient themselves, feed and communicate. Noise pollution thus interferes with cetaceans (whales and dolphins) feeding habits, reproductive patterns and migration routes, and can even cause haemorrhage and death [9].

The World Health Organization estimates that one out of three people in Europe is harmed by traffic noise. More than the purely medical effects of noise pollution on the individual, there is a significant social and economic impact. Since noise pollution leads to sleep disturbance, it affects the individual's work performance during the day, it leads to hypertension and cardiovascular disease and costs the health system additional time and money, and it negatively affects school performance in children [10].

### Acknowledgement

None

### Conflict of Interest

None

### References

1. Goines L, Hagler L (2007) Noise pollution: a modern plague. *South Med* 100(3): 287-294.

\*Corresponding author: David Bro day, Department of Science and Environmental Health, Universities of Israel, Israel, E-mail: David.Brodaj@gmail.com

**Received:** 05-Apr-2022, Manuscript No. EPCC-22-61111; **Editor assigned:** 07-Apr-2022, Preq No. EPCC-22-61111 (PQ); **Reviewed:** 14-Apr-2022, QC No. EPCC-22-61111; **Revised:** 18-Apr-2022, Manuscript No. EPCC-22-61111(R); **Published:** 25-Apr-2022, DOI: 10.4172/2573-458X.1000276

**Citation:** Day DB (2022) Noise Pollution: How to Reduce the Impact of an Invisible Threat? *Environ Pollut Climate Change* 6: 276.

**Copyright:** © 2022 Day DB. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

2. Menkiti NU, Agunwamba JC (2015) Assessment of noise pollution from electricity generators in a high-density residential area. *African J Sci Technol Innov Dev* 7(4): 306-312.
3. Casey JA, Morello Frosch R, Mennitt DJ, Fristrup K, Ogburn EL, et al. (2017) Race/Ethnicity, Socioeconomic Status, Residential Segregation, and Spatial Variation in Noise Exposure in the Contiguous United States. *Environ Health Perspect* 125(7): 077017.
4. Münzel T, Schmidt FP, Steven S, Herzog J, Daiber A, et al. (2018) Environmental Noise and the Cardiovascular System. *J Am Coll Cardiol* 71(6): 688-697.
5. Hoffmann B, Moebus S, Stang A, Beck EM, Dragano N, et al. (2006) Residence close to high traffic and prevalence of coronary heart disease. *Eur Heart J* 27(22): 2696-2702.
6. Codarin A, Wysocki LE, Ladich F, Picciulin M (2009) Effects of ambient and boat noise on hearing and communication in three fish species living in a marine protected area (Miramare, Italy). *Mar Pollut Bull* 58(12): 1880-1887.
7. Kerns E, Masterson EA, Themann CL, Calvert GM (2018) Cardiovascular conditions, hearing difficulty, and occupational noise exposure within US industries and occupations. *Am J Ind Med* 61(6): 477-491.
8. Paul KC, Haan M, Mayeda ER, Ritz BR (2019) Ambient Air Pollution, Noise, and Late-Life Cognitive Decline and Dementia Risk. *Annu Rev Public Health* 40(1): 203-220.
9. Charifi M, Sow M, Ciret P, Benomar S, Massabuau JC, et al. (2017) The sense of hearing in the Pacific oyster, *Magallana gigas*. *PLOS ONE* 12(10): e0185353.
10. Ong J (2014) Making Operative Concepts from Murray Schafer's Soundscapes Typology: A Qualitative and Comparative Analysis of Noise Pollution in Bangkok, Thailand and Los Angeles, California. *Urban Stud* 53(1): 173-192.