

NOISE IN EUROPE, SOME OBSERVATIONS BY CITIES

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The Environmental Noise Directive is already 15 years into force, and two round on noise mapping and noise action planning have been done. The third round is in progress and should have been completed end of last month (June 2017) when considering the third-round noise map. From the reports published by the European Environmental Agency, it is known that many people in Europe are exposed to noise and are suffering from sleep deprivation and perceive annoyance. Although one cannot compare the findings between the Member States or cities very accurate, due to the noise calculation methods used, a complete view of the magnitude can be estimated. From the noise maps, the so-called hotspots are derived. Noise Action Plans are drafted to reduce the noise levels or the number of exposed people in these hotspots. However, a first glimpse of the Noise Action Plans sent in learns that these plans are rather strategical and not SMART. The plans reviewed are quite poor, hardly containing concrete measures. And even when containing concrete measures, it has been observed that implementation of those measures is delayed, postponed and even omitted. These adverse phenomena do have, to the opinion of the author, a strong political component. It is not the technique, nor the budgets or practical constraints but it is a lack of political will and priority. This paper gives some observations related to the lack of political support and how to work on it to get noise higher on the political agenda

1. Introduction

Around 65% of the European citizens living in urban areas are exposed to noise levels higher than 55 dB L_{DEN} and approximately 20% of the Europeans are exposed to 50 dB L_{NIGHT} . These percentages are derived from the noise observatory [1]. The noise levels above 55 dB L_{DEN} and 50 L_{NIGHT} will lead to adverse health effects. During the meetings of Working Group Noise EUROCI-TIES the progress, problems and constraints met during noise mapping and noise action planning according to the directive 2002/49/EC relating to the assessment and management of environmental noise (abbreviated further as END) was always on the agenda. In this paper, a brief overview of the most important subjects will be discussed.

2. General observations

As already expressed by many experts, the objectives of the END has brought a rather good view of the noise exposure in EU28⁺. Although some information is not delivered yet by the Member States, a very reliable estimation can be made of the number of people exposed during the day, evening and night. As mentioned in the introduction, 65% of the residents in urban are exposed to noise levels higher than 55 dB L_{DEN} . Nowadays about 70% of the Europeans live in urban areas (cities and suburbs), and by 2050 it is expected that approximately 80% of the Europeans will live in urban areas. This means that almost 400.000 million Europeans are exposed to noise levels higher than 55 dB L_{DEN} and that a substantial share of those Europeans is under threat due to the long-

term exposure to noise levels of 55 dB L_{DEN} and higher. In the case of road traffic noise, even noise levels above 70 dB L_{DEN} are observed in cities. See figure 1.

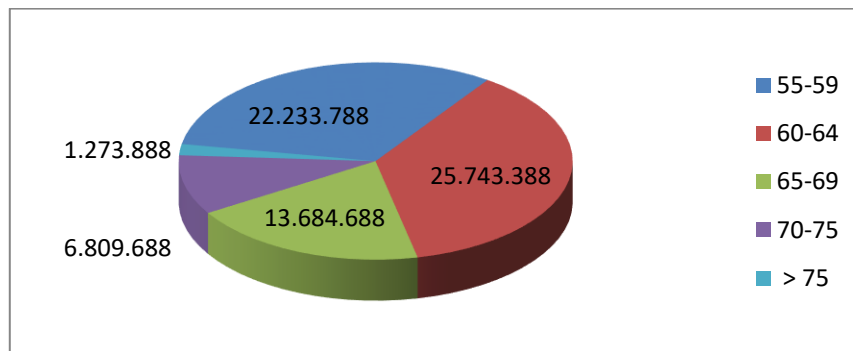


Figure 1: shares of people exposed to road traffic noise (source: noise observatory)

There is still some room for improvement of the END and the implementation of it by means of noise mapping and noise action planning. Items that need more attention in the END implementation are already mentioned in the position paper of EUROCITIES drafted during the first evaluation of the END [2] and are:

1. More focus on noise reduction at the source is needed resulting in achieving a more balanced approach between noise mitigation actions by EU and actions planned or executed by the competent bodies designated.
2. The different definition of agglomeration between countries needs to be solved by defining the term agglomeration more precisely.
3. More synergies between noise action planning and other issues, e.g. air quality, green solutions (bio-diversity), energy, climate and traffic safety are wanted. By combining the mitigation actions in multiple domains the better the quality of life.
4. There should be a target for reducing environmental noise exposure to high noise levels in Europe, relating to the number of people exposed to high noise levels.
5. The good practice guide on noise mapping needs to be updated.
6. Military sites should be included in the END, by presenting the noise contours on the map and the effects of noise reducing measures.
7. The local authorities need more support from the national level and the coordinator.
8. More attention is needed to low frequency noise linked to annoyance.
9. Socio-economic costs and costs for health effects should also be included in action plans.
10. There is a lack of political will at the local level to allocate resources for noise measures.
11. Similar to the circular economy approach a partnership with cities and other partners is needed to improve knowledge, legislation and expertise.

Regarding point 10, it was observed that there is a lack of political will at the local level to allocate resources for noise measures. Whilst the numbers mentioned above are huge, it was found that politicians and policy makers were reluctant to come up with mitigation plans. Numerous reasons have been found for inaction or insufficient action like budget constraints, other priorities (air quality, energy transitions, social issues, etc.) and urgent matters dominating the political agenda. Also, the time needed to implement measures (longer than 4-5 years) did not contribute to an active noise mitigation policy. In [3,4] a series of measures is given how to gain awareness among politicians and policy makers. In brief, making connections between the noise domain and the other domains (air quality, climate change, energy, mobility, etc.) and also publishing articles on noise and noise effects destined for laymen readers. For instance, by publishing in family- or lifestyle magazines.

By gaining awareness in citizens and activating them, residents will develop a political voice which is key towards politicians, because they cannot neglect the voter's voices.

However, Working Group Noise members also reported that consulting the public according to article 8.7 of the END was not successful due to the low numbers of participants during the hearings organised or the internet consultations. Article 8.7 obliges the authorities the next:

“Member States shall ensure that the public is consulted about proposals for action plans, given early and effective opportunities to participate in the preparation and review of the action plans, that the results of that participation are taken into account and that the public is informed on the decisions taken. Reasonable time-frames shall be provided allowing sufficient time for each stage of public participation. “

In the next paragraph, an analysis is made to discover the reasons why people did not participate in the consultation and remained inactive.

3. Analysis inaction residents

The reasons for the inaction of the residents are often:

- Governments tend to inform their citizens rather than consult, asking for advice or involve them or see them as “co-decisioners”.
- Information published by the government is often interspersed with official terms and/or woolly.
- Among citizens, a lot of distrust in government is found, from (4) was found that only 27% of the EU citizens trust their national government. About 31% of the people have trust in the European Union. Regarding the trust in local government, (5) reports that only 43% of the European people tend to trust the local and regional governments. Denmark, Sweden, Luxemburg, Germany and Finland are front runners. More than 60% of their population tend to trust these governments. In Spain, Hungary, Italy and Serbia the lowest trust is found, around 20% or lower tend to trust these governments.
- Obstacles in citizens like low education, language fluency, living circumstances and dealing with other (major) concerns according to Maslow.
- Self-efficacy self-assessment regarding the ability to change behaviour; some people do not believe in their strength to complete their tasks or reach their goals
- Influence social environment (etiquette or unwritten rules of behaviour/descriptive or current norms or follow the flock).
- Lack of time, lack of money, lack of interest, lack of information
- Influence of the physical infrastructure (e.g. no public transport available).

4. How to make residents act, some theory

Mobilising residents on is a tough job, especially mobilising them for the noise dossier. Changing attitudes and behaviour of citizens needs a tailor-made approach. From the literature and also some practices, it is known that often a combination of soft measures and vigorous interventions are needed (carrot and the stick). Governments should be active and set policies in place to force, invite and to entice the public. However, this contradicts with which was mentioned previously, because an important share of people does not trust authorities. This implies that governments have almost an impossible task to fulfil. On the one hand, because of the distrust and on the other hand by raising awareness among citizens implementation of policies could fear more opposition. Governments have to operate quite subtle and also seek for a good balance.

The suggestions to amplify interest in noise among policy makers and politicians are to realise connections between noise annoyance and health, connections between noise and other environmental issues, connections with the media (family and health magazines), connections between the public and policy, connec-

tions between the different levels of policy and make use of policy windows (incidents, political earthquakes, etc.).

However, that is just the beginning. Having generated interest among policy makers and politicians does not mean that actions will be taken. More is needed, new policies that are enforced by incidents or societal, electoral or political pressure. This can be achieved by mobilising the public and pressure groups that have noise high on the agenda. It can also be achieved by persuading the policy makers and politicians. Mobilising the public can be done by means of the traditional and the social media. Informing them about the irreversible health effects of long-term noise exposure and also about the economic losses at the individual as societal level. Citizens can be persuaded to vote for green parties or policies. Also, coalition building after the election could help to prioritise noise at a higher level. When it comes to citizens, it is key to realise that governments are not the ideal marketers because of the reasons mentioned in paragraph 3. When governments want to initiate behaviour change in citizens, they could consider to split the approach in soft interventions and interventions that are more vigorous. The soft interventions could be commissioned to an external party (preferably an NGO or scientific institute), the more vigorous interventions should be done by the government. Both partners (government and the external party) should make efforts to enhance the motivation of citizens or groups and reduce resistance and obstacles. It must be realised that there are different target groups which different motives, needs, behaviour, etc. Ergo, a one size fits all approach is doomed to fail, a tailor-made approach is needed. One should determine the current behaviour of the target group(s) determining their habits, attitudes, norms, values and self-efficacy. Knowing these factors, one can work on behaviour change. Numerous methods to develop these interventions and approaches such as Intervention Mapping (IM), the PATH and BIT methodology are available. Once having developed the approach, it recommends testing this before implementing this in a broader context.

5. Conclusions

Citizens can play a crucial role, at individual or group level, when having a political voice. Evoking this political voice and make them aware that they can make the difference this can be used in awakening and stimulating politicians and politicians to show interest in noise. Citizens that have acquired a political voice and act cannot be ignored by politicians and policymakers. Besides adding useful thoughts and ideas for reducing the noise in their immediate environment, citizens holding a lot of knowledge (citizen science) can be useful and valuable when mitigating the noise and annoyance. A bottom-up approach is giving citizens a pivotal role in improving the quality of life, which is crucial. It does not only improve the acoustic environment but also contributes to democracy; it results in ownership.

REFERENCES

- 1 <http://noise.eionet.europa.eu/viewer.html>
- 2 EUROCITIES Position Paper on the END, Brussels (2009)
- 3 Souren et al., Towards sound agenda setting (2009)
- 4 Wolfert et al., How to gain public interest in noise, Lisbon, INTERNOISE (2010)
- 5 EUROBAROMETER (2014)
- 6 EUROSTAT (2014)