

QUIET AREA: WHAT PEOPLE THINK OR SAY IN THE PARTICIPATION PROCESS

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Abstract

According to the Environmental Noise Directive, Article 3, Noise Action Plans within and out of agglomerations shall include strategies to protect so called Quiet Areas against increasing noise in the future. The END applies to environmental noise in public parks or other quiet areas in agglomerations and quiet areas in the open country. The END does not define criteria how to identify quiet areas. In contrary to some other European countries such as Great Britain, Italy or Norway, there are no state-set limits or recommendations for limits in Germany. The responsibility for the definition of quiet areas in Germany lies with the local authorities in cities and local communities. In Hamburg, in the course of action planning and participation of the public, the public was invited to define quiet areas in the surroundings of their urban quarters and to characterize these areas in terms of quietness. As it turned out, many of the named "quiet areas" were affected by all kinds of environmental noise, but many complaints were also made about noise by growing numbers of public events in public parks.

Keywords: Quiet areas, public parks, participation, public

1 Introduction

According to the Environmental Noise Directive, Article 3, Noise Action Plans within and out of agglomerations shall include strategies to protect so called Quiet Areas against increasing noise in the future. The END applies to environmental noise in public parks or other quiet areas in agglomerations and quiet areas in the open country. The END does not define criteria how to identify quiet areas. In contrary to some other European countries such as Great Britain¹, Italy or Norway, there are no state-set limits or recommendations for limits in Germany. The responsibility for the definition of quiet areas in Germany lies with the local authorities in cities and local communities. In the City of Hamburg, the participation process according to the END, included workshops on so-called quiet areas.

¹ See for example DEFRA (Department for environment, food and rural affairs): Research into quiet areas. Recommendations to identification. UK 2006.

The Free and Hanseatic City of Hamburg is situated in Northern Germany. Its population is 1,78 Mio people within the city bounds and about 3,5 Mio in the whole metropolitan area. To encourage young professionals and companies to settle down in Hamburg, the Senate of Hamburg has passed some years ago an urban concept called "The Growing Metropolitan Area". This concept includes a long-termed strategy for urban development and economic growth. The HafenCity, for example, is a major urban expansion project currently being undertaken by the city with in former harbour areas. Another project is the so called "Leap across the Elbe River" aiming at developing the southern part of the city which has been neglected for long periods by politics and urban planners. An important factor in the economic situation is the Hamburg Harbour with about 100.000 jobs connected with it. Hamburg's airport with more than 50.000 flights per year is another important economic factor. Both harbour and airport are situated inside the borders of the city affecting large parts of the city with aircraft noise and traffic noise going to and coming from the harbour. Beside its dynamic economic side, Hamburg is also called the "Green Metropolis" with its many parks, its water front, its agricultural used areas and its forest land. Of its 755 km², 8,2 % are recreational areas or public parks, also 6% forest and 8,7 % water (see table 1). In the 1980ties, the "Green net" was created which includes until today a system of green belts and routes connecting parks, open areas and recreational areas. Also, Hamburg is awarded "Green Capital 2011" by the EU-Commission because of the City's commitment towards a "green vision". The Commission stated "that Hamburg has many innovative ideas on how to share experience and best practice".

Type of land use	Percent of total
Buildings	37,2 %
Recreation, Parks	8,2%
Traffic, Infrastructure	12,2
Wood	6,2
Water	8,7
Agriculture	24,0%
Total	100%

Source: Statistikamt Hamburg-Nord 2008

2 Legal Background

The legal background of the implementation of the noise abatement measures is based on the Directive 2002/49/EC on ambient noise (entered into force 2002-06-25), which has been transposed into German legislation in 2005 (part six of the Federal Immission Control Act (Bundes-Immissionsschutzgesetz = BImSchG) titled "Lärmminderungsplanung" including the articles 47a to f. Quiet areas are referred to in BImSchG §47d, 2.

3 Hamburg`s strategy

According to German legislation, § 47d Abs. 2 BImSchG, one of the aims of action planning is to protect quiet areas from the increase of noise in the future in agglomerations and in the open country. Responsible for this is the community. There is no common definition in use how to define so called quiet area. Recommendations range from 45 dB(A) to 55 dB(A). Another problem is the summation of different noise sources by which quiet areas might be exposed. Also the definition of quiet areas by acoustical criteria needs overall noise mapping which is not everywhere the case. Additionally, the definition of "quietness" is very much dependent on subjective criteria. When people talk about "quiet areas", the recreational quality with green, water, and others of these areas are at least just as important as acoustical quietness

In agglomerations like Hamburg, most "quiet areas" are exposed by noise loads usually higher than 55 db(A). About 561.100 persons and therefore approximately 31 percentage of citizens of the Free and Hanseatic City of Hamburg are affected by environmental noise more than 55 dB(A) $L_{\text{DEN}.}$



Figure 1 – The City of Hamburg and its seven districts.

Hamburg decided to have two steps of action planning. In the first step a strategic action plan for the whole area of the city was elaborated. In the second step of action planning, local strategies are developed in all of the seven districts. One major strategy in this second step is the information and participation of the public in a very early phase of action planning, that means before any actions and measurements have been developed by the city. Participants of public meetings were asked to define quiet areas in their surroundings and to characterise these areas in respect to their special qualities or deficits.

4 Proceedings and results

In 2009 and 2010, nine public meetings in different places took place. The public was invited by posters, newspapers and email-invitations for this event. On an average, 80 to 120 people participated. The meetings started at 5 p.m and ended at about 9.00 p.m. For introduction,

the aims of the action planning process were introduced by a representative of the city. Additionally, a noise expert gave a presentation about noise and its effects and possible noise mitigation strategies. As it turned out it was very important to give these informations before starting the discussion. In adjoining working groups, participants were asked to localize quiet areas on a map and to give some description of these areas why they think these areas should be defined as quiet areas.



Figure 2 – Public participation sessions.

There were four working groups in each public meeting: Besides the subject of quiet areas, road noise, train noise and aircraft noise could be discussed. In each of the public meetings, most participants went into the road noise working group whereas the groups working on quiet areas were attended usually by fewer participants. Nevertheless, the discussions in these groups were very effective and gave some very important and new insights on the subject of quiet areas. The results of the participation process are evaluated by a team of noise experts currently and the conclusions will be presented to the public again. The answers point out to the fact that irrespective of acoustic criteria, public parks as quiet areas have to meet mainly the following requirements: Quiet areas inside agglomerations ("city oasis's") should be close to their homes and easily reachable, they have to have green areas with trees, lawn, walking paths and playing grounds. Also, to a great extend there are increasing numbers of persons who are annoyed by frequent public events (concerts, public parties, open cinema etc.) in "quiet areas". As it turns out, the question is not only to protect quiet areas in agglomerations from noise in the future, but how to reduce already existing noise exposures in these areas.

5 Conclusions

Environmental noise is only one criterion among many others when people describe the quality of a quiet area inside an agglomeration. It seems that most people are aware of the fact that inside an agglomeration the total absence of noise is not realistic, but they estimate to a very far extent when noise in these areas is avoidable or not. One major annoying fact which was mentioned in almost all of the public meetings was noise caused by music events or other entertainment activities. This seems to be a factor of immense importance to affect people in their judgments of the quietness of an area but which is not covered by the Environmental Noise Directive. There needs to be more research about how to actually reduce noise in existing quiet areas inside agglomerations.

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