

inter.noise 2000

*The 29th International Congress and Exhibition on Noise Control Engineering
27-30 August 2000, Nice, FRANCE*

I-INCE Classification: 0.0

COMMUNICATING NOISE TO THE PUBLIC WITHOUT TALKING IN TECHNICAL JARGON

C. Popp

LAERMKONTOR GmbH, Grosse Bergstrasse 213-217, PoppD-22767, Hamburg, Germany

Tel.: ++49 40 38 99 94.0 / Fax: ++49 40 38 99 94.44 / Email: c.popp@laermkontor.de

Keywords:

COMMUNICATION NOISE, TECHNICAL JARGON, DECISION-MAKER, CITIZEN

ABSTRACT

It is necessary to describe existing noise situations as well as effects of possible noise control measures with acoustical indicators. But, if one needs positive decisions from stakeholders concerning the needed money for noise abatement measures one has to "translate" acoustical indicators into understandable indicators like affected or annoyed citizens, people suffering from sleep-disturbance and people suffering from health-risk. Another indicator – at least in Germany – is the depreciation of properties and the possible loss of taxes (e.g. income tax or land tax) for the municipalities depending on noise pollution.

1 - PRELIMINARY REMARKS

To be really effective in communicating noise one has to answer the following questions:

1. Which are the target groups for information concerning noise and noise abatement?
 - Decision-makers (e.g. politicians)
 - Staff of administrative authorities
 - Citizens
2. Which kind of information these different target groups really want to get?
 - Overview over existing situations and areas with noise caused conflicts
 - Priority setting and evaluation of proposed noise abatement measures or conceptions
3. On what decision level information has to be available for the different target groups?
 - European Level
 - National Level
 - Regional Level
 - Local Level
4. Which target group specific tools are available to describe noise affection and improvements of different noise situations?

The answers to these questions are given in the following tables based on the example "Noise mapping and action planning" differentiated after the different kinds of wanted information.

2 - TARGET GROUPS – WANTED INFORMATION – PRESENTATION TOOLS

2.1 - Overview over existing situations and areas with noise caused conflicts

	Level	European	National	Regional	Local
	Target group	decision-makers, administration			decision-makers, administration, citizens
Noise Source	Target group specific tools				
road traffic	Not necessary	Map showing the rating level in 25 m distance from the gradient calculated with unhindered propagation (only motorways, major roads, regional roads and county roads)			Noise map in coloured 5-dB-steps calculated with unhindered propagation
railway traffic		Map showing the rating level in 25 m distance from the gradient calculated with unhindered propagation (only international, national and regional railways)			
air traffic		Map showing isophones in 5-dB-steps (only international, national and regional airports)			Map showing isophones in 5-dB-steps
industrial and commercial plants		Noise map in coloured 5-dB-steps calculated with unhindered propagation (only industrial or commercial plants affecting minimum two municipalities)			Noise map in coloured 5-dB-steps calculated with unhindered propagation
sporting grounds		Noise map in coloured 5-dB-steps calculated with unhindered propagation (only sporting grounds affecting minimum two municipalities)			
leisure time grounds		Noise map in coloured 5-dB-steps calculated with unhindered propagation (only leisure time grounds affecting minimum two municipalities)			
addition of all sources		Noise map in coloured 5-dB-steps calculated with unhindered propagation (only for the mentioned sources)			

Table 1.

2.2 - Priority setting and evaluation of proposed noise abatement measures or conceptions

	Level	European	National	Regional	Local
	Target group	decision-makers	decision-makers	decision-makers, administration	decision-makers, administration, citizens
Noise Source	Target group specific tools				
road traffic	Tables or graphs with numbers of affected people and people with health-risk (only motorways and major roads)		Tables or graphs with numbers of affected people and people with health-risk (only motorways, major roads, regional roads and county roads)		Tables or graphs with numbers of affected people, people with health-risk and people suffering from sleep-disturbance
railway traffic	Tables or graphs with numbers of affected people and people with health-risk (only international railway lines)		Tables or graphs with numbers of affected people and people with health-risk (only international, national and regional railways) (only international and national railway lines)		
air traffic	Spots differentiated after numbers of starts and landings (only international airports)		Tables or graphs with numbers of affected people (only national and international, national and regional airports) (only international and national airports)		Tables or graphs with numbers of affected people
industrial and commercial plants	Not necessary		Tables or graphs with numbers of affected people (only industrial or commercial plants affecting minimum two municipalities)		
sporting grounds			Tables or graphs with numbers of affected people (only sporting grounds affecting minimum two municipalities)		
leisure time grounds			Tables or graphs with numbers of affected people (only leisure time grounds affecting minimum two municipalities)		

Table 2.

3 - EXAMPLES OF PRESENTING NOISE WITHOUT USING TECHNICAL JARGON

3.1 - Example 1

- Task: overview over existing situations (comparing of areas)
- Target group: decision-makers (administration)
- Presentation: maps showing the possible land-uses depending on the noise affection

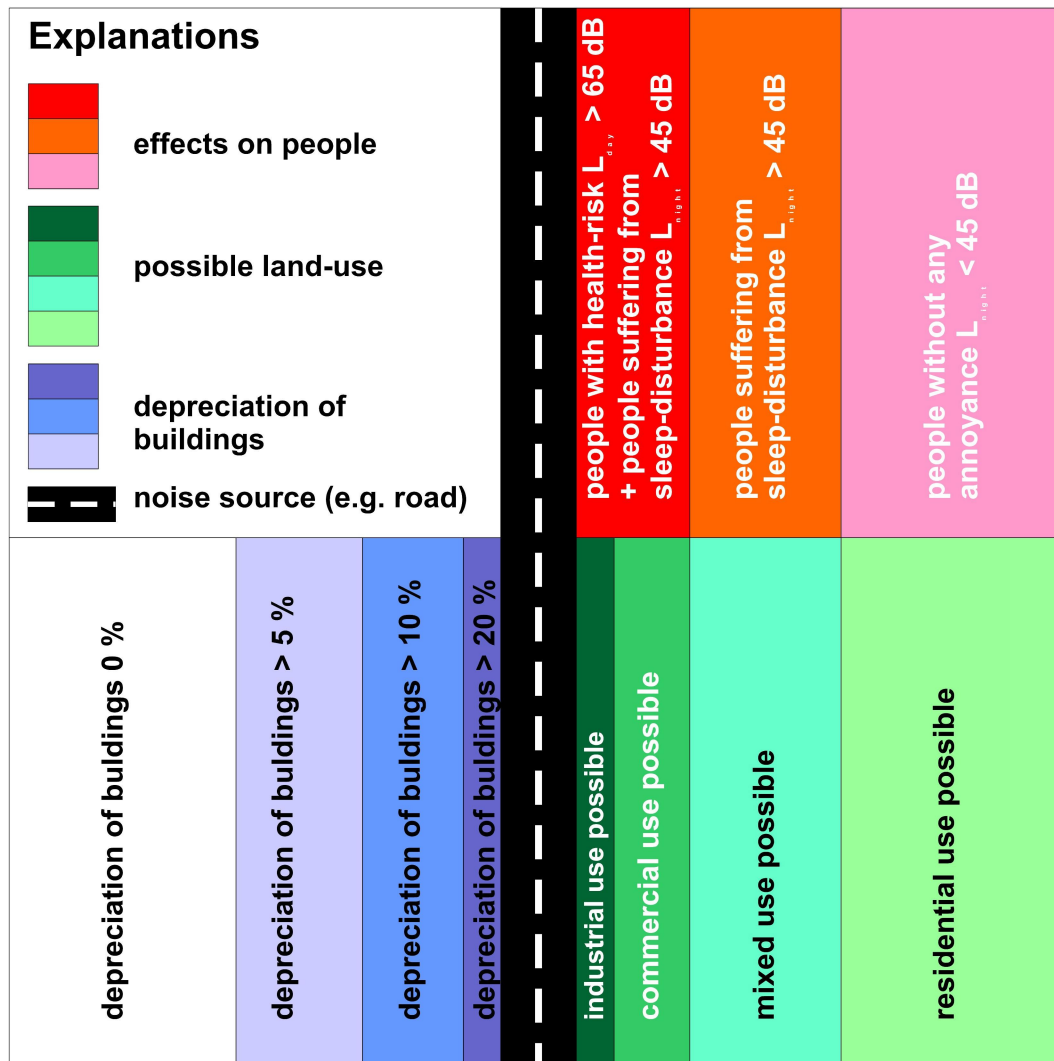


Figure 1: Possible land-uses depending on the noise affection.

3.2 - Example 2

- Task: priority setting (comparing of types of noise sources)
- Target group: decision-makers (administration)
- Presentation: tables with numbers of affected people

Numbers of inhabitants affected by different noise sources		
Type of noise source	Day-time	Night-time
Motorways	350	370
Major roads	280	300
Roads in the responsibility of the federal state	340	360
County roads	470	510
Roads in the responsibility of the municipality	940	1,040
Railways	240	340

Table 3.

3.3 - Example 3

- Task: priority setting (comparing of areas)
- Target group: decision-makers (administration)
- Presentation: tables and graphs with numbers of affected people, people with health-risk and suffering from sleep-disturbance

Affected people, people with health-risk in %

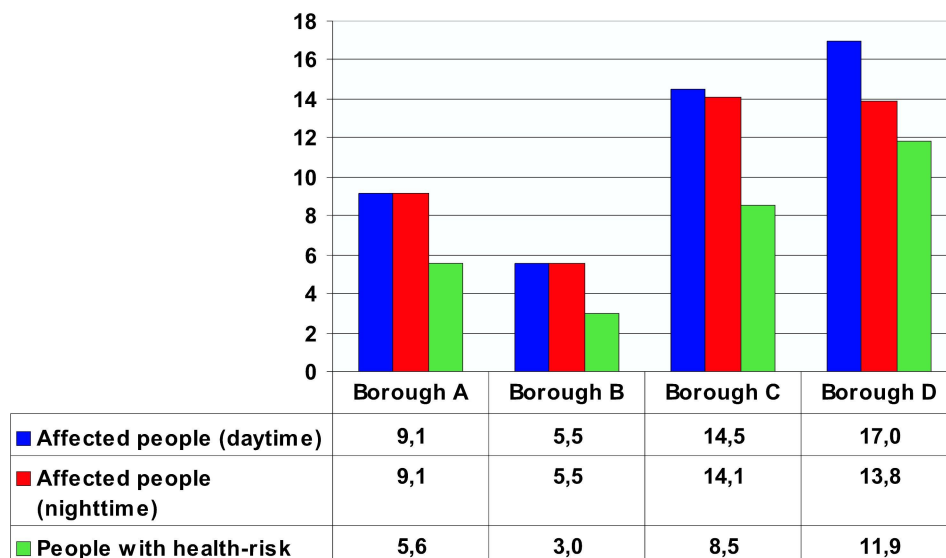


Figure 2: Tables and graphs with numbers of affected people, people with health-risk and suffering from sleep-disturbance.

3.4 - Example 4

- Task: priority setting (ranking of noise sources)
- Target group: decision-makers (administration)
- Presentation: tables with ranks

Road section	Rank
Mayergasse	1
Hoffmannstrasse	2
Mengesboulevard	3
Ratzelallee	4
Brachatweg	5
Weissavenue	6
Folcogasse	7
Am Koegel	8
Zum Bing	9
Gonzalesplatz	10

Table 4.

3.5 - Example 5

- Task: evaluation of noise abatement measures and conceptions
- Target group: decision-makers (administration)
- Presentation: graphs with numbers of affected people

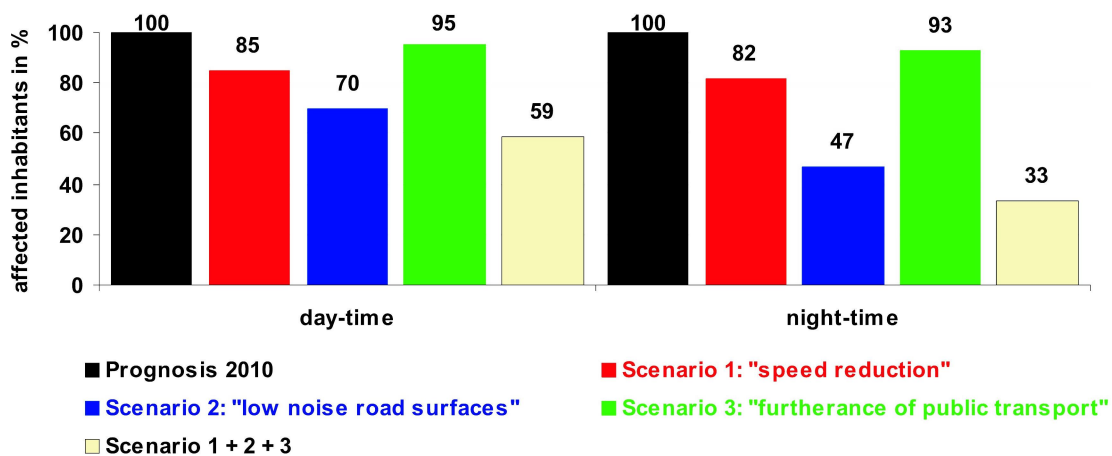


Figure 3: Graphs with numbers of affected people.