

The Environmental Noise Directive (END) requires EU member states to assess exposure to noise from key transport and industrial sources with two initial reporting phases: 2007 and 2012. Where the recommended thresholds for day and night indicators are exceeded, action plans are to be implemented. This country fiche presents data related to END assessments as reported to EEA by 15th April 2016 for the two key END indicators: L_{den} (day evening and night exposure) and L_{night} (night time exposure). 2012 strategic noise maps reported are presented, as well as HIA calculations for annoyance and sleep disturbance, hospital admissions and mortality. Trends are presented as the change in exposure from 2007 to 2012, for comparable sources only.

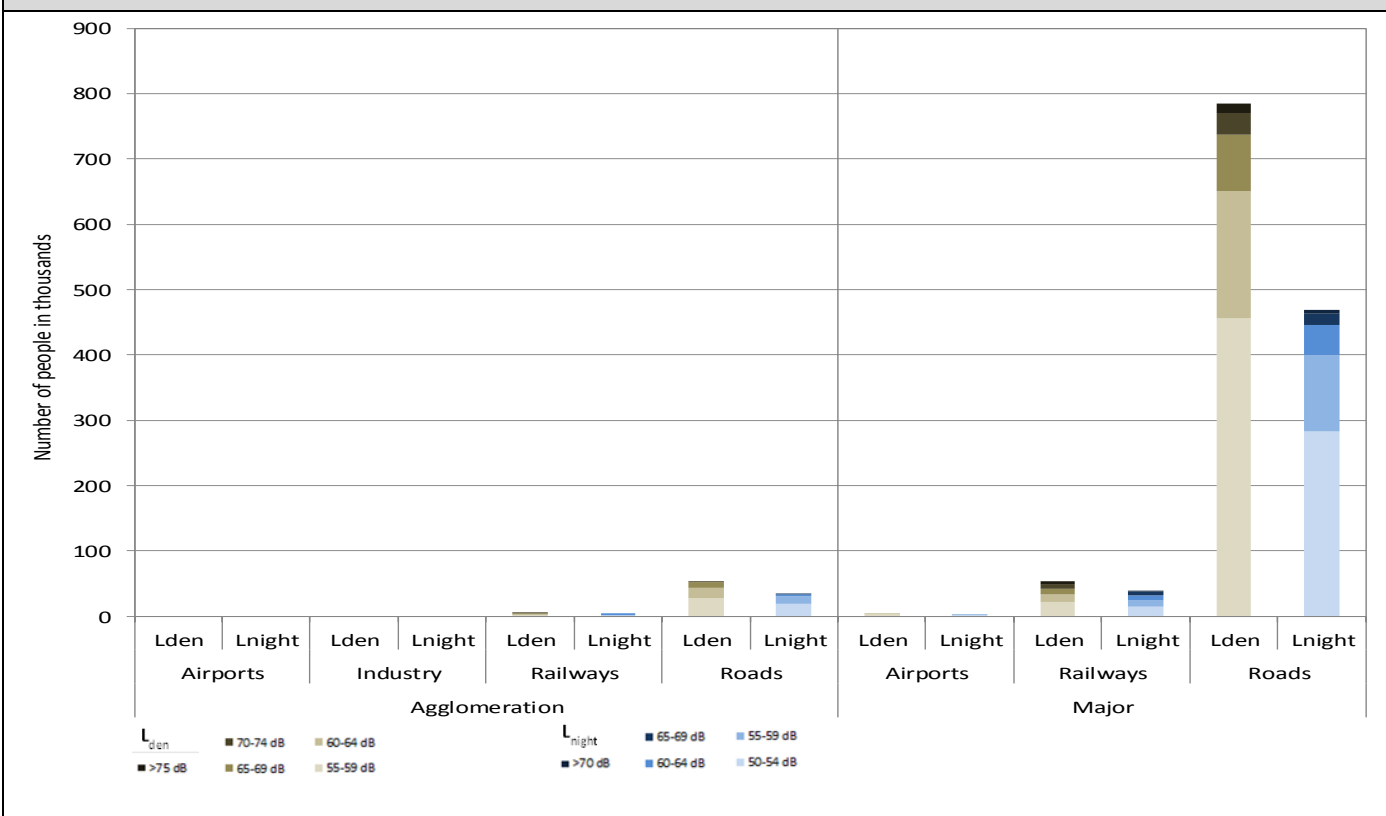


PORTUGAL

Noise sources covered by this assessment

Agglomerations > 100.000 inhabitants	Amadora, Lisbon, Matosinhos, Odivelas, Oeiras, Porto 6 agglomerations in total, covering 1.452.607 inhabitants
Major airports > 50.000 movements per year	Francisco Sa Carneiro Airport, Lisbon Portela Airport 2 major airports in total
Major roads > 3 million vehicles per year	3465 km in total
Major railways > 30.000 train passages per year	507 km in total

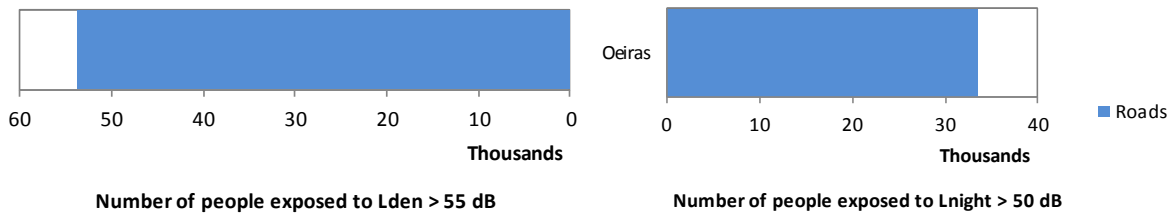
Number of people exposed to different noise bands per L_{den} and L_{night} (2012)



Data not provided in 5 agglomerations for aircraft noise, in 5 agglomerations for industrial noise, in 5 agglomerations for railway noise and in 5 agglomerations for road noise, out of 6 agglomerations.

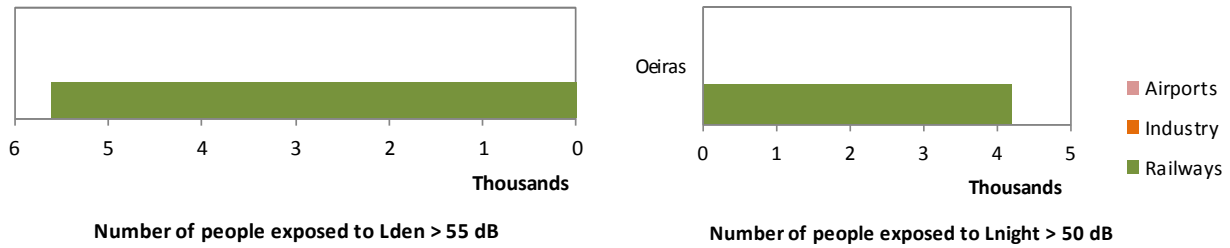
Data not applicable in 1 agglomeration for aircraft noise, out of 6 agglomerations.

Total number of people exposed to road noise inside agglomerations (2012)



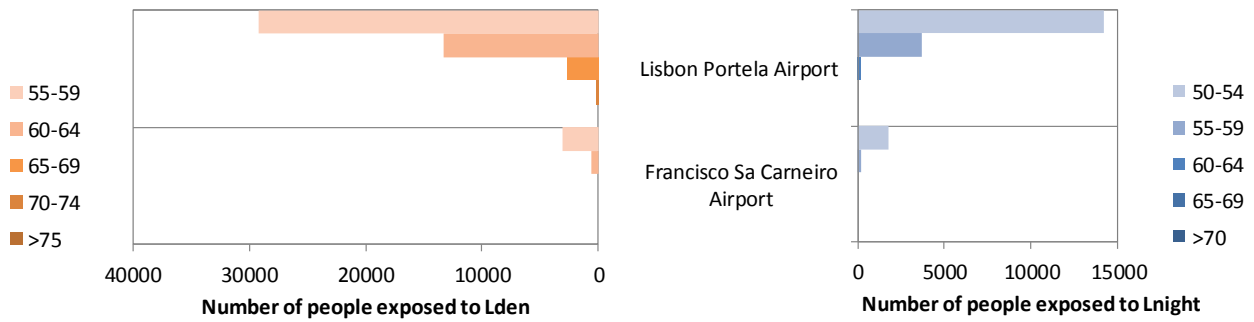
Amadora, Lisbon, Matosinhos, Odivelas and Porto have not provided data on noise exposure.

Total number of people exposed to railway, aircraft and industrial noise inside agglomerations (2012)



Amadora, Lisbon, Matosinhos, Odivelas and Porto have not provided data on noise exposure.

Total number of people exposed to Major Airports outside agglomerations (2012)



Noise contour maps (2012)

Major roads

No contour maps delivered in spatial format

Major railways

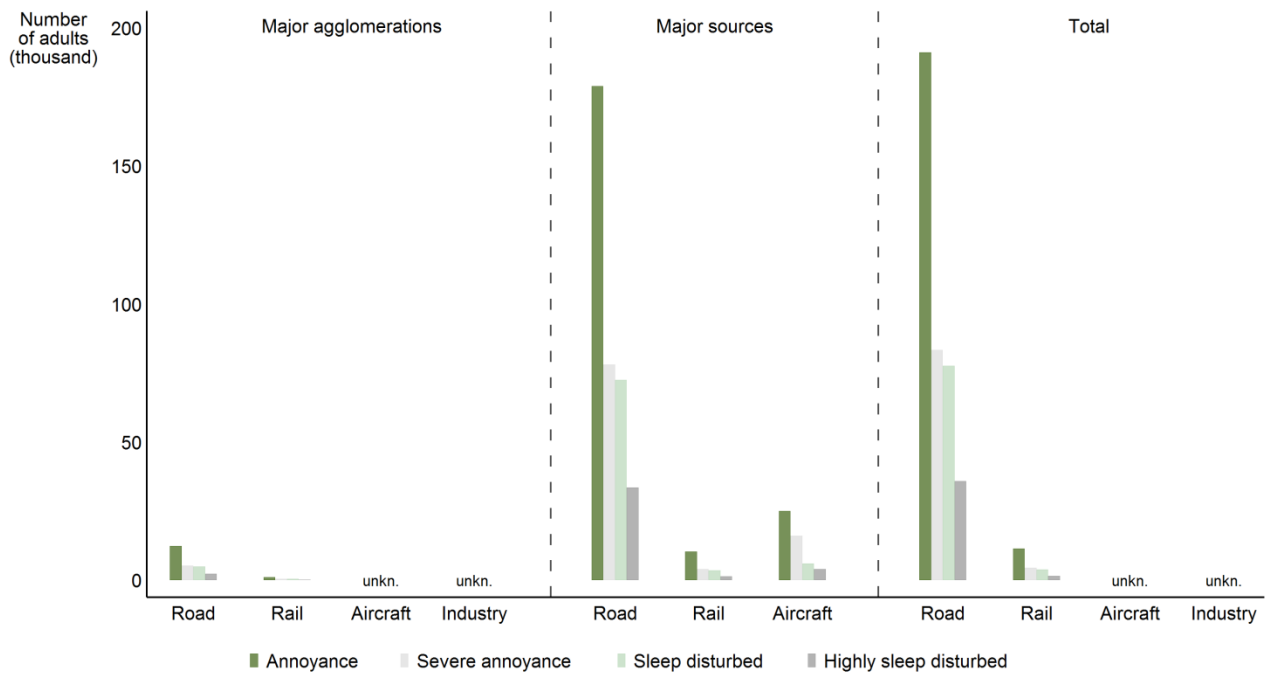
No contour maps delivered in spatial format

Major airports

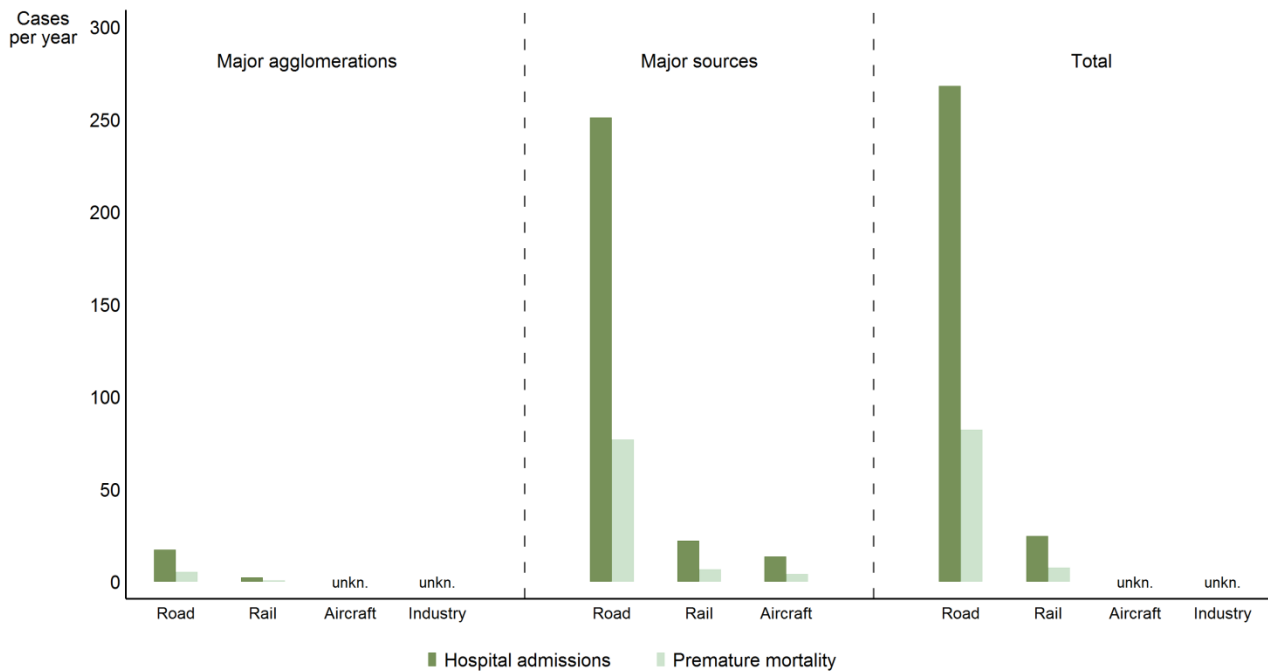
No contour maps delivered in spatial format

Health impact assessment

Annoyance and sleep disturbance



Hospital admissions and mortality



Trends on noise exposure 2007 - 2012

Trends on noise exposure are shown only in those cases where data is available for both implementation rounds:

- For major airports: total number of people exposed to more than 55 dB Lden and to more than 50 dB Lnight outside agglomerations.
- For agglomerations: percentage of population exposed to more than 55 dB Lden and to more than 50 dB Lnight due to different noise sources.


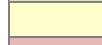

Major airports:

	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Lisbon Portela Airport	4600	45400	2100	18100

Agglomerations:

Air (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Data not provided or unsuitable for deriving trends				

Industry (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Data not provided or unsuitable for deriving trends				

	Decrease in population exposed
	No change
	Increase in population exposed

Railway (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Data not provided or unsuitable for deriving trends				

Road (values in %)	L _{den}		L _{night}	
	First Round	Second Round	First Round	Second Round
Data not provided or unsuitable for deriving trends				

For further information about environmental noise in Europe please consult <http://www.eea.europa.eu/themes/human/noise> or visit the Noise Observation & Information Service for Europe at <http://noise.eionet.europa.eu/> and EEA Data Service <http://www.eea.europa.eu/data-and-maps/data/data-on-noise-exposure-2>.