

# Science for Environment Policy

## Preserving quiet areas improves health

**Living in a quiet area** has a positive impact on health. A study compared quality of life for people living in quiet and noisy locations and found that those who lived in quiet locations—particularly in rural areas—had a better quality of life.

The EU's [Noise Directive](#)<sup>1</sup> exists to protect people from the adverse impacts of [noise](#) and preserve the health benefits of quiet spaces. However, while there have been many studies on the negative impacts of noise, such as annoyance and lost sleep, there have been relatively few studies on the positive impacts of quiet spaces.

Noise impacts—positive or negative—can be measured and compared by using health-related quality of life (HRQOL), which asks people to rate how satisfied they are with numerous aspects of their health. Other measures can be used to express health impacts in terms of the healthy days or years of life that are lost. For example, in Europe each year, the equivalent of 1 million healthy years of life are thought to be lost due to traffic noise. The authors decided to adopt a HRQOL approach to compare the health impacts of noise in 'noisy' versus 'quiet' areas in New Zealand.

They used data from studies on noise-related health carried out in four different areas, described as: 'quiet rural', 'noisy rural', 'quiet city' and 'noisy city'. The noisy rural location was near to a wind farm, while the noisy city locations were near an airport or major motorways. Both quiet locations were situated away from busy roads and industry. A total of 823 people were surveyed in these four locations.

The authors found that quality of life increased as noise levels decreased – health-related quality of life was highest in the quiet rural location. But while there was a clear association between transport noise and HRQOL, the relationship between neighbourhood noises, such as barking dogs and lawnmowers, was less clear. The researchers suggest this may be because such noises are less constant and so have a smaller impact on health, even if they are sometimes very annoying.

About 15% of those living in the noisy city location said they were very annoyed by transport-related noise. This is similar to European cities, where 10-35% of people are severely or very annoyed by traffic noise. People living in the quiet city location and the two rural areas were less annoyed by noise.

However, of the two so-called noisy areas, the rural location was home to more people who were 'very annoyed' by noise compared to the city location. This suggests that unnatural sounds, such as those of wind turbines, are more annoying in the context of green areas and perhaps mask other natural sounds.

Overall, the researchers say their study justifies the aims of the European Noise Directive in preserving quiet spaces for health. Some of the more specific health impacts of living in noisy or quiet areas require further research. For instance, how much does traffic noise disturb sleep and how much do quiet areas reduce stress levels? There were also no data on the differences in actual sound levels between the four sites. However, the study's authors note that decibel measurements can be misleading as they are heavily influenced by the setting.



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Noise impacts  
on health

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1. <http://ec.europa.eu/environment/noise/directive.htm>