

Mathias Basner

As I am an expert on the effects of noise on sleep, I mainly concentrated on this aspect.

Overall, the report is well written, and the methodology behind the review seems to be rigorous and sound. I noticed that only papers published until October 2012 were considered in the review. Although understandable from a logistic point of view (at some point a cutoff has to be made), a number of relevant studies have been published in the meantime, and the review would have profited from those.

I have one major concern with the review. In multiple locations one can read statements like:

- The few associations reported by individual studies could have been due to chance. Therefore NHMRC concluded there is no reliable or consistent evidence that wind farms directly cause adverse health effects in humans. (p10)
- Therefore even though there was support for some of these associations in studies of effects of noise from other sources, NHMRC could not conclude that exposure to wind farm noise causes annoyance, sleep disturbance or poorer quality of life. (p10)
- There is no reliable or consistent evidence that wind farms directly cause adverse health effects in humans. (p13)

I agree that, at this time, the scientific literature on health effects of wind farms is only emerging and that the evidence does not allow to draw valid conclusions. However, I believe that this needs to be formulated more neutrally throughout the report, as this limited evidence does neither support that there are health effects nor that there are not. In other words, if the evidence for health effects is limited, this does not mean that there are no health effects (but only that more evidence needs to be gathered to support or reject the hypothesis).

The report states on page 15: "Associations between noise exposure and some other health conditions (including high blood pressure, heart attack and depression) have also been suggested, but these associations are based on limited evidence." I believe it is generally accepted in the field of noise effects research that long-term noise exposure is one contributing factor to cardiovascular disease. The discussion is not so much about "whether" but "at what level" noise starts to promote these negative health consequences.

The report also states on page 15: "There is no evidence that health or health-related effects from wind turbine noise would be any different to those from other noise sources at similar levels." The acoustic characteristics of wind farm noise can differ greatly from other types of environmental noise exposure. I therefore doubt that this statement is true.