



Professor J. E. Banatvala CBE,
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11 February 2007

Dear Professor Banatvala,

Thank you for your letter and enclosures about the Stansted Airport HIA, which Stephen Holgate encouraged you to send to me.

My original comments to you were made without my having read the ERM report. I offered to revise these in the light of reading at least the air pollution aspects, and to send you my comments as a letter. I'm happy for you to forward these to whoever you wish on the grounds that my views are not based on 'making a case' to support any prior positions, in particular any positions of Stop Stansted Expansion (SSE). Rather, I give my views as my best, relatively off-the-cuff, opinion on the issues you raised with me; and on the basis that – as is our practice – my views are independent of whoever is asking them.

'Declaration of interest'

You asked me about a number of issues. First, a declaration of what some might see as an interest: I was part of an unsuccessful bid to carry out the HIA which eventually ERM got commissioned to do. Indeed, at one point I met BAA and their advisors, as part of the BAA commissioning process. I would have been responsible within the team for quantifying the impacts of air pollution on health.

Health effects of air pollution

I understand that ERM involved Professor Ross Anderson from St George's Hospital in London as their specialist on air pollution and health. The ERM report confirms that Ross was member of the HIA team, though he is not listed as an author of the report as a whole.

Ross is an internationally recognised authority and also a very level-headed person. I assumed that the work he did, on the health effects of air pollution as modelled, would be good. I have read the relevant part of the ERM report (Executive Summary only), and I can confirm that is indeed the case. In particular, it is sometimes the case that, in considering health impacts of air pollution, it is assumed that health impacts are negligible provided that pollution does not breach air quality guidelines. Ross does not make this mistake – the ERM HIA allowed for impacts of PM₁₀ / PM_{2.5} at concentrations below air quality standard, i.e. without a threshold.

Modelling of air pollution

Looking at the SSE response – which seems to be a thorough and well-presented document, and especially so given the very limited resources that independent groups have for work like

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this – I take three points from the Section on air pollution. I take from it three main points: two practical, one more ethical / ideological.

i. One is that you take issue with the modelling of air pollution, and you take issue with ERM for simply accepting as accurate modelling provided by BAA. This really isn't my area so I can't comment on the modelling itself. However, estimates of health impacts clearly will depend, among other things, on the reliability of the underlying pollution modelling. I would nevertheless be surprised if the modelling was so far wrong that it implied major changes in estimated health impacts of air pollution. If mis-modelling implies breaches to standards, then (as you point out in your response) that raises issues of a different nature – see (iii) below.

ii. The second is the issue of benzene, and its contribution to lifetime exposure and associated cancer risks. Again, I don't know for sure in this instance, but my experience of HIAs in other contexts is that the impacts attributable to air pollution 'toxics' such as benzene are small compared with the impacts of PM, especially of PM characterised as PM_{2.5}; and these were estimated as very small.

iii. The third is the point that people are entitled to health protection, whether in small communities or large. I agree. The HIA and associated cost-benefit-analysis approach is, in my view, an important input into policy making; but it is by no means the only important one, and is not necessarily the decisive one. The ethical line of at least a minimum level of protection, via standards, is also important. However, within the utilitarian 'ideology' of HIA / CBA, it is important not only to examine the gross aggregated trade-offs between gains and losses overall; it is also important to see as well as practicable which people / communities are gaining and which are losing. Minimally, this might lead to some particular compensation for communities disadvantaged by the development. I have assumed that in terms of overall health impacts from air pollution, the burden would arise principally from very low incremental pollution over very wide populations, especially London (despite wind direction...), rather than in very local impacts. However, if the development does lead to breaches of standards locally, that changes the issue regarding local impacts even though only small numbers of people are affected; and the ethical point, at the start of this paragraph, kicks in.

Climate change and its health impacts

I gather from your response (e.g. your 4.1.5 and Chapter 5) that climate change impacts were excluded entirely; and I agree with your judgement/ intuition that this may be where the main action is, regarding health. While of course I know some things about climate change and health, I do not look on myself as an expert in this area. However, in thinking of what would be involved in making even approximate estimates of climate change effects, I think of a two-stage process:

- a. What would the development add (or get in the way of reducing) by way of greenhouse gas emissions, in absolute terms and perhaps as a proportionate increase on current emissions;
- b. What would be the health impacts of these increases.



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Because the expected health impacts are regional rather than just local, it may be sufficient, at least for a 1st approximation, to focus on (a), and then do some '*pro rata*' estimates of health impacts, based on general UK studies of climate change and health. This implies help from people expert in emissions, and that's not my area of expertise.

End remarks

I hope these remarks help you in understanding and evaluating further some of the issues, both on air pollution and on climate change, that you asked me about.

With best wishes

Fintan Hurley
Scientific Director