This response was submitted to the consultation held by the Nuffield Council on Bioethics on Emerging biotechnologies between April 2011 and June 2011. The views expressed are solely those of the respondent(s) and not those of the Council.

I would like to submit a few brief comments on your proposed analysis of emerging technologies:

You write: "Some emerging biotechnologies, such as GM crops or synthetic biology, have global implications: they are likely to involve multinational companies and the transfer of money, products and people between countries (p.10)." This, of course, is not only "likely," it has already happened to an irreversible extent in the displacement of people by mechanized, chemicalized and biotechnologized farming. Examples of this include suicides of farmers in India, displaced rural people with serious health problems in Argentina, farmers in the USA and Canada forced to sell their property because they cannot meet the costs of litigation to defend themselves against groundless claims, etc.

But you then suggest that "this may become unavoidable if, for example, advanced agricultural biotechnologies hold the only feasible long-term approach to maintaining an adequate food supply in some parts of the world" (p. 10). This is exactly what the large biotechnology corporations want you to believe – that their efforts are either necessary or inevitable. In fact they have not demonstrated that genetically modified crops have produced greater harvests or have lowered food prices. They have indeed shown that this technology can lower some costs of production, but the benefits accrue not to the public, nor even to the producers, but to the companies that own the technology and they have not affected the world hunger problem at all.

In my opinion, you need to examine the ways in which these corporations influence the development of public policy – which is not at all a matter of the social consensus that your presentation often implies. This corporate influence involves

 managing information so that the public and government officials only have information that supports the policy objectives of the corporations

- placing corporate oriented people, often present, former and future corporate employees in government positions.
- threatening and discrediting scientists
- actual bribery
- campaigns of disinformation

To take one very important case from my country, I think you should examine the process of the Mexican government making decisions about corn production. This includes not only the leaks of GM corn that may make the whole question mute since the government may not be able to control the technology (as in Brazil and Argentina), but even non-GM strategies such as the sale of US corn in Mexico at below production costs because US corn farming is subsidized and Mexican production cannot compete with corn subsidized be the US government.

The control of biotechnological information has led to a serious crisis of credibility. Another example from Mexico is the fraudulent disinformation campaign undertaken by corporate interests after the publication of studies of genetically modified corn that forced the retraction of the study by the journal Nature (for the first time in its 100 year history). The study was later validated by the Mexican government. In addition there are a number of cases of false research reports (even by the FDA), refusal to disclose subpoenaed information (again be the FDA), intimidation and dismissal of scientists (Richard Burroughs in the USA and notably Arpad Pusztai in Scotland). The credibility problem is exemplified by the campaign to discredit Global Warming (over 40 % of Americans now Disbelieve scientific reports) and reports that clinical trial reports in medicine are routinely written by agents of the pharmaceutical companies.

There are three basic categories of issues here that I think you underplay or miss:

- The aggressive commercialization of biotechnology in an effort to control food production
- The influence of corporate power on public policy in covert ways.
- The crisis in the credibility of scientific information due to the intentional suppression of research and publication.

In my opinion you should examine the motives and activities of powerful corporate interests that are behind these problems. They would not want you (the Nuffield Trust) to undertake the kind of research you are engaged in. If you expose the activities of these powerful interests, they will come after you.