

This response was submitted to the consultation held by the Nuffield Council on Bioethics on *New approaches to biofuels* between December 2009 and March 2010. The views expressed are solely those of the respondent(s) and not those of the Council.

Anil Hira

QUESTIONS ANSWERED:

Question 1

ANSWER:

A necessary step as there are no viable alternatives for petrol substitution.

Question 2

ANSWER:

As with any other product, sustainable production is key. However, this is a global lifestyle/production process problem, not one limited to biofuels.

Question 3

ANSWER:

Yes, previous and ongoing research

Question 4

ANSWER:

Key drivers/factors include: -price of petrol -costs of biofuels production -costs and viability of electric fuel cars -agricultural and other protectionism of cheaper biofuel imports -sustainability regulations, such as those of the EU Policy concerns should include: opening the way for the cheapest biofuel, namely sugarcane, to be the one used. This would mean reducing agricultural protectionism and opening up markets for it and abandoning foolish and costly reliance on other feedstocks. Second concern should be R&D. Third concern should be using sugarcane growing for the sustainable development of poor countries.

Question 5

ANSWER:

again, use of optimal feedstocks and production systems is the key sugarcane has lower net emissions, but R&D can further improve outcomes only lifestyle changes and major reductions in consumption can help climate change

Question 6

ANSWER:

energy security does not mean national production, it means easing international trade for biofuels and having a diverse and reliable set of suppliers

Question 7

ANSWER:

again, sugarcane production, if done sustainably, could create a wave of development throughout the poorest countries we should be taxing carbon and reducing subsidies (direct and indirect) for petrol we need to stop subsidizing inefficient northern agriculture

Question 8**ANSWER:**

cellulosic claims are currently pie in the sky. there is a real chance for biofuels R&D to be captured as rents by researchers and companies, like hydrogen, in order to put off taking the logical choices as noted above

Question 9**ANSWER:**

all are appropriate as they lead potentially to higher yields, so why not use them? of course, it requires a risk management and general regulation for use, one that does not yet exist in this area

Question 10**ANSWER:**

not aware of any ipr issues that are not obvious- gmo plants/feedstocks, and process technologies

Question 11**ANSWER:**

lack of funds, and capture of funding by vested interests

Question 12**ANSWER:**

we need objective, separate agencies at the national and international levels to help allocate R&D. An intl. fund should be established, so that R&D efforts are not overlapping across countries- and all face the same problems and potential solutions once we accept the optimality of a global market for biofuels. we need A LOT more emphasis on the economic, political and social aspects of biofuels. The kerfuffle over food prices shows that biofuels R&D, like biotech generally, is dominated by techies who don't recognize that without a social science component, their research is only indirectly useful and ignores huge potential problems.

Question 13**ANSWER:**

yes, but we don't have a good land use methodology/theory; that convo is just starting and again needs to be global

Question 14**ANSWER:**

the problem is endemic to development- domination of the South by Northern/BRIC multinationals with little local spillover fx due to poor governance in the South

Question 15**ANSWER:**

yes, but again, basic research needs to be done to arrive at a method that has wide support and is accurate reliable and valid

Question 16

ANSWER:

life cycle analysis is the emerging key tool, but again is one that is difficult to measure and implement we need to develop new tools that recognize that social, economic and political factors are really the drivers behind the env

Question 17**ANSWER:**

food security is a red herring and harkens of autarky that has always led to suboptimal outcomes; food security concerns are reflective of the incredible dysfunctionality of global agricultural systems and inequities

Question 18**ANSWER:**

again lack of governance, including a whole host of lack of ethics, capacity, and responsiveness issues until you solve this problem, nothing else will work

Question 19**ANSWER:**

this is related to the food security question and is behind the EU's (and others) capture by small but very rich farmers- how long can we allow such a system to continue the problem in the developing world is endemic across issue areas and again the gordian knot is governance reform

Question 21**ANSWER:**

we need much higher fuel consumption taxes, esp in North America

Question 22**ANSWER:**

North South issues have been neglected in general; sustainable production systems require a remaking of our entire economies; the ramifications of a post petrol economy; in general policymakers pay almost no attention to social scientists studying these issues, and that is in part our fault (a reflection of bigger problems of academic governance systems)

Question 23**ANSWER:**

this requires a discourse among stakeholders across north and south informed by experts who have studied these issues and are not captured by state or corporate mechanisms