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QUESTIONS ANSWERED:

Question 1

ANSWER:
Biofuels are an important initiative amongst the many initiatives necessary for the development of sustainable lifestyles.

Question 2

ANSWER:
To ensure that biofuels do not debilitate food security, especially of the global poor. To ensure a suitable balance between the need to travel and the need to feed ourselves. To ensure that virgin habitats and more global biodiversity are conserved and sustained.

Question 3

ANSWER:
Yes, I am professionally concerned with developing agronomic technologies for biofuel feedstock production, in advising industry on the introduction of biofuels and in reviewing the policies underlying biofuel regulation and legislation.

Question 4

ANSWER:
Prices of oil, biofuel feedstocks, fiscal incentives and trade barriers will be the main drivers of biofuel development. Clearly, levels of biofuel production will respond to these. There will be many repercussions, most obviously in providing an additional income-stream for agriculture, and improving the stability of agricultural production, hence the viability of agricultural investment. There will be many smaller scale adjustments, for instance S Amercian exports of soy to Europe will be signifantly reduced. Policies must focus on (a) incentivising GHG savings at farm level and (b) setting economic incentives such that 1st generation biofuels become uneconomic when higher food prices decrease food security.

Question 5

ANSWER:
There will be incremental improvements that must be incentivised by moving to farm-level GHG-accounting. The key to greenhouse savings will be to develop biofuel systems that (a) require (or cause indirectly) little or no land conversion (b) use little nitrogen fertiliser and (c) use carbon-neutral (or better) processing. First generation biofuels will be important in establishing appropriate technologies in all 3 aspects. Development of 2nd generation fuels should initially concentrate on biomass by-products; bespoke biomass crops are infexible and threaten land-use change.

Question 6

ANSWER:
Whilst biofuels are clearly significant in supporting energy security in Brazil (with much productive land per person), this will be a desirable but minor benefit in most countries, since production capacity is markedly less than energy demand. Individual industries (with land) may beneifit in this respect e.g. agriculture & forestry.

Question 7

ANSWER:

Question 8

ANSWER:

Question 9

ANSWER:
These approaches are desirable both for the development of food security and efficient biofuel production. Both purposes arer interdependent and, given the urgency of establishing food security, all safe technologies should be employed.

Question 10

ANSWER:
Investments in new technolgies must be made attractive. At present the plant breeding industry only recoups appropriate rewards where biology dictates that new seed (specialist-produced e.g. maize) performs better than home-saved seed. Most true-breeding species require additional protection of genetic improvements & innovations.

Question 11

ANSWER:
Weak IP rights or small IP returns.

Question 12

ANSWER:
Biofuels are an artefact of government; government should facilitate R&D, but this should be funded jointly by government and industry.

Question 13

ANSWER:
Fuels from foodstuffs SUPPORT food security, by ensuring transferrable production. Food production is notoriously variable, and fuel from foodstuffs will smooth the variation, hence supprt production. Managed properly, 1st generation biofuels provide food reserves without the 'mountains' of the 1980s. By-product biofuels largely avoid land-use issues. Biomass production for 2nd generation biofuels should only be allowed on land that could not produce foodstuffs.

Question 14

ANSWER:

Question 15

ANSWER:

These are so complex as to be very uncertain if reviewed quantitatively. ILUC can be negative as well as positive. Estimates must nevertheless be reviewed, characterised and monitored as far as possible.

Question 16

ANSWER:
Biofuel feedstock production is little different from other food, fibre & fuel production systems and should be regulated with the same aims and intentions.

Question 17

ANSWER:
Fuels from foodstuffs SUPPORT food security, by ensuring transferrable production. 2nd generation biofuels, if from bespoke biomass crops, THREATEN food security. Food production is notoriously variable, and fuel from foodstuffs will smooth the variation, hence encourage production and support security. Managed properly, 1st generation biofuels provide food reserves without the 'mountains' of the 1980s. By-product biofuels largely avoid land-use issues. Biomass production for 2nd generation biofuels should only be allowed on land that could not produce foodstuffs.

Question 18

ANSWER:
Global food security depends on food having increased value, but this decreases food security for the poor. Hence it will be important to find mechanisms to ensure that the poor have access to food. One helpful repecussion will be discouragement of urbanisation of the poor. These solutions are not specific to biofuels.

Question 19

ANSWER:

Question 20

ANSWER:

Question 21

ANSWER:
There is much scope to expand and improve 1st generation biofuels. They are in their infancy, and are not yet monitored effectively for GHG savings. Developments here will lead the way if any effective innovations emerge for 2nd generation. In general PPP should be favoured.

Question 22

ANSWER:
There is an urgent need for an authoritative study of the hypothesis that fuel from foodstuffs supports food security.

Question 23

ANSWER:

To reward biofuels for GHG savings at the most detailed level, compatible with monitoring costs.

Question 24

ANSWER: