

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.

## **QUESTIONS ANSWERED:**

### **Question 1**

#### **ANSWER:**

In my view greater use of biofuels is desirable as long these are produced in an environmentally and socially sustainable way. This sustainable production needs to be ensured by clear systems that check a number of points in the production process. In developing countries, biofuels should be seen in the wider context of agricultural production, land rights, good governance. Clear consumer information must be available. The use of biofuels should however not be over emphasised as a way to improve climate change mitigation, as there are still many question marks about this. Energy efficiency and energy saving have to be equally acknowledged.

### **Question 2**

#### **ANSWER:**

The ethical challenge could be, depending on the sources used for biofuel production, that these are produced from materials which make part of the traditional livelihoods of vulnerable populations in third countries, or could compete with production for other purposes (food, shelter, articles of daily use etc), or that they could lead to interference in nature protected areas.

### **Question 3**

#### **ANSWER:**

Yes, I think I am relatively well informed through networks working on biofuels (COMPETE for example), UN agencies, European development agencies, EU delegations, MS reports, research organisations, but more clear information would at times be required about concrete projects in third countries and on local impacts.

### **Question 4**

#### **ANSWER:**

The main driver will be rising oil prices as well as subsidies by developed countries. With respect to developing countries, priority should be given to environmental protection and livelihood protection of poor populations in food insecure regions, including through measures addressing secondary effects (indirect land use change). Advantages could be increased income opportunities for small farmers in developing countries, diversification of production, and access to decentralised forms of energy in rural areas.

### **Question 5**

#### **ANSWER:**

### **Question 6**

#### **ANSWER:**

Diversification of energy sources is a general concern. For the purpose of energy security, it is not desirable to focus only on one source of energy.

### **Question 7**

#### **ANSWER:**

In developing countries, an approach that creates incentives for smaller producers as opposed to international large investors should be encouraged. This would in my view be most successful in terms of benefits for the development of developing country societies and it would be the more sustainable form of development. This should be encouraged by creating a favourable investment climate for small scale biofuels production and processing, input subsidies, training and in some cases purchase at a guaranteed price of energy products.

### **Question 9**

#### **ANSWER:**

The use of new technologies is appropriate as it is for all industrial production, with the usual caveats – i.e. ensuring that these have no negative effects for mankind and biodiversity, do not lead to increased vulnerability, that there is a mechanism to ensure that in the medium term benefits can be spread to all mankind (i.e. avoid long term monopolistic exploitation), etc

### **Question 10**

#### **ANSWER:**

Ensuring that producers in developing countries are not sidelined, avoid the creation of a "biofuels technology" divide. So – if more advanced biofuels production and processing techniques are developed, there should be a mechanism to ensure fair competition

### **Question 11**

#### **ANSWER:**

New approaches are mostly geared towards industrialised country large scale production – little research for small scale developing country producers.

### **Question 12**

#### **ANSWER:**

Private sector should finance research for large scale production, and public sector should fund R& D for equitable sharing, small scale, promoting biodiversity, compatibility with food production, etc (International and regional research bodies, such as CGIAR and FARA).

### **Question 13**

#### **ANSWER:**

Biofuels production is likely to raise problems related to land use especially where land is used by pastoralists and nomads (where land belongs not clearly to a community or family). Where natural resources, like forests, are used by communities to sustain their livelihoods without recognised entitlements for using them, biofuel (or rather agribusiness) can create problems related to land use and raise conflicts over resource use. A new approach would be to sensitively assess local resource use and negotiate with local stakeholders about resource use and make sure that benefits arise for local populations, and promote transparent and just land user rights.

### **Question 14**

#### **ANSWER:**

For biofuels more generally (not specifically future generation biofuels), the question of land demarcation, security of land rights differs between developed and developing countries. Also, the often informal use

and collection of natural products as a means of livelihood (and often the main source of livelihood) will be rather found in developing countries.

#### **Question 15**

##### **ANSWER:**

It should be acknowledged that certain feedstocks require more land than others and that production in certain areas rather leads to further deforestation than in other. Some geographical factor would need to be built in, although this is difficult to justify in political terms (would disfavour certain countries). This needs to be accompanied by effective policies in the countries concerned that determine areas that can be used for biofuel production and areas of natural and livelihood (food insecure areas, areas of indigenous people) protection.

#### **Question 16**

##### **ANSWER:**

With sustainability criteria having been defined for biofuel production, awareness could be raised for the effects of agricultural production on the environment. Awareness can be raised about the contribution of agriculture to climate change, the effects of agriculture on ecosystems, among others. If biofuel production is economically lucrative (due to high oil prices and public support), this will nevertheless drive biofuel production forward and put pressure on ecosystems.

#### **Question 17**

##### **ANSWER:**

Food security problems can arise for local communities in developing countries where land or user rights of natural resources are not secured. In competition with commercial producers, small farmers can lose their access to natural resources or can find their own livelihoods polluted by heavy fertiliser and pesticide use. If more crops are diverted from the food market, the prices for food can be increased. It can lead to a world wide decrease in availability of certain staple food on the world market and with it rise international prices for food. This can be avoided by focusing on an avoidance of large scale use of one product for biofuels, a diversification of feedstocks would counteract this trend. On local level in developing countries, a combination of food production and bioenergy production should be ensured. When foodstuffs are used for the production of biofuels, there should be safeguards that sufficient food is also available for nutritional purposes.

#### **Question 18**

##### **ANSWER:**

There are many subsistence farmers in developing countries who rely on natural livelihoods for their food security. Deterioration of natural resources, deforestation or eviction from land have a direct impact on their possibility to feed themselves. At the same time many farmers are dependent on additional purchases of food. A slight rise in prices for food makes a huge difference for the poorest segments of society. Rising prices in developing countries have an impact on the percentage spent on food or on the consumption choices, but in developing countries it even leads to skipping meals per day with serious effects on the health status (in particular of children).

#### **Question 19**

##### **ANSWER:**

The production of energy crops does not differ very much from agricultural production in general. It is likely to be dominated by large companies that produce for the export market and with it raises concerns over pressure on land and availability of production for local market. In principle, it does however not differ much from other export or non-food products. The discussions over the sustainability of biofuel

production might even have raised awareness of working conditions in the agricultural sectors in developing countries.

#### **Question 20**

##### **ANSWER:**

The competition about investments in developing countries and the somewhat weaker regulatory frameworks may involve keeping low work standards. It can be also expected that production in developing countries often depends to a larger extent on unskilled manual workforce as compared to developed countries. In absence of other livelihoods, other opportunities, social protection mechanisms and strong trade unions, workers might not have much bargaining power vis-à-vis companies to negotiate fairer working conditions.

#### **Question 21**

##### **ANSWER:**

Biofuels production should open up business opportunities for small farmers in developing countries. It is more likely that public sector or public-private partnerships will invest in research and new approaches to biofuels that can provide benefits for a larger number of small scale producers who might in some cases produce energy crops as one additional crop among others and who cultivate them under less favourable conditions (marginal lands, land with little irrigation).

#### **Question 23**

##### **ANSWER:**

The most effective means to promote biofuels would in my view be a guaranteed price paid by the government for each liter of biofuel produced. Training opportunities have to be available to farmers. Clear criteria have to be in place to evaluate if crop production is environmentally and socially sustainable. Identification of land and protection of land rights is crucial in countries which are affected by food insecurity and in which a huge part of the population depends on small scale agriculture. It has to be assessed on level of developing countries if production of biofuels brings benefits to its citizens.

#### **Question 24**

##### **ANSWER:**

It is important to see biofuels development in developing countries in the overall context - i.e. biofuels development is only one aspect of land use, and one of many ways to promote diversification and income earning possibilities. Agricultural development benefiting also small farmers, land rights etc are all part and parcel of this, and therefore emphasis should be on promoting good governance and making relevant information available. Capacity building, and strengthening of farmers associations and facilitating business relations between producers and processing companies are essential in this context.