

# Written evidence to the House of Commons Science and Technology Select Committee

## Science Communication Inquiry



29 April 2016

### 1. Introduction and summary

- 1.1. GM Freeze is the UK's umbrella campaign for a moratorium on genetically modified food. We aim to help create a world in which our food is produced responsibly, fairly and sustainably. Our members include NGOs, charities, organic and conventional farmers, retailers, scientists, grassroots campaigners and concerned individuals.
- 1.2. GM Freeze is submitting evidence to this inquiry because we consider that the framing of regulatory consultations, media coverage and wider debate around the use of genetically modified (GM) organisms in food and farming is too narrow. Social and ethical considerations are excluded from the regulatory process and side-lined in the media. Individuals who are not able to express themselves with scientific accuracy are denied a voice and language is used in ways that can easily mislead or confuse.
- 1.3. Our evidence focuses on GM because that is our remit. However, many of the points made below are likely to apply to a greater or lesser extent to other areas of science and technology. In summary our evidence covers the following points:
  - The framing of public consultations relating to GM actively excludes consideration of social and ethical concerns.
  - The framing of media discussion about GM frequently side-lines social and ethical concerns relating to the use and impacts of this particular technology.
  - Discussion of the risks and potential benefits of GM is framed in a way that is inequitable and has significant potential for misunderstanding.
  - It is vitally important to understand what people are really trying to say when they express their views about GM (and other contentious issues), especially when they are not equipped with a scientifically accurate vocabulary.

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## 2. The framing of public consultations relating to GM

- 2.1. The 2014 BIS report<sup>1</sup> identified GM as a highly contentious issue, noting “some of the answers people give suggest that they are not only focusing on the scientific risks and benefits of GM crops, but more broadly on what they consider to be the good and bad things about the technology”.
- 2.2. Indeed, public concern about GM in food and farming extends to a wide range of social and ethical issues including the application of patents, corporate control of the food chain, a loss of food sovereignty, the crowding out of alternative solutions, the diminution of choice and the effects of the traits associated with currently commercialised GM crops.
- 2.3. However, there is no general forum for government engagement with the public over GM issues and when members of the public are given an opportunity to object to specific instances of the use of GM, social and ethical issues are excluded from official consideration.
- 2.4. For example, the Advisory Committee on Releases to the Environment’s (ACRE) advice on Rothamsted Research’s 2016 application to release GM camelina sativa (reference 16/R8/01) states “Fifteen public representations were received. ACRE are *only required to consider scientific aspects* .... ACRE is grateful for all the representations submitted by members of the public and is content that *all of the issues relevant to this trial* have been considered during the Committee’s assessment of the dossier.”<sup>2</sup>(our emphasis)
- 2.5. A number of key social and ethical issues were thus ruled “irrelevant” to the trial, including:
  - Sustainability. The applicant had focused heavily on the idea that their research could eventually make the aquaculture industry more sustainable. GM Freeze and others questioned the validity of this claim. Members of the public raised this issue in a number of informal ways with phrases such as “there is no real need” and “Let’s focus on cutting waste”.
  - The socio-economic impacts of patenting. This was raised by one member of the public through a reference to notorious legal case. Another referred to “a Trojen (sic) horse for patenting and profiteering”
- 2.6. These social and ethical concerns may well be outside the scope of ACRE but that does not make them “irrelevant”. If members of the public are concerned enough about these issues to submit evidence to a consultation, however in-expertly they may express themselves, then the points they raise should be given due consideration.
- 2.7. GM Freeze would like to see a much more broad-based GM approvals process that includes consideration of the need for each proposed GM crop, an assessment of its potential impacts (including social, cultural and financial impacts) and how these compare with alternative strategies.

### 3. The framing of media discussion about GM

- 3.1. Mirroring the situation with public consultations, GM Freeze is concerned that social and ethical issues are frequently side-lined in media discussion about GM.
- 3.2. I have been Director of GM Freeze since February 2014 and regularly represent the organisation across the media. My personal experience has been that, when my interviews have been recorded and edited for later broadcast, the balance of my contributions has not been accurately reflected in the material broadcast. My comments relating to social and ethical issues have been minimised or completely excluded. Any comments I have made about safety issues have featured disproportionately in the final output.
- 3.3. GM Freeze is proud to be strongly rooted in a set of ten core values<sup>3</sup> but my efforts to communicate these values, and the ways in which GM agriculture challenges them, are hampered by a strong editorial bias towards the notion that safety is the only legitimate reason to object to GM.
- 3.4. The BBC Executive Response to Professor Jones's report<sup>4</sup> states that "science cannot be divorced from the social, political and cultural environment in which it operates". However, our recent experience of media coverage of GM issues, including on flagship BBC television programmes, is that social, political and cultural concerns relating to the use of GM in food and farming have been actively excluded.

#### 4. Risks, benefits and the use of jargon

- 4.1. A strong current narrative in policy discussion around GM is the need to consider benefits alongside risks.<sup>5</sup> At first glance this appears to be a fair and equitable approach but the way in which the language is being used in this context imposes a fundamental mismatch between the two sides of the equation.
- 4.2. Oxford Dictionaries defines benefit<sup>6</sup> as “an advantage or profit gained from something” and risk<sup>7</sup> as “a situation involving exposure to danger; the possibility that something unpleasant will happen”. Using these general usage definitions, the two terms cover the potential pros and cons of a particular course of action.
- 4.3. The previous House of Commons Science and Technology Committee held an inquiry entitled *Advanced genetic techniques for crop development: regulation, risk and precaution*. In the press release marking publication of the inquiry report, the Committee expressed concern about a regulatory system that “assesses the risks posed by these products but fails to balance these with the potentially significant benefits to the producer, the consumer and the environment.”<sup>8</sup>
- 4.4. The word ‘benefits’ is used here in much the same way as any member of the public would in normal conversation, to encompass social, ethical and financial gains. However, the same is not true for the word ‘risk’ which is being used as a piece of specific jargon.
- 4.5. A risk assessment involves balancing the potential impacts of a specific set of hazards with the anticipated effects of planned mitigation. In the case of GM, only health and environmental risks are assessed.
- 4.6. In contrast, ordinary usage of the term ‘risk’ encompasses a much wider range of potential social and ethical harms. For example, in the case of GM a member of the public might be concerned about (as they would put it):
  - the *risk* of financial ruin for an organic farmer subject to contamination
  - the *risk* of concentrating power over food production
  - the *risk* of drawing funding away from alternative solutions.
- 4.7. Framing any discussion about GM in terms of risks v’s benefits is inequitable if a broad range of potential benefits (including potential social, ethical and financial gains) is pitted against a narrowly defined set of risks which specifically exclude potential social, ethical and financial harms. Moreover, the jargon use of the word ‘risks’, which has a much broader meaning in common usage, significantly raises the potential for public misunderstanding of what is being discussed.

## 5. The importance of understanding what people are trying to say

- 5.1. Public concern about GM in our food is high<sup>9</sup> and increasing<sup>10</sup> but opposition to GM is frequently characterised as unscientific, emotional and even superstitious.
- 5.2. This can partly be explained by the framing of policy and media discussions to exclude social and ethical values, as noted above.
- 5.3. Many people also have concerns about health and environmental hazards but often find them difficult to articulate. Their lack of technical accuracy must not be used as an excuse to dismiss their concerns.
- 5.4. For example, a lay person expressing the view that we “don’t understand the long term effects”<sup>11</sup> is much more easily dismissed than one who is able to refer to off-target mutations, unexpected effects of on-target mutations or unintended consequences of intended gene expression.
- 5.5. It is entirely unacceptable for any serious attempt to gauge public opinion and examine the ethical context of scientific and technological developments to dismiss, belittle or ignore the views of individuals who do not have the vocabulary to express themselves in scientifically-accurate terms. Instead, efforts should be made to truly understand people’s concerns and address them through the regulatory regime.

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/348830/bis-14-p111-public-attitudes-to-science-2014-main.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/348830/bis-14-p111-public-attitudes-to-science-2014-main.pdf)

<sup>2</sup> ACRE advice on GM Camelina (16/R8/01)  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/518237/acre-rothamsted-16r801-advice.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518237/acre-rothamsted-16r801-advice.pdf)

<sup>3</sup> GM Freeze Strategic Plan, 2015-2020 (The core values that motivate our work)  
[http://www.gmfreeze.org/site\\_media/uploads/publications/GMF\\_Strategy\\_2015-20.pdf](http://www.gmfreeze.org/site_media/uploads/publications/GMF_Strategy_2015-20.pdf)

<sup>4</sup> BBC Trust review of impartiality and accuracy of the BBC’s coverage of science, second 2  
[http://downloads.bbc.co.uk/bbctrust/assets/files/pdf/our\\_work/science\\_impartiality/science\\_impartiality.pdf](http://downloads.bbc.co.uk/bbctrust/assets/files/pdf/our_work/science_impartiality/science_impartiality.pdf)

<sup>5</sup> House of Commons Science and Technology Committee *Advanced genetic techniques for crop improvement: regulation, risk and precaution* Report, 11 February 2015  
<http://www.publications.parliament.uk/pa/cm201415/cmselect/cmsctech/328/32802.htm>

And

House of Lords Science and Technology Committee *Genetically Modified Insects* Report, 17 December 2015  
<http://www.publications.parliament.uk/pa/ld201516/ldselect/ldsctech/68/6802.htm>

<sup>6</sup> <http://www.oxforddictionaries.com/definition/english/benefit?q=benefits>

<sup>7</sup> <http://www.oxforddictionaries.com/definition/english/risk>

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<sup>8</sup> House of Commons Science and Technology Committee web page, *EU regulation on GM Organisms not 'fit for purpose'*, 29 February 2015 <http://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/news/report-gm-precautionary-principle/>

<sup>9</sup> Food Standards Agency, May 2015 *Biannual Public Attitudes Tracker*  
<https://www.food.gov.uk/sites/default/files/public-attitudes-tracker-may-15.pdf>

<sup>10</sup> Food Standards Agency, February 2015 *Biannual Public Attitudes Tracker*  
<http://www.food.gov.uk/sites/default/files/public-attitudes-tracker-nov-14.pdf>

<sup>11</sup> Department for Business, Innovation and Skills, *Public Attitudes to Science 2014*, March 2014  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/348830/bis-14-p111-public-attitudes-to-science-2014-main.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/348830/bis-14-p111-public-attitudes-to-science-2014-main.pdf)