

The response reproduced below was submitted further to an invitation to comment on the draft Discussion Paper by the Nuffield Council on Bioethics: *The use of genetically modified crops in developing countries*, during June to August 2003. The views expressed are solely those of the respondent(s) and not those of the Council.

The Agricultural Biotechnology Council, UK

ABC (the Agricultural Biotechnology Council) welcomes the recent publication of "The use of genetically modified crops in developing countries", a "draft for comment", by the Nuffield foundation in June 2003. ABC share and support the general interim conclusions of the report in that:

- GM crops can contribute substantially to the sustainability of agriculture.
- GM crops can prevent environmental degradation and address specific ecological and agricultural problems, which have proved less manageable with standard tools of plant breeding, crop protection and agricultural practices.
- Case by case assessment must be the basis of risk benefit analysis including consideration for 'How does the use of a GM crop compare to other alternatives?'
- GM crops can, in some circumstances, increase yields, improve agricultural practice and hence the livelihood of individuals in developing countries.
- There is an ethical obligation to explore the potential benefits of GM in a responsible manner, in order to contribute to the reduction of poverty, and to improve food security.
- There is an absence of evidence of either actual or potential harm and so it is not justifiable to suggest that research, commercial cropping or indeed choice should be denied to developing countries.
- Although many projects are already ongoing in the countries where they are most needed greater public funded GM-related research into tropical and sub-tropical staple foods, suitable for the needs of small-scale farmers should be undertaken.
- In applying the precautionary principle, risks arising from the option of inaction must also be considered.
- EU regulations can impact decisions in many developing world countries. Such impacts include the effect on export markets of these developing countries. Developing countries may therefore face a very difficult choice of seeking to explore the possible benefits of using GM crops in particular instances but risk export potential due to continued unjustified stance taken by some members of the EU.

Specifically ABC would like to comment on a few aspects of the report and add supplementary information in others.

Re: consolidation of seed markets posing a risk.

Nuffield comment that *"There is also continuing concentration in the number of companies that control between them the provision of seeds, agrochemicals and important research technology. Consequently there is a serious risk that the needs of small-scale farmers in developing countries will be neglected."*

ABC would like to point out that while there is some consolidation in seed markets globally it has by no means reached a point that is impacting on neglecting the needs of small-scale farmers. In fact we would suggest it is proving quite the opposite. Indeed, with 6 million farmers adopting GM technology around the world, three quarters of which are in developing countries, it is not in the commercial interest of companies to ignore the needs of such farmers.

As of 1997 it was still estimated that commercial seed market only comprises about 33% of the total volume of seeds used globally. Another 33% is farmer saved seed and the remaining 33% comes from national/public institutions. (James, 1997 quoting Rabobank research). It is interesting to note the government's Strategy Unit recently relied on these figures. ABC would be very interested in seeing the figures on which you base your opinion so that we were more able to understand your position.

It is also worth noting that while the global figures were broadly split in to thirds, certain countries such as the USA are dominated by commercial seed, and others are dominated by farmer saved seed such as India. Therefore the in the developed world commercial seed would be significantly more than the 33% global average and in India the market is dominated by saved seed and public sector seed.

Taking India as a case study, as of 2003, farmer retained seed still dominated although there is a voluntary overall shift by farmers to public and private sector seed varieties especially more productive hybrid varieties. Granted there is a growing sector of the India market developed, supplied and supported by the private sector, but these changes follows voluntary easing of government regulations, coupled with demand from the farming community. These factors together are encouraging private sector investment in India's seed market.

Even with private sector expansion, 13 state and national Public seed corporations still supply 41% of the "non farmer saved seed" market. The remaining 61% is supplied by more than 150 companies split by 33% to larger type players, 13% to SMEs and 13% to unorganised companies. But again we must remember the farmer saved seed dominate the sector.

ABC would also like to bring to the attention of the Nuffield Foundation the existence of recent fiscal estimates regarding the introduction and adoption of GM crops globally and in the developed world.

The publication by Max Foster, principle research officer for The Australian Bureau of Agricultural Resource Economics (ABARE), suggests the worldwide adoption of genetically modified crops could boost the overall income of all regions by \$316 billion by 2015, according to economic modelling forecasts. The greatest gains would be in the developing world, where increases in GDP could expected to be 1.2-3.1% while the already developed world area can expect improvements to GDP from GM adoption to be below 0.2%

Max Foster echoed the thoughts of the Nuffield Foundation that the stance taken by importers, such as the EU effect the developing world decisions when suggesting *"GM crops have the greatest potential for increasing the standard of living in less developed countries... However, there are a number of barriers to this being achieved. These include consumer acceptance, ownership of key technologies and the stance of certain major food importing countries"*

Finally ABC would like to reiterate the existence of a document The Nuffield foundation are almost certainly aware of that entered the public domain around the same time as their "draft for comment". The report was entitled "GM crops – going against the grain" and was published by Action Aid.

ABC feels that GM is one solution for sustainable agriculture in the developing world and that the Action Aid report focused on many long-term ongoing issues for the developing world that are not specific to GM technology. The biotechnology industry is committed to working with developing countries on the safe, responsible and ethical introduction of GM technology to meet developing world needs. We feel it would very helpful if the Nuffield foundation spent time considering the claims of Actions Aid's report, which may indeed be valid in principle, but unrelated to GM specifically. They would appear to be designed to raise the charities profile and appeal to certain sectors of donators in the developed world. Whilst this approach ensures air time, we believe that these reports are adding to the confusion surrounding this debate and so reducing the ability of the developing world countries to choose whether they wish to move forward and develop this potentially valuable technology..

In conclusion, ABC feel the draft document is a responsible approach to assess the risk benefit analysis of GM crops for the developing world, and realises that case by case assessment is essential as is comparing the potential use of GM crops, not to an idealistic world, but to what is currently available in these developing countries.

ABC would welcome the opportunity to contribute further if required.

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REFERENCES

James, C. 1997. Progressing Public-Private Sector Partnerships In International Agricultural Research And Development. ISAAA Briefs International Service for the Acquisition of Agri-Biotech Applications (Brief 4):1 - 40.

Foster, M., 2003. Agricultural biotechnology: potential for use in developing countries. Presented at "Biotechnology and agriculture" National Convention Centre, Canberra March 4th

Rabobank 2003, TO COME

NOTES TO EDITORS

The Agricultural Biotechnology Council (ABC) was set up in 2002 to provide a forum for the debate and education surrounding GM technology in the United Kingdom.

The members of ABC are BASF Bayer CropScience, Dow AgroSciences, DuPont, Monsanto and Syngenta. These companies are working together to promote a fair debate surrounding the production of GM crops and also to provide education about GM in the UK.