

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.

ISAAA AfriCenter and the African Biotechnology Stakeholders Forum (ABSF), Kenya

**Contributions to the Nuffield Council on Bioethics Report
The Use of Genetically Modified Crops in Developing Countries**

The report gives a succinct description of the implications and consequences of use of genetically modified crops and as rightly observed, application of genetic engineering in developing countries should be considered on a case-by-case basis owing to the uniqueness and dynamism of the agricultural sector.

Contributions to Executive Summary...

In Africa, the impact of HIV/AIDS on the agricultural sector in terms of loss of the labour force is frightening, currently projected at 18%. In the wider social context therefore, use of genetically modified crops that reduce labour could significantly address specific social and economic crisis facing rural communities as a result of the AIDS pandemic.

Suggested addition...

Education and access to information on GM crops

In Africa public awareness on genetically modified crops and issues surrounding them is still very low while mechanisms for disseminating balanced information are weak. This undermines informed decision-making process by the wide range of stakeholders. We recommend that massive biotechnology education programs in both formal and non-formal education levels be mounted to enhance understanding of the science.

Impact of European regulations on GM crops...

Africa stands to suffer most because of the historical relationship with Europe. Currently, fifty percent of Africa's trade is to the EU. There are mixed reactions in Europe over importation of beef from Namibia because of using GM feed from South Africa. This example raises moral questions regarding the impacts of EU's regulations in a global economy. Another serious impact of the EU regulation on GM is on the real and potential loss of research links and collaboration with Africa, which will again undermine the pace of biotechnology development in Africa, raising the risks of non-access even higher.

Micro-nutrient enriched GM crops.

The nutritional vulnerability in the sub Saharan Africa is severe and is projected to grow by 30% in the next decade. Of the global 230million children who suffer from Vitamin A deficiency and the 800 million people who are malnourished, more than 25% are from sub-Saharan Africa (BTA, 2003). Again, with the AIDS pandemic taking its toll on agricultural labour force, food supply deficits and

decreased healthiness will lower agricultural productivity further reducing food availability. There are real needs of using the technology to enhance the quality of foods available.

Licensing of Patented GM technologies...

Rural communities in Africa are custodians of rich biological and genetic diversity. There are concerns that use of genetically modified crops could stripe them of their right to benefit from their resources especially with the current patenting and MTAs that seem to favour private companies. This calls for strong regimes to empower farmers with negotiation skills and equity in benefit-sharing of genetic resources.

Appendix 2...

On importance of labour intensive agriculture...

African researchers and scientists take a different view regarding the issue of research seeking outcomes that are labour intensive. Rightly, agricultural workers gain meaningful employment from agriculture, BUT HIV/AIDS scourge has taken its toll and labour shortages are becoming a major concern in Sub-Saharan Africa. Child-abuse becomes more prevalent with labour-intensive agriculture denying them the right to education and dignity. In Kenya for example, the losses in agricultural production from AIDS at household level range from 10-50%. As well, the rate of infection among women has negatively impacted on nutrition and poverty given that women contribute most of the labour in agriculture from production through post-harvest. Labour saving technologies such as GM could greatly relieve women of this burden and facilitate social welfare and skills enhancement. Secondly, African countries have set their one-decade target towards industrialization, meaning that most of the agricultural labour will need to be released for industrial development. Arguing that Africans should aim at agricultural research whose outcomes are labour intensive is retrogressive and morally repugnant.