

**Public Debate on GM
Technology via print news
media in southern Africa**

***The case of GM maize in South
Africa and Zimbabwe***

Pascal N. Mwale, Wits University (Jo'burg, South Africa)

Aim/Question

- What public debate on science looks like in print news media.
- On [for our] reflection, what this (apparent look) implies for questions of
 - (i) **publics of science**—i.e. their emergence and constitution ;
 - (ii) **power** and visibility and audibility, that is, in what is tentatively referred to as science communication in southern Africa, e.g. South Africa and Zimbabwe
- Key Question: **is science democratizing** in southern Africa and in the rest of Africa?

Background and Rationale

- Hunger or maize shortages in most of southern Africa, which became severe between 2001 and 2002. Worst hit countries: Malawi, Mozambique, Lesotho, Swaziland, Zambia, Zimbabwe.
- UN WFP offered wholegrain maize from the US. Allegation: the maize was genetically modified (GM).
- At first, the Zimbabwe government rejected the allegedly US-produced GM maize. Eventually, government accepted the suspect maize on condition it was milled into fine ground flour prior to distribution to the six million or so hunger-ravaged people. (Zambia rejected it in any form—wholegrain or milled. Malawi and Mozambique followed the example of Zimbabwe. Swaziland accepted it in any form).
- Total rejection and conditional acceptance of the GM maize sparked off a regional debate on GM foods in particular and GM technology in general.
- South Africa had enough food to feed its people during the said period. But, it was drawn into the regional debate for various reasons, chief of which were that it was moving at a rather rapid pace in its adoption of what was seen generally as a globally controversial technology, and was reportedly seen as a 'launch pad' and 'gateway' into the rest of Africa of GM technology.
- The debate in South Africa was largely physically organized, reported on and mediated by the news media such as the press.
- By contrast, the debate in Zimbabwe was largely 'mediatized', that is, it was enabled, eventuated, activated (or played) and processed largely by instruments of the media.

Method

- Research material: articles largely from print news media.
- Zimbabwe: 24 articles from local, regional and overseas clusters of newspapers.
- South Africa: 67 articles from local cluster of newspapers
- Periodization: SA: 1999-2006; Zim: 2001-2004. Focus of paper: 2000-2005.
- Sample's features: the articles capture the debate and so they display, or are characterized by, the debate. They are characterized by the fact that the scientific was pushed into the socio-political, that is, they highlight elements that were possibly driven largely by political, 'public interest', economic, trade, investment, ethical, and other not-so-obviously scientific anxieties. As a group, the articles contain major themes that drive the dynamics of the debate in both South Africa and Zimbabwe, arising at the intersection between science, politics, and society.

Obvious Key Issues in Zimbabwe's debate

Admixture of scientific and non-scientific issues:

- possible contamination of local seed varieties
 - (i) erasure of informal seed market due to takeover of seed market by foreign biotech companies like Monsanto whose (GM) seed is recyclable just as it is expensive and outside the reach of many small-scale and subsistence farmers who are the major producers of food crops maize the staple food
 - (ii) possible loss of EU export market for peas
- possible contamination of beef through GM fodder for cattle
 - possible loss of EU export market for Zim's beef
- possible breach of indigenous people's rights over biological diversity or biodiversity
 - foreign biotech companies would claim IPR and patents over Zim's biodiversity
- unsafe for human consumption: milling the GM maize would not help things at all
 - Americans ate GM food in small quantities and in highly processed forms and there were no adverse effects on human health
 - The US government was allegedly helping its GM commercial crop farmers find a market in hunger-stricken southern Africa.
- Others: damage to the environment

Not-so-obvious key issues in Zimbabwe's debate

Basis of the not-so-obvious issues: *attribution and distribution of responsibility for the hunger*, beyond the climatic factor of drought

- **Land reform program**

- about 4,500 'white' farms were evicted from their farms

- it was debated whether they were largely overseas export-oriented commercial crop (e.g. tobacco) farmers, or largely food crop farmers oriented towards feeding Zimbabweans

- allegedly seen generally as an issue inherited from colonization; i.e. as a delayed program and now hastily and harshly implemented program

- **Politics**

- the question of what was seen generally as a repressive regime's 'political incompetence' to handle a food crisis of high magnitude

- the allegation that government monopolized relief food procurement and distribution. Allegedly, the government-owned and -controlled Grain Marketing Board made it very difficult for other stakeholders, including NGOs and the only opposition party, the MDC, to import relief food for the hungry people

- **Bad economic policies**

- the economic structural adjustment programs of the World Bank and the IMF had already paralyzed the agricultural sector by pressuring government to effect the removal of market food price controls and of farm input subsidies, thereby squeezing many small-scale and subsistence out of food cropping

Key Issues in South Africa's debate

- Biosafety legislation, control and regulation of biotechnology and its most notable products [GMO Act (1997) too lax]
 - GM labeling had loopholes
- Human safety and health—unclear whether GM foods were safe or unsafe to eat
- The biotech corporate industry—foreign and monopolistic
- Food security—doubts that GMFs would resolve Africa's number problem, i.e. hunger
- GM seed—contamination of hybrid and indigenous seed
- Likely collusion between the foreign biotech corporate industry and government [Biowatch SA v. state and the biotech industry, 2004-2005. Pretoria High Court]
- Likely irreversible damage to the environment and biodiversity
- Possible loss of existing international trade partnership and links with EU markets that were anti-GM
- Possible experimentation of human beings—as guinea pigs in GMO field trials
- Economic benefits and risks of adopting GM cropping-- unclear in South Africa and the rest of Africa

Interlocutors

Zimbabwe

- Journalists—overseas (e.g. *Guardian*, *Washington Post*, *Ottawa Citizen*, *Reuters*, *Associated Press*, *Chicago Tribune*, *Daily Telegraph*)
- Local journalists (e.g. *Daily News*, *Zimbabwean Independent*)
- State agencies and political groupings (e.g. The Minister of Lands, Agriculture, and Rural Resettlement, the State President)
- Foreign aid agencies (USAid)
- UN agencies [UN WFP public affairs officer (Harare), UN FAO Director-General]
- Farmers unions and cooperatives (Commercial Farmers Union of Zimbabwe)
- Small-scale farmers

South Africa

- Social movements [e.g. Biowatch SA, The South African Freeze Alliance on Genetic Engineering (SafeAge), African Centre for Biosafety (ACB), Environmental Justice Networking Forum (EJNF), Church Environment Network]
- Small-scale farmers
- State agencies and political groupings [e.g. parliamentary portfolio committee on agric, dept of agric, dept of science and technology, dept of enviro.affs&tour, ministry of health, executive council for GMOs, registrar for genetic resources, the ANC (*Umrabulo*), IFP, DA]
- The biotech industry (Monsanto, Syngenta, Stoneville, Pedigree Seed Co., Dow Agro-Sciences)
- Local journalists (e.g. *Business Day*, *Star*, *Mail & Guardian*, *Sunday Times*, *Cape Times*, *Cape Argus*, *Mercury*, *Pretoria News*)
- Biotech consultants, scientists, biotech authors

Some observations on issues

- Certain issues were key to the debate, regardless of locale.
- Interlocutors' views on almost all issues differed significantly. Moreover, the interlocutors' views on almost all issues diverged quite considerably.
- Difference of issue-type and divergence of views suggest the complexity of the debate itself.
- There was reasonable disagreement, and the disagreement was persistent and sometimes profound.
- There was no tendency to resolve any issue, or to reach shared understanding. Knotty and sticky questions were left unanswered.
- Lingering doubts and a myriad of uncertainties characterised the debate [that's partly why the debate continues to this day].

Some Observations on Interlocutors

- Interlocutors seemed to have social and/or political advantage. interlocutors would be seen as people who wield power and command authority, and hence they tend to exert significance influence on major decision-making processes in society. Theirs would be the sort of views and opinions the media tend to seek out and publicise. Thus advantageously positioned, they were able to interact with the media in more or less direct ways, relying barely on intermediaries, i.e. the media's tendency to rely on 'official sources'.
- Apparently, these socially and/or politically advantaged interlocutors comprised the majority of the imagined 'publics' of the debate. They can be seen as 'Issue publics,' or 'text publics,' because we are only able to identify them through a set of issues, or a concatenation of circulating texts of the debate.
- Socio-structurally, the majority of interlocutors seemed to be based in institutions, where 'institution' implies a 'grouping' with a specific mission. But, this apparent 'institutional cover' may not readily suggest that their views were invariably representative of the shared understanding of their 'grouping.' Neither does it readily suggest that the media, as a whole, consciously or unconsciously, staged a 'virtual' inter-institutional debate.