

Risk, Rights, and Regulation: The Politics of Agricultural Biotechnology in South Africa

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Tailoring Biotechnologies Conference:
Reconstructing Agro-biotechnologies for Development?

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Bt cotton farming in Makhathini

- Very poor area, no other cash crop options
- 80% of land goes to cotton
- Farmers farm one to three ha (but some much larger)
- Almost all cotton production is rainfed in an area susceptible to drought
- Marketing dominated by one company
- Smallholders produce 5-10% of SA cotton needs. SA produces less than half of domestic requirements, and is dependent on int'l price

Aim of Paper:

- Examine how these farmers have been drawn into global and local discursive struggles over biotechnology (pro/anti ‘splitters’ and ‘spoilors’) as both icon and lightning rod:
- Bove vs. Buthelezi
- Examine how these struggles impact the farmers
- In this presentation, I shall focus on struggles over regulatory policy

Argument:

- The regulatory system erected in South Africa sustains the Biotechnology Project, and as such is *not* good for small-scale or ‘resource-poor’ farmers
- BUT:
- The political fights it has generated around agricultural biotechnology have opened up spaces for new actors (esp farmers) and *perhaps* new opportunities for ‘independent participatory action’ (cf. Les Levidow discussion yesterday). As such it *may* be good for small farmers (cf. Schurman/Munro yesterday).

Boundary Work:

- “boundary work incorporates the processes whereby legitimacy and cognitive authority are accorded to knowledge units. In this reading, science is a space that acquires its authority from and through episodic negotiations of its flexible and contextually contingent boundaries and territories.” (Gottweis)
- Boundary work defines those actors, methods, stocks of knowledge, values, and types of organization that are included in the production of authoritative knowledge

SA's Regulatory Boundary Wars:

- A story of ‘mainstream’ pro-biotech interests (including some parts of the state – Department of Science and Technology; Department of Agriculture) eager to stabilize boundaries around narrow conception of relevant knowledge
- Versus
- A group of ‘insurgent’ civil society interests (*including some parts of the state* – Department of Environment and Tourism) who seek to open those boundaries

South Africa: Logics of Regulation:

- Starting point is role of science and technology in creating wealth and improving quality of life
- Conditioned by urge for global competitiveness – possibility to ‘leapfrog into the future’
- Laid out in 1996 White Paper on Science and Technology and 2001 National Biotechnology Strategy
- Framed by a meta-narrative of development:

Meta-narrative of Development

- Conception of modernity founded on ‘knowledge-based economy’
- Geo-economic vision based on political-economic imperatives of global competitiveness
- Belief in the virtues of privately funded and privately pursued innovation
- → ‘national innovation strategy’: incorporation of govt, industry, and university researchers into *cooperative networks* of knowledge production

Framework for Biotechnology Strategy

- Regional Innovation Centres
- Innovation Fund
- Close collaboration between academic researchers and industry
- R&D funding through contracts with international companies until an 'entrepreneurial culture' develops
- Continued domination of research agenda by MNCs

Boundary work and Biotechnology

- Innovation Strategy and Biotechnology Strategy is a governance system for technology and development in which particular actors, discourses, norms, and organizational nodes are privileged;
- Also a political field subject to 'boundary work' as different constituencies jockey to shape 'rules of the game' for coordination and cooperation in the system
- Tensions between outward orientation (technology and private intellectual property rights); and commitment to democratic inclusion and voice

Norming of Biotechnology Regulation

- Central Role of SAGENE (SA Committee on Genetic Experimentation)
- Narrowly drawn 'circle of expertise'
- Non-transparent and exclusive process
- Minimal allowance for public participation
- Modeled on US approach: substantial equivalence
- No account of precautionary principle
- Froze out farmers and consumers
- Separated realm of biotechnology policy from development policy

Emergence of Resistance

- 1997: BioWatch: 'to publicise, monitor, and research issues of genetic engineering and promote biological diversity and sustainable livelihoods'
- 2000: SAGENE: moratorium on production and importation of GMOs
- Motivated by three sets of citizenship rights: safe food; healthy/sustainable environment; consumer's choice

Effects of Activism

- NOT turned the tide of biotechnology
- Invoked political discourse that has shifted the normative framework for biotech regulation
- Drawn into existence a counter-movement: AfricaBio
- Drawn 'resource poor farmers' into the politics of biotechnology

Effects on Farmers?

- Likely to *weaken* controls over the technology in the field
- Farmers are likely to use, acquire, trade Bt seeds outside of the contract
- Farmers will not maintain refuges
- Seed companies are unlikely to police the conditions of the contract rigorously
- Possibility for 'local innovation'?