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Mobilizing Against GM Crops in India, South Africa and Brazil

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This paper explores the national and transnational character of mobilization against GM crops in India, South Africa and Brazil in the ten-year period to 2005. By examining the contexts and practices of mobilization across the three countries, and in particular the complex, often fraught, local and global connections, the paper examines the diverse mobilizations that have occurred. The paper argues that to understand these processes, particular national political and economic contexts must be appreciated, alongside how the GM debates articulate with other foci for activism and the complex and often fragile nature of alliances that make up activist networks. The paper shows how the debate about GM crops has become a much wider one: about the future of agriculture and small-scale farmers, about corporate control and property rights and about the rules of global trade. In sum, a debate not just about the pros and cons of a particular set of technologies, but about politics and values and the future of agrarian society.

Keywords: biotechnology, GM crops, India, South Africa, Brazil, mobilization

INTRODUCTION

This study explores the local and transnational character of mobilization dynamics around GM (genetically modified) crops in India, South Africa and Brazil over the ten-year period to 2005. The story starts in the mid-1990s with the first concerted attempts to introduce GM crops. In India, transgenic material – Monsanto's Bt product[1] – was first imported in 1995 and, in 1989, the first biosafety regulations were approved. However, Bt cotton crops were not approved for commercial release until March 2002, although several years of illegal plantings

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[1] Bt cotton is a transgenic product based on the insertion of the Cry1a gene from the bacterium *Bacillus thuringensis*. It confers resistance to some insect pests, notably the bollworm *Helicoverpa armigera*.

of 'pirated' GM cotton had occurred previously.[2] In South Africa, the first Bt cotton trials were started by Monsanto in 1992 under the apartheid regime, with transgenic cotton released for commercial use in 1997. In 1998 yellow Bt maize was also commercialized, with Bt white maize following in 2000. The South Africa GMO Act was passed in 1997, but did not come into force until the end of 1999. In Brazil the 1995 Biosafety Law created the regulatory authority CTNBio (the National Biosafety Technical Commission), which in 1997 approved the first trial of Monsanto's 'Roundup Ready' herbicide-tolerant GM soya. This was only formally approved for sale in 2002, following long wrangles in the courts. In March 2005, a new Biosafety Law was ratified giving CTNBio the authority to approve plantings.

GM crops were introduced into very different agrarian settings in the three countries. In Brazil, GM soya was smuggled across the border from Argentina, and used extensively by large-scale commercial producers, without paying the premium price that Monsanto was charging their competitors (da Silveira and de Carvalho Borges 2005). In South Africa, similarly large commercial concerns were strong advocates of GM maize, particularly as a route to cost reduction, as subsidies to the largely white commercial farm sector were progressively reduced. GM crops only later became linked to smallholder farming, especially with Bt cotton in the Makhatini Flats area of KwaZulu Natal (Thirtle et al. 2003). Only in India were GM crops primarily smallholder crops in the cotton farming areas, where they were adopted on a massive scale even before formal regulatory release. Here the incentive to reduce the costs of pesticide use on cotton was high, and Monsanto was keen to move beyond their traditional focus on agro-chemicals into the seed sector (Glover 2007). Thus, different groups of farmers were primarily concerned with planting GM crops – large-scale commercial producers of soya and maize in Brazil and South Africa, and the often relatively well-off smallholder growers of cotton, able to afford the inputs, in India and (to a lesser extent) in South Africa.

The arrival of GM crops has, however, not occurred quietly. Over the past decade a storm of protest has erupted in all three countries, fuelled by a variety of groups, intense media interest and a growing global debate. Debates have centred on commercialization decisions for GM crops, scares about the prospects of 'terminator' genes,[3] alongside wider concerns about patenting, corporate control and the consequences of globalized trade relations. In many respects the framing of opposition to GM crops was similar in all three countries, but there were important contrasts, derived from local considerations and contexts, as will be shown below. In all three countries this period saw an array of anti-GM groups emerge. Each had varying, and sometimes unclear affiliations and

[2] As one reviewer of this paper correctly pointed out, the term 'pirated' GM cotton is a misnomer in the India context given that there is no patent protection in place.

[3] 'Terminator' genes refer to Genetic Use Restriction Technologies (GURTs), where inserted genes prevent use in the following generations. Despite the furor over this technology, it has not as yet been released.

associations with farmers' organizations and movements. Sometimes there was clear alignment of political and material interests; sometimes these were less clear. A key question, explored below, is to ask, who were these new anti-GM groups speaking for and what interests were they representing? Thus, new alliances and networks were made at national, regional and global levels, creating a range of sites for mobilization; each with 'local' and 'global' dimensions, resulting, in turn, in a variety of intersecting forms of transnational and local mobilization. These local efforts have tapped into networks of global activism, connected by the Internet and extensive links between groups coming from agrarian, environmental and consumer campaigns, among others.

Anti-GM activists argued that, due to monopoly power, GM crops would result in the costs of inputs increasing and the diversity of seed choice declining, forcing poorer farmers out and allowing a form of uniform, corporate-capitalist agriculture to dominate. These risks would be compounded, they argued, by potential threats to biodiversity from the spread of GM genetic material, and consumers could be additionally at risk from potentially unsafe foods. Pro-GM advocates argued, by contrast, that GM seeds would reduce costs for farmers in a scale-neutral way, allowing rich and poor alike to benefit. By removing farmers from the burden of purchasing pesticides, for example, both health and economic benefits would result. No known health or environmental risks existed, they claimed, and, if governed by a streamlined regulatory system, all would be well, and the benefits of a 'gene revolution' would be realized. These stylized arguments were played out in very different ways in different places, with different elements being emphasized, depending on the context. Across the case-study countries, diverse alliances were forged between those concerned with the protection of indigenous crop varieties in dryland farming areas, land activists arguing for radical land reform, nationalists interested in protecting the national economy and culture from outside influences and anti-globalization protestors, linked to a growing international network of activists.

Some commentators have dismissed anti-GM mobilizations as merely copycat responses by elite activists, using links with farmers' organizations as a way of raising funds (e.g. Paarlberg 2001). But are such efforts in reality more than this? Are these not new forms of legitimate political expression, ones replete with contemporary contradictions, but nevertheless an important contribution to democratic debate in a context where, because of the forces of neo-liberalism, alternatives have little space? This paper argues that, in different ways, these anti-GM groupings are all examples of hybrid network forms of social activism, linking people, issues and politics in new ways around globally-defined issues, but always co-constructed in local contexts and through local political processes. By tracing connections from three national settings to the international arena, and by examining links between the three countries, the study assesses the degree to which anti-GM activism adds up to a transnational movement, generated by a process of 'globalization-from-below' (Appadurai 2000), and, in turn, also raises questions about processes of representation, and the relationships between anti-GM groups and a differentiated rural farming populace.

The paper starts with an examination of mobilization dynamics, exploring comparatively both the transnational and local character of activism. This located approach focuses first on the 'messy, close up view of collective action' (Edelman 2001, 286), before drawing out broader insights on the structural, political and historical factors conditioning such practices. Across a series of different sites of engagement, the study asks: what issues are being raised and what demands are being made? How are these being framed and by whom? What connections are there between local and global sites of engagement? And, most critically, what do these practices of mobilization tell us about the transnational character of anti-GM mobilization, and its social and political bases.

For each country, the aim has been to focus on unfolding events over a ten-year period to 2005, and to set this analysis in a wider historical view of mobilization and politics within national, regional and global settings. The empirical material presented is largely based on semi-structured interviews with key players,[4] combined with archival analysis of documents – including official government records, activist organization publications and newspaper articles.

MOBILIZATION DYNAMICS: THREE COUNTRY CONTEXTS

India

In India, the debate about GM crops was brought to national media attention for the first time in 1998 around the so-called 'terminator' controversy.[5] Monsanto's importation of transgenic cotton raised fears that such a product would include – in the labelling of the global anti-GM activists, notably RAFI (Rural Advancement Foundation International, based in Canada)[6] and GRAIN (Genetic Resources Action International, based in Spain) – a terminator gene, which would prevent replanting and make farmers reliant year-on-year on the seed companies. This was emotive stuff, and highly effective in raising fears, despite Monsanto's strenuous denials. These fears touched many chords. For some, Bt cotton became symbolic of a much wider struggle against the dominance of multinational capital, particular forms of technological modernization and globalization more generally.

By mid-1998, a public relations battle was on. Monsanto launched a series of adverts in the press and, at the same time, NGO groups launched the 'Monsanto Quit India' campaign to heighten awareness (RFSTE 1998). Although it was well-known that field trials had been established, details of trial sites became public only in November 1998. The KRRS (*Karnataka Rajya Ryota Sangha*, the now split Karnataka farmers' movement) immediately announced the 'Cremate

[4] A total of over 70 detailed interviews were carried out as part of this research in India (mainly February 2004), in South Africa (March 2004) and in Brazil (mainly April 2004). Work in India built on longer-term research between 2000 and 2005 on this theme (Scoones 2005a).

[5] For example, see Omvedt (1998); Shiva (1998).

[6] Now known as the ETC Group, see http://www.etcgroup.org.

Monsanto' campaign. The late KRRS leader, Professor M. D. Nanjundaswamy, identified a series of slogans: 'Stop Genetic Engineering', 'No Patents on Life', 'Cremate Monsanto' and 'Bury the WTO'. He gave notice that all trial sites in the southern Indian state of Karnataka would be burned, with the media in attendance.[7] The US embassy, in turn, requested police protection for US companies in Bangalore, and the High Court of Karnataka ruled to protect sites and the property of the Mayhco seed firm (*Samykta Karnataka* 1998). By December, the KRRS threatened to launch a criminal case under the Union Seed Act in magistrates courts against Monsanto, as well as the state and central government, on the basis that trials were illegal (*Deccan Herald* 1998).

The media debate continued at a high pitch through 1999 and 2000, with plenty of opportunity for press commentary prompted by a number of workshops and consultations.[8] Monsanto was still in the spotlight following its attempts to import plasmids for transgenic crop research at their Bangalore research centre (*Economic Times* 1999; *The Hindu* 1999). There were by now some more concerted counter-moves by the pro-GM lobby, with interventions from non-resident Indian scientists (most notably C. S. Prakash, from Tuskegee University in the USA, who made several visits to India and managed to place a wide range of articles in the press), other farmer leaders (including Sharad Joshi of *Shektari Sanghatana* and Chengal Reddy of the Andhra Pradesh Farmers' Association)[9] and industry commentators, including a more measured contribution from Monsanto, which had commissioned a public opinion survey, unsurprisingly showing how farmers were in support of biotechnology. There remained very few local Indian scientists prepared to enter the fray, although the likes of the Nobel laureate and Green Revolution hero Norman Borlaug were not shy of offering their opinion in pieces placed in the Indian press.

Soon after Bt material was imported, objections were presented as a court petition by the Research Foundation for Science Technology and Ecology (RFSTE), headed by Vandana Shiva, disputing the form and content of the regulations (Shiva et al. 1999). Since then, the courts have seen continued action, with public interest litigation following thick-and-fast. The RFSTE petition involved extensive hearings at the Supreme Court and vast amounts of evidence. A Delhi High Court action by the Gene Campaign in 2001 claimed that the illegal sales of GM seeds in Gujarat were made with the knowledge of the government. A further petition by the Gene Campaign argued for the right to information disclosure on trial results under the Freedom of Information Act.

[7] According to press reports, the first burning took place on 28 November 1998 with the consent of the farmer. Activists from KRRS along with the (little known) 'Progressive Front', 'Action Front for the Untouchables', 'Karnataka Liberation Front' and the 'Organisation of the Landless', according to a press release from KRRS, Bangalore. The burning was also attended by a five-member team from the Geneva-based 'Global People's Action Group'.

[8] For example, the TERI 'stakeholder dialogues'; the National Science Summit in Bangalore; the MSSRF national consultation on GM plants, Chennai.

[9] See *Financial Express* (1999, 2000, 2001).

Other more direct forms of protest have also continued, with the KRRS active in crop-burning media events, and arguing for a five-year moratorium on GM seeds (*Economic Times* 2001), following the pattern of the established European 'freeze' campaign. Protests have occurred in a variety of places, including regular rallies and demonstrations at Monsanto's former India research headquarters at the Indian Institute of Science in Bangalore (AgBioIndia 2002). Events such as the citizens' juries in Karnataka in 2000 and in Andhra Pradesh in 2001 also provided foci for activists to denounce GM crops and the associated future for agriculture (ActionAid 2000; Pimbert and Wakeford 2002). Media interest remained high, with competing Internet-based services providing alternative views on the Indian scene.[10]

The formal release of Bt cotton in 2002 provoked more protests. Attempts at crop burning during 2002 had mixed results, with some farmers accepting compensation from KRRS protestors for the public destruction of their crop, while others firmly refused such advances and called in the police. In the last few years, protests have been more muted. In part this was because of the failing health of Nanjundaswamy, prior to his death in February 2004. With his grip on the KRRS faction that he controlled faltering, a less coordinated and energetic campaign was evident. However, others remained active. Gene Campaign, for example, held a high-profile conference in Delhi, which argued for an overhaul of the regulatory system.[11] Meanwhile, Greenpeace, with their India office now located in Bangalore, was gearing up for consumer-based protests in shopping outlets, and eye-catching protests around regulatory discussions.

In 2003 and 2004 protests continued, but many activists had their eye on the three-year review of the Bt cotton results in 2005. Much was invested in providing alternative evidence based on surveys in the cotton areas, which would demonstrate the limits of the technology. Many campaign-focused NGOs also had begun to see the anti-GM campaign as inherently limiting, and were keen to provide the other side of the story, developing a narrative about possible alternatives. For example, the Karnataka Coalition Against GM Crops developed links between a range of groups, including those very much located within the alternative agriculture movement in India and beyond.[12]

South Africa

In 1997 the campaign and research group, Biowatch, was formed in South Africa by a small group led by a former university biological scientist, Rachel Wynberg. Biowatch had a relatively low-key start involving a series of workshops, debates and commissioned papers focusing on issues such as labelling and

[10] For example, see AgBioIndia (http://www.Agbioindia.org), supported by Delhi-based activist Devinder Sharma; more international lists (including bio_activists@iatp.org) with a more sceptical crops stance, and Monsanto India (http://www.monsantoindia.com) taking more pro-biotech positions.

[11] See genecampaign.org press release.

[12] Including Green Foundation, ICRA, AME and others.

segregation.[13] By 2000 an allied organization, SAFeAGE (the South African Freeze Alliance on Genetic Engineering) had been launched, inspired by the European 'freeze campaign'. Led by a Cape Town based activist, Glenn Ashton, SAFeAGE raised the tempo with a media-oriented strategy of raising awareness of the GM issue. Regular newspaper articles, TV slots and appearances on talk radio meant that GM arrived as a public issue.[14] The emerging coalition of groups organized a number of high-profile events, pulling in global anti-GM luminaries like Vandana Shiva from India and Tewolde Berhan Egziabher from Ethiopia. To counter this, an industry-funded pro-GM organization, AfricaBio, was launched in the late 1990s (see Friedberg and Horowitz 2004), which attempted to occupy the scientific high ground, legitimizing its stance in terms of scientific expertise. Over this period, there were frequent confrontations between opposing sides on the GM debate, almost always with the same people on the platform.

The debate, however, was dominated almost exclusively by white, middle-class, well-educated activists with bases in Cape Town, Johannesburg or Durban. In the post-apartheid era, left-leaning white activists who had been part of the struggle in various ways before 1994 found themselves in an uneasy position. Largely excluded from the new government machinery, they found themselves in a variety of NGOs that had to refashion their existence to the context of the 'new' South Africa. Attempts have been made to reach out to a broader constituency through links to other organizations as part of building a firmer anti-GM coalition. Thus unions (e.g. the Food and Allied Workers Union), farmer groups (the Organic Agriculture Association of South Africa), consumer groups (the National Consumer Forum; the Safe Food Coalition), rights-based organizations (the Environmental Justice Networking Forum, EJNF), development and environment organizations (Environment Monitoring Group; the World Conservation Union), faith groups (including the South African Council of Churches; the Pietermaritzburg Agency for Christian Awareness; the Ecumenical Service for socio-economic transformation), conservation groups (Botanical and Wildlife Societies of South Africa) and green groups (Earthlife Africa; Earth Women; Trees for Africa) have all been involved in the campaigns. SAFeAGE argues that it is an alliance of over 200,000 people across South Africa.

Making links with international players has also been an important strategy. These have included the Malaysia-based Third World Network, RFSTE in India, and northern-based anti-GM activists associated with GRAIN, RAFI and others. The World Summit on Sustainable Development, held in Johannesburg in September 2002, was an important meeting point, with many parallel workshops devoted to GM issues, and South African participants from a range of organizations were very much involved. This international work has boosted confidence and legitimacy for work at home, which has become increasingly focused on strategic interventions in legal processes, combined with some profile-raising protest actions. In August 2002, Biowatch served court papers to the National

[13] See http://www.biowatch.org.za.
[14] For an example, see *Business Day* (2003, 2004); *Mercury* (2003); *Mail and Guardian* (2000).

Department of Agriculture, who were joined by Monsanto the following year as co-defendants in a case focusing on constitutional rights to access to information on GM trials and approvals. The court hearings were finally held during 2004 with a judgement in favour of Biowatch's case delivered in February 2005. A similarly protracted case involving the approval of Syngenta's Bt11 maize was filed by Biowatch in 2002. The appeal board case was only heard in 2004, with the appeal dismissed, although conditions on Syngenta were applied. In parallel, intensive work with the parliamentary portfolio committees of Agriculture and Land Affairs and Environment occurred, focusing on the bill amending the 1997 GMO Act. The new provisions were finally passed in 2004, prompting a full-scale response from Biowatch.[15]

Meanwhile, SAFeAGE – together with a few of the more activist environmental groups, such as Earthlife Africa, EJNF, Earth Women, Ekogaia – engaged in popular protests aimed at the retailing chains, highlighting issues of labelling in particular. Consumption boycotts – picking up on apartheid era protest tactics – were focused on outlets such as Pick 'n Pay and Woolworths. Trolley runs (where protestors fill supermarket trolleys with goods and request that they are checked for GM products) provided a focus for further media coverage.

In 2005, following the court success by Biowatch, the pro-GM lobby group AfricaBio issued a vituperative statement entitled 'Thoughtless activists continue to misinform and mislead the public'.[16] They claimed that anti-GM activities were undermining human rights and were fuelled by newspaper editors who did not check their facts. The statement claimed that the anti-GM campaigns were part of:

> a well-orchestrated campaign financed to the tune of some $70 million a year by foundations, organic food interests, EU governments, and even UN agencies and programmes. It employs moratoriums and threats against agricultural imports from countries that grow biotech crops, complex and expensive requirements for labeling all GM ingredients and tracking them from seed to store shelf, even outright lies about the safety of biotechnology.

A decade ago, GM crops were barely a concern in South Africa. The government, together with industry and a small cabal of scientists, set the terms. Today, this has changed. A combination of high-profile court cases, on-going demonstrations, a growing media profile and long-term engagement with legislators, bureaucrats and scientists has meant that the GM debate has been opened up to greater scrutiny, even if impacts on decisions and policies have been limited.

Brazil

In Brazil much anti-GM activism has centred on the courts. In 1997, Greenpeace-Brazil filed an unsuccessful lawsuit against the importation of GMOs. In 1998,

[15] See details of all these actions at http://www.biowatch.org.za.
[16] See www.africabio.com/press/biowatch.pdf.

CTNBio, the government regulatory authority, approved five Roundup Ready soya varieties for controlled and monitored commercial release. The consumer organization, IDEC (*Instituto Brasileiro de Defesa do Consumidor*)[17] immediately responded by filing another lawsuit with a federal judge to prevent release. Eventually, an injunction against commercial release was issued in December 1998. Through 1999, protests increased with much media coverage, and attempted to get state-level governments to create obstacles to further expansion of GM cropping. In March 1999, Governor Dutra of Rio Grande state issued a decree requiring a special licensing system for GM companies in the state, and the Rio Grande government ordered Monsanto to provide detailed environmental impact assessments for its operations. Monsanto later successfully sought an injunction to prevent state government intervention in its research station activities. But, thanks to effective state-level agitations, the governor responded by declaring the state 'GM-free' later in the year. This decision was queried by the state legislature the following year, but nevertheless created the appropriate media profile, raised the tempo, and focused attention increasingly on state-level actions.

Meanwhile, at federal level a growing NGO and political party grouping – involving IDEC, IBAMA (the Brazilian Environment ministry's Institute for the Environment and Renewable Natural Resources) and the PT (Workers' Party) – had sought legal intervention to reverse decisions being made by the Agriculture Ministry. The ministry authorized registration of GM soya varieties without a formal environmental impact assessment, which, the complainants argued, was required by law. In August 1999, a federal judge turned the temporary injunctions issued against planting of GM crops into an official court decision. Monsanto appealed against the decision, and continued to lobby hard.

IDEC and Greenpeace meanwhile began to emphasize consumer awareness and boycotts. This focused on the urban, middle-class consumers of the major conurbations, a significant group in Brazil. Drawing on IDEC's strong credentials as a consumer organization and Greenpeace's international experience with consumer boycotts, this approach began to capture media attention. In June 2000 they announced that 11 GM food products were on the shelves of Brazilian supermarkets. Through the latter part of 2000 and into 2001, Greenpeace led protests at supermarkets across the country (Reuters 2000b).

Challenging importation of GM products was another tactic deployed at this time. Greenpeace went to court to prevent the shipping from San Francisco of two large container boats of GM maize for poultry farming. This highlighted the growing trade in GM products, and the increasing dependence of Brazil on them. In July 2000 farmers, led by the Landless People's Movement (MST), attacked a ship in Recife containing GM maize from Argentina (Reuters 2000a).

All of these actions resulted in increasing frustration from government authorities. All cabinet ministers signed a note in favour of GM crops in July 2000, and President Cardoso signed a decree empowering CTNBio to authorize

[17] See www.idec.org.br.

GM crops (Dow Jones 2000). But this only heightened the determination of the anti-GM activist groups, with blockades and injunctions against shipments intensified. With a loosely networked cluster emerging around the campaign for a GM-free Brazil (*Campanha Nacional por um Brasil livre de Transgênicos*), the range of groups involved expanded. The MST – particularly through its connections with the international peasant farmers' movement, Vía Campesina – became increasingly involved, and was able to mobilize farmers in numbers. The World Social Forum in Porto Alegre in January 2001 was an important focus for protest, and continued to be so in the follow-up events of 2002 and 2003, attracting many international activists from around the world. In 2001, over 1,000 MST workers invaded a Monsanto farm in Rio Grande do Sul, destroying five acres of GM soybeans. They were joined by the French farmer activist José Bové, who was arrested for participating. Anti-GM mobilization now hit the international press (*Financial Times* 2001) and attention increased with the ActionAid-facilitated citizens' jury in Fortaleza (Toni and von Braun 2001).

By this stage the campaign involved participation from an impressive diversity of organizations and constituencies – consumers (through IDEC), environmentalists (through Greenpeace and ESPLAR, *Centro de Pesquisa e Assessoria*), development actors (through ActionAid Brasil and AS-PTA, *Assessoria e Serviços a Projetos em Agricultura Alternativa*), education groups (FASE, *Federação dos Órgãos para Asistencia Social e Educacional* and INESC, *Instituto de Estudos Socio-Econômicos*), farmers' movements (through the MST and affiliates) and political organizations (through the PT). Each was able to focus on different areas of advocacy and action – some more direct and protest-oriented; some focused on practical demonstration of alternatives; some through the courts and the media. Thus the network that emerged around the simple slogan 'GM-free Brazil' created a 'discourse coalition' (cf. Hajer 1995), which was able to agitate across a range of different spaces.

During 2002 much hope was invested in the success of the PT in the elections. Many NGOs, activist groups and movement players hitched their aspirations – including what many had understood as a commitment to ban GM in Brazil – on the PT success. But when Lula was elected in October 2002, the jubilation was short-lived. Even before the new government began, the new Minister of Agriculture, Roberto Rodrigues – and a well-known supporter of agribusiness – spoke out in favour of GM crops (*The Guardian* 2002).

Alongside the courtroom wrangling and activist protest from 1998 onwards, GM crops were increasingly being planted in Southern Brazil, despite the bans, decrees and injunctions.[18] Aspirations for a GM-free Brazil were being substantially undermined. In 2003 the Lula government, recognizing the crop's existence in large quantities, faced a major dilemma – either continue to uphold the ban and destroy the crop, resulting in major demands for compensation, or allow its sale. A series of Presidential decrees allowed the sale of GM soya, despite it still

[18] See Nature (2000); Dow Jones (2001).

having not been approved for planting (Reuters 2003a). De facto, Brazil was no longer GM-free.

At this time, a key battlefront became the revision of the Biosafety Law. Monsanto launched a vigorous PR campaign: cinema adverts proclaimed the benefits of GM crops, despite still being nominally illegal.[19] Monsanto also became increasingly frustrated at the loss of royalty revenues from illegally grown GM soya, and pursued this in the courts and in negotiations with major producers (*New York Times* 2003). A key sticking point was the authority of CTNBio, and the place of independent environmental assessments. Although early concessions were won on the draft by the anti-GM lobby, and long delays occurred, the government eventually recognized the full powers of CTNBio, and the bill was passed in March 2005.

Since then the tide has turned against the anti-GM position. With the legal battle now over, CTNBio moved quickly to approve Monsanto's Bollgard GM cotton. By March 2005 Monsanto had reached a royalty agreement with Brazilian soy producers, and a concerted attempt was on to eliminate the black market in seed sales, so ensuring Monsanto's market dominance, pending the release of local varieties from the state agricultural research organization, Embrapa. In the April 2005, the newsletter of the GM-free Brazil alliance vowed to fight on, but with the soya industry now formally committed to GM, the vision of a GM-free Brazil was now virtually dead and buried.[20]

GLOBAL CONNECTIONS, LOCAL ROOTS

So how do we make sense of these anti-GM campaigns in this period, in relation to their local, national and transnational contexts? Was this a flash-in-the-pan set of protests, driven by elite groups and financed by dubious (European) interests, as some claim (Paarlberg 2000)? Or has this period shown the emergence of a type of protest where relationships between politics (and so values and ethics) and knowledge (and not only mainstream scientific perspectives) are seen in a new light, built on transnational solidarities and shared objectives? With GM crops either hailing a bright future for smallholder producers, or certain doom, depending on your position, it is worth exploring how different strands of the GM debate have aligned with different agrarian interests and politics, in turn shedding some light on the class character of the GM issue.

Different sides of the debate have made great play of the position and interests of farmers – as victims (Shiva et al. 2000) or sometimes as heroes (Herring 2005, 2007). But who were these farmers, apparently at the centre of the debate, but too often silent in the discussions beyond some token representation by either side? As discussed earlier, GM crops arrived into very different agrarian contexts, but in all cases the main market was the relatively well-off, more commercially-

[19] See Reuters (2003b); *Financial Times* (2004).

[20] Although the GM-Free Brazil newsletter of 20 December 2007 (see http://www.aspta.org.br) celebrated that GM crops had still not been formally approved by the end of the year.

oriented farmer: 'rich peasants' or 'capitalist farmers', to employ a classification used by some. In some settings, GM seeds were tried out by many different farmers, and in some parts of India there was little other cotton seed available (Stone 2007). But GM seeds were rarely easily afforded by poorer, more subsistence-oriented ('peasant') farmers (Shah 2005). Yet the pro-GM lobby assumes a positive view of the benefits of capitalist farming, even ultimately for poorer producers, given the assumed scale neutrality of the technology and the need to engage with global markets. The anti-GM lobby, by contrast, offers a much more sceptical perspective on the benefits of such an agrarian trajectory, arguing that the penetration of such forms of capitalist agriculture would result in increasing inequality, landlessness and impoverishment, and a further deepening of existing agrarian crises. For example, in the highly unequal dualistic agrarian economies of South Africa and Brazil, the propping up of large-scale commercial agriculture, in the face of on-going demands for land from the poor and landless, is seen as an affront to a commitment to democracy, freedom and development.

A key feature in all three countries has been the global connections that have linked anti-GM activists and debates. Campaigns at a national level have been reflected in global debates about anti-globalization, food sovereignty, farmers' rights and biodiversity, for example. In the loose networks making up global protesters, the GM issue had become a focus for a whole array of different issue-focused protests against the monopolization of knowledge and technology ownership through patents and the TRIPS agreement; for trade justice as part of the reform (or abolition) of the WTO; against the perceived depredations of multinationals (with Monsanto becoming a global target); or in relation to wider rights-focused campaigns around food, health and farming. For many, the battle over GM crops thus became a battle over a much wider agenda, encompassing the big issues of poverty, trade and human rights – with often a poorly-defined category of 'farmer' at the centre of each. This framing of the global debate intensely frustrated pro-GM industry lobbyists, government regulators and many scientists. They felt activists were conflating issues, smuggling in wider protests – and so politics, values and ethical standpoints – into what they saw as a relatively simple and narrow technical issue about GM crops. What was important, however, was the broadening of the frame by national campaigns to highlight these wider issues – of rights and social justice in the context of neo-liberal agrarian policies – beyond the technology itself (cf. Jepson 2002).

While each campaign took very different courses, deploying different strategies and tactics, and involving different actors and networks, all had links to this global domain. A number of international events over the last decade have been important in bringing activists together and consolidating links and networks across sites. The major anti-globalization protests at the WTO ministerial in Seattle in 1999 were a key moment, soon followed by the first World Social Forum (WSF) in Porto Alegre in 2001. Since then the WSF in Brazil in 2002, 2003 and 2005 has been an important meeting point, as was the Mumbai WSF in 2004 and the World Summit on Sustainable Development in Johannesburg

in 2002, as well as global meetings of the Vía Campesina and other campaign groups and movements.

This globalization of protests had a number of consequences. It exposed people to a wider network, linking people through the Internet, email lists and meetings at fora and workshops. It allowed confirmation and support for positions that were often being fought in an isolated manner back at home. The growth of international anti-GM 'stars' provided a sense of occasion to an otherwise average protest event, garnering publicity and media coverage along the way. Thus the annual WSF events also became opportunities for staged protests – by José Bové (from France), Vandana Shiva (from India), Peter Rosset (from the USA), Percy Schmeiser (from Canada) and many others.

Perhaps no one typified this move to the global arena more than the late Professor M. D. Nanjundaswamy of the KRRS in India.[21] Through his engagement in the anti-GM campaign – and his links to global farmers' and anti-globalization movements, notably Vía Campesina – he moved from being a local politician and state-level farmer leader to an international figure. He increasingly moved in international activist circles, and was revered as a 'southern' farmer leader, a voice from the poor and marginalized.[22] In an interview he reflected: 'there is no difference between international, domestic and local issues these days. Seeing international contexts is important for local activism. Seeing what happened in Seattle and Prague first hand was significant'.[23]

He was also almost continuously in the media spotlight, including the international press, with his well-staged burning of field trial sites, replicating – and indeed encouraging – the protest tactics of Greenpeace, Genetic Snowball and others in Europe. Such events were also often in the presence of international observers and activists, many now familiar names on the anti-GM global circuit. Over this period, the burgeoning Internet-based activist networks also propelled KRRS and Nanjundaswamy into the international arena, with his press releases copied to thousands of in-boxes throughout the world.

MOBILIZATIONS IN PRACTICE: SITES OF ENGAGEMENT

These global engagements were, however, very much influenced by processes of mobilization in particular national contexts. These took a variety of forms: some, as we have seen, were focused on formal, invited spaces where activists engaged in consultations with state agencies around regulatory reform; others were convened by activist networks. In India, for example, the set-piece 'tribunals' organized by RFSTE[24] occurred alongside Monsanto-led events. Both sides used

[21] See the contributions in Brass (1995).

[22] Even before the GM campaigns, the KRRS had a history of high-profile, media-grabbing direct action, targeting inter alia the Miss World competition, Kentucky Fried Chicken and Cargill. The burning of the Cargill depot in Karnataka resulted in a good deal of condemnation in the press and among a wider group of activists because of the destructive manner of the protest.

[23] Interview, M. D. Nanjundaswamy, Bangalore, 27 February 2001.

[24] See http://www.vshiva.net/archives/campaigns and Business Line (2000).

similar tactics. For example, a major Delhi conference organized by the Gene Campaign in 2003 was disrupted by farmers bussed in by pro-GM groups (Suhai 2003). In both India and Brazil, experiments with citizens' juries were also organized by anti-GM campaign and development groups (see above). These events provided ideal media opportunities, with the results carried in both local and international media.

Yet much engagement by anti-GM activists was behind-the-scenes informal lobbying and networking. The well-educated, urban, middle-class profile of many activists meant they were also well-connected, and able to articulately put a case to senior ministers, civil servants and others. For example, in India activists effectively played off the central Department of Biotechnology, the Ministry of Environment and Forests and the Ministry of Health and, within agriculture, the Ministry of Agriculture of the Union government and some state government departments. With access to the right people, activists have thus influenced the process by careful briefing and exposure.

A key element of lobbying beyond the bureaucracy is to ensure that elected politicians are on board. If key elected figures back a position, they can call the shots, even in the face of reluctant civil servants. Tactics in Brazil have, as discussed, been very much hooked into electoral politics and the importance of state-level support for an anti-GM stance. The close involvement of movement actors in the PT campaign for the national presidency meant that activists had a strong sense (if not actually a firm commitment) that a Lula-led government would institute a ban on GM crops. That this did not happen was, as discussed above, a major disappointment, but, nevertheless, resulting divisions within the Lula government have been exploited as a key bargaining route. During the passage of the Biosecurity law, MST activists camped outside the parliament in Brasilia for months, providing a continuous presence outside, while discussions were going on inside. In South Africa, the focus has been on influencing the parliamentary portfolio committees on Environment and Agriculture and Land Affairs. In South Africa, given its constitutional commitment to open forms of democracy, these spaces are relatively easy to access: any citizen can present arguments to the committee as evidence. But securing influence is another matter, which requires more astute lobbying. Again, political and personal differences are researched and exploited, personal connections are capitalized upon and briefings seed key arguments. For example, the Cape Town-based NGO, Environmental Monitoring Group, took the whole Agriculture and Land Affairs portfolio committee on a field trip to a 'sustainable agriculture' project, as part of an attempt to demonstrate that there are viable small-scale agricultural alternatives in the country.

If the political process is prone to exclusion, fickleness and often ultimate disappointment, then another route available in all three countries is an independent court system. Procedural compliance to statutory regulation and constitutional/rights-based challenges have both been an important part of anti-GM activism. Raising issues in the courts can be a critical route to heightening political – and media – awareness of an issue, and galvanizing politicians. The ability to

pursue public interest litigation in India, for example, is seen by many as critical to a functioning democracy. That it is cheap and relatively easy to make a submission, and that the court is obliged to hear it (even if the plea is rejected) is seen as part of basic democratic rights. A day in court – or even an hour – is an opportunity to raise awareness, attract media attention, call witnesses, and to lay out arguments in public. In India many such cases have been submitted – demanding the release of information on trial data, full environmental assessments, the appropriate sequencing of regulatory testing and compensation for failed crops.[25] In Brazil the courts have been used very successfully, formally banning the planting of GM crops until 2005. This has allowed the consumer group, IDEC, together with Greenpeace, to argue that GM crops should not be planted unless a full environmental assessment is undertaken in accordance with existing environmental law. A process of procedural delay, even though ultimately unsuccessful, allowed the issue to remain in the public – and political – eye.

Generating knowledge and presenting evidence is seen very much as a key role for activist organizations, and not only in court cases. But the relationship between advocacy and research is often an uneasy one, as many activists acknowledge. A staff member from Biowatch in South Africa frankly admitted that: 'in the early years the data from our research was not good enough. We could not make the arguments'. In part, this was a matter of resources. As they went on to observe: 'Monsanto can produce data for any occasion. They can get university researchers from anywhere in the world to come and do work'.[26] In India, for example, following the formal release of Bt cotton in 2002, the competition between interpretations has been intense. Literally dozens of 'surveys' have been carried out, each proclaiming a different result (Scoones 2005a, 289–91).

But all such different findings are inevitably context-specific. Often the most effective storytelling is based on showing results on the ground. Projects focusing on small-scale sustainable agriculture have thus increasingly become demonstration sites and witnessing opportunities, and so part of the overall story. The narrative becomes not only one of impending disasters, but also one that encompasses a positive alternative. In all three countries, field-based agriculture practitioners are key elements in anti-GM networks. Taking people to project sites – politicians, regulators and scientists – is often very powerful.

All of these mobilization practices – whether informal lobbying, invited consultations, court cases or demonstration projects – of course interact. Different parts of the wider activist network in each country have focused on different strategies. But few subjects generate more debate than strategies and tactics for

[25] For *Times of India* (1998), Gene Campaign also filed a public interest litigation petition with the Supreme Court in January 2004, arguing that the regulations be amended to comply with constitutional rights (see http://indiatogether.org/2004/jan/env-gmsyspil.htm;http://www.genecampaign.org). In addition to Supreme Court petitions, an increasing number of other PIL cases have been submitted to state-level High Courts.

[26] Interview, Cape Town, March 2004.

direct action protests. What might be destructive to a wider acceptance of ideas? What might undermine attempts at informal lobbying or court cases? Is non-legal direct action, including the destruction of property and crops, acceptable? Should protests be aimed at the media, raising a profile for other actions, or be an end in themselves? There are as many views on these issues as there are activists and groups, and no simple answers.

As noted earlier, in all three countries, direct actions and protests of different sorts have occurred at different moments over the past decade. In India the KRRS led the way with the destruction of Bt cotton field trial sites as early as 1998, preceding the wave of similar style protests in Europe. These were media events – staged, dramatic, worthy of copy and providing good photo opportunities. As in Brazil, they became part of the global activist tourist circuit. International activists were invited to witness the events, and report back to their networks. Their presence provided yet another media angle, and helped assure that any police actions were not too excessive. Nanjundaswamy's lust for publicity certainly paid off. KRRS protests between 1998 and 2001 were almost continuously in the media. Sometimes they targeted the Monsanto Research Centre in Bangalore, sometimes the Monsanto/Mayhco field trial sites, sometimes major international events (such as the Asian Seed Industry Congress) and sometimes the legislative assembly. Always, though, the press were informed in advance, and press releases from the tiny Bangalore KRRS office went out as e-mails across the world. These actions were seen by some as maverick and inappropriate, but no one could dispute that they raised the profile of the debate.

In Brazil it was the involvement of the MST that allowed a shift from conventional campaigning to more direct protest action. Linking the GM issue to the wider question of agrarian reform allowed land invasions to extend to invasions of Monsanto and other research stations, and include uprooting trial crops. As in India, these have been staged, symbolic events, which have been designed for the media spotlight. The WSF events in Porto Alegre have been a focus for such actions, with international anti-GM high-flyers joining the fray. Following tactics successful in Europe, Greenpeace initiated supermarket protests and leafleting, including trolley runs. Newspaper reports for each occasion meant that the GM issue was continuously in the papers, keeping up the pressure on the long, drawn-out legal deliberations.

As the discussion above has repeatedly highlighted, the media has a major influence on mobilization opportunities. Because of the way news is created and managed, it generates villains and heroes, iconizing some and demonizing others. Key articulate individuals – able to offer a good sound-bite or willing to write an op-ed piece to a tight deadline – are vital to journalists. A news story must be one with two sides, so with two groups – pro and anti – pitched in battle with each other, the David and Goliath narrative of local NGO and farmer activists battling against global multinational corporations can often be regurgitated in print.

That Monsanto too has had an effective national and global media sensibility adds to the ease with which news can be made. With any event, Monsanto in

India, for instance, sends faxed briefings to a vast list of journalists. This is instant copy. With one phone call to the 'other side' a story is made. As one journalist who covered the GM issue for many years for a national newspaper commented, 'stories are easy. You get a fax from Monsanto, you ring up a campaign group for the other side and you write an article'.[27] Collectively the anti-GM movements also have a highly effective PR machine. Greenpeace, for example, countered the good-news story on China presented in *Science* (Huang et al. 2002) with the release of a Greenpeace-sponsored report from Nanjing University which showed how Bt cotton was not faring as well as the proponents suggested (Xue 2002). This was immediately picked up by GM activists in India and summaries of the findings were transferred through cyberspace to websites and anti-GM networks, and thence to in-boxes everywhere.[28]

UNDERSTANDING MOBILIZATION PROCESSES: ANTI-GM ACTIVISM IN CONTEXT

The discussion so far has offered a comparative description of the processes and practices of mobilization around GM crops across the three countries. In this section the broader political-economic contexts for anti-GM mobilization are examined, exploring in turn political and economic contexts, particularly around transitions to democracy and the adoption of neoliberal economic reforms and the implications these have had for agrarian contexts; the wider array of debates to which anti-GM activism has been linked; and the way alliances and networks have been formed, including the social and political positioning of activists themselves. All these factors, together, fundamentally shape opportunities, tactics and strategies for mobilization processes.

Political and Economic Transitions

Today, India, South Africa and Brazil pride themselves on being strong, established democracies. The democratic transition in South Africa was in 1994 and in Brazil in 1986. Memories of the apartheid regime in South Africa and the dictatorships in Brazil are recent, and the practice and experience of democracy novel and much valued. India is the contrasting example, having established a parliamentary democracy at independence in 1947, which bar the Emergency period, has remained more-or-less robust since. However, despite this longevity, the threats to democracy are strongly felt. In all three countries it is difficult to escape the feeling – articulated during interviews with government officials, NGO activists and the liberal media alike – that the ability to protest, debate and organize is an important part of what the transition to democracy was about, whether in 1947, 1986 or 1994.

[27] Interview, Chennai, February 2002.
[28] For international lists and networks see http://ngin.tripod.com;http://www.gene.ch/genet;http://www.biotech_activists.iatp.org;http://www.gmwatch.org, among many others.

To varying degrees, all three countries have a federal structure (Heller 2001). India and Brazil are large countries, where sub-national states have populations and economies comparable to medium-sized countries. Sub-national politics have always been an important part of the picture, with relations between the states/provinces and the centre being an important dynamic. A uniting factor has been a constitutional umbrella setting out a broad set of rights and responsibilities of citizens, wherever they come from. In South Africa the constitution is held up as an icon of success of the negotiated settlement, and is celebrated as the most comprehensive and radical in the world (Habib and Padayachee 2000). Constitutional challenges to legislation or government action are a key feature of civil society responses in all three countries. An independent judiciary – or at least one where particular judges are seen to be sympathetic to arguments based on wider premises than those forwarded by government – is seen as central to the democratic state.

Democratic practice, however, is highly conditioned by changing economic factors. An understanding of institutions – of law, administration or regulation – cannot be separated from a broader assessment of political economy under conditions of neo-liberalism. The nature of the state – and with this the structure of the economy, and particularly agrarian conditions – has changed dramatically in all three countries. From 1991, India began liberalizing the economy, dismantling many of the state functions held so dear by the post-independent Nehruvian state. This ushered in a different form of politics, one based on the federal market economy, where what happens at the state level is as important as what happens in the centre. Dictates from the centre – whether in the form of regulations or statutes – have to be implemented to have meaning, and state capacities are increasingly limited (Rudolph and Rudolph 2001). For example, widespread illegal planting of GM soya (in Brazil) and GM cotton (in India) made a mockery of the central government regulations, resulting in embarrassing about-turns, temporary measures and time-limited decrees by the central state (Herring 2007).

With intense competitive pressures in the global economy, getting (usually foreign) investment is perhaps the main focus of policy for all governments, whether at national or sub-national levels. All else pales into insignificance, it seems, with deals, bargains and provisions struck with investors (including major GM companies) that are not necessarily subject to full democratic scrutiny. In the liberalized, globalized economies of the federal systems of India, South Africa and Brazil, the imperatives of the market often supersede those of ordinary citizens. And, at least until election time, the deepening crises of the agrarian economy go unnoticed. Such economic and political transitions are on-going, affecting the nature and possibility of democracy and protest, with major implications for what spaces are open or closed, and so the tactics and strategies of activism.

In all three countries, agrarian settings are in transition and with this agrarian politics and the alliances of interests. In India the old certainties of peasant politics no longer apply, with the electoral game being played out through a complex

coalition of interests in rural and urban settings, with the rhetoric of the 'new economy' dominating everything. Being mixed up with the old politics of the rural areas, and the need to broker alliances with elite farming groups, GM crops have often been seen by political and business elites as a dangerous diversion, when the focus on biotechnology, as a driver of industrial growth, has been the dominant narrative (Scoones 2007). Nevertheless, the sustained crisis in the agricultural economy, and the persistent poverty of many rural areas, remains a concern, although how GM crops are supposed to address such issues, no one is sure. In Brazil and South Africa, by contrast, the persistent influence of commercial farming interests on the way policies are framed and agrarian politics are conducted is important. GM crops are seen by such groups as critical for their economic survival, in the face of pressures for redistributive land reform, subsidy removal and agrarian restructuring. To date, careful political manoeuvring and economic interests might have ensured the perpetuation of such large-scale commercial farming interests, but the anti-GM lobby, with its diverse coalition of interests and issues, is seen as a threat, challenging the assumptions of privilege and economic superiority of the large-scale commercial sector.

Given these divided political constituencies, the election cycle has been an important focus for mobilization activity in all three countries. In all cases, the current governments are coalitions, with a strong dominant party. In India, the 2004 elections saw the return of the Congress Party, together with a broadly left-oriented alliance. In South Africa, the African National Congress was returned with an enhanced majority in 2004 and continues to lead the tripartite alliance that took over following the fall of apartheid a decade ago. In Brazil, the PT-led alliance has maintained power from 2003. As emerging economies with global ambitions, all three countries, despite their more populist 'pro-poor' rhetoric, do not shift too far from a firmly pro-business and investment line. This results in some uneasy compromises between nationalist, socialist, or at least social democratic, rhetoric and actual policy and practice. In all three countries the incumbent governments have been strongly criticized for compromising too much with the forces of global capital in their rush to present themselves as viable international investment destinations. Thus in South Africa, the alliance between the ANC and the unions (COSATU) and the South African Communist Party is often fraught (Lodge 2003). The movements who backed Lula in his bid to become president in Brazil have become increasingly critical of the PT government. Pressure from the MST, for example, on the implementation of the promised agrarian reform policy heightened from 2004 to 2005, with mass invasions of farms. In India, many are perhaps more cynical about the political process. But the unexpected return of Congress to the centre in 2004 did raise the spectre of a rural backlash against an arrogant, urban-biased, elite-driven politics (Patel and Muller 2004). In all three countries, the politics of neoliberalism is thus a key factor in shaping mobilization strategies and state responses. GM crops are thus seen as a battleground for these debates, and the future of agrarian settings, with different interests pitted against each other in an intensely political debate. The

attempts, particularly by pro-GM advocates, to narrow the discussion to ones of technology efficacy or biosafety, and so obscuring politics and interests, are not accepted by the anti-GM coalitions, who continuously emphasize the wider debate and the clear associations between a pro-GM position and particular interests – and so implicit visions of an agrarian future.

Linking Issues: Beyond the GM Debate

In discussing anti-GM mobilization, however, it must be remembered that in none of the three countries are GM issues anywhere near the top of the political agenda. They have raised their head at various points, attracting media attention and responses from politicians, but more as emblematic issues linked to other debates. For those in the thick of the GM debate this may be frustrating, and the effort is continuously to push the GM issue up the pecking order, highlighting its wider implications and making links to other more high-profile issues and concerns. Indeed, very often, the very same farmers mobilized by organized farmer movements – whether the KRRS in Karnataka or the MST in Brazil – are the same farmers planting GM crops illegally, or would try them out if they could.

Thus in Brazil the MST is able to mobilize farmers around the GM issue by linking it to the wider question of agrarian reform. The Vía Campesina movement, to which the MST is linked, talks, for example, of food rights and food sovereignty and the need for peasants to be independent of the clutches of global agribusiness.[29] For the marginalized rural poor in Brazil this chimes well with many of their concerns. Even when they often know little about GM crops, seeing Monsanto as the enemy, allied to a Brazilian state reluctant to engage in any meaningful rural reform, produces a convincing storyline to which people have signed up in numbers.

That this connection has failed to emerge in South Africa is perhaps a puzzle. A similarly disenfranchised rural populace, with comparable patterns of land inequality, has not resulted in a similarly vibrant movement around land reform, rural livelihoods and agrarian change. Here again, we must reflect on the core issues that do result in mobilization. In South Africa, where the political movement that became the ruling party emerged from the urban areas and the union movement, rural issues are not prioritized. Land reform, while important as part of government rhetoric, has not been the ANC's major policy priority. No equivalent of the MST has emerged; although the Landless People's Movement models itself on the MST, it has largely failed to generate mobilization on any scale (Lahiff 2003). The political elite sees large-scale commercial farming – although with transfers to black ownership – as the future for the agricultural sector, with GM crops very much part of the picture. Instead, priorities for activists have centred on issues of urban violence, responses to the HIV/AIDS

[29] See http://www.viacampesina.org;http://www.mstbrazil.org.

pandemic and labour conditions – themes around which there has been significant civil society mobilization in the past decade.

In the campaigns against GM crops across all three countries, activists have linked GM crops to problems of indebtedness and increasing reliance on credit and loans from traders and seed companies, for example. They have also been linked to a dynamic of commercialization in the farm economy, with smaller farmers being side-lined in favour of large-scale units and contract farming, highlighting the political consequences of agrarian restructuring. The debate has also been linked to the erosion of local varieties and choice for farmers, and especially recycling of seed, and to the wider globalization debate, the WTO and the removal of quantitative restrictions on imports, and the fear of price collapses for commodities with the flooding of local markets. Yet none of these issues are of course *only* about GM crops; they apply just as well to most hybrid varieties, and to wider trends in the agricultural economy, wholly independent of the GM issue. And, in Brazil and India in particular, many farmers had long planted GM crops, despite a lack of regulatory approval. What is highlighted by these linkages and elisions, however, is a wider set of questions about choice, sovereignty and future livelihood options: all far more pertinent and challenging issues for political debate, and more concretely linked to people's tangible concerns, than the rather arcane scientific and technical debates about the impacts of GM crops and foods.

Thus across the three countries, the GM debate has been characterized by the strategic development of alliances and the linking of actors and organizations in new, often fragile, coalitions. Most of these have focused broadly on the politics of agrarian change issues, which as we have seen, have had variable purchase on the political process. Galvanizing urban consumers has been even more challenging. In all three countries, consumer organizations have become involved in the GM debate, taking their lead from their European counterparts in developing awareness about food safety issues, mobilizing for food labelling, and consumer boycotts to hold supermarkets to account. But in India, South Africa and Brazil, most consumers do not have the interest or awareness of the discerning European shopper. There is a small but influential group of middle-class consumers who are prepared to pay a premium for non-GM food, and will argue for environmentally-friendly, locally-based production systems. However, for most urban – and indeed rural – consumers with low incomes, their concern is with prices of commodities, not their origin.

Again, concerns about GM foods are linked to other issues within activist discourses. In South Africa, consumers often raise questions about nutritional quality for AIDS sufferers. Baby food, increasingly purchased from standard retailers, is similarly a concern, where even poorer consumers are keen to ensure the highest quality and take no risks. Yet, as most consumer activists admit, raising awareness about food issues is an uphill struggle; although with the consolidation of retailing into a select number of supermarket chains, more purchase has been found for middle class, elite anti-GM activists by forcing labelling and in some cases bans.

Alliances and Networks: Gaining Legitimacy and Authority

Building alliances and networks to upgrade the priority of the GM issue has perhaps been most successfully developed in Brazil. Here, a hugely diverse range of organizations came together under the loose banner of the GM-free Brazil campaign (see above). Some of these organizations would not normally been seen together; indeed each had a very different view of the most appropriate and legitimate strategy for opposing GM. But they have largely been able to avoid disagreeing on detailed strategy and tactics, which was left to each organization to decide, and focus on uniting under a simple banner. The coalition thus formed disagreed on many things, but focused only on areas of agreement. It was thus fairly fragile and had to be managed with care. The coordinators were well aware of this, and were able to manage the tensions effectively.

A similar pattern is evident in South Africa, although on a smaller scale. Within the broad grouping identifying with the anti-GM campaign, there are those who disagree strongly with direct action tactics, while there are those who feel civil disobedience and a more disruptive stance is probably the only way to go. They are able to work together because the network is not reliant on a single vision and strategy. Over time it has also evolved from a small group centred on Biowatch and SAFeAGE to a larger range of organizations, many of which do not have anti-GM activism as their sole focus. Most have a broadly environmental focus; others have a practical emphasis on sustainable or organic agriculture; others have a rights/justice orientation; and others are linked to the labour movement or are faith-based groups (see above).

In India, a broadly similar array of organizations are incorporated under the anti-GM umbrella, but there is no sense of a coordinated campaign. Various attempts at coming together on a common front have failed due to differences in views, but particularly personalities have been the cause. Each of the main groups presenting an anti-GM position over the past decade has strong individuals as leaders. Vandana Shiva is perhaps the most celebrated, heading the RFSTE. Devinder Sharma of the Forum for Biotechnology and Food Security is an equally effective campaigner and media commentator, but with a different style. Suman Sahai, convenor of the Gene Campaign, is different again too, with her emphasis on research and engagement with policy. And, finally, leader of the KRRS faction, the late M. D. Nanjundaswamy was in a league of his own – maverick and astute, a supreme media-savvy publicist.

Yet, in particular places, out of the national spotlight and media game, there are other individuals and groups who operate on a more modest level, without the exposure and without (most of) the personality politics. In a survey of anti-GM activist organizations in the southern Indian city of Bangalore, I identified over 20 organizations with an explicitly stated anti-GM stance, including of course the KRRS (Scoones 2005a). These again clustered into those working practically in the field through demonstration projects on sustainable and organic agriculture, seed saving and biodiversity (Green Foundation, AME Foundation, Honey Bee Network; Organic Agriculture Network); those with a broader

development focus (including the international NGO ActionAid and the local NGO MYRADA); those with an explicit rights focus (DISC – emphasizing food and worker rights; CREAT – emphasizing consumer rights and education); and those with an environment focus (Greenpeace-India; Environment Support Group). There were also other organizations, including political parties (notably CPI(M)) and academic networks (e.g. Association of Environmental Economists).

The legitimacy and authority of these anti-GM networks is, of course, a major issue. It is all well and good mobilizing a diverse group, creating a coalition around a simple narrative – a GM-free Brazil or a freeze in South Africa or a Monsanto Quit India slogan – but how easily dismissed is such a coalition? Does it have any chance of influencing those in power?

As discussed earlier, virtually all leading activists in all three countries are well-educated, urban-based and relatively well-off. As founders or key players in organizations, they are well connected to the funding world, often linked to a variety of international aid donors (HIVOS, ActionAid, Ford Foundation were among the most often mentioned). They all have had past experiences in activist/political arenas – in Brazil in struggles against the dictatorship in the 1970s and 1980s, and for Lula's election in 2002–03; in India in farmers', women's and environmental movements, and more broadly in anti-globalization efforts in recent times; and in South Africa in the struggle against apartheid, including union organization and consumer boycotts. Some have had forays into the formal electoral process themselves. What they all understand in great detail is the inner workings of the political process, and the functioning of the state bureaucracy. But does this elite character of the movement leadership matter? Does this, as some suggest, undermine the legitimacy of their claims? To answer these difficult questions requires looking in more depth at the origins and political positioning of these anti-GM groupings in context.

In South Africa, the recent history of the anti-apartheid struggle has shaped many anti-GM groups. The labour unions were of course central to the opposition to the apartheid regime, and the key union grouping COSATU is formally part of the tripartite alliance governing the country. That COSATU is notionally anti-GM has little impact directly, but that the anti-GM groupings can highlight the commitment of the unions to their cause carries much weight. The anti-GM networks are dominated by more conventional environmentalist groups. Some of these are fairly conservative and elitist, certainly historically, including the botanical and wildlife societies; others present themselves as radical, but in a 'deep green', rather Eurocentric way; others, such as the EJNF, work on environmental issues in the townships and have a more socially diverse membership base. Together, they offer an alternative storyline on South Africa's development, yet the degree to which they can influence events in the current South African context is limited, given the ruling party's strong commitment to a very different neoliberal development trajectory (Bond 2000).

In Brazil, a key stage in the development of the anti-GM network was the enlistment of the MST. Initially sceptical, the advantages soon became apparent to MST leaders. As an increasingly internationalized movement – with websites

and support groups in the USA and Europe – this was a relatively easy step. Thus, with the arrival of activists by the plane load to Porto Alegre for the WSF festivities each year, MST was able to raise their international (and therefore local) profile and forge links with the hall-of-fame of international anti-GM activism. For the small group of NGOs, which to that point were the core network members, this was critical. They could no longer be criticized for just being unrepresentative, unaccountable, foreign-funded NGOs (which they were), but were linked to a mass movement with official and informal connections to the PT, allowing political clout well beyond what was possible before. Whether this argument for legitimacy and authority stands up to scrutiny is an open question, it is the symbolic importance of the alliance, which gives the stamp of approval in the eyes of many. By constructing an alliance across issues and organizations, the anti-GM movement was able to present an alternative voice, challenging the policies of the government on a variety of fronts, including the on-going attempts to formally introduce GM crops.

Something similar applies in India. Here too, the history of the social movements has been very significant – in struggles against rural oppression, around the time of the 'Emergency' and in day-to-day involvement in rights issues at local levels (Ray and Katzenstein 2005). Again, the symbolic importance of such movements is central. As discussed already, the KRRS in Karnataka has been at the forefront of anti-GM struggles in India. Yet the KRRS is essentially an alliance of relatively prosperous farmers from Karnataka interested in pushing their claims for farm subsidies (especially cheap electricity and water for irrigation) and price control (for both inputs and outputs), and the anti-GM position is not critical for many members (it has indeed been the focus of divisive debates and splits) (Assadi 2002). Engaging in wider campaigns about corporatization of India, anti-globalization, WTO and patents or GM crops have been add-on concerns, largely at the instigation of the charismatic and persuasive Nanjundaswamy. But knowing the importance of rural vote blocs, the state government must take them seriously. That large numbers of farmers turned out to support the demonstrations and actions is perhaps witness to the importance of the organization as an effective lobbyist on other issues, rather than a genuine commitment to getting rid of GM crops per se. But, as in Brazil, the symbolic association with a mass-based farmers' organization has been important for many other organizations linked to the anti-GM network. As small NGOs without mass membership, they must make a case for their speaking on behalf of farmers and the rural poor. Sometimes they do this modestly, speaking as intermediaries with experience of particular people and areas as a result of their on-going field engagements through projects. Sometimes links are made to wider fields of mobilization, for instance around food rights, which has managed to mobilize people from diverse walks of life. Sometimes somewhat extravagant claims are made that, because of links to particular groups, the NGO does speak on behalf of large categories of people (the poor, women, tribes and so on).

Thus the politics of representation remain a complex issue in the anti-GM networks across the three countries. Some key questions arise from this assessment:

does the fact that multiple contradictions and inconsistencies exist, and allegiances and alliances are sometimes only temporary and shallow, hiding deeper divisions and disagreements, undermine the legitimacy and significance of the anti-GM stance? By exposing such complexities in the politics of the anti-GM movement, does this automatically suggest that, in some way, the pro-GM position is, by default, correct? The concluding section will argue that a more sophisticated appreciation of agrarian movements and struggles over GM crops is needed, one that values the importance of injecting diverse arguments and contrasting positions into an open and democratic debate that, without such inputs, would inevitably be closed down and captured by particular, narrow interests.

CONCLUSION

The anti-GM mobilizations discussed in this paper are, as we have seen, a much looser, more fragile network-based form of interaction (Castells 1997) than the way 'classic' social movements are often portrayed (McAdam et al. 2003). These networks are linked to global players and debates and have a distinctly transnational character, yet are always located in local struggles and political processes. They galvanize selective and strategic alliances among different and diverse groups around a variety of issues. Some would dismiss these as incoherent and poorly substantiated, but together they often add up to an alternative perspective on agrarian futures to the standard neoliberal line, even if sometimes poorly articulated and partially contradictory. Such positions are the result of complex, hybrid coalitions of interests and ideas, and, as discussed, do not represent a particular, defined set of (class) interests. With their global connections and elite, educated, urban leaderships, they can be seen as often very detached from rural realities and agrarian struggles. But the resonances and connections are definitely there, as we have seen, and the strength of their appeal, and the political force that they potentially have, lies in the way such connections – between local, national and global issues; rural and urban; producer and consumer; elite and poor – are constructed and mobilized.

Despite the critique often levelled at anti-GM groups in the developing world, such activism cannot be read simply as being copied from and directed by events elsewhere. While sharing and interchange have been important features of anti-GM mobilizations, the local and country-focused efforts have, as shown above, taken on very distinct characters. Through creating strategic alliances and linking the GM debate to other broader concerns, it has been possible to insert the GM issue into local, national and global political agendas in different ways. The GM issue therefore has become iconic: representative of a wider set of struggles, and the focus for mobilizations across multiple divides and locales.

But such efforts have, as discussed, distinct limitations. First, and admitted by most if not all activists, is the issue of representation. Who do such loosely networked activist groups speak on behalf of? While some engage in contortions demonstrating that they are 'of the people'; others are more sanguine. They argue that by generating a debate – creating a 'discursive space' – they are opening up

a discussion, which would otherwise be closed down. This, they argue, is essential for democracy, and so justified on its own terms. The challenge is to encourage deliberation across diverse spaces, enlisting others in discussion. When the mainstream political and economic discourse under conditions of neoliberalism is so dominated by the concerns of engaging in the global market economy, the openings for wider democratic deliberation are often slim, making the role of (often unrepresentative) NGOs and campaign groups key in making real the claim of a vibrant democracy.

Second is the issue of impact. How successful have these activist strategies been? Does activism make a difference, beyond marginal irritation to those in power? Across all three countries this has been a largely a middle-class, urban debate. It is not an electoral issue, nor a focus for true mass mobilization, except through co-option and linking of issues. Instead, it is increasingly bound up with a much wider debate about new relations between contemporary capitalism and society: issues of sovereignty, inequality, rights, justice and so on – an attempt, perhaps, to create an alternative 'grand narrative', one counter-posed to the mainstream neoliberal worldview. These bigger issues are not going to be resolved around the GM debate of course. It is, however, as this study has shown, emblematic of wider struggles, with very powerful political interests at play. In all three countries there are relatively progressive alliance governments at the centre, all with professed commitments to social justice, development and poverty reduction. Yet the neoliberal economic agenda, the need to attract foreign investment and the pull of global politics are very strong. This makes in-roads into debates based on different framings of development very hard indeed.

The positioning of an 'anti-GM' stance has inevitably resulted in ambiguities and tensions within activist networks. Some groups feel more comfortable focusing narrowly on environmental issues; others focus on consumer food safety questions; while others frame the debate in terms of rights and justice. How these link to broader questions of agrarian change and politics is often not clear. Holding a broad front often means engineering strategic silences about some tough issues, with contradictions and tensions held in abeyance. But avoiding some of these deeper issues may also mean the unravelling of coalitions and alliances. When farmers are keen to engage with global markets to improve their livelihoods, how does this square with a positioning around food sovereignty pushed by some, for example? And, while farmers register real concerns about changes in the rural economy and agrarian conditions, they are often not averse to trying out new GM crops, whether 'pirated' or supplied by a multi-national company. These contradictions remain unresolved, and often unaddressed, among anti-GM groups.

That said, collectively, anti-GM activists have managed – sometimes only temporarily and often at the margins, and always with deep ambiguities and contradictions at play – to articulate a set of positions that shows how the debate about GM crops is actually a debate about a much wider set of issues: about the future of agriculture and small-scale farmers; about corporate control; about property rights; about global trade rules and so on. While pro-GM commentators

argue that such activists are smuggling in debates that should not be part of the discussions, anti-GM activists argue forcefully that debates about values and politics must be seen as central, part of new negotiations around citizenship, knowledge and politics in an era of globalization (cf. Ellison 1997; Leach and Scoones 2007).

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