

# Seedling

Biodiversity, Rights and Livelihood

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Girona 25, pral., Barcelona E-08010, Spain  
Tel: +34 933 011 381  
Fax: +34 933 011 627  
Email: [seedling@grain.org](mailto:seedling@grain.org)  
Web: [www.grain.org](http://www.grain.org)

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# Seedling

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Front cover picture: Paul Weinberg / Panos Pictures. Namibia: San Bushman playing the goaci musical instrument.

Back cover picture: Betty Press/Panos Pictures. Kenya: Samburu dance.



# The real meaning of Hong Kong:

## India and Brazil join the big boys' club

WALDEN BELLO

What was at stake at the Hong Kong ministerial meeting was the institutional survival of the World Trade Organisation (WTO). After the collapse of two ministerials in Seattle and Cancun, a third unravelling would have seriously eroded the usefulness of the WTO as the key engine of global trade liberalisation. A deal was needed, and that deal was arrived at. How, why, and by whom that deal was delivered was the real story of the December 2005 meeting in Hong Kong.

### A real deal, not a cosmetic one

The Hong Kong deal has been characterised in some reports as a “minimum package” that mainly functions as a life support system for the WTO. This is hardly the case. The deal extracted substantial concessions from developing countries while giving them hardly anything in return.

The stipulation of a Swiss formula to govern Non-Agricultural Market Access (NAMA, see box over page), which would cut higher tariffs proportionally more than lower tariffs, would penalise mainly developing countries. This is because to build up their industrial sectors via import substitution they generally maintain higher industrial and manufacturing tariffs than developed countries.

The specification of a “plurilateral” process of negotiations in the services text erodes the flexible request-offer approach that has marked the General Agreement on Trade in Services (GATS, see box over page) negotiations. It injects a mandatory element, and will corral many developing countries into sectoral negotiations designed to blast open key services.

What the South got in return was mainly a date for the final phase-out of export subsidies in agriculture



## NAMA: stifling domestic growth

NAMA is an agreement for binding and reduction of tariffs not just on industrial products, but on products like fish and fishery products, shoes, toys, jewellery and almost anything outside the ambit of the Agreement on Agriculture. The significance of this agreement lies in the scope of products and sectors that fall within its terms. Many of these are of vital importance to the development of developing countries and the livelihoods of their populations. Denied the ability to protect their emerging industrial sectors, there are grave concerns that developing countries will be lead down a path of deindustrialisation. This is because any existing domestic industries will be unable to compete with industrial products likely to flood their markets as a result of liberalisation. NAMA would further reduce the development options for developing countries as it would undermine their already limited capacity to develop their industrial base.

that nevertheless left the structure of agricultural subsidisation in the EU and the US largely intact (see box on p4). Even with the phase out of formally defined export subsidies, other forms of export support will allow the European Union, for instance, to continue to subsidise exports to the tune of 55 billion euros after 2013.

**“The main gain for Brazil and India lay not in the impact of the agreement on their economies but in the affirmation of their new role as power brokers”**

In sum, this was an agreement with teeth, but the bite will be felt principally by the developing countries. The contours of the deal were already evident before Hong Kong, and many developing

countries went to the ministerial determined to oppose it. There were occasions that seemed to promise that developing country unity might yet emerge to derail the impending deal. Yet, in the end, the developing country governments caved in, many of them motivated solely by the fear of getting saddled with the blame for the collapse of the organisation.

## GATS: good bye to the public sector

The General Agreement on Trade in Services (GATS), with its central principle of “national treatment” providing foreign investors equal rights as national actors, is proving to be an extraordinarily powerful tool for the entry of transnational corporations into and control of the service sector. This situation is particularly acute for developing and least developed countries, where services accounts for more than 50% of their gross domestic product. Especially threatened are water, electricity, telecommunications, health, educational and other essential services that necessitate public generation and delivery systems in order to assure all citizens equitable access to them. GATS will lead to the shrinking of the public sector, threatening national sovereignty and provoking serious social unrest.

## The dealmakers

The reason for the developing countries’ collapse was not so much lack of leadership, but leadership that brought them in the opposite direction. The key to the debacle of Hong Kong was the role of Brazil and India, the leaders of the famed Group of 20 (see box).

Even before Hong Kong, Brazil and India were prepared to make a deal. For Brazil, the bottom line was the specification by the EU of a date for the phase-out of agricultural export subsidies, and this was an item that Brazilian negotiators and many others expected would be delivered by the EU at the ministerial. Brazil also came to Hong Kong willing to accept a Swiss formula in NAMA and the plurilateral approach in services. India came open to accepting the plurilateral approach in services negotiations and the Swiss formula in NAMA, and to follow Brazil’s lead in agriculture. The only question for many was: would India press for getting the US and EU to agree to the entry of more professionals from developing countries as part of GATS? As it turned out, India decided not to press them.

## The prize

It is a matter of debate whether the final agreement will result in a net gain for Brazil and India, though if the balance ends up with a net loss, this would likely be smaller than for the less advanced developing countries. But the main gain for Brazil and India lay not in the impact of the agreement on their economies but in the affirmation of their new role as power brokers within the WTO.

With the emergence of the G20 during the ministerial in Cancun in 2003, the EU and the US were put on notice that the old structure of power and decision-making at the WTO was obsolete. The circle of power had to be expanded to get the organisation back on its feet and moving. The EU and US’ invitation to Brazil and India to be part, along with Australia, of the “Five Interested Parties (FIPs),” was a key step in this direction, and it was agreement among the FIPs that solved the impasse in the agriculture negotiations in July 2004.

In the lead-up of the Hong Kong ministerial, Brazil and India’s new role as power brokers between the developed and developing world was affirmed with the creation of a new informal grouping known as the “New Quad”. This formation, which included the EU, US, Brazil, and India, played the decisive role in setting the agenda and the direction of the negotiations. Its main objective in Hong Kong was to save the WTO. And the role of Brazil and India



was to extract the assent of the developing countries to an unbalanced agreement that would make this possible in the face of the reluctance of the EU and US to make substantive concessions in agriculture. Delivering this consent was to be the proof that Brazil and India were “responsible” global actors. It was the price they had to pay for full membership in a new, enlarged power structure.

It took a lot of lobbying before and during Hong Kong, with both governments putting their reputation as leaders of the developing world on the line, but they succeeded in getting everybody, though not without some grumbling, to assent to a bad deal. It was no mean feat for it involved:

- Getting the least developed countries to agree to a “development package” that consisted mainly of a loophole-ridden provision for the “duty free” and “quota free” entry of their products into developed country markets and a deceptively named “aid for trade” deal that would consist partly of loans to enable them to make their economic regulations WTO-consistent, increasing their indebtedness in the process;
- Cajoling the West African cotton producers to accept a deal whose main content was giving the US a whole extra year to eliminate export subsidies that it should have eliminated a year and a half ago, and which totally ignored their demand for compensation for the enormous damage these subsidies had inflicted on West African economies;
- Coaxing the holdouts in the services negotiations – Indonesia, Philippines, South Africa, Venezuela, and Cuba – to give up their opposition to plurilateral negotiations; and
- Neutralising the more dissatisfied members of the so-called “NAMA 11,” (of which Brazil and India were themselves members) which wanted to tie the North’s demands for a fast pace of liberalisation in industrial and fishery tariffs to the North’s concessions in agriculture.

#### Mutual admiration club

The final G20 press conference in the late afternoon of December 18 was notable for its lack of substance and for its symbolism. As if to preempt hard questions on whether the ministerial text represented a good deal for developing countries, Brazilian Foreign Minister Celso Amorim repeatedly claimed “We have a date,” referring to the 2013 phase-out date for export subsidies.

### The G20:

The G20 currently comprises 19 developing country members of the WTO. Led by Brazil and India, it has been one of the most important groupings in WTO negotiations since the Cancun ministerial in 2003. The group recently proposed a middle ground formula for tariff reduction that was widely accepted as a basis for further negotiation. On export competition, it proposed a 5-year deadline for eliminating all subsidies. The G20 comprises Argentina, Bolivia, Brazil, Chile, China, Cuba, Egypt, India, Indonesia, Mexico, Nigeria, Pakistan, Paraguay, Philippines, South Africa, Tanzania, Thailand, Venezuela and Zimbabwe.

Then Amorim and Indian Commerce and Industry Minister Kamal Nath engaged in a round of backslapping, congratulating one another for doing a great job in coming out with an agreement that protected the interests of developing countries. Then, with so many of those in attendance poised to ask questions, Amorim hurriedly cut short the press conference and quickly left the room with Kamal Nath.

At the closing session of Sixth Ministerial, Pascal Lamy, Director General of the WTO, said that in Hong Kong, “the balance of power has tilted in favour of developing countries.” The statement was not entirely cynical and untrue. The grain of truth in his statement was that India and Brazil, the big boys of the developing world, had become part of the big boys’ club that governs the WTO.

#### Paradox

It is paradoxical that the G20, whose formation captured the imagination of the developing world during the Cancun ministerial, has ended up being



*Almost 1000 demonstrators were arrested in clashes with police in Hong Kong.*

Dottie Guerrero





## Much ado about nothing: agriculture in Hong Kong

Ten years since the WTO came into existence, and after six ministerial conferences, developing countries have failed miserably to force the industrialised countries to remove even one dollar from the massive agricultural support they provide to agribusiness corporations in the name of farmers. Unable to make any dent in the citadel of unfair trade – farm subsidies of US \$1 billion a day – developing countries have time and again taken refuge behind an illusionary smoke screen. After each of the ministerial conferences, they have returned 'victorious', and the price has been paid by millions of small farmers edged out of farming.

In Hong Kong, there was much excitement is over finally forging an agreement to eliminate of export subsidies by 2013. But the excitement is misplaced. Export subsidies do not even constitute one per cent of the total support of US\$ 360 billion that the richest trading block<sup>1</sup> provides for agriculture, and they have already been dropping steadily for some time. This is because the EU and US, seeing the writing on the wall, have been steadily shifting export subsidies to domestic support. As economist Jacques Berthelot explains: "Formal export subsidies to EU cereals were reduced from Euro 2.2 billion in 1992 to 121 million in 2002. But domestic support in the form of direct payments that helped exported cereals rose from Euro 117 million in 1992 to Euro 1.3 billion in 2002."

In the case of cotton, the removal of US export subsidies does not translate to more than \$30 million, which is not even a drop in the ocean of cotton support: the US provides barely 1.4% of global export subsidies. For the 20,000 cotton growers in the US, it will be business as usual. In 2005, US cotton farmers received federal support to the tune of \$4.7 billion, or \$12.9 million a day. It is this huge domestic support, much of it considered non-trade distorting, that prices West African and Indian farmers out of the market, not export subsidies. The Hong Kong declaration does not talk about reduction in domestic support for agriculture. And that is where the US, EU and Japan have succeeded. They have emerged scathe-free from a negotiating position that could have derailed the Hong Kong ministerial.

In return, developing countries have agreed to a "high level of ambition for market access in agriculture and non-agriculture goods." This is what exactly the developed countries had been keenly looking forward to, and this is where the developing countries gave in. Step by step, developed countries have been able to get more market access from the developing countries, without showing equal reciprocation.

Unless agricultural subsidies are removed there is no way developing countries can escape the harmful impacts of cheaper and subsidised food surges. Highly subsidised imports from the developed countries have already done irreparable damage to the agricultural production potential of the developing countries. Between 1995 and 2004, Europe alone has increased its agricultural exports by 26%, much of it because of the massive domestic subsidies it provides. Each percentage increase in exports brings in a financial gain of US\$ 3 billion.

On the other hand, a vast majority of the developing countries have turned into food importers during the first 10 years of the WTO. Millions of farmers have lost their livelihoods as a result of cheaper imports. If the WTO has its ways, and the developing countries fail to understand the prevailing politics that drives the agriculture trade agenda, the world will soon have two kinds of agriculture systems. The rich countries will produce staple foods for the world's 6 billion plus people, and developing countries will grow cash crops like tomato, cut flowers, peas, sunflower, strawberries and vegetables.

WTO would ensure that the reins of food security are passed into the hands of rich and developed countries – back to the days of 'ship-to-mouth' existence. Developing countries have no one to blame, but themselves.



*Extracted from: Devinder Sharma, "The WTO Hong Kong Ministerial: Much ado about nothing." Devinder Sharma is a New Delhi-based food and trade policy analyst. He can be emailed to: dsharma@ndf.vsnl.net.in*

<sup>1</sup> The 30 countries that make up the Organisation for Economic Cooperation and Development (OECD)

the launching pad for India and Brazil's integration into the WTO power structure. But this is hardly unusual in history. Vilfredo Pareto, the Italian thinker, referred to history being the "graveyard of aristocracies" that took a hard line against change in power relations. To Pareto, the most successful elites are those that manage to co-opt the leaders of the mass insurgency that set out to remove them for power and enlarge the power elite while preserving the structure of the system. Though divided on agriculture, the US and the EU had as a common priority since the collapse of the Cancun ministerial the survival of the WTO, and they successfully managed a strategy of co-optation that snatched victory from the jaws of defeat .

Before the events in Hong Kong, the most striking recent cases of cooptation involved the Worker's Party-led government of President Luis Inacio da Silva in Brazil and the Congress-led coalition government in India. Both came to power with anti-neoliberal platforms. But in power, both have become the most effective stabilisers of neoliberal programs, with both enjoying the support of the International Monetary Fund, the transnational corporate lobby, and Washington. It is not unreasonable to assume that there is a connection between the domestic record of these governments and their performance on the global stage in Hong Kong.



**Walden Bello** (right) is Executive Director of the Bangkok-based research, analysis, and advocacy institute Focus on the Global South. Focus was founded in 1995 and has three offices in Bangkok, Thailand, Mumbai, India and Manila, Philippines. It aims to articulate, link and develop greater coherence between local community-based and national, regional and global paradigms of change, striving to create a distinct and cogent link between development at the grassroots and the "macro" levels.





**It's no secret that millions of indigenous peoples around the world have been pushed off their land to make room for big oil, big metal, big timber, and big agriculture. But few people realise that the same thing has been happening for a much nobler cause: land and wildlife conservation. It's not just corporations that have a bad name amongst indigenous communities, but also, and increasingly, some international non-governmental organisations.**

# Conservation refugees

**When protecting nature means kicking people out**



6

**MARK DOWIE**

**L**ow fog envelopes the steep and remote valleys of southwestern Uganda most mornings, as birds found only in this small corner of the continent rise in chorus and the great apes drink from clear streams. Days in the dense montane forest are quiet and steamy. Nights are an exaltation of insects and primate howling. For thousands of years the Batwa people thrived in this soundscape, in such close harmony with the forest that early-twentieth-century wildlife biologists who studied the flora and fauna of the region barely noticed their existence. They were, as one naturalist noted, "part of the fauna."

In the 1930s, Ugandan leaders were persuaded by international conservationists that this area was threatened by loggers, miners, and other extractive

interests. In response, three forest reserves were created – the Mgahinga, the Echuya, and the Bwindi – all of which overlapped with the Batwa's ancestral territory. For sixty years these reserves simply existed on paper, which kept them off-limits to extractors. And the Batwa stayed on, living as they had for generations, in reciprocity with the diverse biota that first drew conservationists to the region.

However, when the reserves were formally designated as national parks in 1991 and a bureaucracy was created and funded by the World Bank's Global Environment Facility to manage them, a rumor was in circulation that the Batwa were hunting and eating silverback gorillas, which by that time were widely recognised as a threatened species and also, increasingly, as a featured attraction for ecotourists

from Europe and America. Gorillas were being disturbed and even poached, the Batwa admitted, but by Bahutu, Batutsi, Bantu, and other tribes who invaded the forest from outside villages. The Batwa, who felt a strong kinship with the great apes, adamantly denied killing them. Nonetheless, under pressure from traditional Western conservationists, who had come to believe that wilderness and human community were incompatible, the Batwa were forcibly expelled from their homeland.

These forests are so dense that the Batwa lost perspective when they first came out. Some even stepped in front of moving vehicles. Now they are living in shabby squatter camps on the perimeter of the parks, without running water or sanitation. In one more generation their forest-based culture – songs, rituals, traditions, stories – will be gone.

It's no secret that millions of native peoples around the world have been pushed off their land to make room for big oil, big metal, big timber, and big agriculture. But few people realise that the same thing has happened for a much nobler cause: land and wildlife conservation. Today the list of culture-wrecking institutions put forth by tribal leaders on almost every continent includes not only Shell, Texaco, Freeport, and Bechtel, but also more surprising names like Conservation International (CI), The Nature Conservancy (TNC), the World Wildlife Fund (WWF), and the Wildlife Conservation Society (WCS). Even the more culturally sensitive World Conservation Union (IUCN) might get a mention.

In early 2004 a United Nations meeting was convened in New York for the ninth year in a row to push for passage of a resolution protecting the territorial and human rights of indigenous peoples. The UN draft declaration states: "Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option to return." During the meeting an indigenous delegate who did not identify herself rose to state that while extractive industries were still a serious threat to their welfare and cultural integrity, their new and biggest enemy was "conservation."

Later that spring, at a Vancouver, British Columbia, meeting of the International Forum on Indigenous Mapping, all two hundred delegates signed a declaration stating that the "activities of conservation organisations now represent the single

biggest threat to the integrity of indigenous lands." These rhetorical jabs have shaken the international conservation community, as have a subsequent spate of critical articles and studies, two of them conducted by the Ford Foundation, calling big conservation to task for its historical mistreatment of indigenous peoples.

"We are enemies of conservation," declared Maasai leader Martin Saning'o, standing before a session of the November 2004 World Conservation Congress sponsored by IUCN in Bangkok, Thailand. The nomadic Maasai, who have over the past thirty years lost most of their grazing range to conservation projects throughout eastern Africa, hadn't always felt that way. In fact, Saning'o reminded his audience, "...we were the original conservationists." The room was hushed as he quietly explained how pastoral and nomadic cattlemen have traditionally protected their range: "Our ways of farming pollinated diverse seed species and maintained corridors between ecosystems." Then he tried to fathom the strange version of land conservation that has impoverished his people, more than one hundred thousand of whom have been displaced from southern Kenya and the Serengeti Plains of Tanzania. Like the Batwa, the Maasai have not been fairly compensated. Their culture is dissolving and they live in poverty.

"We don't want to be like you," Saning'o told a room of shocked white faces. "We want you to be like us. We are here to change your minds. You cannot accomplish conservation without us." Although he might not have realised it, Saning'o was speaking for a growing worldwide movement of indigenous peoples who think of themselves as conservation

**"We don't want to be like you. We want you to be like us... We were the original conservationists. You cannot accomplish conservation without us"**



Kingston Chang

*The Maasai are seminomadic pastoralists, dependent on their domestic animals for their livelihood*



**"They were here last week, in military uniforms, to tell us we could no longer practice rotational agriculture in this valley."**

refugees. Not to be confused with ecological refugees – people forced to abandon their homelands as a result of unbearable heat, drought, desertification, flooding, disease, or other consequences of climate chaos – conservation refugees are removed from their lands involuntarily, either forcibly or through a variety of less coercive measures. The gentler, more benign methods are sometimes called "soft eviction" or "voluntary resettlement," though the latter is contestable. Soft or hard, the main complaint heard in the makeshift villages bordering parks and at meetings like the World Conservation

Congress in Bangkok is that relocation often occurs with the tacit approval or benign neglect of one of the five big international nongovernmental conservation organisations, or as they have been nicknamed

by indigenous leaders, the BINGOs. Indigenous peoples are often left out of the process entirely.

Curious about this brand of conservation that puts the rights of nature before the rights of people, I set out last autumn to meet the issue face to face. I visited with tribal members on three continents who were grappling with the consequences of Western conservation and found an alarming similarity among the stories I heard.

Khon Noi, matriarch of a remote mountain village, huddles next to an open-pit stove in the loose, brightly colored clothes that identify her as Karen, the most populous of six tribes found in the lush, mountainous reaches of far northern Thailand. Her village of sixty-five families has been in the

same valley for over 200 years. She chews betel, spitting its bright red juice into the fire, and speaks softly through black teeth. She tells me I can use her name, as long as I don't identify her village.

"The government has no idea who I am," she says. "The only person in the village they know by name is the 'headman' they appointed to represent us in government negotiations. They were here last week, in military uniforms, to tell us we could no longer practice rotational agriculture in this valley. If they knew that someone here was saying bad things about them they would come back again and move us out."

In a recent outburst of environmental enthusiasm stimulated by generous financial offerings from the Global Environment Facility, the Thai government has been creating national parks as fast as the Royal Forest Department can map them. Ten years ago there was barely a park to be found in Thailand, and because those few that existed were unmarked "paper parks," few Thais even knew they were there. Now there are 114 land parks and 24 marine parks on the map. Almost twenty-five thousand square kilometers, most of which are occupied by hill and fishing tribes, are now managed by the forest department as protected areas.

"Men in uniform just appeared one day, out of nowhere, showing their guns," Kohn Noi recalls, "and telling us that we were now living in a national park. That was the first we knew of it. Our own guns were confiscated . . . no more hunting, no more trapping, no more snaring, and no more 'slash and burn.' That's what they call our agriculture. We call it crop rotation and we've been doing it in this valley for over two hundred years. Soon we will be forced to sell rice to pay for greens and legumes we are no longer allowed to grow here. Hunting we can live without, as we raise chickens, pigs, and buffalo. But rotational farming is our way of life."

A week before our conversation, and a short flight south of Noi's village, 6,000 conservationists were attending the World Conservation Congress in Bangkok. At that conference and elsewhere, big conservation has denied that they are party to the evictions while generating reams of promotional material about their close relationships with indigenous peoples. "We recognise that indigenous people have perhaps the deepest understanding of the Earth's living resources," says Conservation International chairman and CEO Peter Seligman, adding that, "we firmly believe that indigenous people must have ownership, control and title of their lands." Such messages are carefully projected



Darren Nance

*The Karen were forced by the government to trade Thai citizenship for the right to practice swidden cultivation, which has had a serious impact on their livelihood.*

toward major funders of conservation, which in response to the aforementioned Ford Foundation reports and other press have become increasingly sensitive to indigenous peoples and their struggles for cultural survival.

Financial support for international conservation has in recent years expanded well beyond the individuals and family foundations that seeded the movement to include very large foundations like Ford, MacArthur, and Gordon and Betty Moore, as well as the World Bank, its Global Environment Facility, foreign governments, USAID, a host of bilateral and multilateral banks, and transnational corporations. During the 1990s USAID alone pumped almost \$300 million into the international conservation movement, which it had come to regard as a vital adjunct to economic prosperity. The five largest conservation organisations, CI, TNC, and WWF among them, absorbed over 70% of that expenditure. Indigenous communities received none of it. The Moore Foundation made a singular ten-year commitment of nearly \$280 million, the largest environmental grant in history, to just one organisation – Conservation International. And all of the BINGOs have become increasingly corporate in recent years, both in orientation and affiliation. The Nature Conservancy now boasts almost two thousand corporate sponsors, while Conservation International has received about \$9 million from its two hundred fifty corporate “partners.”

With that kind of financial and political leverage, as well as chapters in almost every country of the world, millions of loyal members, and nine-figure budgets, CI, WWF, and TNC have undertaken a hugely expanded global push to increase the number of so-called protected areas – parks, reserves, wildlife sanctuaries, and corridors created to preserve biological diversity. In 1962, there were some 1,000 official protected areas worldwide. Today there are 108,000, with more being added every day. The total area of land now under conservation protection worldwide has doubled since 1990, when the World Parks Commission set a goal of protecting 10 percent of the planet’s surface. That goal has been exceeded, with over 12% of all land, a total area of 11.75 million square miles, now protected. That’s an area greater than the entire land mass of Africa.

During the 1990s the African nation of Chad increased the amount of national land under protection from 0.1 to 9.1%. All of that land had been previously inhabited by what are now an estimated 600,000 conservation refugees. No other country besides India, which officially admits to



*Driven out of their forests, many Batwa turned to pottery and to some extent, this craft is now synonymous with Batwa ethnic identity. But plastics and other modern industrial substitutes are posing a threat to the potters’ livelihoods*

1.6 million, is even counting this growing new class of refugees. World estimates offered by the UN, IUCN, and a few anthropologists range from 5 million to tens of millions. Charles Geisler, a sociologist at Cornell University who has studied displacements in Africa, is certain the number on that continent alone exceeds 14 million.

The true worldwide figure, if it were ever known, would depend upon the semantics of words like “eviction,” “displacement,” and “refugee,” over which parties on all sides of the issue argue endlessly. The larger point is that conservation refugees exist on every continent but Antarctica, and by most accounts live far more difficult lives than they once did, banished from lands they thrived on for hundreds, even thousands of years.

John Muir, a forefather of the US conservation movement, argued that “wilderness” should be cleared of all inhabitants and set aside to satisfy the urbane human’s need for recreation and spiritual renewal. It was a sentiment that became national policy with the passage of the 1964 Wilderness Act, which defined wilderness as a place “where man himself is a visitor who does not remain.” One should not be surprised to find hardy residues of these sentiments among traditional conservation groups. The preference for “virgin” wilderness has lingered on in a movement that has tended to value all nature but human nature, and refused to recognise the positive wildness in human beings.

Expulsions continue around the world to this day. The Indian government, which evicted 100,000

**“John Muir, a forefather of the US conservation movement, argued that ‘wilderness’ should be cleared of all people and set aside to satisfy the urbane human’s need for recreation and renewal.”**





*The Huaorani of Ecuador are fighting oil prospecting in the Yasuni National Park*

adivasis (rural peoples) in Assam between April and July of 2002, estimates that 2 or 3 million more will be displaced over the next decade. The policy is largely in response to a 1993 lawsuit brought by WWF, which demanded that the government increase protected areas by 8%, mostly in order to protect tiger habitat. A more immediate threat involves the impending removal of several Mayan communities from the Montes Azules region of Chiapas, Mexico, a process begun in the mid-1970s with the intent to preserve virgin tropical forest, which could still quite easily spark a civil war. Conservation International is deeply immersed in that controversy, as are a host of extractive industries.

Tribal people, who tend to think and plan in generations, rather than weeks, months, and years, are still waiting to be paid the consideration promised. Of course the UN draft declaration is the prize because it must be ratified by so many nations. The declaration has failed to pass so far mainly because powerful leaders such as the UK's Tony Blair and the US' George Bush threaten to veto it, arguing that there is not and should never be such a thing as collective human rights.

Sadly, the human rights and global conservation communities remain at serious odds over the

question of displacement, each side blaming the other for the particular crisis they perceive. Conservation biologists argue that by allowing native populations to grow, hunt, and gather in protected areas, anthropologists, cultural preservationists, and other supporters of indigenous rights become complicit in the decline of biological diversity. Some, like the Wildlife Conservation Society's outspoken president, Steven Sanderson, believe that the entire global conservation agenda has been "hijacked" by advocates for indigenous peoples, placing wildlife and biodiversity in peril. "Forest peoples and their representatives may speak for the forest," Sanderson has said, "They may speak for their version of the forest; but they do not speak for the forest we want to conserve." WCS, originally the New York Zoological Society, is a BINGO lesser in size and stature than the likes of TNC and CI, but more insistent than its colleagues that indigenous territorial rights, while a valid social issue, should be of no concern to wildlife conservationists.

Market-based solutions put forth by human rights groups, which may have been implemented with the best of social and ecological intentions, share a lamentable outcome, barely discernible behind a smoke screen of slick promotion. In almost every case indigenous people are moved into the money economy without the means to participate in it fully. They become permanently indentured as park rangers (never wardens), porters, waiters, harvesters, or, if they manage to learn a European language, ecotour guides. Under this model, "conservation" edges ever closer to "development," while native communities are assimilated into the lowest ranks of national cultures.

It should be no surprise, then, that tribal peoples regard conservationists as just another colonizer – an extension of the deadening forces of economic and cultural hegemony. Whole societies like the Batwa, the Maasai, the Ashinika of Peru, the Gwi and Gana Bushmen of Botswana, the Karen and Hmong of Southeast Asia, and the Huaorani of Ecuador are being transformed from independent and self-sustaining into deeply dependent and poor communities.

When I travelled throughout Mesoamerica and the Andean-Amazon watershed last autumn visiting staff members of CI, TNC, WCS, and WWF I was looking for signs that an awakening was on the horizon. The field staff I met were acutely aware that the spirit of exclusion survives in the headquarters of their organisations, alongside a subtle but real prejudice against "unscientific"



native wisdom. Dan Campbell, TNC's director in Belize, conceded, "We have an organisation that sometimes tries to employ models that don't fit the culture of nations where we work." And Joy Grant, in the same office, said that as a consequence of a protracted disagreement with the indigenous peoples of Belize, local people "are now the key to everything we do."

"We are arrogant," was the confession of a CI executive working in South America, who asked me not to identify her. I was heartened by her admission until she went on to suggest that this was merely a minor character flaw. In fact, arrogance was cited by almost all of the nearly one hundred indigenous leaders I met with as a major impediment to constructive communication with big conservation.

If field observations and field workers' sentiments trickle up to the headquarters of CI and the other BINGOs, there could be a happy ending to this story. There are already positive working models of socially sensitive conservation on every continent, particularly in Australia, Bolivia, Nepal, and Canada, where national laws that protect native land rights leave foreign conservationists no choice but to join hands with indigenous communities and work out creative ways to protect wildlife habitat and sustain biodiversity while allowing indigenous citizens to thrive in their traditional settlements.

In most such cases it is the native people who initiate the creation of a reserve, which is more likely to be called an "indigenous protected area" (IPA) or a "community conservation area" (CCA). IPAs are an invention of Australian aboriginals, many of whom have regained ownership and territorial autonomy under new treaties with the national government, and CCAs are appearing around the world, from Lao fishing villages along the Mekong River to the Mataven Forest in Colombia, where six indigenous tribes live in 152 villages bordering a four-million-acre ecologically intact reserve.

The Kayapo, a nation of Amazonian Indians with whom the Brazilian government and CI have formed a co-operative conservation project, is another such example. Kayapo leaders, renowned for their militancy, openly refused to be treated like just another stakeholder in a two-way deal between a national government and a conservation NGO, as is so often the case with co-operative management plans. Throughout negotiations they insisted upon being an equal player at the table, with equal rights and land sovereignty. As a consequence, the

Xingu National Park, the continent's first Indian-owned park, was created to protect the lifeways of the Kayapo and other indigenous Amazonians who are determined to remain within the park's boundaries.

In many locations, once a CCA is established and territorial rights are assured, the founding community invites a BINGO to send its ecologists and wildlife biologists to share in the task of protecting biodiversity by combining Western scientific methodology with indigenous ecological knowledge. And on occasion they will ask for help negotiating with reluctant governments. For example, the Guarani Izoceños people in Bolivia invited the Wildlife Conservation Society to mediate a co-management agreement with their government, which today allows the tribe to manage and own part of the new Kaa-Iya del Gran Chaco National Park.

Too much hope should probably not be placed in a handful of successful co-management models, however. The unrestrained corporate lust for energy, hardwood, medicines, and strategic metals is still a considerable threat to indigenous communities, arguably a larger threat than conservation. But the lines between the two are being blurred. Particularly problematic is the fact that international conservation organisations remain comfortable working in close quarters with some of the most aggressive global resource prospectors, such as Boise Cascade, Chevron-Texaco, Mitsubishi, Conoco-Phillips, International



*Mayan communities are being evicted from the Monte Azules National Park in Mexico, because they are allegedly destroying the rainforest ([www.grain.org/seedling/?id=272](http://www.grain.org/seedling/?id=272)).*



Paper, Rio Tinto Mining, Shell, and Weyerhaeuser, all of whom are members of a CI-created entity called the Center for Environmental Leadership in Business. Of course if the BINGOs were to renounce their corporate partners, they would forfeit millions of dollars in revenue and access to global power without which they sincerely believe they could not be effective. And there are some respected and influential conservation biologists who still strongly support top-down, centralised “fortress” conservation. Duke University’s John Terborgh, for example, believes that co-management projects and CCAs are a huge mistake. “My feeling is that a park should be a park, and it shouldn’t have any resident people in it,” he says. He bases his argument on three decades of research in Peru’s Manu National

Park, where native Machiguenga Indians fish and hunt animals with traditional weapons. Terborgh is concerned that they will acquire motorboats, guns, and chainsaws used by their fellow tribesmen outside the park, and that biodiversity will suffer. Then there’s paleontologist Richard Leakey, who at the 2003 World Parks Congress in South Africa set off a firestorm of protest by denying the very existence of indigenous peoples in Kenya, his homeland, and arguing that “the global interest in biodiversity might sometimes trump the rights of local people.”



*Hmong child selling trinkets. Like many others, the Hmong are in danger of becoming little more than a tourist attraction*

Yet many conservationists are beginning to realise that most of the areas they have sought to protect are rich in biodiversity precisely because the people who were living there had come to understand the value and mechanisms of biological diversity. Some will even admit that wrecking the lives of 10 million or more poor, powerless people has been an enormous mistake – not only a moral, social, philosophical, and economic mistake, but an ecological one as well. Others have learned from experience that national parks and protected areas surrounded by angry, hungry people who describe themselves as “enemies of conservation” are generally doomed to fail.

More and more conservationists seem to be wondering how, after setting aside a “protected” land mass the size of Africa, global biodiversity continues to decline. Might there be something terribly wrong with this plan – particularly after the Convention on Biological Diversity has documented the astounding fact that in Africa, where so many parks and reserves have been created and where indigenous evictions run highest, 90% of biodiversity lies outside of protected areas? If we want to preserve biodiversity in the far reaches of the globe, places that are often still occupied by indigenous people living in ways that are ecologically sustainable, history shows us that the dumbest thing we can do is kick them out.



**Mark Dowie** teaches science at the University of California, Berkeley Graduate School of Journalism. He is former publisher and editor of Mother Jones magazine and former editor-at-large of InterNation, a transnational feature syndicate based in New York. He is the author of four books, including “Losing Ground: American Environmentalism at the Close of the Twentieth Century,” (1995, MIT Press) which was nominated for a Pulitzer Prize.

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In Latin America, the frontiers to soybean production are being pushed back aggressively in all directions at a breathtaking rate. Driven by export pressures and supported by government incentives, soybean fields are taking over forests and savannah in an unprecedented manner. The implications of the monoculture model and its supporting machinery for the environment, farmers and communities are discussed below.

# GM soybean: Latin America's new coloniser

MIGUEL ALTIERI AND WALTER PENGUE

In 2005, the biotech industry and its allies celebrated the tenth consecutive year of expansion of genetically modified (GM) crops. The estimated global area of approved GM crops was 90 million hectares, a growth of 11% over the previous year (see map on p14). In 21 countries, they claim, GM crops have met the expectations of millions of large and small farmers in both industrialised and developing countries; delivering benefits to consumers and society at large through more affordable food, feed and fiber that are more environmentally sustainable.<sup>1</sup>

It is hard to imagine how such expansion in GM crops has met the needs of small farmers or consumers when 60% of the global area of GM crops is devoted to herbicide-tolerant crops. In developing countries, GM crops are mostly grown for export by big farmers, not for local consumption. They are used as animal feed to produce meat consumed mostly by the wealthy.

The Latin America countries growing soybean include Argentina, Brazil, Bolivia, Paraguay and Uruguay. The expansion of soybean production is driven by prices, government and agro-industrial support, and demand from importing countries, especially China, which is the world's largest importer of soybean and soybean products. Brazil and Argentina experienced the biggest growth rates in GM soybean expansion in 2005.<sup>2</sup> The expansion is accompanied by massive transportation infrastructure projects that destroy natural habitats over wide areas, well beyond the deforestation directly caused by soybean cultivation. In Brazil, soybean profits justified the improvement or construction of eight industrial waterways, three railway lines and an extensive network of roads to bring inputs and take away produce. These have attracted private investment in logging, mining, ranching and other practices that severely impact on biodiversity that have not been included in any impact assessment studies.<sup>3</sup>



<sup>1</sup> Clive James (2005), *Global review of commercialised transgenic crops: 2005*. International Service for the Acquisition of Agri-Biotech Application Briefs, No 23-2002. Ithaca, New York.

<sup>2</sup> *Ibid.*

<sup>3</sup> PM Fearnside (2001), "Soybean cultivation as a threat to the environment in Brazil", *Environmental Conservation* 28: 23-28.

In Argentina, the agro-industry for transforming soybean into oils and pellets is concentrated in the Rosario region on the Parana river. This area has become the largest soy-processing estate in the world, with all the infrastructure and the environmental impact that entails. Spurred on by the export market, the Argentinean government plans further expansion of the soybean industry, adding another 4 million hectares to the existing 14 million hectares of soy production by 2010.<sup>4</sup>

### Soybean deforestation

The area of land in soybean production in Brazil has grown on average at 3.2% or 320,000 hectares per year since 1995, resulting in a total increase of 2.3 million hectares. Today soybean occupies the largest area of any crop, covering 21% of the cultivated land. The area has increased by a factor of 57 since 1961, and production volume by a factor of 138. In Paraguay, soybeans occupy more than 25% of all agricultural land. All this expansion is at the expense of forests and other habitats. In Argentina, where 5.6 million hectares of non-agricultural land has been converted to soya production in less than ten years, forest conversion rates are three to six times the global average. In Paraguay, much of the Atlantic forest has been cut.<sup>5</sup> In Brazil, the *cerrado* (woodland-savanna) and the grasslands are rapidly falling victim to the plow.

### Forcing small farmers out

Biotech promoters always claim the expansion of soybean cultivation as a measure of the successful adoption of the transgenic technology by farmers. But these data conceal the fact that soybean expansion leads to extreme land and income concentration. In Brazil, soybean cultivation displaces 11 agricultural workers for every one who finds employment in the sector. This is not a new phenomenon. In the 1970s, 2.5 million people were displaced by soybean production in Parana, and 0.3 million in Rio Grande do Sul. Many of these now landless people moved to the Amazon where they cleared pristine forests. In the *cerrado* region, where transgenic soybean is expanding, there is relatively low displacement because the area is not widely populated.<sup>6</sup>

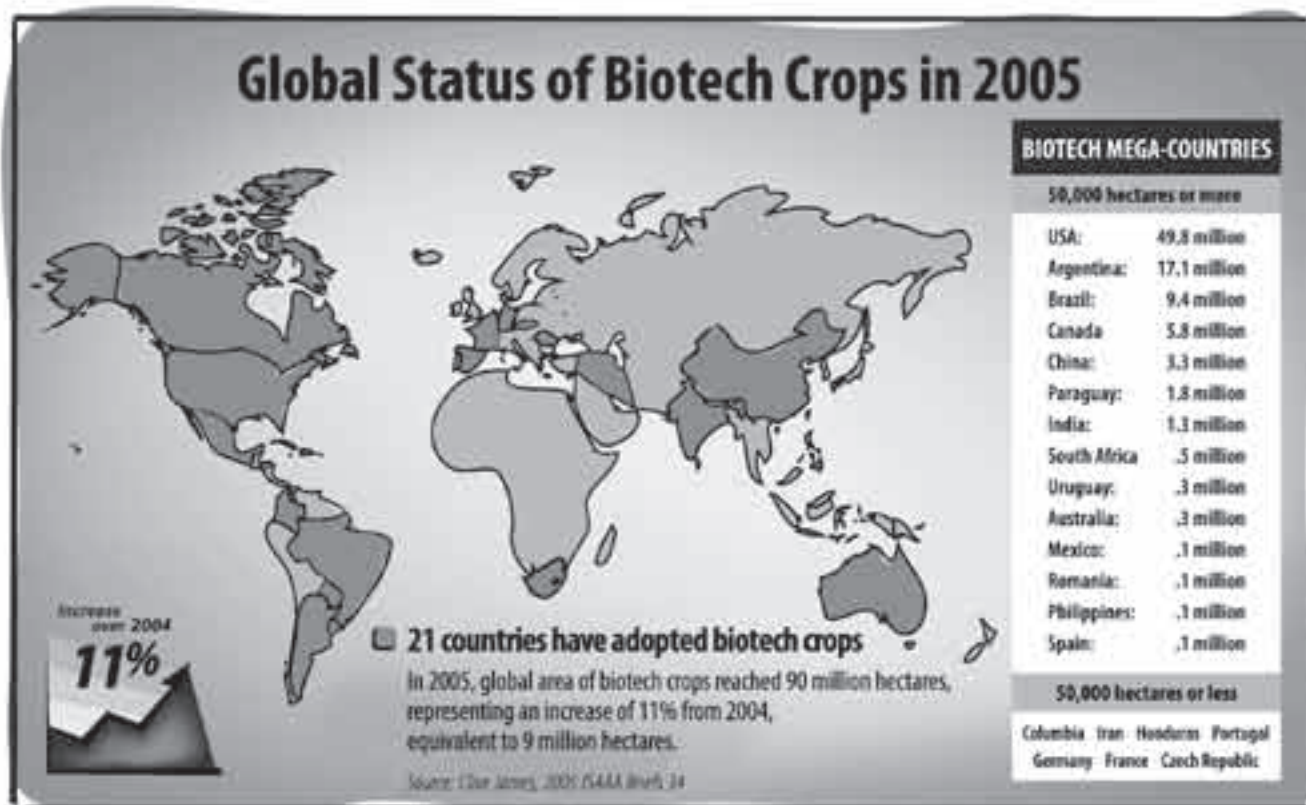
In Argentina, the situation is quite dramatic. Some 60,000 farms went out of business while the area of Roundup Ready soybean almost tripled. Between 1998 and 2002, one quarter of farms in the country were lost. In one decade, soybean area increased 126% at the expense of dairy, maize, wheat and fruit production. In the 2003/2004 growing season, 13.7 million hectares of soybean were planted but there was a reduction of 2.9 million hectares in maize and 2.15 million hectares in sunflowers.<sup>7</sup> For the biotech industry,

<sup>4</sup> Charles Benbrook (2005), *Rust, resistance, run down soils, and rising costs – problems facing soybean producers in Argentina*. Ag BioTech InfoNet, Technical Paper No. 8.

<sup>5</sup> C Jason (2004), *World agriculture and the Environment*. Island Press. Washington.

<sup>6</sup> PF Donald (2004), "Biodiversity impacts of some agricultural commodity production systems," *Conservation Biology* 18:17-37.

<sup>7</sup> Walter Pengue (2005), "Transgenic crops in Argentina: the ecological and social debt," *Bulletin of Science, Technology and Society* 25: 314-322.



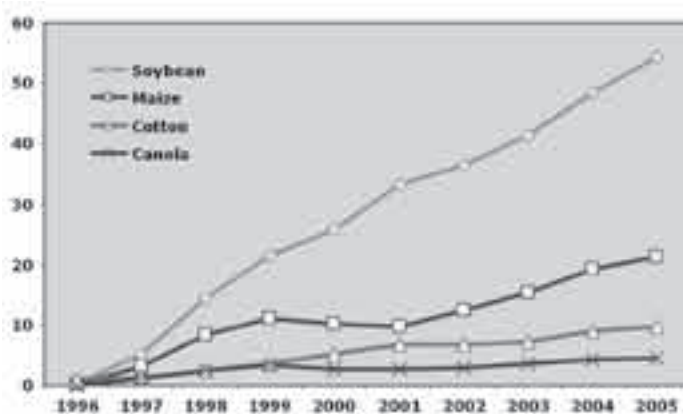
huge increases in the soybean area cultivated and more than a doubling of yields per unit area are an economic and agronomic success. For the country, that means more imports of basic foods at the expense of food sovereignty, and for poor small farmers and consumers, increased food prices and more hunger.<sup>8</sup>

Soybean expansion in Latin America is also related to biopolitics and the power of multinationals. Millions of hectares of Roundup Ready soybean were planted in Brazil during 2002 and 2003, despite a moratorium on GM crops being in effect. Through their political influence, multinationals have managed to expand dramatically the cultivation of transgenic crops in developing countries. During the early years of GM soybean production in Argentina, Monsanto did not, and said they would not, charge farmers royalties to use the technology. But now that farmers are hooked, the multinational is pressuring farmers, via the government, for payment of intellectual property rights, despite the fact that Argentina signed UPOV 78, which allows farmers to save seeds for their own use. Paraguayan farmers have also recently signed an agreement with Monsanto to pay the company \$2 per tonne.

### Soybean cultivation degrades the soil

Soybean cultivation has always led to erosion, especially in areas where it is not part of a long rotation. Soil loss has reached an average rate of 16 tonnes per hectare per year (t/ha/y) in the US Midwest, far greater than is sustainable; and soil loss levels in Brazil and Argentina are estimated at between 19-30 t/ha/y depending on management, slope and climate. Farmers wrongly believe that no-till systems mean no erosion. No-till agriculture can reduce soil loss, but with the advent of herbicide tolerant soybean, many farmers now cultivate in highly erodible lands. Research shows that despite improved soil cover, erosion and negative changes in soil structure can still be substantial in highly erodible lands if weed cover is reduced.

Large-scale soybean monocultures have rendered Amazonian soils unusable. In areas of poor soils, fertilisers and lime have to be applied heavily within two years. In Bolivia, soybean production is expanding towards the east, and in many areas soils are already compacted and suffering severe soil degradation. One hundred thousand hectares of soybean-exhausted soils were abandoned for cattle-grazing, which in turn further degrades the land. As land is abandoned, farmers move to other areas where they again plant soybeans and repeat the vicious cycle of soil degradation.



Global area (million hectares) of GM crops, 1996-2005. Source: ISAAA

In Argentina, intensive soybean cultivation has led to massive soil nutrient depletion. Continuous soybean production has extracted an estimated 1 million tonnes of nitrogen and about 227,000 tonnes of phosphorous. The estimated cost of replenishing this nutrient loss via fertilisers is US\$ 910 million.<sup>9</sup> The increased levels of nitrogen and phosphorus found in several river basins of Latin America is certainly linked to the increase of soybean production.

A key technical factor in the rapid spread of soybean production in Brazil was the claim that soybean's symbiotic relationship with nitrogen-fixing rhizobium bacteria in the plant's root nodules meant that the crop could be grown without fertilisers. What the companies failed to tell farmers was that the glyphosate herbicide packaged with the GM seeds is directly toxic to the bacteria, rendering the soybeans dependent on chemical fertilisers for nitrogen. Moreover, the common practice of converting uncultivated pasture to soybeans results in an overall reduction in the levels of nitrogen-fixing bacteria, again making soybean dependent on synthetic nitrogen.

### Monocultures and ecological vulnerability

The link between biodiversity reduction caused by the monoculture expansion and increased insect pest outbreaks and disease epidemics is well established. In poor and genetically homogenous landscapes insects and pathogens find ideal conditions to thrive. This leads to the increased use of pesticides, which after a while are no longer effective due to the development of pest-resistance or ecological upsets typical of the pesticide treadmill. Pesticides also cause major problems of soil and water pollution, elimination of biodiversity and human poisoning. The humid and warm conditions of the Amazon are also favourable for fungal growth, resulting in the



<sup>8</sup> JF Jordan (2001), "Genetic engineering, the farm crisis and world hunger," *BioScience* 52: 523-529.

<sup>9</sup> Walter Pengue (2005), "Transgenic crops in Argentina: the ecological and social debt," *Bulletin of Science, Technology and Society* 25: 314-322.



increased use of fungicides. In Brazil, the soybean crop is increasingly being affected by stem canker and sudden death syndrome.

Soybean rust is a new fungal disease increasingly affecting soybeans in South America, which is increasing fungicide applications. In addition, since 1992, more than 2 million hectares have been infected by cyst nematodes. Many of these pest problems are linked to the genetic uniformity and increased vulnerability of soybean monocultures, and also to the direct effects of Roundup on the soil ecology, through the depression of mycorrhizal<sup>10</sup> fungal populations and the elimination of antagonists that keep many soil-borne pathogens under control.<sup>11</sup>

A quarter of all pesticides applied in Brazil are used on soybean, which amounted to 50,000 tonnes in 2002. Pesticide use is increasing at a rate of 22% per year. While biotech promoters claim that one application of Roundup is all that is needed for whole season weed control, studies show that in areas of transgenic soybean, the total amount and number of herbicide applications have increased. In the USA, the use of glyphosate rose from 6.3 million pounds in 1995 to 41.8 million pounds in 2000. In Argentina, Roundup applications reached an estimated 160 million litre equivalents in the 2004 growing-season. Herbicide usage is expected to increase as weeds develop resistance to Roundup.

Yields of transgenic soybean average 2.3 to 2.6 t/ha in the region, about 6% less than conventional varieties, and are especially low under drought conditions. Due to pleiotropic effects (stems splitting under high temperatures and water stress), transgenic soybean suffer 25% higher losses than conventional soybean. Some 72% of the yields of transgenic soybeans were lost in the 2004/2005 drought in Rio Grande do Sul, which is expected to translate into a 95% drop in exports with dramatic economic consequences. Most farmers have already defaulted on one third of government loans.

## Other ecological impacts

By creating crops resistant to its herbicides, a biotech company can expand the market for its patented chemicals. The market value of herbicide-tolerant crops increased 10-fold between 1995 and 2000, from \$75 to \$805 million. In 2002, herbicide-tolerant soybean occupied 36.5 million hectares around the world, making it by far the number one GM crop in terms of area.<sup>12</sup> Global herbicide sales (especially glyphosate) continue to increase. The continuous use of herbicides, and especially the use of glyphosate with herbicide-tolerant crops, can lead to serious ecological problems. When a single herbicide is used repeatedly on a crop, the chances of herbicide-resistance developing

in weed populations greatly increases. About 216 cases of pesticide resistance have been reported in one or more herbicide chemical families.<sup>13</sup>

Given industry pressures to increase herbicide sales, the acreage treated with broad-spectrum herbicides will expand, exacerbating the resistance problem. Weed resistance has already been documented with Australian populations of annual ryegrass, quackgrass, birdsfoot trefoil, *Cirsium arvense*, and *Eleusine indica*.<sup>14</sup> In the Argentinian pampas, eight species of weeds, among them two species of Verbena and one

species of *Ipomoea*, already exhibit resistance to glyphosate.<sup>15</sup>

Herbicide resistance becomes more of a problem as weeds are exposed to fewer and fewer herbicides. Transgenic soybean reinforces this trend on account of market forces. In fact, weed populations can even adapt to tolerate or "avoid" certain herbicides. In the US state of Iowa, populations of common waterhemp have demonstrated delayed germination, which allows them to avoid planned glyphosate applications. The GM crop itself may also assume 'volunteer' weed status. In Canada, volunteer canola resistant to three herbicides (glyphosate, imidazolinone, and glufosinate) has been detected. Farmers have to resort to the highly



<sup>10</sup> Symbiotic associations between fungi and plant roots.

<sup>11</sup> Miguel Altieri (2004), *Genetic engineering in agriculture: the myths, environmental risks and alternatives*, Food First Books, Oakland.

<sup>12</sup> Clive James (2004), *Global review of commercialised transgenic crops: 2004*. International Service for the Acquisition of Agri-Biotech Application Briefs, No 23-2002. Ithaca, New York.

<sup>13</sup> Jane Rissler and Margaret Mellon (1996), *The ecological risks of engineered crops*, MIT Press, Cambridge, Mass.

<sup>14</sup> Miguel Altieri (2004), *Genetic engineering in agriculture: the myths, environmental risks and alternatives*, Food First Books, Oakland.

<sup>15</sup> Walter Pengue (2005), "Transgenic crops in Argentina: the ecological and social debt," *Bulletin of Science, Technology and Society* 25: 314-322.

toxic 2,4-D to control the volunteer canola. In northern Argentina, there are several “superweeds” than demonstrate this kind of “stacked” or “multiple” resistance to glyphosate.

Biotech companies claim that when properly applied, herbicides should not pose a threat to humans or the environment. But in practice, the large-scale planting of GM crops encourages the aerial application of herbicides and much of what is sprayed is wasted through drift and leaching. The companies contend that glyphosate degrades rapidly in the soil, does not accumulate in ground water, has no effect on non-target organisms, and leaves no residue in food, water or soil. Yet glyphosate has been reported to be toxic to some non-target species in the soil – both to beneficial predators such as spiders, mites, and carabid and coccinellid beetles, and to detritivores such as earthworms, including microfauna as well as to aquatic organisms, including fish.

Glyphosate is a systemic herbicide (which means it is absorbed into and moves through the whole plant), so it is carried into the harvested parts of plants. Exactly how much glyphosate is present in the seeds of herbicide-tolerant corn or soybeans is not known, as grain products are not included in conventional market surveys for pesticide residues. The fact that this and other herbicides are known to accumulate in fruits and tubers raises questions about food safety, especially now that more than 100 million pounds of this herbicide are used annually in the US alone.<sup>16</sup> Even in the absence of immediate (acute) effects, it might take 40 years for a potential carcinogen to act in enough people for it to be detected as a cause. Moreover, research shows that glyphosate seems to act in a similar fashion to antibiotics by altering soil biology in a yet unknown way and causing effects like:

- Reducing the ability of soybeans and clover to fix nitrogen.
- Rendering bean plants more vulnerable to disease.
- Reducing growth of beneficial soil-dwelling mycorrhizal fungi, which are key for helping plants extract phosphorous from the soil.

Farm-scale evaluations in the UK showed that herbicide-resistant crop management within and in the margins of beet and oilseed rape production led to reductions in beetle, butterfly and bee populations. Counts of predacious carabid beetles that feed on weed seeds were also smaller in GM crop fields. The abundance of invertebrates that are food for mammals, birds, and other invertebrates were also found to be generally lower in herbicide-resistant beet and oilseed rape.<sup>17</sup> The absence of flowering weeds in GM fields can have serious consequences for beneficial insects which require pollen and nectar for survival.

### Conclusions

Soybean expansion in Latin America represents a recent and powerful threat to biodiversity in Brazil, Argentina, Paraguay and Bolivia. GM soybeans are much more environmentally damaging than other crops, partly because of their unsustainable production requirements, and partly because their export focus requires massive transportation infrastructure projects, which open up vast tracts of land to other environmentally unsound economic and extractive activities.

The production of herbicide-resistant soybean leads to environmental problems such as deforestation, soil degradation, pesticide and genetic contamination. Socio-economic consequences include severe concentration of land and income, the expulsion of rural populations to the Amazonian frontier and to urban areas, compounding the concentration of the poor in cities. Soybean expansion also diverts government funds otherwise usable in education, health, and alternative, far more sustainable agroecological methods.

The multiple impacts of soybean expansion also reduce the food security potential of target countries. Much of the land previously devoted to grain, dairy products or fruits has been converted to soybean for exports. As long as these countries continue to embrace neoliberal models of development and respond to demand from the globalised economy, the rapid proliferation of soybean will increase, and so will the associated ecological and social impacts.

**Miguel Altieri** is professor of agroecology at the University of California in Berkeley. His latest book in the agroecology theme, *Genetic Engineering in Agriculture: The myths, environmental risks, and alternatives*, was published by Food First in 2004. He can be contacted at [agroeco3@nature.berkeley.edu](mailto:agroeco3@nature.berkeley.edu).

**Walter Pengue** is Professor of Agriculture and Ecology at the University of Buenos Aires in Argentina. He has written extensively on Latin America's soybean invasion. He can be contacted at [wapengue@sinetis.com.ar](mailto:wapengue@sinetis.com.ar).



<sup>16</sup> <http://bogota.usembassy.gov/wwwsglyp.shtml>

<sup>17</sup> [www.defra.gov.uk/environment/gm/fse/index.htm](http://www.defra.gov.uk/environment/gm/fse/index.htm)

# Sprouting Up...

## Liberating diversity: from defence to offence...

In February 2003, an important and innovative conference brought together 300 farmers in Auzeville, France, and launched the Farmers' Seed Network (see box) to help European farmers regain control the seeds they grow and reproduce.<sup>1</sup>

The situation in Europe with respect to farmers' rights to seed is getting worse. The few seed companies that supply all the seed do so to feed the continued intensification of industrial agriculture – seeds for uniformity and mass production, but not seeds for the small farmer or for variety. Europe now has some of the strictest laws in the world on the production and use of seeds through a combination of marketing laws and intellectual property rights. It is now impossible for farmers to use and exchange the seeds they have bred and adapted to their particular agro-ecological area.<sup>2</sup>

The restrictions placed on farmers has now led many to believe that the only way forward is to move from resistance to offense. This means taking back control of plant breeding based on diversity, adaptability and change. To this end, a European Seminar on Seeds entitled "Liberate Diversity" was held in Poitiers, France, in November 2005. Four different areas of struggle were addressed:

**Alternative laws and rights to biodiversity** – These include public or collective lists, conservation varieties, organic seed lists, collective rights, free use of public seed collections, and the free exchange of seeds amongst farmers. In particular, there is a need to know how these alternatives can be enacted within the current framework of European laws.

**Legal obstacles to alternatives** – Legal barriers to saving, using and exchanging seeds in Europe.

**Research for biodiversity** – Ways of involving farmers in the entire research process. The French organisation INRA (Institut Nationale de la Recherche Agricole) is already working with many farmers to produce such diverse seeds.<sup>3</sup>

**Fighting contamination** – One of the major issues for Europe this year is the acceptance of coexistence between GM and non-GM agriculture. Coexistence threatens farmers' seeds as contamination from GM varieties is impossible to control. This workshop looked at what steps could be taken now in either living with or overturning coexistence.

There are already several initiatives that farmers have already established to produce and use local (or traditional) varieties of wheat (and its close links with bread making), maize, and various vegetables. One important strategic pointer that came out of the workshop was the importance of working with farmers from around the world, and ways of doing this were discussed.

### Key players in France

The Réseau Semences Paysannes (RSP) is a network of 26 member organisations, which includes farmer and organic farming organisations, artisanal and seed producers organisations, development organisations (regional and national), and organisations dedicated to conserving and enhancing agricultural biodiversity. This network has been growing in the past two years with more and more farmers becoming involved, not only in France but also in many other European countries. Farmers have also been involved in a number of activities such as training each other in the art of seed selection and reproduction, farmer exchanges, working with INRA researchers in developing farmer varieties, and with other European farmers working on directive 98/95/CE. RSP has been involved in many other activities and publications, many of which can be seen on their recently launched website: [www.semencespaysannes.org](http://www.semencespaysannes.org).

The CNDSP (Coordination Nationale de Défense des Semences de Ferme, National Coordinating Organisation for the defense of Farm-Saved Seed) brings together several unions and farming organisations. It was started back in 1989 when in France the government tried to make seed cleaning illegal. Seed cleaning is a process used to remove weed and poor quality seeds from farm-saved seed often done in lorries which visit each farm. Although seed-cleaning itself was never made illegal, there are still constant legal attacks against the continued use of farm-saved seed and it is becoming increasingly restricted.



<sup>1</sup> GRAIN (2003), "Farmers organise around seeds," *Seedling*, April 2003, [www.grain.org/seedling/?id=233](http://www.grain.org/seedling/?id=233). <sup>2</sup> Guy Kastler (2005), "Seed Laws in Europe: locking farmers out", *Seedling*, July 2005, [www.grain.org/seedling/?id=343](http://www.grain.org/seedling/?id=343). <sup>3</sup> [www.semencespaysanne.org](http://www.semencespaysanne.org)





## Brand Name Bullies

by David Bollier

John Wiley and Sons, New Jersey, 2005



## Arts Under Pressure

by Joost Smiers

Hivos, The Hague, and Zed Books, London, 2003

In *Brand Name Bullies*, David Bollier writes, consciously or not, as an 'American' for an 'American' audience. The consistent use of the term 'America' rather than the term 'United States' reveals an insensitivity not only to the millions of Americans who live in other nation-states of the Americas but also to an assumption of an 'American' monoculture within the USA. Joost Smiers, on the other hand, has written *Arts Under Pressure* from a cosmopolitan Dutch perspective with the diversity of world cultures as the context for his discussion. He describes, for example, the appropriation of art and music from Africa by US media conglomerates, its transformation into "world music" and corporate art, and its marketing in its countries of origin by western transnationals. The analogy with seeds, medicinals, DNA and corporations such as Merck and Monsanto is obvious.

Both Bollier and Smiers write about the excessive applications of copyright and trademark law, primarily in the USA, but Bollier presents his book as a collection of entertaining stories about these excesses of ownership claims to elicit from the reader a "You gotta be kidding!" response. This might be a good starting point for a critique of copyright itself, as well as the insidious corrosion of the public domain, but unfortunately Bollier starts with the customary genuflection to the copyright god itself. He says, "The point is not that copyright and trademark

law needs to be overthrown. It is that the original goals need to be restored." It is all downhill from there, given that Bollier's focus on the excesses of what are now called 'content providers'<sup>1</sup> is a diversion from the structural issues of corporate control and the political-philosophical issue of the 'American' fetish of private property. Without questioning ownership and property, there is little ground left to stand on to curb the excesses of the system.

Smiers describes Bollier's culture this way: "In the Western world the dominant belief has been that individual freedom is the only real form of freedom, and everybody must accept this. The fact that there can be, and are, more worthwhile forms of freedom [such as cultural freedom] seems scarcely to exist in the Western mind." Contrary to Bollier, Smiers concludes that "The copyright system . . . is beyond reform. It is too much corrupted by monopolistic industrial interests. So let's abolish it. Or, perhaps, it's truer to say that a spontaneous meltdown of copyright is taking place."

A careful reading of the copyright page in each book speaks much about these differences in perspective. Not long ago, the copyright page contained a single line notifying the public as to whether it is the author or the publisher that owns the copyright on the book. Now the 'user' finds, in *Brand Name Bullies* as in almost

every other book, a full page of claims and disclaimers. First the 'user' of the book is advised at length and in great detail as to what he or she cannot do, "except as permitted under Section 107 or 108 of the 1976 United States Copyright Act," which readers must look up for themselves. Then there is a paragraph headed "Limit of Liability/disclaimer of Warranty" that says that the publisher and the author "disclaim any implied warranties of merchantability or fitness [of the contents of this book] for a particular purpose" and that "neither the publisher nor the author shall be liable [God forbid] for any loss of profit or any other commercial damages..."

The copyright page of Smiers' book, on the other hand, simply says "Copyright (©) Joost Smiers . . . The rights of Joost Smiers to be identified as the author of this work has been asserted by him in accordance with the Copyright, Designs and Patents Act, 1988. Nevertheless, the author discusses in this book the untenability of the present copyright system."

While Smiers and Bollier cover much the same ground, Bollier seems to hold the law (copyright and trademark) responsible for the corporate stranglehold on public culture in the US and seeks to curb these excesses through legal reform. Smiers, on the other hand, puts responsibility on the logic of capitalism and the greed of the corporations. The law is simply upholding, or giving legal license to, what the culture appears willing to purchase.

In reading either book, it is clear that the common ground shared by plant patents, industrial patents, and trademark and copyright law, is the control of 'information' by its self-proclaimed 'creators' and 'owners.' In all cases, the information can be controlled only by increasingly harsh legal measures

<sup>1</sup> The media conglomerates that promote and present the content provided to them by their suppliers (artists, writers and musicians)



# Resources

enacted by the very state they are fond of describing as an obstacle to progress.

Through technological measures referred to as “digital rights management” (DRM) the media conglomerates seek to own and control not only the means of production and distribution, but the means of reproduction as well. The US Digital Millennium Copyright Act of 1998 provides copyright owners with the legal means to control all downstream uses of their product after its purchase, through such technological means as DRM. The seed industry analogy to DRM is Terminator Technology: biological interventions that put control over seed reproduction into the hands of their corporate owners.

While Bollier criticises the DMCA, he still holds that “Copyright and

trademark law is an important tool in incubating new creativity and building a culture. By giving creators a property right in their works, the law stimulates the development of all sorts of new works.” Bollier simply ignores the fact that people have been creating since forever and that copyright and trademark law are very recent ‘inventions’ of a specific and limited (despite its universalist presumptions) culture. Nor does he express any real interest in exploring more just and effective ways of remunerating artists and cultural workers: “The point is not to reject some cherished principles of copyright (such as payment for artists) but to reconceptualise how traditional principles may be better fulfilled...” It may be that Bollier’s primary insistence on the necessity and legitimacy of copyrights and trademarks, combined with his liberal commitment to ‘balance’ between public and

private interests, limits both his criticism and his creativity. All he advocates is that, “We must strike a new balance of private and public interests that takes account of the special dynamics of the Internet and digital technology.”

Smiers forsakes both the liberal balancing act and copyright and trademark law and calls for new approaches to the question of how cultural workers – artists, musicians, seed keepers and writers – are to be compensated for their contribution to the public good, if society values their contributions. He finds no place the ‘star’ system wherein corporations decide who will be the next star that they will lavishly promote, sell, pay and profit handsomely by, whether that be a singer or author – or an ‘improved’ plant variety.

*Reviewed by Brewster Kneen.*



## Sowing Autonomy - Gender and seed politics in semi-arid India

by Carine Pionetti, IIED, September 2005

When reading this book, what appears to really stand out is just how complex and interconnected rural life really is in rural semi-arid India. There are so many factors intertwined in a delicate balance of culture, autonomy and food production within the communities described in this book. Yet these factors can easily be upset by the simplistic imposition, for example, of a new hybrid cash crop, with little thought for this extraordinary complexity and in particular with little regard to women. Women are so important to traditional agriculture, yet they are so readily ignored by those eager to drag these communities into a modern cash-economy. The impact on the communities has been profound.

The author, Carine Pionetti, has spent many years living and interacting with, and learning from, the communities of the Deccan Plateau of South India. The book is based on a participatory research study in eight villages from the Medak and Adilabad districts in Andhra Pradesh with a focus on seeds, crop diversity, woman and their ability to be autonomous. And although the complexity of the agricultural systems is striking, Pionetti manages to guide the reader through to its stark conclusion about the impact that industrialised agriculture is having on communities in Andhra Pradesh.

Localised seed systems on the Deccan Plateau coexist with the commercial seed system. But these commercial (invariably hybrid) seeds are being increasingly grown, supported by legislation and agricultural extension officers, as farmers (usually men) are enticed by the thought of increased cash income. These cash crops replace a diversity of local food crops which are usually grown by women. Local

seeds can be free, but cash crops need to be bought each year which leads farmers into a cycle of buying inputs for the hybrid crops, selling the crop to companies, buying food crops, and often indebtedness. Furthermore, these farmers also find themselves losing the ability to make autonomous decisions about the production and use of their land and crops. In particular women, associated with feeding the family, are also swallowed up into the cyclical cash-economy and lose virtually all their autonomy. The land also suffers from monocultures (much reduced mixed cropping), higher use of inputs, and sometimes a complete loss of local varieties of food crops and the knowledge that goes with them. Along with the local seed varieties, the whole local non-monetary economy is slowly destroyed.

In conclusion, the book provides details why localised, low-input and diversity-based farming is so important. This includes some guiding principles, such as the importance of keeping people within their communities rather than encouraging migration to cities, protection of the environment through low-input yet productive agriculture, increasing the local diversity of crops, maintaining the important non-monetary nature of low-agrarian economies, and supporting women's vital role in these communities. As seeds are so central to agriculture, the author brings out a number of other recommendations based on farmer-led participatory breeding and supporting local and diverse seed systems. Also, some recommendations are made on the legal aspects of seeds within India.

This is a wonderful book which can easily be read from cover to cover, yet still maintains on the

whole a certain rigorous quality and academic style providing full references, numerous images, tables and system flow charts. This review barely touches on all the issues which are brought up and analysed by the author and it is highly recommended as a source of information both on the extraordinary problems and benefits of the current agricultural systems and their interconnections, and also on the ability for this all to be destroyed by over-simplistic actions.

You can read this book for free: [www.iied.org/pubs/display.php?o=14502iied](http://www.iied.org/pubs/display.php?o=14502iied) where it is available in PDF format.

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