Seedling

Biodiversity, Rights and Livelihood

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GRAIN

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GRAIN is an international non-profit organisation which promotes the sustainable management and use of agricultural biodiversity based on people's control over genetic resources and local knowledge. To find out more about GRAIN, visit www.grain.org.

Seedling

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Front cover: *Cattle drink from the trough while camels wait their turn at the borehole in Lehey, Somali region, Ethiopia. Thousands of animals come to the borehole every day. (Photo: Kelley Lynch / IIED)*

Back cover: *Arab Mohamid pastoralists on the road to/from Gaduira, Lake Chad basin, Eastern Niger. (Photo: Steve Anderson / IIED)*

In this issue...

For some time the huge African continent has been the new frontier for the global food industry. Billions of dollars are being mobilised by investors to take over farmland to produce for global markets, and billions more are being raised to create the infrastructure to take crops and agrofuels to these markets. The stage is being set for a massive transfer of land to a wealthy elite and to foreign investors. This will be a severe blow to the poor, who currently use this land to produce food in a sustainable way for local people. So much is at stake, and yet most African governments are falling over themselves to woo investors and to sell off their people's land.

In this edition, which has a strong African focus, we look at the role of international agencies and foreign donors in facilitating the corporate takeover of land. One agency – the US government's Millennium Challenge Corporation (MCC) – figures time and again. Created in January 2004, it imposes on African countries something like an IMF structural adjustment programme, offering grants in return for far-reaching neo-liberal reforms, particularly the privatisation of land. We take a close look at its land projects in Mali, Ghana, Mozambique and Benin.

This global takeover of the land is happening even though Africans themselves are perfectly capable of producing food efficiently and sustainably, without any need for investment or technical assistance from abroad. Take the drylands, which make up 43 per cent of Africa's inhabited surface and are home to 40 per cent of the continent's population. By far the most important activity on these semi-arid lands is pastoralism. A recent study, extracts of which we publish in this issue, shows that, given half a chance, pastoralists are resourceful, financially canny, and adept at developing new strategies for adapting to climate change. Moreover, they repeatedly attain higher rates of productivity than those achieved on modern ranches built on the Western model.

Very often, all that is needed to recover damaged ecosystems and to improve livelihoods is the judicious application of traditional techniques, at times enhanced by modern insights. One remarkable example of what can be achieved is found in Zimbabwe, where herders at the Africa Centre for Holistic Management are using cattle to restore severely degraded land. They carefully manage the cattle so that they graze without overgrazing, which is just what grass plants need in order to thrive, and they fertilise particularly damaged areas with dung and urine. Through this process, they are restoring the health of the land, and, once this happens, the rivers begin to flow once again. The process is so successful that the cattle could be called "watershed cattle".

Further north, in Ethiopia, the Anuak people are angry with their government for encouraging foreign investors to buy up three million hectares of the country's most fertile land. An Anuak leader says that the land is fertile because for centuries his people have treated it well, rotating crops and shifting cultivation to drier areas during the rainy season. He says that foreign investors are destroying the soils, and that the impact is particularly severe because climate change is already causing temperatures to rise in some regions. The Anuak people are being marginalised, he says, and their whole way of life is being undermined. He believes that it amounts to systematic genocide against the indigenous population.

For all the setbacks, some advances are being made. Further south, in Kenya, the African Commission on Human and Peoples' Rights (ACHPR) has ruled that the Kenyan government violated the rights of the Endorois as an indigenous people when it evicted them from their land in the 1970s. It has decreed that the Endorois should not only be given back their ancestral land but also be paid compensation. It is a ruling that could benefit indigenous peoples all over Africa.

Across the Atlantic Ocean, in Mexico, indigenous groups and other farmers are also attempting to use the courts to right a wrong. They held a meeting in early March to bring together evidence in order to start proceedings in international courts of justice against the Mexican government for deliberately permitting the illegal and underhand introduction into the country of genetically modified (GM) maize. They also expressed their anger at the United Nation's Food and Agriculture Organisation (FAO) for holding a meeting in Mexico to promote biotechnology as "a solution to world hunger". They say that, at the very least, the holding of this meeting displayed a crass lack of sensitivity to the deep struggle being waged in Mexico over the issue.

The editor

The US's Millennium Challenge Corporation (MCC)

Turning African farmland over to big business

"MCC African partner countries are open for business"
Ambassador John Danilovich, CEO of the MCC, June 2008

GRAIN

When the European powers invaded Africa they brought with them their systems of private property. Laws were established based on these systems, in order to justify, entrench and facilitate the takeover of lands from local communities. But such laws were hardly ever applied or respected beyond the boundaries of the European farms and plantations. With independence, although the Western laws often stayed on the books, the African states assumed ultimate and often sole ownership of all lands in their territories. But in practice they did not have the power to manage these lands. So the vast majority of land in the African countryside, through the colonial period and up until today, has been governed according to local communities' customary land practices.[1]

These customary practices are often complex and rarely static. They have evolved over time, shifting with local power politics and adapting to new pressures, such as urbanisation, migration, deforestation or the fragmentation of lands. They are based on varied and overlapping rights and responsibilities, and profoundly integrated with local farming, fishing and pastoral practices. In official circles, these systems of land management have been marginalised and condemned for years, but today they are under unprecedented attack.[2]

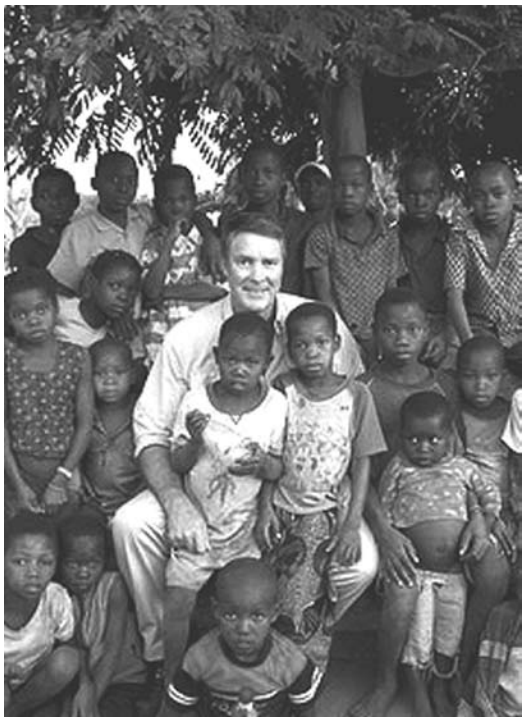
Africa has become the new frontier for global food (and agrofuel) production. Billions of dollars are being mobilised to create the infrastructure that will connect more of Africa's farmland to global markets, and billions more are being mobilised by investors to take over that farmland to produce

1 According to Philippe Lavigne Delville, an anthropologist with GRET (France), "80–95% of the rural lands remain managed according to local principles and procedures". See Philippe Lavigne Delville, "Customary to modern transition," presentation to the World Bank Regional Workshops on Land Issues, 2002: http://www.landcoalition.org/pdf/wbtdelv.pdf

2 See "Declaration of FO platforms members of ROPPA", issued after the workshop on land security for family farms at Ouagadougou, 13 April 2008: http://www.roppa.info/IMG/pdf/Declaration_of_FO_platforms_members_of_ROPPA.pdf

for those markets. To get a sense of the extent of what is transpiring, one need only look at the massive oil-palm plantation planned for Liberia by the world's largest palm-oil companies, or the joint Japanese–Brazilian project to transform vast areas of Mozambique into Brazilian-style soya plantations.[3] There is no place for Africa's millions of small farmers in this new vision. And, like the colonial powers that came before, the new wave of invaders needs a legal and administrative structure to justify and facilitate the takeover of these lands.

For more than a decade now, the World Bank, USAID and a slew of other international agencies and foreign donors have been laying the foundations for this conquest. Although there are subtle differences in their approaches, the land programmes of these various agencies converge around the same goal of creating commercial land markets based on private property titles in the areas of Africa targeted by foreign investors. Teams of consultants are constantly being parachuted across the continent to rewrite laws, register titles and set up satellite mapping and cadastral systems to smooth the way for foreign investors to acquire African farmland. Now, with the scramble for Africa's land resources at a feverish level, some of these players are turning up the heat to ensure that the corporate interests they defend get their piece of the pie. For US investors eyeing land in Africa, one programme stands out above the rest: the US government's Millennium Challenge Corporation (MCC). As the experiences with its land projects in Mali, Ghana, Mozambique and Benin make plain, the MCC is playing a key role in commodifying Africa's farmlands and opening them up to US agribusiness.



MCC Director, Senator Bill Frist, near Nampula, Mozambique.

Table 1. Countries that have signed Compacts with MCC that include a land reform project

Country	Date of Compact with MCC
Madagascar	2004
Nicaragua	2005
Benin, Ghana, Mali	2006
Lesotho, Mongolia, Mozambique	2007
Burkina Faso	2008

The new face of structural adjustment

Near the end of his first term in office (2001–5), US President George W. Bush came forward with a proposal for a new structure to administer his government's overseas aid. He wanted something separate from USAID, something more like a private corporation than a government programme. It would have its own CEO and a Board of Directors which, while it would report to Congress and include the Secretary of State, the Secretary of the Treasury, the US Trade Representative, and the USAID Administrator, would also contain four private-sector representatives.

The MCC, as it came to be known, was created by the US Congress in January 2004. The MCC's approach is hard-hitting and akin to a structural adjustment programme. It has a large budget (which Congress has increased under the Obama administration, by 26 per cent in 2010). This money is disbursed in the form of grants, not loans, to specific countries that the MCC deems eligible for funding. So there is a big carrot dangling to lure countries in. But even to become a candidate for funding, a country must first pass an MCC scorecard test, which looks at such criteria as "Encouraging Economic Freedom" and is based on indicators taken from neo-liberal institutions like the World Bank, the Heritage Foundation and the International Monetary Fund (IMF). If a country achieves a high enough score, it may then be promoted by the MCC to "threshold status", where it will gain access to small funds for use in implementing the policy reforms that the MCC says are necessary for full eligibility.

Having passed through these hoops, a country can then move into the process of developing and signing a Compact with the MCC, which will

3 "JICA development model to encourage increased agricultural production in Africa", Japan International Cooperation Agency, 17 March 2010: http://farmlandgrab.org/11756; "Liberia: GOL, Golden Veroleum in US$1.6bn negotiation," Liberian Observer, 12 January 2010: http://farmlandgrab.org/10208

specify four or five projects for MCC funding. The way this usually works is that a team of US consultants flies in to guide the government in crafting the Compact proposal, pointing it towards those areas that are most salient to opening the country up to foreign investors. Once the Compact is approved, the money starts to flow, although the tap can quickly be turned off if the government changes direction in a manner that does not suit Washington. MCC funding to Nicaragua was cut off when the Sandinistas were elected to power, but was maintained in Honduras after the illegal coup d'état of 2009.[4]

With the signing of the Compact, the recipient government must set up an institution to administer the funds, often called a Millennium Challenge Account (MCA), which operates autonomously, with its own Board of Directors, yet under the oversight of a designated ministry. The Compact lasts typically for five years, with regular evaluations and strict targets that have to be met, each year or so, before new tranches of funding are released. Vincent Basserie, a land specialist with Le Hub Rural in Senegal, who has seen the MCC in action, likens it to a "bulldozer" – pursuing a strict ideological agenda, without regard for previous experiences.

As most of MCC's Compacts have so far been signed with African countries, it is not surprising that they focus on agriculture, where there is currently a great deal of interest from foreign investors. Nearly half of MCC's overall budget of US$6.8 billion supports what it calls "market-based solutions to food security". Its Compacts finance projects such as the certification of outgrowers for fruit exports, or the construction of transport infrastructure to facilitate access to international markets, as in the case of the Port of Cotonou, Benin. In the African Compacts, there is almost always a land component that is central: while these land projects may vary from country to country, MCC's overriding objective with all of them is to privatise the land, and, in this way, to make it a marketable commodity from which investors can make profits.

First steps in Madagascar

In 2004, Madagascar became the first country to sign a Compact with the MCC. The government of President Marc Ravalomanana, given its zeal to open up the country to foreign investors, was an easy fit for the MCC. Initially, both the MCC and Madagascar's government agreed that the Compact should focus on increasing investment in agriculture, and, as such, that it should include a

Photo: Jim Watson/Getty

[Former] US President George W. Bush in Liberia.

project to expand land titling. But a national land reform process oriented towards decentralised land management and the allocation of land certificates (not titles) had already begun before the MCC arrived, and those involved were able to get MCA–Madagascar to support this process, even as the other components of the Compact maintained their focus on developing agribusiness and facilitating foreign investment. The contradiction exploded into public view in December 2008, however, when it became apparent that the same government that was using MCC funds to allocate certificates to thousands of rural Malagasy under the National Land Programme was also selling off these lands to foreign investors.

The people of Madagascar were shocked to learn, via the international media, that their government had allocated a 1.3 million hectare land concession to the Korean company Daewoo Logistics, and that it was negotiating another agreement with the Indian company Varun, covering several hundred thousand hectares, both for large-scale farming projects. The Daewoo deal included lands where certificates had already been allocated through the MCC-funded programme, while Varun was proposing that the land programme be extended to the area it was targeting, so that certificates could be awarded to farmers on condition that they make their lands available to Varun![5] In fact, the government had signed away, or was in the process of signing away, nearly 3 million hectares of agricultural land to foreign investors through a system of long-term leases (up to 99 years) that it

4 Alexander Main and Jake Johnston, "The Millennium Challenge Corporation and Economic Sanctions: A Comparison of Honduras With Other Countries", Center for Economic and Policy Research, Issue Brief, August 2009: http://www.cepr.net/documents/publications/mcc-sanctions-2009-08.pdf

5 André Teyssier, Landry Ramarojohn and Rivo Andrianirina Ratsialonana, "Des terres pour l'agro-industrie internationale ? Un dilemme pour la politique foncière malgache" EchoGéo, No. 11, February 2010: http://farmlandgrab.org/11420

established in 2008 as part of a new investment law supported by its donors.[6]

The government of President Ravalomanana and the MCA–Madagascar programme came to a dramatic end in March 2009 by way of a coup d'état, which had certainly been facilitated by popular anger over the Daewoo deal. The MCC immediately cancelled the Compact and its funding for the National Land Programme. It was the first and last time that the MCC would let a national process steer its land project.

MCC's fiefdom in Mali

The programme in Mali offers a more clear-cut example of MCC's land activities and what it seeks to accomplish. Millennium Challenge Account–Mali (MCA–Mali) has taken over its own area of land in Mali's Office du Niger – the most important irrigated land scheme in the country, and perhaps in the whole of West Africa. On the 20,000 or so hectares that it has secured, MCA–Mali has set up what is essentially an extraterritorial zone, where it is putting in place its own system of land management.

The Office du Niger Authority of the Malian government is the sole agency responsible for allocating lands and regulating irrigation water in the Office du Niger. Farmers gain access to land by paying fees to the Authority for irrigated water. But within the MCA–Mali zone, the lands, which are currently not irrigated, are to be irrigated and divided into parcels, to which people will be sold individual land titles. During a first phase, beginning in 2010, 6,000 ha of land will be irrigated and divided into 5-ha plots. Titles to these 5-ha parcels will be allocated, first, to the people currently living in the area who wish to stay and, second, to small farmers who wish to move to the area. These people will have to buy the titles from the MCA, although families currently living in the area who are being displaced by the project will be "given" two out of the five hectares for free. The second phase will bring another 5,000 ha under irrigation in 2011 and these lands will be divided into 10-ha parcels. Finally, phase three, which is planned for 2012, will bring 5,000 more hectares under irrigation, which will be divided into seventy 30-ha plots and thirty large-scale plots of more than 30 ha each.[7] While the MCA plans to divide and sell off the plots as individual titles, ownership will remain entrusted to a special authority created by the MCA until the title owners have entirely paid off their loans, which are to be amortised over 20 years.[8]

The local farmers' organisation, Sexagon, has many members in the area that MCA–Mali has taken over.[9] One of its leaders, Faliry Boly, says that the local people were not consulted and are in fact opposed to the project. "These people are pastoralists who have no desire to start farming", says Boly. "They won't pay a cent to the MCA for the land that the MCA is taking from them and they'll most likely be forced to leave."

MCC is clearly setting out to remake agriculture in the zone. A US firm is being parachuted in to teach "modern" farming to the Malians participating in the project, and it will be working with the Alliance for a Green Revolution for Africa (AGRA) to provide farmers with a starter pack of seeds and other inputs for the first year (see Box 1). The small farmers involved in the first phase, if they stay, are likely to run into debt, and most will probably end up selling their land to the bigger farmers and companies that move in under the second and third phases of the project. And the door is open for foreign investors to come in: the final report of the project plan carefully omits any requirement for the third wave of investors – those with parcels of 30 ha and more – to be citizens of Mali.[10]

Indeed, the Office du Niger is already being heavily targeted by foreign investors: Libya has taken over 100,000 ha; Chinese investors 6,000 ha; Saudi investors are considering 50,000– 100,000 ha; there is an initiative by the regional body the West African Economic and Monetary Union (WAEMU)[11] following a similar approach to the MCA project on 11,000 ha; another regional formation, the Economic Community of West African States (ECOWAS),[12] is talking about a

6 GTZ, Foreign Direct Investment (FDI) in Land in Madagascar, December 2009.

7 Millennium Challenge Corporation–Mali, Alatona Agricultural Systems Development Project: Final Report, Prepared by CDM, July 2007.

8 *Ibid.*

9 The Syndicat des exploitants agricoles de l'Office du Niger (SEXAGON) was created in 1996. Today it represents more than 12,000 peasants in the zone.

10 Millennium Challenge Corporation–Mali, Alatona Agricultural Systems Development Project: Final Report, Prepared by CDM, July 2007.

11 In French, the Union économique et monétaire ouest-africaine (UEMOA).

12 In French, the Communauté Economique Des Etats de l'Afrique de l'Ouest (CEDEAO).

Photo: L. Lewalle / SOS Faim

Faliry Boly, head of Sexagon, in an onion field in the Office du Niger.

Box 1: MCC and the Alliance for a Green Revolution in Africa (AGRA)

In June 2008, the MCC and AGRA signed a Memorandum of Understanding (MoU) that establishes a framework for their cooperation in Africa. Under the MoU, both sides agree to:

- jointly assess and make recommendations for changes in policy and regulations governing the food and agriculture system in a given country to remove constraints to economic growth;
- coordinate the planning of the implementation of their programmes for specific geographical and functional areas;
- communicate regularly with each other to coordinate their efforts.

MCC and AGRA are also collaborating on several specific projects, including:

- seed policy reform in Ghana;
- rice seed production and distribution in Madagascar;
- provision of seeds and extension services for farmers in MCA–Mali's project in the Office du Niger;
- a US$100-million fund with Standard Bank to provide farmers with loans in Ghana, Mozambique, Tanzania and Uganda.

Photo: MCC

[Former] UN Secretary-General Kofi Annan, and [former] CEO of MCC John Danilovich signing the memorandum of understanding between MCC and AGRA.

public–private-sector project that would cover another 100,000 ha. Meanwhile local farmers are struggling to access more than 1 ha per family, and competition for access to water is intensifying, since all irrigation in the Office du Niger is dependent on the same source of water.[13]

In this context, Sexagon is advocating another vision, which would provide sufficient access to land and water for family farms, and ensure the country's food sovereignty. They want a system based on long-term leases that would provide each family farm with around 3 ha. This system would prevent the development of a land market – something that Sexagon opposes.[14]

Conflict with MCA–Mali is thus bound to intensify for the small farmers in the Office du Niger. MCC wants its zone to serve as a launching pad for a transformation of the entire region, and Sexagon is determined to stop it. "The MCC project is destined to fail", says Boly. "We will eventually get our lands back."

A golden opportunity for US agribusiness in Ghana

The MCC's land project in Ghana is much the same as that in Mali. Its Compact with Ghana is heavily oriented towards building up the country's horticulture exports, with a particular focus on bringing more foreign investment into pineapple production. But the corporations that dominate the global pineapple trade have made it clear that they won't invest in the country without significant incentives: changes in the ways land is managed is at the top of their list. The MCC Compact is designed to make this happen.

As in Mali, the land component revolves around an initial pilot project in a zone accorded special status by the central government. The pilot area is located not far from the capital, Accra, in the pineapple-producing rural district of Awutu Efutu Senya. As planned in a detailed Roadmap, signed by the government in September 2007, the project began by using satellite technology to map and delimit the zone.[15] A consultant was hired to carry out sensitivity and information exercises to assure the cooperation of the local people. Then, when MCC and the Millennium Development Authority (MiDA), which is Ghana's implementing agency for the Compact, judged the political climate to

13 AGTER, "Appropriation et concentration de droits fonciers à grande échelle- Le cas du Mali", janvier 2010: http://farmlandgrab.org/10462; Chantal Lavigne, "Mali : La ruée vers les terres," reportage vidéo, Une heure sur terre, Radio Canada, 12 March 2010: http://farmlandgrab.org/11739; Via Campesina, Libyan land grab of Mali's rice-producing land, 10 September 2009: http://farmlandgrab.org/7483

14 For further details see, SOS Faim, "Mali – Office du Niger: Can the farmers' movement push back agribusiness?", Farming Dynamics, No. 20, April 2009.

Box 2: Golden carpet for corporations

Ghana's pineapple industry took off in the first years of the 21st century, as corporations started looking to Africa as a secondary source of exports to Europe, and as political turmoil disrupted supplies from Côte d'Ivoire. Exports of pineapple from Ghana to Europe surged from about 20,000 tonnes in 2000 to about 50,000 tonnes in 2004. Unlike in Costa Rica, not all of this production was dominated by big plantations owned by or under the umbrella of a few transnational corporations. Ghanaian farmers and medium-sized traders accounted for a significant share of the country's pineapple exports.[1]

But in 2005, Ghana's European market crumbled. Without warning, European retailers, lobbied by transnational pineapple companies such as Dole and Delmonte, unilaterally decided to begin purchasing only the MD2 variety of pineapple (known as "Golden"), and no longer to accept the Sweet Cayenne variety produced in Ghana. They also began to insist more forcefully on EurepGAP certification from their suppliers. The sudden shift was too much for Ghana's pineapple farmers and exporters. Both EurepGAP certification and the MD2 variety, due to the high costs of plantlets and the extra inputs required, were beyond their reach. They were forced to shut down, and the big foreign corporations moved in.

In 2004 there were 65 pineapple exporters in Ghana. Today just two companies control nearly all of Ghana's pineapple exports: Dole/Compagnie Fruitière and HPW Services of Switzerland, which is supplied by three large outgrowing plantation companies.[2] Compagnie Fruitière, a French-based company that is 40 per cent owned by Dole, began operations in Ghana in 2003 when it took over a local pineapple planation. It expanded from 150 ha to 600 ha by 2006, and plans to develop more plantations over the 3,000 ha that it says it has purchased in Ghana for pineapple production. It also produces bananas in Ghana, and today is estimated to control 88 per cent of the country's banana exports and 40 per cent of its fresh pineapple exports (all MD2 variety). The company has "free-zone" status, and as such qualifies for all kinds of investor incentives and protections, including an exemption from income tax.[3] Other multinationals are now eager to follow: Chiquita is working directly with MCC to ease its entry into Ghana's pineapple industry.[4]

1 Niels Fold, "Transnational Sourcing Practices in Ghana's Perennial Crop Sectors," Journal of Agrarian Change, Vol. 8, No. 1, January 2008, pp. 94–122.
2 Peter Jaeger, "Ghana Export Horticulture Cluster Strategic Profile Study," prepared for the World Bank, The Republic of Ghana Ministry of Food and Agriculture, and European Union All ACP Agricultural Commodities Programme, 2008.
3 See http://www.gfzb.com.gh/
4 MCC Annual Report, 2008: http://pdf.usaid.gov/pdf_docs/PCAAB908.pdf

be ripe, the Minister of Lands declared the district a "compulsory Title Registration Area", a first in rural Ghana.[16]

From there MiDA has moved into the "implementation phase". The district is being surveyed in detail, lands and rights are being identified and mapped, conflicting claims are being managed by an "alternative dispute resolution system" established and managed by another team of consultants, and titles are being registered and handed out. By September 2009, a first round of 100 land titles had been allocated. Meanwhile, MiDA has even set up a special office to provide information and assess the value of land for prospective investors.

Pineapple plantation in Ghana

The local people did not request this project. They were not seeking land titles. They have, however, been extremely worried about the expansion of pineapple plantations in the area, and what this is doing to local food production and their access to land.[17] Such local trepidation concerns the foreign investors and elites keen to take over land for pineapple production; they do not want the local people and their customary land practices to stand in the way of profits.

The MCC's project in Awutu Efutu Senya is integrated into a larger MCC programme bent on expanding export pineapple production in the area. MCC funds are being used to upgrade roads linking the district to the airport and the harbour, to build a local packhouse and other post-harvest facilities, to improve the port, to put in place

15 Implementing Entity Agreement by and between the Millennium Development Authority and the Ministry of Lands, Forestry and Mines, 18 September 2007.

16 By way of the Minister, supported by MiDA,Legislative Instrument 1914 was adopted by Parliament to declare the Awutu Senya District as a pilot registration area in accordance with the provision of the land title registration law, PNDC 152. Section 5 of PNDC Law 153 mandates the Minister to, by a Legislative Instrument, declare an area as a Registration District so that land titling can take place in the delimited area.

17 See for instance, GNA, "Workshop on poverty reduction ends", GhanaWeb, 21 December 2003: http://www.ghanaweb.com/GhanaHomePage//regional/artikel.php?ID=48673 .

investment incentives and extension programmes, to supply irrigation and even to increase access to potable water, which is essential for growers to achieve EurepGAP certification.[18] Five years ago, MCC might have been able to make the case that small farmers and local businesses in the area would see some benefits from this programme, but today Ghana's pineapple industry is totally dominated by a few foreign companies (*see* Box 2).

Turning the law against the people in Mozambique

> *"The first thing we're going to do is to make money off of the land itself … We could be moronic and not grow anything and we think we'd make money over the next decade"* - Susan Payne, CEO of Emergent Asset Management, an investment fund in the UK targeting farmland in Mozambique and other African countries.[19]

In Mozambique, where MCC has another major land project, foreign investment in land is booming, and fuelling a massive rise in land grabbing. The World Bank estimates that applications for concessions made over the past 18 months cover 13 million hectares, with over 1 million hectares having been approved.[20] Land use and benefit rights (DUATs),[21] which were created under Mozambique's 1997 land law and which are supposed to be tightly regulated by the state, are being handed out left, right and centre, with little transparency and supervision.

DUATs are rights of occupation allotted by the state to communities in perpetuity, or to investors (both foreign and corporate) as long-term concessions (50 years, with an option to renew for another 50 years), as long as these investors provide and carry out an approved economic development plan. According to the law, the investors are also required to consult the local people to confirm that the land is available, and to set up partnerships with the local community. People struggled hard to ensure that such protection for communities was incorporated in the 1997 law. Increasingly, however, concessions are being allocated to local elites and foreign investors without local people's consent.

The MCC is not averse to DUATs, even though these are not land titles in the orthodox sense. The World Bank, which has a longer experience trying to reform Mozambique's land laws, seems also to have decided that this is the best that can be had for now, given the huge resistance to its push for commercial land markets. According to the MCC's Jolyne Sanjak:

> "What we're working with the government on is ensuring that those lease-holds are secure, that the process for expiring the lease and transferring the lease is efficient … In Mozambique, we had very interesting discussions with lawyers who work with commercial clients looking for land on which to build their businesses. And they found that their clients' start-up costs can be 60–90 per cent higher because of all the runaround that they had to go through to try to identify whether the land could be acquired with secure, registered rights of use."[22]

In other words, MCC is aiming to modify the national laws, regulations and institutions governing land until there is hardly any difference between a DUAT and a land title. Specifically, MCC is targeting two Articles (15 and 16) of the Land Law Regulations to make it easier for an investor to transfer (i.e. sell) DUATs, or for a company to transfer its DUATs by transferring a majority of the shares in the company, thus creating a major loophole for foreign investment. They also want to modify another Article (18) so that concessions will automatically be renewed after the first 50 years.[23]

When it comes to changing the institutions, MCC is working through its typical strategy of starting with particular areas and building from there. MCA–Mozambique has identified what it calls "hotspots" in twelve "priority districts" in northern Mozambique, where its infrastructure and agribusiness projects are increasing investor interest in farmland.[24] They are now proceeding to map and delimit these hotspots, which they will then formalise through the registration of DUATs – "for private sector use".[25] With the maps and

18 EurepGAP is an internationally recognised set of farm standards that are supposed to guarantee good agricultural practices (GAP). In 2007 its name was changed to GLOBALGAP. Under Ghana's Compact proposal, the primary objective of improving water sanitation is for treating horticultural produce. People's access to clean water is listed as an "indirect benefit".

19 See Susan Payne's presentation at the AgriPods Conference in London, February, 2010: http://farmlandgrab.org/11247

20 Presentation by the World Bank's Klaus Deininger, "Land grabbing - International community responses", 16 July 2009: http://farmlandgrab.org/6293

21 An abbreviation of the Portuguese Direito de Uso e Aproveitamento de Terra.

22 "The Housing Crisis that No One is Talking About: Secure Land Tenure and Poverty Reduction", transcript from Millennium Challenge Corporation public outreach meeting, 13 November 2008: http://www.mcc.gov/mcc/bm.doc/transcript-111308-habitat-landtenure.pdf

23 Chemonics, "Mozambique General Services Contract, Land Tenure Services: Final Report", Prepared for MCC, October 2006: http://69.147.245.78/en/index.php?option=com_docman&task=doc_download&gid=40&Itemid=10

Photo: Nic Paget-Clarke / Via Campesina

Members of the First of December farmers' association, which works with the national organisation UNAC (União Nacional de Camponeses/National Peasants' Union) in the Sanga district, near Lichinga, in the Niassa province of Mozambique.

DUATs in place and the information entered into the national cadastre, MCA will set up services to provide investors with up-to-date information about the availability of land in the areas and help them to acquire land from the local communities or whoever it is to whom the MCA allocates the DUATs.

"With this process of titling, farmers will sell their land as soon as they are in financial trouble, and women will be the worst affected", worries Diamantino Leopoldo Nhampossa of Mozambique's National Small Scale Farmers Union (UNAC). "Local farmers are unhappy about this process. Land for us is understood as a common good."

Benin's farms, one click from Wall Street

MCC hired two US companies, Chemonics and International Land Systems, to develop the Mozambican government's proposal for the land component of its Compact. In Mali, another US firm, CDM, wrote up the draft proposal for the section of the Compact dealing with land. The hands of US companies, all well experienced in preparing the terrain for US corporations through USAID programmes, appear everywhere in the design and implementation of the MCC land programmes. In Benin, one US company, Stewart International, is even overseeing the development of a whole new national land policy framework under the MCC programme.

MCC's Compact with Benin makes the dispersal of funds, including a major grant for the development of the Port of Cotonou, conditional on the endorsement of a White Paper that is supposed to be the basis for the development of a new Land Code. The Compact spells out clearly what this new policy framework must look like: it "will enable a progressive transition between customary and administrative land management to markets and a title registration system". To ensure that the process goes according to plan, MCA–Benin brought in Stewart International to oversee the writing of the White Paper.

The White Paper was recently completed. One consultant from Benin who witnessed the process from the inside told GRAIN that it was heavily biased towards foreign investors and agribusiness. Dissenting views were silenced, and, in the end, the White Paper posits land titles as the sole system of land management in the country, completely marginalising customary practices, even though these are strongly recognised in the 2007 national land law. "The White Paper, which aims to make the use of land titles ubiquitous, proposes a model that is imported and not adapted to Benin's social and economic context", argues the peasant organisation Synergie Paysanne. "It provides a green light for multinationals and other financial powers."

As the White Paper gets translated into legislation, MCA–Benin is already pushing forward the use of land titles on the ground, in specific districts. As in Ghana and Mozambique, MCC is using the space generated by recent land reforms, which were overseen by the World Bank and other donors, to map out and delimit land, register titles and facilitate the purchase of land by private investors. The programme is subverting provisions made in Benin's 2007 land law that enable local communities collectively to identify and define the land rights in their area by way of Plans Fonciers Rurales (PFRs). For groups like Synergie Paysanne, the PFRs are valuable mechanisms for communities to sort out issues of access to land and to improve the ways in which rights and responsibilities are distributed, taking into consideration issues such as food security, livelihoods, gender and the environment. But, in the MCA target districts, the PFRs are being reduced to cadastral exercises that divide land into parcels of private property to be bought and sold on the market, and the White Paper intends to generalise this process throughout the country.[26]

Foreign agribusiness investors are ecstatic about MCC's programme. French businessman Roland Riboux, Director General of the agribusiness company Fludor, wants to see the programme extended across the whole country. "If we want development to happen people need to be able to invest rapidly and every piece of land in Benin has to have an owner in possession of a land title," he says. "Each municipality, each department must have an agency responsible for mobilising people so that they all have land titles, as soon as possible."[27]

Benin's small farmers do not share this enthusiasm. "According to our analysis, MCA–Benin is a tool that gives investors a free hand", says Nestor Mahinou of Synergie Paysanne. "From New York, an investor can identify a farmer who owns land in Ouèssè or in Djidja because all the data about each area is digitally recorded – the owner of the land, the size of the land and even a map of the fields."[28]

Indeed, there is both increasing interest in such transactions from foreign investors and the logistical means for accomplishing them. In Ghana, for instance, the US title insurance company First

Nestor Mahinou, executive secretary of Synergie Paysanne, Benin's small farmers' trade union.

24 From MCC's preparatory document on land for its Compact with Mozambique: "A capacity to respond quickly to this increase in demand [for land] and for intended investments not to be blighted by uncertainties or conflicts regarding land tenure issues is important." Chemonics, "Mozambique General Services Contract, Land Tenure Services: Final Report", Prepared for MCC, October 2006: http://69.147.245.78/en/index.php?option=com_docman&task=doc_download&gid=40&Itemid=10

25 According to the MCC Monitoring and Evaluation Plan for Mozambique, one of the main indicators for the Land Tenure Services Project are the "hectares of rural land formalized through the provision of DUATs, for private sector use." http://www.mcc.gov/mcc/bm.doc/mozambique-mande-plan-14april09_approved-2.pdf

26 Volker Stamm, "Social Research and Development Policy: Two Approaches to West African Land-tenure Problems", Africa Spectrum, Vol. 44, No. 2, 2009, pp. 29–52.

27 Kokouvi Eklou, "Roland Riboux : 'La question du foncier est fondamentale pour le Bénin' ", Ebeninois.com, 9 November 2009: http://www.ebeninois.com/Interview_r13.html

28 H. Agathe Aline Assankpon, "La position de la Société civile sur le Projet Accès au foncier", 9 December 2009: http://www.oecd.org/dataoecd/12/12/44174152.pdf

American and another US company, International Land Systems, are spearheading a pilot initiative with the Clinton Global Initiative and US-based microcredit bank Opportunity International to map out lands in poor areas of Accra by satellite.[29] Opportunity International will then take residents through a process for acquiring a paralegal form of title which can be used as collateral for its loans. It's a rapid way of bypassing government to create a property market, operating under the sanction of an international bank connected to multinational investors.[30] The promoters are now seeking to bring their project to rural Ghana.

Meanwhile, those investors and companies leading the current scramble for global farmland are already working with satellite technology to identify lands for acquisition. El Tejar, an Argentine company partly owned by US and European private equity funds, explains:

> "In evaluating a potential land purchase or rental, we use satellite imaging and historical

29 Peter Rabley, International Land Systems, Inc., "Ghana Project Leverages GIS-Based Title Registration and Microfinance to Alleviate Poverty," ArcNews, Fall 2008: http://en.landsystems.com/downloads/Ghana_GIS_Land_Titling.pdf

Box 3: Exporting the US sub-prime crisis

Few people in Benin know that Stewart International, the company guiding the reworking of Benin's land policy for MCA–Benin, is a major multinational corporation with a direct interest in commodifying African lands.[1] It is one of the largest title insurance and mortgage service companies in the US and in recent years it has been aggressively expanding globally. Advising governments such as Benin's on land and real estate polices is a side business for the company's international division, albeit a growing one.[2] It also sells the technology for cadastral systems and land record systems, and the core of its business is selling title insurance.

Title insurance was once an obscure product confined to the US real estate market, but it is quickly becoming a global industry. Foreign investors buying property in developing countries want title insurance to protect their investments, in case of competing claims on ownership of or rights to the property. For example, Stewart sells a special title insurance to Americans purchasing property on *ejido* lands in Mexico – lands that are owned collectively by Mexican indigenous communities and that were only recently opened up to outside investors through a change in the national land laws. As is common with title insurance in poorer countries, the terms of the title insurance for *ejido* lands are governed by the laws of the US, not Mexico.[3]

Most often, however, title insurance is demanded by mortgage lenders, not individuals. Last year's sub-prime mortgage crisis exposed how US banks and other mortgage lenders bundle their mortgages together and sell them on as securities called collateralized mortgage obligations (CMOs). This is referred to as the secondary mortgage market, and, in recent years, the real estate industry has been trying to develop such markets around the world. But these markets only work where land is governed by private titles and when these titles are backed up by title insurance – so that those buying the CMOs can have a level of confidence in these risky mortgage bundles. Stewart and other title insurance companies actually provide banks with blanket title insurance for their entire mortgage portfolios. "Stewart serves mortgage lenders by reviewing and insuring entire portfolios, making it possible to securitize the portfolios, and thus enabling the secondary mortgage market in a country with a developing financial industry", says Stewart.[4]

It thus becomes possible to imagine how the same sharks that engineered and profited from the US sub-prime crisis could recreate the scenario in the South, even in Africa. The potential profits are immense. It is said that 45–75 per cent of the wealth of developing countries is made up of land and real estate – and this wealth has been largely inaccessible to global capital.[5] Stewart and other US title insurance corporations, such as First American, are part and parcel of a major effort that includes banks and finance houses, that is trying to open up this market through the creation of a "global real estate market" – with the support of MCC.

"MCC is interested in synchronizing and collaborating on private sector initiatives by assisting with upfront legal reform to pave the way for land titling", said MCC's Jolyne Sanjack at a recent meeting of the American Land Title Association. "The ultimate goal is a more connected global marketplace."[6]

1 Stewart International website: http://www.stewart.com/
2 Stewart has engaged in title registration and privatisation projects in Georgia, Hungary, Mexico, Moldova, Serbia, Slovakia, St. Lucia, Trinidad & Tobago, and Ukraine.
3 Mitch Creekmore, Stewart International – México Division, "A U.S. standard of title assurance on Mexico Land", Arizona Journal of Real Estate & Business, May 2005: http://www.pacificboutiqueproperties.com/Documents/US%20Standards%20Aricle.pdf
4 Kevin Knai Chester, "The Globalization of Developing-Nation Real Estate Markets – A Current Perspective", MIT, June 2004: http://dspace.mit.edu/bitstream/handle/1721.1/17858/56607596.pdf?sequence=1
5 Ahmed Galal and Omar Razzaz, "Reforming Land and Real Estate Markets", The World Bank Policy Research Working Paper 2616.
6 http://www.alta.org/press/release.cfm?newsID=7336

weather data to perform an initial screening of the land for quality and productivity. We seek to develop an accurate map of the property, determining its topography and the percentage of the land that can be used for agricultural production, estimating flood and other risks such as disease or drought, as well as soil quality and productivity."[31]

Shutting the door on the MCC

The MCC is constantly expanding, with more countries signing Compacts every year. A long list of countries, in Africa and elsewhere, are in line to become eligible for MCC funds. This can only be bad news for family farms. The MCC programmes are not about supporting small farmers. Rather they are turning small farmers into sellers of their lands, paving the way for investors to come in and, at bargain prices, take over prime farmland for large-scale industrial farming or even for speculation.[32] Plus, the MCC programmes are just one part of a larger effort to facilitate corporate land grabbing that brings together a growing list of international and national agencies.

The stage is thus being set for a massive transfer of lands currently being used by the poor, who produce food in a sustainable way for local people, to a wealthy elite and to foreign investors, who, if they are not simply sitting on the land for speculative purposes, will mine the soils to produce agricultural commodities for export. So much is at stake, and yet most African governments are falling over themselves to woo investors and sell off their peoples' land. Hardly any African government leader has dared to speak out against the current global lang grab. Few have turned down the poisoned pills from the MCC or other donors.

This is not preventing people on the ground from taking action. Most of the land deals that have been signed in Africa over the last couple of years still exist only on paper. Where the deals have been exposed or where investors have tried physically to move on to the lands, they have met fierce local resistance – from Ethiopia to Madagascar, from Mali to Kenya (*see* interview with Ochalla, p. 12; article on Endorois, p. 22). And, as more and more deals become known to local people, that resistance spreads, and increasingly links together.

It is high time that critical pressure around the role of multilateral agencies, including the UN and its human rights machinery, as well as the more directly implicated groups like the World Bank and its International Finance Corporation, also be brought to bear on national development aid programmes and the role they are playing in today's massive land grab. The MCC is one powerful example of the kind of damage that can be done; it shows why we need to work together to stop it.

30 It is important to note that there is already a growing market for collateralised loan obligations based on bundles of microcredit loans in poor countries. Two companies selling these investment vehicles are Blue Orchard (www.blueorchard.com) and Symbiotics (www.symbiotics.ch/). Opportunity International is working actively with both of these companies (see http://www.opportunity.net/About/Distinctives/investment_capital/).

31 http://www.eltejar.com/en/secciones/agricultural-land_44.php&sub=0

32 A study by Synergie Paysanne of recent land grabbing in the Commune of Djidja, Departement of Zou, Benin, found an alarming increase in land acquisitions by outsiders in 2008 and 2009. Of the 30 land grabs that they documented, only in one case did an investor subsequently pursue any development of the land. Synergie Paysanne, *Rapport final - Mission d'enquête sur le foncier à Djidja : accaparement des terres*, December 2009.

Going Further:

- *The new farm owners – corporate investors lead the rush for control over overseas farmland*, GRAIN, Against the grain, October 2009, http://www.grain.org/articles/?id=55
- *Seized: The 2008 landgrab for food and financial security*, GRAIN Briefing, October 2008, http://www.grain.org/briefings/?id=212
- Farmland Grab: Food crisis and the global land grab.This blog contains mainly news reports about the global rush to buy up or lease farmlands abroad as a strategy to secure basic food supplies or simply for profit. Its purpose is to serve as a resource for those monitoring or researching the issue, particularly social activists, non-government organisations and journalists. Although currently maintained by GRAIN, anyone can post materials or develop the blog further: http://farmlandgrab.org/
- Synergie Paysanne, Lecture critique du Livre Blanc du MCA–Bénin: Etude sur la Politique et l'Administration Foncières – "Projet Accès au Foncier", 26 November 2009. For a copy, contact: synergiepays@yahoo.fr
- Déclaration des plates formes d'OP membres du ROPPA, suite à l'atelier régional sur la sécurisation foncière des exploitations familiales à Ouagadougou, 13 April 2008: http://www.roppa.info/IMG/pdf/Declaration_roppa_atelier_french.pdf
- Declaration of farmer organisation platforms members of ROPPA, after the workshop on land security for family farms at Ouagadougou, 13 April 2008: http://www.roppa.info/IMG/pdf/Declaration_of_FO_platforms_members_of_ROPPA.pdf
- Le Hub Rural website contains a wealth of selected documents and news articles about land issues in Africa, particularly West Africa: http://www.hubrural.org/spip.php?rubrique15
- Millennium Challenge Corporation website: http://www.mcc.gov/

Ethiopia is one of the main targets in the current global farmland grab. The government has stated publicly that it wants to sell off three million hectares of farmland in the country to foreign investors, and around one million hectares have already been signed away. Much of the land that these investors have acquired is in the province of Gambella, a fertile area that is home to the Anuak nation. The Anuak are indigenous people who have always lived in Gambella and who practise farming, pastoralism, hunting and gathering. Nyikaw Ochalla, an Anuak living in exile in the United Kingdom, is trying to understand what this new wave of land deals will mean for the Anuak and other local communities in Ethiopia.

Land grabs threaten Anuak

GRAIN INTERVIEWS NYIKAW OCHALLA

How will these large-scale projects affect the agriculture of the Anuak?

The Anuak are a distinct people who have always had close ties to their environment. As an indigenous population, they have been marginalised by the government for many years. They sustain themselves mainly through farming, hunting and fishing, while some Anuak are also pastoralists.

The attraction of Gambella for foreign investors is its fertile lands. But the area is fertile because the local people have nurtured and maintained its ecological systems through their agricultural practices. They may not have had access to modern education but they have a traditional means of cultivation, which includes rotation. When the rainy season comes, they move to the drier areas and when the dry season comes they go along to the river banks, making sure that they manage their environment effectively. So all of the lands in the region are used. Each community looks after its own territory, and the rivers and farmlands within it. It is a myth propagated by the government and investors to say that there is waste land or land that is not utilised in Gambella.

With the current trend of large-scale agricultural projects in Gambella, many people are coming into the region claiming to know the best practices for agriculture. The government is assuming that this is a fertile land, but the agricultural projects it is pursuing in the region will devastate the soil. We are already seeing a rise in temperatures in Gambella from climate change, which is making the lands more fragile. These large-scale projects will undermine the practices of the indigenous population and destroy the fertility of the soils, as has been the case in other parts of Ethiopia. One of the reasons why Ethiopia suffers from recurrent famines is because of poor agricultural practices that were encouraged by government programmes that did not consider the long-term health of the soils.

Are the local people aware of the deals the government is signing with foreign investors for land in Gambella?

These are secret deals between the government and the land grabbers, in particular the foreign investors. I very much doubt that even the regional government is aware of these deals. This land grab is something that is happening in Addis Ababa, the capital. There is no consultation with the indigenous population, who remain far away from the deals. The only thing the local people see is people coming with lots of tractors to invade their lands. And they have no place to voice their opposition. They are just being evicted without any proper consultation, any proper compensation.

Resistance to these projects is difficult, given the past experience of the indigenous people. Back in 2003, under the pretext of retaliating for an attack on a UN vehicle, the Ethiopian army went on a rampage and killed over 400 male Anuaks. It's an ongoing severe humanitarian disaster. Many Anuak fled their lands to go to other parts of the continent, such as Sudan, where thousands are living as refugees. And, as we

speak, the government has decided to send more contingents from the army into the region. The clear intention is to crush any opposition that might arise to these land grabs. There is currently a curfew in Gambella, imposed by the central government.

What we are seeing today is a continuation of what happened in 2003, and I believe that the current regime has calculated this very well to make sure that the indigenous populations will have no voice, no means of protest. People are very fearful to speak about this land grab. But they know that the land grab will be destructive, that losing the land for 50 years to a foreign company will leave them destitute and leave the land in very poor condition. So conflict is a possibility; it may erupt, given the lack of possibility for other means of resistance.

How is the large Ethiopian diaspora reacting to what is happening?

There is a mix of views. A small fraction of the diaspora keenly supports the current policies of the Ethiopian government, simply because they are beneficiaries of land leases and also members of the ruling party. But I think the majority is very concerned. It is high time for us to come together in the interests of protecting the land for the future of the Ethiopian people, because it is not only the population of Gambella that will be affected. The land grabs are happening across the country and they are happening as the population is increasing. The future is difficult to foresee as it will be increasingly difficult for people to get access to land.

Can you imagine a scenario in which the local population benefits from these large land deals?

I doubt very much that such a win–win situation is possible. We are talking about a regime in Ethiopia and others in Africa, targeted by these investors, that are very corrupt. They think of themselves, not the people.

No one would trade working the lands as they have for centuries to working the lands as a daily labourer for a pittance in wages. If the question is about increasing agricultural production, the ideal way is by supporting the indigenous population in small-scale farming in a manner that sustains the environment.

Why is the Ethiopian government so committed to handing the country's farmland over to foreign investors?

One of the main reasons why the government is inviting investors to come in is to show a good face to donors, to show that it is doing something in the face of recurrent famine. Plus, the Ethiopian government is part of the international community's fight against terror, and so the donor countries are unwilling to criticise the Ethiopian government, as the Horn of Africa is a volatile region and Ethiopia is the only relatively stable country. The government has a lot of enemies within and outside the government, and since 2001 anyone opposing the government is treated as a terrorist.

The Ethiopian government is in fact playing a more sinister game, and the international community is either ignoring it or going along with it to satisfy its own interests. This government uses every means to control political power in the country, and creating a class society, getting more money from investors, allows it to buy off economic power.

The land grabs are also a pretext to create a vacuum in the region so that the indigenous people cannot have a voice to oppose the government. This is a regime that has no principles when it comes to morality. It claims to respect the rights of indigenous peoples, but the promised devolution of power has gone astray. The land is supposed to be controlled by the local people, through a state system. But now the central government has decided to intervene. They want to crush any opposition, whether at the local level or the national level. And they will try to do this by creating a class society by economic means.

Can you explain a little more about how the land grabs interact with the government's political agenda?

When the current regime came to power in 1991, it was supported by the Anuak people, who were opposed to the former socialist regime's land policies and its destruction of their cultural values. That regime had instituted a policy of colonisation in Gambella, bringing in thousands of people from outside the region to settle there and cultivate the land. It implemented a state farm model as a way to cultivate cash crops. But because the local population was not consulted, they resisted these policies and took sides with the current regime.

As a result the new regime granted them autonomy at the state level. But that autonomy has subsequently been greatly restricted. Elections are now not being allowed at the state level for fear that representatives of the indigenous people might be voted into power. Today, the state officials are appointed by the central government.

It would not be improper to say that this government is pursuing systematic genocide against the indigenous population. Today there are a high number of Ethiopians from other parts of the country moving into Gambella to work on the large-scale agricultural projects. This is a very critical moment for the future of the indigenous people of Gambella.

The foreign investors that are going to come into the region will bring some job opportunities, but these will mainly be for people from outside the region. This suits the interests of the government, because it would like to do away with the indigenous population, and it can no longer simply kill off the people as it has in the past because of the problems this generates for its image. By bringing in foreign investors the international community will not argue that this is systematic genocide. But, as we know, the indigenous people will be evicted from their lands and demographic change will clear them out of the area.

Across East and West Africa, an estimated 50 million traditional livestock producers are not only supporting their families, their communities and a huge meat and hides industry, but are also demonstrating a rare capacity to adapt to climate change. A new study into pastoralism in Africa's drylands shows that, despite serious problems caused by bureaucracy, border controls and, more recently, land grabbing, many of the livestock rearers are resourceful, highly productive and financially canny.

Pastoralism

an untold tale of adaptation and survival

GRAIN

Drylands make up 43 per cent of Africa's inhabited surface and are home to 268 million people – 40 per cent of the continent's population. By far the most important activity in these drylands is pastoralism. A study published recently gives outsiders a fascinating insight into these pastoralists' lives.[1] It shows that, given half a chance, pastoralists, who feed their animals solely on natural dryland pastures, can achieve high rates of productivity, significantly higher than on modern ranches built on the Western model. Using their deep knowledge of animals and ecosystems, pastoralists are also proving skilful in elaborating new strategies to tackle the consequences of climate change.

Mobility is key to the success achieved by these communities but, according to the study, the process is often poorly understood. For instance, pastoralists do not generally move in response to pasture shortage, as is widely believed. Instead, they seek out the best fodder for their animals:

> As a general rule pastoralists are much more concerned with the quality of the diet (grasses, shrubs, tree leaves and water), as measured by their animals' health and productivity. They generally move towards higher quality, rather than away from low quantity … To an outsider the grasses, shrubs and trees of the drylands may look much the same, but in fact pasture quality varies on a daily, seasonal and annual basis, and most importantly is not evenly spread across the landscape. It is this scattering of different pastures over different places, at different times, which makes mobile livestock-keeping so productive in what is otherwise a difficult environment.[2]

It takes skill to ensure that the cattle are well fed. Communities have learnt both to guide cattle in their feeding habits and to be sensitive to their needs. The WoDaaBe from Niger say that they train their Bororo zebu to pick and choose from over 40 different plant species, including shrubs and trees and even wild melons and water lilies. They also know the conditions in which the cattle feed best: "They [the cattle] graze better and more when they find what they like – soft, delicious grass – and when they are given the opportunity to range any time during day and night. They graze badly when disturbed, for example by the bad smell of droppings, by pasture infested with grasshoppers, by the smell of a carcass, by grass that is brittle or spiky."[3] The pastoralists have also learnt, when appropriate, to trust their animals' instincts. According to Eregey Hosiah Ekiyeyes, a

1 International Institute for Environment and Development (IIED) and SOS Sahel International UK, *Modern and mobile – the future of livestock production in Africa's drylands*, 2010, http://www.iied.org/pubs/display.php?o=12565IIED

2 *Ibid.*, p. 15.

3 *Ibid.*, p. 17.

Photo: Andy Catley / IIED

Pastoralists no longer automatically take their cattle to the nearest market, but choose the one with the best prices.

Turkana from Kenya: "Another reason why people move is that your livestock will just force you to move because they know there is better grass in another place."[4]

When a community is considering a move, skill and tact are needed to manage the social relationships both within the community itself and with other communities using the land in the new area. This becomes particularly important when a group is facing an emergency and levels of stress are high. Bot Bor Bule, a Borana elder in Ethiopia, explains how his community responded to a drought:

> When rain fell in another area we got information about it. Our "ola" (camp) is composed of 28 households. Nine households wanted to shift, 19 said shifting has consequences, let's wait. We democratically decided to separate. Every movement has a big impact on women and animals so people are often reluctant to take a risk. The nine households sent a delegation to go and scout for pastures and water-use rights, and meet with the communities where the rain was. We have to ask them for rights to camp with them. This "scouting" is done by a very important person. They have to be truthful, observant, accepted by the new community and trusted by their own community. Once the community accepted us to come they assisted us to settle. For one and a half months they provided us with grain and provided us with security until our animals were lactating again."[5]

High productivity

When they are free to manage their mobility as they wish, pastoralists can achieve very high levels of productivity:

> Modern ranching is often believed to be an improvement over traditional livestock management. Many governments in Africa believe ranches will produce more and better-quality beef and milk than pastoralism. Ranches,

Table 1: Comparative productivity of pastoralism and ranching

	Productivity of pastoralism and ranching	Unit of measure
Ethiopia (Borana)[1]	157% relative to Kenyan ranches	MjGE/ha/yr (calories)
Kenya (Maasai)[2]	185% relative to East African ranches	Kg of protein production/ha/yr
Botswana[3]	180% relative to Botswana ranches	Kg of protein production/ha/yr
Zimbabwe[4]	150% relative to Zimbabwean ranches	US$ generated/ha/yr

1 W.J. Cossins, "The productivity of pastoral systems", *ILCA Bulletin*, 21: 10–15, 1985.
2 D. Western, "The environment and ecology of pastoralists in arid savannas", *Development and Change*, 13: 183–211, 1982.
3 N. De Ridder and K.T. Wagenar, "A comparison between the productivity of traditional livestock systems and ranching in E. Botswana", *ILCA Newsletter*, 3 (3): 5–6, 1984.
4 J.C. Barnett, *The economic role of cattle in communal farming systems in Zimbabwe*, Pastoral Development Network paper 32b, ODI, London, 1992.

4 *Ibid.*, p. 17.

5 *Ibid.*, p. 16.

Photo: Kelley Lynch / IIED

Cattle drink from the trough while camels wait their turn at the borehole in Lehey, Somali region, Ethiopia. Thousands of animals come to the borehole every day.

which control stocking densities and invest in high-yielding cattle breeds, water development and veterinary inputs, are able to meet the international health standards required for the export trade. But research in Ethiopia, Kenya, Botswana and Zimbabwe, comparing the productivity of ranching against pastoralism, all came to the same conclusion: pastoralism consistently outperformed ranching, and to a quite significant degree. Whether measured in terms of meat production, generating energy (calories) or providing cash, pastoralism gives a higher return per hectare of land than ranching. Whereas commercial cattle-ranching tends to specialise in only one product – meat – pastoralism provides a diverse range of outputs, including meat, milk, blood, manure, traction, which when added up is of greater value than meat alone [*see* table 1].[6]

Many pastoralists have also been quick to take advantage of new technology, particularly mobile phones:

> Tirina ole Kailonko is a Maasai herder who lives in Mbirikani in Kajiado district of southern Kenya. When Tirina wants to sell his cows he has a choice of three markets: Emali which is 50 km away, Mombasa 350 km away and Nairobi 150 km away. With improvements in communication infrastructure, Tirina no longer relies on friends and middlemen. He uses his cellphone to speak to his contacts or queries the national livestock marketing information system for prices of cattle in the markets. Based on the cost of transporting the animals by truck and the time it takes to get his cattle to the market, he is then able to make a decision on which market to deliver his load of animals to. According to Tirina, prior knowledge of the expected average prices in different markets has improved his bargaining power. He has gradually becomes independent of middlemen in the livestock marketing chain, and has improved his income.[7]

Pastoralism is important to the local economies: in many countries of the Sahel its contribution to the total agricultural output is above 40 per cent.[8] There are also other very important benefits that pastoralism brings, which are not captured in GDP figures: "National accounts are based only on the value of final products such as meat and hides, and leave out the many social, security and ecological benefits mobile livestock production adds to economies."[9]

The dynamics behind pastoralism are subtle and delicate. Very often western governments and development agencies fail to grasp the complexities, and have unwittingly adopted policies that, although well-intentioned, have done long-term damage to the communities. Drought relief is a case in point:

> Millions and millions of US dollars have been spent in pastoral drought relief in dryland Africa since the 1970s. Nearly all of this money has gone on buying food aid, which while saving pastoral lives has failed to save livelihoods. For many pastoral communities, the return of the rains after the drought has not allowed them to return to mobile livestock keeping. Having lost their animals during the drought, they either remain in or around the towns from which they achieved the food aid that saved their lives, sometimes succeeding in a new livelihood, or they try their hand at agriculture, charcoal making or, in extreme cases, adopting a violent lifestyle. This failure is not only a human tragedy but an economic one too, as governments bear both the price of livestock production forgone and the cost of supporting these communities.[10]

Another important issue raised by this study is the role of pastoralism in both mitigating and adapting to climate change. Grasslands store about 34 per cent of the global stock of carbon dioxide. Africa – which covers about one fifth of the earth's land area – is the key continent, for it has about 13 million sq. km of grasslands, far more than any other region in the world. If the grassland becomes degraded or is converted to cropland, it loses its capacity to store this carbon. So pastoralists, by helping to maintain the grasslands, are playing

6 *Ibid.*, p. 19.

7 Provided to the study by Mariuki Gatarwa Global Livestock Research Support Program – Livestock Information Network and Knowledge System , Nairobi, Kenya.

8 WISP, *Global review of the economics of pastoralism*, Nairobi, 2006.

9 *Modern and mobile*, p. 25.

10 *Ibid.*, p. 65.

Box 1: Land loss in numbers[1]

- In Ethiopia, the Afar have lost over 408,000 hectares of prime dry-season grazing along the Awash river to irrigated farming and the Awash National Park, while in the Somali region over 417,000 hectares of prime grazing land have been converted to rain-fed and irrigated agriculture in the last 60 years.
- In Senegal, thousands of hectares of riverside land were converted to commercial irrigated farming in the 1950s, seriously disrupting the seasonal movements of livestock and denying them access to highly nutritious dry-season grazing.
- In Mali, the state-run cotton company (CMDT) expanded into the region of Kita in 1991. Thousands of agricultural migrants flocked to the area occupying former pastoral lands and investing their profits in livestock that now compete with pastoralist-owned animals for access to pasture and water.
- In Chad, it is estimated that in 20–30 years, about 2 million hectares, 5 per cent of the total land area, will have been lost to pastoralism because of agricultural expansion.
- In Tanzania, over 30 per cent of land is classified as national parks, game reserves, hunting blocks, or protected forests from which pastoralists are either excluded or to which they have restricted rights of access.

1 *Modern and mobile*, p. 40.

a key role in carbon sequestration. The study reiterates a point made by GRAIN in its special *Seedling* on climate change:[11] it is quite wrong to include pastoralism in a general livestock category that also contains high-intensity industrial meat and dairy production. It is extremely unlikely that pastoralism makes any significant contribution to the estimated 18 per cent of global greenhouse gas emissions attributed by the UN to the livestock sector.[12] While further study is required, it is probable that on the contrary pastoralism, through its role in conserving grasslands, plays an important positive role in mitigating the crisis.

Pastoralists could also play a key role in adaptation. For some 7,000 years they have used mobility to respond rapidly to variations in the drylands' climate, and they have developed strategies for spreading the risk of losing their stock. This means that they are in a much better position to adapt quickly and successfully to the changing climate than are those tied to sedentary land uses. If Africa is to take advantage of these skills, pastoralists must be included in decision-making at all levels: "To continue to adapt, pastoralist communities need to be informed of changes to come, to be involved in planning for the future, including measures to secure mobility together with access to grazing and water, and to explore new ways to secure their livelihoods."[13]

Constraints on pastoralism

Despite the undoubted economic, social and environmental benefits it brings, pastoralism is under threat. Some of the constraints are the result of the arbitrary way African territory was carved up into nation states by the European powers towards the end of the nineteenth century. Pastoral communities were split apart, with seasonal grazing lands divided and trade routes closed. Even today, pastoralists face constant hassle as they try to cross borders.

However, a much more serious problem for them stems from the recent expansion in farming:

> The slow but inexorable advance of family farms, combined in places with the establishment of large-scale commercial farming, is swallowing up vast areas of grazing lands. The United Nations Environment Programme (UNEP) has called for a moratorium on the expansion of large mechanised farms in Sudan's central semi-arid regions, sounding a warning that it

11 GRAIN, *Seedling*, October 2009, http://www.grain.org/seedling/?id=657

12 See FAO, *Livestock's Long Shadow: environmental issues and options*, Rome, 2006 http://www.fao.org/docrep/010/a0701e/a0701e00.HTM

13 *Modern and mobile*, p. 74.

Photo: Kelley Lynch / IIED

A Hamar man ploughs his land after the first rains. As agro-pastoralists the Hamar keep cattle and also grow crops.

was a "future flash point" for conflict between farmers and pastoralists.

As rains become increasingly erratic through climate change, subsistence farmers across the Sahel experiment with different techniques to ensure a minimum harvest. To hedge their bets against a bad rainy season, farmers scatter fields over a wide area in the hope that some will produce a harvest. This fragments the open grazing land and makes livestock mobility a much harder task. Animals now have to be supervised at all times to prevent them from entering fields and destroying the crops. Sowing late-maturing crops and flood-retreat sorghum in low-lying areas or along seasonal river beds also seriously delays and disrupts the movement of herds which now cannot move until the crops are harvested.[14]

Particularly in East Africa, land is also being lost to national parks and conservation areas, which further restricts pastoral mobility.

At the same time, cattle corridors, which are essential for effective and orderly mobility, have been encroached upon. Bouréima Dodo, Executive Secretary of Billital Maroobe in Niger, complained: "Paths do not belong to us any more. They have become risky because at any moment herders can find themselves hemmed in, without being able to move, because all the land is privatised."[15] Not surprisingly, conflicts arise, as herders seek alternative routes, often through fields.

14 *Ibid.*, p. 39.

15 GRAIN, "Rights of Passage in Niger", *Seedling*, January 2008. http://www.grain.org/seedling/?id=531

16 *Modern and mobile*, p. 60.

17 *Ibid.*, p. 84.

18 *Ibid.*, p. 84.

Conflict resolution

Over the last few decades a series of initiatives has been taken to create new mechanisms for resolving these conflicts. The IIED study points to a case in Ethiopia where communities have formed "landscape assemblies" to manage local resources. During the assemblies, communities map the key features in their areas (seasonal grazing, water points, salt pans, forests, livestock routes, and so on) and these maps are then used as the basis of community discussions to identify and plan remedial action:

> Assemblies can involve as many as 350 pastoralists and last as long as three days. Discussions focus on rangeland management issues including mobility, the dismantling of private enclosures and the reopening of formerly closed stock routes to water and mineral licks.[16]

Numerous other projects have been set up in Burkina Faso, Mali, Niger, Chad and Sudan to reduce conflict by re-opening traditional transhumance routes or by demarcating new ones. Experience has taught that these projects are effective only if they work within the logic of the pastoral system, which views natural resources as being owned, managed and used collectively by different users, either at the same time or sequentially.

Ways forward

The IIED study ends with a number of recommendations. Of perhaps the two most important, one is that proper recognition should be given to pastoralists for what they are:

> Mobile livestock keeping is a sophisticated, rational and productive use of dryland resources. If properly supported, it sustains millions of people at low cost to governments, contributes positively to sound environmental management, generates substantial revenue for national economies, and keeps the peace in remote and sparsely populated regions. It has significant comparative advantage above alternative methods of animal husbandry or land use in drylands. Policy should be directed towards realising these advantages.[17]

The other is that the pastoralists should be listened to:

> This book includes numerous examples of the deep indigenous knowledge that informs pastoral systems. Policy-making processes need to be informed by this knowledge so that they benefit from the experiences and insights of pastoralists and their representatives.[18]

Photo: Michael Wadleigh / IIED

Herders are successfully using cattle to restore the land and to regenerate the rivers in a devastated region of Zimbabwe. They are demonstrating what was once known but has been widely forgotten: that cattle and other large herbivores play a vital role in maintaining ecosystems in arid parts of the world. They are working with nature, not against it.

Watershed cattle

JOHN WILSON

We rose with the sun, around 5.30 a.m., and made our way to the cattle kraal. The air was misty, moisture rising from the morning dew, remnant of last week's rain. The cattle herders were walking slowly through the kraal looking for any signs of sick animals. They found two with Corridor disease (Theileriosis) and treated them. The cattle obviously know the herders well, in their orange overalls.

They were now ready to take the animals to graze. First they counted them out of the kraal, making sure that none were missing (this is done day and night), and kept the young calves back to graze near the kraal. They have 368 animals, about a third of them belonging to residents of the nearby communal area. A biggish herd, but nowhere near the 1,000 or so they are aiming for.

One could call them the watershed cattle. Their role is to restore the health of the land. In the 10 or so years that they have been healing the land at Dimbangombe, the river that had ceased to run now flows again as a small perennial river, thanks to the cattle. Water, cattle, grass, people: all are bound in one interconnected whole.

The herders work in two teams, one until midday and the other for the afternoon and early evening. They know exactly where to take the animals, because the grazing has been carefully planned according to a step-by-step process. They do this twice per year, once for the rainy season and once for the dry season. They keep the animals bunched as a herd and always moving on to new grass. All their movements are quiet and gentle. There is no shouting at the animals or hitting them with sticks or throwing stones. This is skilled herding that does not stress the animals.

I have just spent 10 days at Dimbangombe, which is where the Africa Centre for Holistic Management is based.[1] The land is held by a Trust of nine people, five of whom are the Chiefs in the Hwange area. I have been there before, but this was the first time I have been able to really see their work in action and get a good understanding of it.

Around 80 per cent of Zimbabwe is rangeland of some kind, and just about all of it is degrading, contributing to the fact that Zimbabwe doesn't have any more internal rivers. They are all silted up. They run briefly, after heavy storms, with muddy water. What was once a web of real rivers (much of Zimbabwe is a watershed for Mozambique) is now sandy river beds. More and more water runs off to Mozambique, sometimes causing severe flooding in parts of that country. As in many parts of the

Photo: ACHM

The management herd

John Wilson is a Zimbabwean facilitator, who works to strengthen local civil society in the field of sustainable agriculture. He helped to set up Fambidzanai Centre and then joined others to set up the Participatory Ecological Land Use Management (PELUM) Association, a regional organisation active across eastern and southern Africa.

1 The Africa Centre for Holistic Management provides a range of training and support for managing livestock in a sustainable way. See: www.achmonline.org

Photo: ACHM

Regenerating the river at Dimbangombe

world, water in Zimbabwe is a crucial issue, and is becoming more so year by year.

At Dimbangombe they are showing how one can restore the land's health and thus the water through the way one manages livestock. They graze without overgrazing, which is just what grass plants need in order to thrive. They knock down old growth to make litter on the ground so that when it rains there is mulch. This also means that the new growth on perennial grass plants can come through unimpeded by old, oxidising, growth. They chip open the soil where it is hard, by their herd effect – creating a softer bed for seed. They concentrate dung and urine where the land is particularly bad. They achieve this latter effect via the movable kraals. The kraal is moved to a new place every week. Photographic records show how hard, compacted soil with hardly anything growing on it becomes lush and verdant within two years of a kraal having been on it for a week.

What they are doing at Dimbangombe is to simulate what large herds have been doing for millennia. This is an example of people working with nature, not fighting it.

There is a great deal of misunderstanding about cattle and their role. All sorts of statistics are flying around about their contribution to climate change and to land degradation in general. Unfortunately much of this commentary on livestock does not understand the nature of drier, more arid parts of the world. In such environments large herbivores have always played a vital role in the decay process. For much of the year these environments are dry and the micro-organisms are dormant, except for those in the stomachs of herbivores. The more arid parts of the world produce abundant grass, and if that grass does not pass through an animal's stomach it is very likely to burn or slowly oxidise. In both instances this puts carbon into the air instead of the soil and contributes to climate change. It also results in desertification, drought and famine.

And it goes much further than this because, as with any interaction with nature, one is dealing with complex webs. The river at Dimbangombe has started running again because the overall health of the land has improved. There is much more ground cover everywhere, and so when it rains the water goes into the soil and is a productive force, rather than being the destructive force it so often is where the land is bare and the water runs over the surface, carrying the soil with it. When the water goes into the soil the grass grows better and more abundantly and thus captures more carbon. The trees too benefit from more water and produce more leaf. Despite the fact that the herders are already herding 400 per cent more livestock than any historical average in the past, they cannot keep up with the grass growth.

Yes, it is true that livestock raised on grains and fed in pens are contributing significantly to climate change. But one simply cannot lump these together with the livestock raised in arid and semi-arid parts of the world, where grasslands co-evolved with the large herbivores.

It is also true that, in many instances, livestock causes a great deal of damage in arid and semi-arid areas of the world. This is not the fault of the livestock, but of the way they are managed. Pastoralist systems that fulfilled the requirements of grazing without over-grazing have been badly disrupted by misguided attitudes that see such a lifestyle as backward. In many agro-pastoralist communities, farmers manage their livestock in individual family herds that overgraze and overtrample the land.

Blaming livestock is simply to throw the baby out with the bathwater, and with serious consequences. By understanding the relationships that are critical to the health of the land in arid and semi-arid parts of the world, it becomes clear that livestock contribute a major part of the solution to environmental health. Part of this health means more plant growth and thus more carbon capture. It also means more water in the springs and streams and rivers, and less drought and famine for 800 million pastoralists and agro-pastoralists, and less need for food relief and the costs associated with this. An upward rather than a downward spiral.

La faim, la bagnole, le blé et nous : une denonciation des biocarburants (Hunger, cars, wheat and us: a critique of biofuels)

Nicolino Fabrice, Editions Fayard, April 2008, 175 pages, ISBN 978 2 213 63462 3

review by GRAIN

In his own unique style, often caustic but always engaging, Fabrice begins by reminding us that the two ancient peasant civilisations of China and India that are the backbone of our world are in danger of completely disappearing. He then examines the conditions that spawned industrial agriculture in the developed countries and the subsequent Green Revolution in Asia and Latin America and explains why this industrial food system, in order to survive, must constantly expand and create new outlets for its agricultural products, the main one today being biofuels for cars.

The primary objective of farming is to feed the world. So what happens to the world when agricultural production is diverted from this objective? Fabrice is clear that the rush into biofuels could provoke the return of famine on a massive scale, and he is scornful of what he calls "the macabre silence of intellectuals" on this issue. He also decries the absence of information in French on biofuels and the larger agricultural transformations that it is a product of. He says that, to his knowledge, no book in French provides a comprehensive assessment of the enormous changes brought about by the Green Revolution. He finds it hard to explain why there is such a dearth of publications about an experience that disrupted the lives of hundreds of millions of human beings and that changed the rules of the game in Asia and Latin America.

The author maintains that biofuels are a "Trojan horse" for the multinational seed corporations. By claiming that the crops are destined for biofuels and not food, these corporations have been able to penetrate into markets that were closed to their GMOs. Fabrice shows, using data to back up his arguments, how the industrial system, with its patents and perfect intermingling of public and private sectors, is built to impose biofuels on the world, even if this means destroying immense areas of forest in Indonesia, Brazil and Africa.

One of the examples he gives, based on research carried out by Sylvestre Tetchiada, a journalist in the Cameroon, shows that 108,000 hectares of land in the south of Cameroon have been planted with palm oil, with 30,000 hectares of forest being cleared between 2001 and 2006 to make way for this new "product". The increasing demand for biodiesel is a major factor driving forward this expansion in the production of vegetable oil, as western markets compete against each other for supplies. The book shows how the whole of Africa is in the grip of biofuels fever, especially after the meeting between President Abdoulaye Wade (Senegal) and Lula (Brazil) in April 2005.

Fabrice also provides readers with important technical information, especially with regard to the foreseeable impact of agrofuels on the climate. For example, we learn that nitrous oxide (N_2O) is a potent greenhouse gas, with a Global Warming Index (GWI) 300 times greater than carbon dioxide. For Fabrice, biofuels are in fact "necrofuels", that is, the fuels of death, not fuels of life, as their promoters would have us believe.

The author ends on a cautiously optimistic note, suggesting that reservations expressed by the Organisation for Economic Cooperation and Development (OECD), which brings together governments from 30 countries, might derail the biofuels project. More recent developments, however, show that the struggle is far from over, as these governments have not diminished their support for the industry and as more and more lands and more and more food continue to be converted to the production of biofuels.

Photo: Ricardo Stuckert / PR

Abdoulaye Wade, President of Senegal, greets Luis Inacio Lula da Silva and Marisa Letícia Lula da Silva, President and first lady of Brazil, during President Wade's official visit in May 2007.

Landmark decision for African indigenous communities

Rasmus V. Hansen*

The African Commission on Human and Peoples' Rights (ACHPR) have ruled that the eviction of the Endorois people from their land in the 1970s by the Kenyan government violated their right as an indigenous people to property, health, culture, religion and natural resources. It is a ruling that could have great influence on land claims made by indigenous peoples all over Africa.

In the early 1970s, the indigenous Endorois people were evicted from their ancestral land by the Kenyan government. Living in the Rift Valley around Lake Bogoria, they inhibited a place known for its abundance of pink flamingos and geothermal hot springs. The government had decided that this would be a good location for a game reserve.

The Endorois have traditionally lived as cattle herders, and their community consists of about 60,000 people. With their forced removal from their land, the community lost not only their livelihood but also their historical prayer grounds and sacred burial sites. They are now living on arid land, and many of their cattle have died. Moreover, the Kenyan state has not kept most of its promises, which included, among other things, to use part of the income generated from the game reserve to build infrastructure for the Endorois on their new land. Instead, most of the Endorois live on food aid and have to make long walks to get access to water and electricity. Since the relocation, the state has sold parts of the area to a ruby-mining company.

In 1998 the Endorois community and the Centre for Minority Rights Development initiated a court case against the Kenyan state to challenge the eviction and to receive restitution. The case was dismissed in 2002. Although the Kenyan High Court recognised that the land had been in the trust of the Endorois before 1973, it ruled that when the Kenyan government designated the area as a game park, the community effectively lost any right to it. The court decided that, with the payment of the relocation costs for the remaining 170 families living on the land in 1986, the state fulfilled all its remaining duties to the community.

Case in African Commission on Human and Peoples' Rights

The community did not give up, however. In 2003 it took the case to the African Commission on Human and Peoples' Rights. The ACHPR is based in the Gambia and upholds the African Charter, a human rights treaty signed and ratified by 53 African countries. The commission has had difficulties in getting countries to comply with its decisions. However, since its rulings are also ratified by the African Union, there can be significant political pressure on states to follow up.

The hearing of the Endorois case was delayed several times by the Kenyan government, which missed numerous deadlines on submissions and also protracted negotiations with the commission and the community. After a three-year wait, the case was finally initiated in 2006.

The African Commission on Human and Peoples' Rights handed down their judgement in May 2009. They determined that the Endorois, having a historic attachment to particular land, are a distinct indigenous people, something that is contested by some African governments, who claim that all Africans are indigenous. They found against the Kenyan government for continuing to rely on a colonial law that prevented indigenous communities from owning land outright and allowed local authorities effectively to own it for them on "trust". In an important break with past practice, they recommended that the Kenyan state should recognise that the Endorois had rights of ownership to the land, and instructed them to give back to the Endorois their ancestral land. They also ruled that the Kenyan state should compensate the Endorois for losses suffered during eviction. The decision was ratified and made public by the African Union in February 2010.

Importance for indigenous people in Africa

This is a landmark decision. The ruling means that indigenous people have gained a pan-African recognition of their rights to land and development, even though they do not have a formal title to the land. It is the first time that the court has specifically recognised the traditional ways of living for indigenous people centred around their ancestral land and the practice of their religion and culture there. The ACHPR has set a precedent that could have great influence for settling cases involving wrongful evictions of indigenous people.

It is still not clear whether the Kenyan government will recognise and comply with the decision, as they have previously ignored rulings from the ACHPR. Several NGOs have already indicated that they will put maximum political pressure on the Kenyan government fully to implement the ruling. For the Endorois, the decision has already had one important consequence: the mining company has given up its plans to mine rubies in the area.

* With additional research by Wilmien Wicomb and Henk Smith. **Rasmus V. Hansen** is currently an intern at the Legal Resources Centre, Cape Town.

Sources:

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The commission considered a number of legal authorities, including aboriginal titles such as: Delgamuukw, Ward and Richtersveld. In addition, it considered the African Charter (articles 8, 14, 17, 21 and 22) and the case of The Mayagna (Sumo) Awas Tingni v. Nicaragua.

Between 28 February and 3 March 2010, the Network for the Defence of Maize, the National Assembly of Environmentally Affected People and Vía Campesina–North America held an independent public hearing in Guadalajara, Mexico. The objective was to bring together the evidence and to elaborate the arguments for starting proceedings in international courts of justice against the Mexican government for deliberately permitting the introduction into the country of genetically modified (GM) maize. Mexico is where maize originated, thousands of years ago, and where today more than 1,500 native varieties grow, evolve, and are bred. The cultivation of these varieties is governed by a complex interaction of not only social relations, profound knowledge and trust, but also community resistance.

Confronting the FAO to stop GMOs

GRAIN

Ten years ago, Mexico's government began to distribute large quantities of GM maize seeds in the countryside, in an illegal, undercover operation, and native maize in different regions began to be contaminated. In response, indigenous and peasant communities from many regions formed the Network for the Defence of Maize (*Red en Defensa del Maíz*). They exchanged local knowledge and experience, and decided to ban the introduction of GM maize in their regions. The network was a space where they could share views, and they became more convinced than ever that the best way of protecting maize was by growing it. For these communities, agriculture is not a commercial activity but a way of caring for the planet through continuous work. Growing their own food is not only a way of understanding the complex relations between winds, water, forests, other crops, animals and soils but also of protecting human life and promoting justice. Only then can communities be sure that the diversity of maize will not be lost and that the natural and social fabric of relations that lie behind maize will not be weakened.

The decision to hold a first public hearing to make an international case against the Mexican government and the major corporations involved in GM agriculture and food stemmed from the perception that the Mexican judicial system is completely closed or corrupt, or both. Over the last decade the Mexican government has approved a set of reforms and laws to privatise, register, certify or ban what were once commons – water, forests, seeds, biodiversity. It has encouraged intellectual property rights through patents and other legal devices and supported the introduction of GM crops. These laws have created a huge new space for the big corporations to manoeuvre at large but restricted yet further the already limited legal space available to common people. The three most damaging measures have been: the land counter-reform that permits the privatisation of public or communal land; the approval of NAFTA, which provides the big corporations with a totally different

set of rules with which to advance their interests; and the refusal to acknowledge indigenous rights in the Constitution.

It is no coincidence that, just a few months after the Mexican government had made it legally possible to grow GM maize experimentally in field trials (which, in practice, ended the moratorium that had been in effect since 1998), the United Nations Food and Agriculture Organisation (FAO) decided to come to Mexico to hold a "technical meeting" to promote biotechnologies as a solution to hunger in the world. At the very least, the decision showed a crass lack of sensitivity to the deep struggle being waged in Mexico over the issue.

Indigenous communities went further: they saw it as little short of a provocation from both parties. FAO was openly backing the Mexican authorities in their efforts to release GM crops, while Mexico's decision to host the meeting was a way of publicly acknowledging its support for FAO's biotechnology approach. So to hold a public hearing to enquire into these events was also meant as a counter-attack upon the FAO for holding a meeting that was geared to promoting GMOs and to advancing the interests of the corporations.

The FAO's involvement with biotechnology is blatant, as these three quotations from its official preparatory documents show:

> "Agricultural biotechnologies provide opportunities to address the significant challenges of ensuring food security without destroying the environmental resource base. [Executive summary]
>
> More emphasis and activity have been focused on developing policies and regulations related to preventing risks arising from GMO than to facilitating the use of agricultural biotechnologies for the benefit of poor rural producers. [p. 9, 2.7, 42]
>
> Over-emphasis of and polarization within the "GMO debate" has distracted and diverted scientific and policy resources from focusing on the needs of poor rural producers. The controversy regarding GMOs in food and agriculture over the past decade has had significant effects in stalling, reducing and redirecting some public sector research efforts in agricultural biotechnologies …" [p. 9, 2.7, 43][1]

In a context so biased in favour of corporations, Pat Mooney, executive director of ETC Group, a veteran civil society member of the FAO's steering committee and a known activist against GMOs from the beginning, decided to resign publicly in protest:

Photo: GRAIN

The public hearing in Guadalajara.

> "The overwhelming thrust of the guiding documents for the meeting are hopelessly biased in favour of biotechnology and skewed to persuade developing countries that they have no option but to climb on the biotech bandwagon. It's unacceptable that a supposedly neutral inter-governmental body like FAO would allow itself to be turned into a billboard for Big Biotech,"

Mooney said.[2] The ETC Group press release goes on to point out:

> "The choice of Mexico as a venue for the biotech conference is also controversial. The Mexican government has recently broken a 10-year moratorium on the planting of GM maize. Answering a letter against these GM maize trials, sent by 1,500 organisations from 67 countries, the FAO secretariat said that it was a 'national matter' for Mexico, not for FAO."[3]

The resistance is joined

Many different people from communities, organisations, research centres and civil society

1 FAO International Technical Conference, "Agricultural biotechnologies in developing countries: Options and opportunities in crops, forestry, livestock, fisheries and agro-industry to face the challenges of food security and climate change" (ABDC–10), Guadalajara, Mexico, 1–4 March 2010, document ABDC10/9 [Issues–Recommendations]: Agricultural Biotechnologies for Food Security and Sustainable Development: Options for developing Countries and Priorities for Action by the International Community, January 2010, http://www.fao.org/fileadmin/user_upload/abdc/documents/optpriore.pdf

2 ETC Group, "FAO's Biotech Meeting Dubbed 'Biased for Business' as Steering Committee Member Resigns", 26 February 2010, http://www.etcgroup.org/en/node/5078

3 *Ibid.*

groups from Mexico and abroad, all linked to one of the three main organisers, participated in the public hearing and helped to develop a judicial strategy for building a case to present internationally. The sessions heard a different range of voices from those heard at the FAO's meeting. People presented a general diagnosis of GMOs, gave examples of the lies told to promote them and put forward strategies for building a judicial case to present internationally. All participants agreed that GMOs interfered with the processes of breeding and natural selection, with unknown consequences. In their early stages, GMOs allowed the corporations to act as controllers of who could and could not grow food, with what methods and with whose seeds. More recently, however, GMOs have been used increasingly to jeopardise natural and social processes, as companies are making GMOs that are, in fact, small factories for manufacturing fuels, toxins, hormones, drugs and other dangerous substances.

It was clear that, while GM contamination has affected native crops quickly and extensively in many countries, the GM offensive has encountered widespread peasant and indigenous resistance in Mexico. Although the government and the corporations have tried to pollute the whole country with clandestine GM seeds, this resistance has prevented contamination on a massive scale. The government has tried to enforce a huge battery of laws, regulations, certifications and registrations to criminalise the time-honoured behaviour of indigenous and peasant communities, but these communities' resistance is based on a determination that cannot be easily broken: it relies upon the daily local practice of traditional knowledge to prevent contamination, to continue exchanging ancient native seeds, and to plant native maize and all its associated crops, season after season. This is the statement of a *comunero*, Eutimio Díaz, of the Wixárika people:

> "We are not going to allow a few scientists and politicians (who know nothing about our relations with the land, with maize) to impose on us their "worsened" maize. Maize wants and requires special attention. Far from saying we will give up our maize, we need to find ways of looking after her better.[4] We have lost a lot in our history – dances, music, festivities, clothing, knowledge. So with our maize we need to be more careful. If we lose her, our community will end. With maize, we can share. So we have spoken: we are not going to accept transgenic maize. If Mexico loses its seeds, the consequences in other areas may be even worse. So we are not going to give up our seeds. Ever. From our assemblies we have spoken: we are not going to respect any law that is set against our peoples, we are not going to allow alien maize to come in. We are not going to accept any law that affects our maize. What they want to impose on us brings with it a great deal of harm."[5]

The testimonies and evidence brought together at the hearing constitute a strong legal case for arraigning the Mexican government in an international court of justice for abuse of power. But for the communities the case is important for another reason too: it helps them to increase their understanding and strengthen their organising. After all, the future is not written.

4 For the Wixárika, maize is a young girl.

5 Presentation by Eutimio Díaz Bautista at the public hearing, titled "Los Transgénicos nos Roban el Futuro" ("GM Crops Steal Our Future"), 2 March 2010. See http://www.biodiversidadla.org/content/view/full/54866 (in Spanish).

GOING FURTHER

- The complete coverage of the public hearing, "Los transgénicos nos roban el futuro", can be downloaded, in Spanish, from http://www.biodiversidadla.org/content/view/full/54866
- "In Defense of Maize (and the Future)", Americas Program, August 2004, http://americas.irc-online.org/citizen-action/series/13-maiz.html
- Diario Oficial de la Federación, 6 March 2009; *La Jornada*, 10 March 2009; "México da luz verde a maíz transgénico", *La Jornada*, 15 October 2009.
- Ana de Ita and Pilar López Sierra: "La cultura maicera mexicana frente al libre comercio", in *Maíz, sustento y culturas en América Latina. Los impactos destructivos de la globalización*. REDES–AT Uruguay, Biodiversidad–sustento y culturas, Montevideo, 2004, p. 28.
- FAO International Technical Conference, Document ABDC10/9: *Agricultural Biotechnologies for Food Security and Sustainable Development: Options for Developing Countries and Priorities for Action by the International Community*, January 2010, http://www.fao.org/fileadmin/user_upload/abdc/documents/optpriore.pdf
- ETC Group, "FAO's Biotech Meeting Dubbed 'Biased for Business' as Steering Committee Member Resigns in Protest", 26 February 2010
- GRAIN, "Las mentiras de los transgénicos", March 2010.
- GRAIN, "Fighting contamination around the world", *Seedling*, January 2009, http://www.grain.org/seedling/?id=575

Cars get hungrier and hungrier

The madness of using ever larger amounts of grain to feed animals and, increasingly, cars continues. According to the International Grains Council (IGC), only 35 per cent of the 752 million tonnes of grain consumed by the world in the 2009–10 agricultural year was used to feed people. The biggest share – 43 per cent – went to feed animals. At the moment 6 per cent is used to fuel cars, but their share is growing fast. Biofuels consumed 124.9 million tonnes of grain in 2009–10, rising steadily from 108.9 million tonnes in 2008–9 and 87.6 million tonnes in 2007–8.

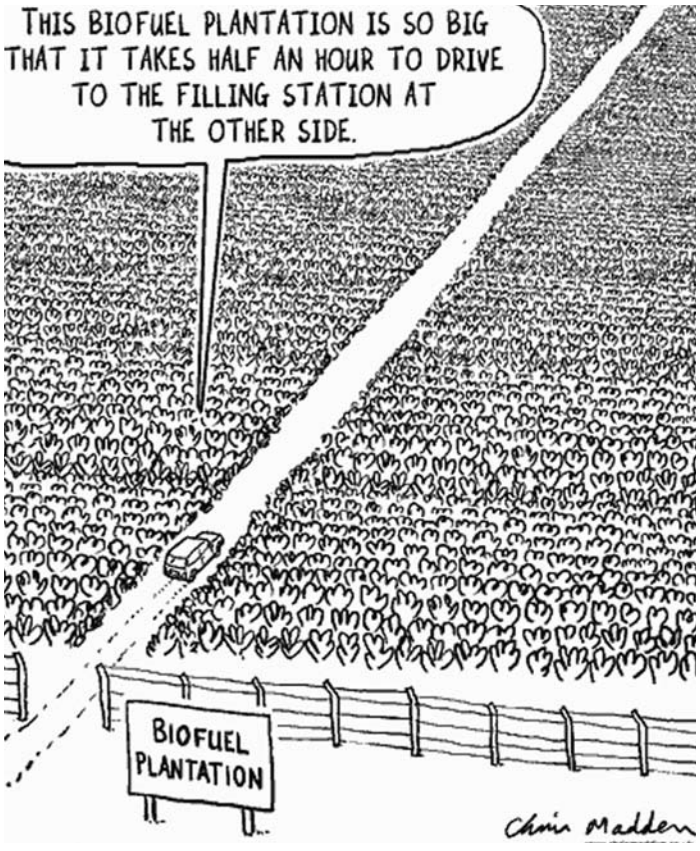
The US remains the big biofuel producer: according to the IGC, it will be turning 108.5 million tonnes of grain, almost all of it maize, into ethanol this year. But because the European Union is pushing ahead with its absurd insistence that all transport fuels must contain 10 per cent biofuels by 2020, many new distilleries for producing ethanol from maize are being built.

Even so, the new directive means that EU consumption of biofuels will be so huge that a great deal of the feedstock will have to come from crops other than maize, with Europe importing large quantities of sugar cane, jatropha and palm oil from developing countries. "Biofuels are driving a global human tragedy. Local food prices have already risen massively. As biofuel production gains pace, this can only accelerate", said Tim Rice, the author of a report recently produced by ActionAid.[1] "Most biofuels are worse than the fossil fuels they are supposed to replace."

Both in the USA and in Europe the biofuels industry is viable only because of massive government subsidies. The EU biofuel industry has already received €4.4bn in incentives, subsidies and tax relief, and the amount will rise rapidly as the EU moves towards its 2020 target. Even so, this is far less than the colossal US$92bn that the US biofuels industry is receiving in the 2006–12 period.[2]

1 ActionAid, "Meals per gallon: the impact of industrial biofuels on people and global hunger", February 2010, http://tinyurl.com/yd8p9cv

2 Marlow Lewis, "U.S. biofuels subsidies estimated at $92bn during 2006–2012", The Facts about Ethanol: Challenging the Biofuel Lobby, 24 October 2007, http://tinyurl.com/y5xkkpo



http://www.chrismadden.co.uk/eco/bio-fuels.html

Urbanisation gains momentum

The world's mega-cities are merging to form vast mega-regions which may stretch for hundreds of miles, according to a recent report by UN–Habitat.[1] The largest of these is the Hong Kong–Shenhzen–Guangzhou region, home to about 120 million people. Other mega-regions are forming in Japan (Nagoya–Osaka–Kyoto–Kobe, expected to grow to 60 million by 2015) and Brazil (São Paulo–Rio de Janeiro, already with 43 million).

These mega-regions, rather than countries, are driving wealth creation. According to Eduardo Lopez Moreno, a co-author of the report, "Research shows that the world's largest 40 mega-regions cover only a tiny fraction of the habitable surface of our planet and are home to less than 18 per cent of the world's population, [but] they account for 66 per cent of all economic activity and 85 per cent of technological and scientific innovation. The top 25 cities in the world account for more than half of the world's wealth." This urbanisation is intensifying the urban–rural divide. According to Lopez Moreno, "Most of the wealth in rural areas comes from people in urban areas sending money back."

According to the report, the harm caused by the creation of mega-regions can be mitigated by planning and regulation. Very often, however, the regions arise spontaneously, as the result of urban sprawl, and exacerbate social problems: "It [urban sprawl] is not only wasteful but adds to transport costs, increases energy consumption, requires more resources and causes the loss of prime farmland." Lopez Moreno continues: "The more unequal cities become, the higher the risk that economic disparities will result in social and political tension. The likelihood of urban unrest in unequal cities is high."

1 UN–Habitat. "State of the World's Cities 2010/2011 – Cities for All: Bridging the Urban Divide", 2010, http://tinyurl.com/y7ozr7b

Funding biotech companies in the name of "food security"

A number of organisations, including Pesticide Action Network, Food First and Union of Concerned Scientists,

are putting pressure on the US Senate to amend a piece of legislation currently under discussion. The Bill, known as the Lugar–Casey Act – after Senators Richard Lugar and Robert Casey – will provide US$7.7bn for agricultural research and development. USAID would be responsible for implementing the Bill.

In its current form, most of this money will go into the coffers of biotechnology companies because of a clause that mandates that the funds "shall" go to research into the genetic engineering of crops. Monsanto, the leading producer of GM seeds, has been lobbying strongly for the Bill to be passed.

The biotech lobby has received the support of Bills Gates and Clinton, who have claimed that the Bill will help resolve the problem of global hunger. This claim is not supported by the facts. Over the last two decades USAID has spent millions of taxpayers' dollars on developing GE crops, with not one success story to show for it. For example, a much touted partnership between USAID and Monsanto to develop a virus-resistant sweet potato in Kenya failed to deliver anything useful for farmers. After fourteen years and an outlay of US$6 million, local varieties vastly outperformed their genetically modified equivalents in field trials.[1]

1 Hannington Odame, *et al.*, "The Role of Innovation in Policy and Institutional Change: The Case of Transgenic Sweet Potato in Kenya", International Environmental Law Research Centre, http://www.ielrc.org/content/n0206.htm

Compounding the horrors of the Haiti's earthquake

Peter Hallward, who has written a powerful book on Haiti,[1] was one of the few commentators to look at the underlying causes of the scale of the suffering in the wake of the earthquake:

Photo: Getty Images

Earthquake damage, Port-au-Prince, Haiti, January 2010

"The real impact of this earthquake will be the result of a long-term history of deliberate impoverishment and disempowerment. Haiti is routinely described as the 'poorest country in the western hemisphere'. This poverty is the direct legacy of perhaps the most brutal system of colonial exploitation in world history, compounded by decades of systematic post-colonial oppression....

"It is this poverty and powerlessness that account for the full scale of the horror in Port-au-Prince today. Since the late 1970s, relentless neoliberal assault on Haiti's agrarian economy has forced tens of thousands of small farmers into overcrowded urban slums. Although there are no reliable statistics, hundreds of thousands of Port-au-Prince residents now live in desperately sub-standard informal housing, often perched precariously on the side of deforested ravines. The selection of the people living in such places and conditions is itself no more 'natural' or accidental than the extent of the injuries they have suffered.

"The noble 'international community' which is currently scrambling to send its 'humanitarian aid' to Haiti, is largely responsible for the extent of the suffering it now aims to reduce. Ever since the US invaded and occupied the country in 1915, every serious political attempt to allow Haiti's people to move (in former president Jean-Bertrand Aristide's phrase) 'from absolute misery to a dignified poverty' has been violently and deliberately blocked."[2]

1 Peter Hallward, *Damning the Flood – Haiti, Aristide and the Politics of Containment*, London and New York, Verso, 2007.

2 Extracted from Peter Hallward "Our role in Haiti's plight", Comment is Free, Guardian website, 13 January 2010, http://tinyurl.com/ykrbcuh

Brazil: leading exporter of "virtual" water

Because its food exports have been growing rapidly, Brazil has become a huge exporter of "virtual" water, that is, the water consumed in the production of its crops and other food products. Brazil is today the world's leading exporter of beef, and it takes a remarkable 15,500 litres of water to produce one kilogram of beef. Academics from the university of Campinas (UNICAMP) in Brazil have calculated that Brazil's exports of "virtual" water, stemming from its three leading agricultural exports (soya, beef and sugar), have increased 17-fold in less than a decade (see table 1).

John Anthony Allen, a British geographer who invented the term "virtual water", has now warned Brazil: "We have long ignored the environmental costs of intensive agriculture and they are not reflected in the market price of food. Brazil should not be hurrying to satisfy world demand by putting commodities on the market that are produced in a way that is not sustainable if we look at the real cost in the terms of land and water resources."

Table 1: Export of virtual water, Brazil, 1997–2005
(in billion cubic metres)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
Soya	18.7	20.8	20.0	25.8	35.2	35.8	44.6	43.2	50.3	**294.6**
Beef	7.6	8.9	10.3	11.5	17.1	14.7	19.2	28.6	34.0	**151.9**
Sugar	0.8	1.0	1.6	0.9	1.5	1.6	1.7	2.0	2.4	**13.6**
Total	**27.1**	**30.8**	**32.0**	**38.2**	**53.7**	**52.2**	**65.5**	**73.8**	**86.8**	**460.1**

Source: Ricardo Ojima *et al.*, "Virtual water, scarcity and management: Brazil as a large water exporter", *Ambiente & sociedade*, Vol. 4, 2008, http://tinyurl.com/y35u4z2

Feeding the corporate coffers: why hybrid rice continues to fail Asia's small farmers

This article is based on a Briefing, which draws on the presentations and discussions at the workshop "Harnessing Diversity: a regional strategy workshop on hybrid rice and farmers' seed alternatives", held in Diliman, Quezon City, Philippines, 14–16 October 2009, co-organised by KMP, MASIPAG and GRAIN, and supported by ASTM. The Briefing was written and edited collectively by the organisations listed below.* The full Briefing is available at: http://www.grain.org/o/?id=100

For decades now, hybrid rice has been promoted across Asia as a silver bullet for hunger. Developed first by Chinese researchers, who were inspired by the success of hybrid maize in North America, it has been hailed as a "super rice" that can reverse the years of stagnating yields in the world's rice farms.

Hybrid rice has become China's flagship agricultural product. In recent years, Beijing has established numerous overseas hybrid rice programmes across the world, as part of its international cooperation.[1] It also runs an international hybrid rice training centre in Hunan that has already provided 30 training courses and trained over 2,000 government officials and agro-technicians from 50 countries since 1999.

The promotion has borne fruit. For instance, when a Libyan sovereign wealth fund announced investments in three new large-scale rice projects in Mali, Liberia and Mozambique, and the Libyan government decried the stranglehold of multinational traders over the food supply and talked of investing in Africa's rice self-sufficiency, the administrators of its African rice projects proudly announced that they would be using not local varieties, as one might have expected, but Chinese hybrid rice varieties.

But who is to benefit from hybrid rice? People often do not realise that China's international hybrid rice activities are almost always led by private Chinese seed companies, and mostly by one company – LPHT. This company was originally set up by Professor Yuan Longping, China's most important hybrid-rice plant breeder, together with the China National Hybrid Rice R&D Centre and the Hunan Academy of Agricultural Sciences. Over the years, with the support and blessing of Beijing, this state-owned company has grown into a major multinational corporation, with 26 subsidiaries and a listing on the Shenzhen stock exchange. A large stake in the company is now owned by the world's fourth-largest seed company, Vilmorin/Limagrain of France.

Hybrid rice is big business for China, and it is seen as crucial to Beijing's new policy of developing its own multinational agribusiness corporations. Much of the hybrid rice seed sold in Asia is imported from Chinese companies or based on parental lines licensed from Chinese companies. The Indonesian government admits that over half of the seeds needed for its hybrid rice programme will be imported from China. Bangladesh and Pakistan import most of their hybrid rice seeds from China, as does Burma. Vietnam has invested heavily in developing a national hybrid rice seed industry, but it too imports most of its hybrid rice seeds from China. Even the local seed company in the Philippines, SL Agritech, which exports seeds to Bangladesh, Indonesia, Vietnam and Nigeria, also sources some of its seeds from China and licenses its parental lines from LPHT.

For China, however, the hybrid rice gambit is not just about seeds. The Chinese government is interested in expanding its overall control of rice production beyond its borders, both to secure national rice supplies and to feed its growing teams of Chinese labourers working for national companies on mining, oil and infrastructure projects around the world. While the government dropped a proposal from its Ministry of Agriculture to give official support to a policy of offshore land acquisition by Chinese companies, such investment is happening at an informal level, seemingly with Beijing's approval.[2]

Land grab and hybrid rice

China is not alone in outsourcing rice production. Corporate investment in rice production is rising dramatically, especially in Africa. Brazilian investors are setting up large-scale rice farms in Guyana and Ghana. Charoen Pokphand, Thailand's largest agribusiness conglomerate, was in Nigeria in early 2010 exploring opportunities for investment in rice production, while Thailand's leading rice exporter, Riceland International, was doing the same in Ghana. Singapore's Olam International is engaged in a massive contract rice-growing scheme in Nigeria. Another Singaporean company, VitaGrain, is leasing large areas of land in Mauritius and Mozambique for the production of hybrid rice.

These investors are trying to redraw the map of global rice production and to remake the model of rice farming. What is being planned is a complete shift to corporate rice farming, with companies operating either vertically integrated contract production or taking direct control over land and farming, with the collusion of governments. These investors clearly have no interest in the seeds that small farmers have carefully developed and nurtured to suit their local conditions and cultures. They want varieties tailored to their model of production – large-scale, mechanised, chemical input agriculture, for export.

Today the private sector is taking control of rice plant breeding and the rice seed market. In recent years, the big multinational seed corporations, such as Bayer and DuPont, have been investing billions of dollars to get into the rice seed market, with nearly all of this money flowing into hybrid rice. It is not the performance of hybrid rice that attracts seed companies, but the fact that farmers cannot save seeds from

*** Alliance of Agrarian Reform Movement (AGRA – Indonesia), Biodiversity and Community Rights Action Thailand (BIOTHAI – Thailand), Bangladesh Krishok Federation (BKF – Bangladesh), Bismarck Ramu Group (BRG – Papua New Guinea), GRAIN (International), Peasant Movement Philippines (KMP – Philippines), Farmer–Scientist Partnership for Development (MASIPAG – Philippines), Pesticide Action Network–Asia Pacific (PANAP – Malaysia), Sustainable Agriculture and Environment Development Association (SAEDA – Laos), South-East Asia Regional Initiatives for Community Empowerment (SEARICE – Philippines), Policy Research for Development Alternatives (UBINIG – Bangladesh)**

these varieties, thus guaranteeing the companies a captive market. In 2007, all of the top five global seed companies announced major moves in Asia's hybrid rice seed industry. And alongside these major multinational players, there are a number of Asian-based companies that are active in the hybrid rice seed market, such as CP, SL Agritech and Shendong Seeds.

Big hype, little success

The hype around hybrid rice is to be expected: there's a lot of money to be made from it. But how is the rice performing on the ground?

The Philippines is one of the earliest adopters of hybrid rice technology, having been IRRI's host country for the last 50 years. But as early as 2000 the majority of farmers were already unwilling to plant hybrid rice despite the subsidies, because they found it more difficult to cultivate and inferior.[3] In 2003, data from the Department of Agriculture's provincial office in Isabela, in the north-west of the country, showed that for every hectare of hybrid rice that yielded above the national average for conventional inbred varieties, seven hectares of the same variety yielded miserably below it.[4] Ironically, with hybrid rice purported to lift the Philippines' rice production level, the country has not only continued to be a net rice importer but has also become, since the hybrid rice programme started in the early 1990s, a rice seed importer (from India and China).This year, rice imports are expected to reach an all time record of 3 million tonnes, with 2.2 million tonnes already secured from foreign suppliers.[5]

In China where hybrid rice originated, farmers' experience with hybrid rice is very different from the glossy advertisements found in nearly every seed shop in the towns. In different parts of Yunnan and Sichuan, two leading rice-growing areas of China, hybrid rice has caused very little, almost negligible, change in the economic status of Chinese farmers. The increase in yield, achieved mostly by farmers with access to irrigation and resources to spare for the necessary inputs, was nothing spectacular and far short of what had been promised.

Even when farmers increased their yields, they did not consistently exceed the national average of seven tonnes per hectare. For the yields vary greatly, depending on location and conditions, making the high-yield "guarantee" almost meaningless. Interestingly, the farmers who had long experience of growing hybrid rice said that, despite the claims made for them, the yields of the current hybrid varieties did not seem to be any higher than those of the first hybrids. So it seems that almost three decades of research – and the experience of planting 15 million hectares with different hybrid varieties – have achieved very little.

Vietnam is considered the next "success story" in hybrid rice adoption, after China. But even though the area under cultivation is expected to reach 7.5 million hectares this year, more and more farmers are becoming disillusioned and critical of hybrid rice because of its yield, cost and susceptibility to pests. Many of them continue to plant hybrids simply because they have no other option: they are reliant on what the seed dealer supplies.

The failures of hybrid rice come as no surprise to one of Indonesia's most highly respected rice scientists, Professor Dr Kasumbogo Untung, an entomologist at the Universitas Gadjah Mada in Yogyakarta. He and his colleagues have long been familiar with the problems of hybrid rice, especially its susceptibility to pests and diseases. In fact, he says that he often uses it to teach his students, because it is the only variety that gives them direct access to pests and diseases that, in Indonesia, are otherwise seen only in textbooks. Now he worries that the large-scale introduction of hybrid rice will lead to a resurgence of pests such as planthopper. Dr Kasumbogo says that it is "very regrettable" that the government is promoting hybrid rice, because it will undo the advances made with integrated pest management in the country, and will cause farmers to increase their use of pesticides and chemical fertilisers.[6]

"Hybrid rice is a luxurious variety that needs more care than a baby", says Dr Kasumbogo.

Stop hybrid rice, stop the industrial food system

The idea of using hybrid rice technology to feed humanity has certainly paid off for the companies behind it: they are getting a huge return from seeds and agrochemical sales. However, reason dictates that more than a decade of investment in this poorly performing rice should be enough. Hybrid rice must be stopped, by any means necessary. Starting from the conscious act of rejecting the use of rice hybrids, it should also be denounced in the context of resisting the global, industrial food system that is destroying farmers' livelihoods and the environment. The food crisis that resurrected hybrid rice from its approaching demise was a result of this very industrial food system that feeds on the plantation-type, corporate agriculture and marginalises small food producers. As the resurgence of planthoppers shows, hybrid rice monoculture is a perfect recipe for disaster. The push for hybrid rice will not solve food insecurity but worsen it.

The need to "de-globalise" the industrial food system is clear. It has to be reversed by strengthening local food cultures and by rebuilding local food production and distribution systems. It means a determined shift from mono- to multi-cropping, and an organised fight to take control of productive resources, starting with the seeds. It also requires that lands be kept in the hands of local communities, by implementing meaningful land redistribution that would give those communities complete access to the land itself and its resources. It is only with communities' full control of the land that farmers will be able to control the entire production system. Only thus can farmers truly have seed alternatives that can re-orient agriculture, restructure the market, and rediscover the wealth of cultural dietary norms based on biodiversity.

1 Countries involved include: Brunei, Burma, Cambodia, Cameroon, East Timor, Guinea-Bissau, Indonesia, Laos, Liberia, Madagascar, Mali, Mozambique, Nigeria, Pakistan, Papua New Guinea, Philippines, Sierra Leone, Tanzania, Uganda, Uzbekistan, and Venezuela.
2 Jamil Anderlini, "China eyes overseas land in food push", *Financial Times*, 8 May 2008, http://tinyurl.com/5yq7dk
3 Cheryll B. Casiwan, Aldas Janaiah, Sergio R. Francisco, Mahabub Hossain, Josephine Narciso, Ellaine Cabrera, Flordeliza C. Hidalgo, "Hybrid Rice Cultivation in the Philippines: Early Farm-Level Experiences", *Economic and Political Weekly*, 21 June 2003.
4 *Fiasco in the field – an update on hybrid rice in Asia*, GRAIN Briefing, March 2005, http://www.grain.org/briefings/?id=190
5 Luzi Ann Javier, "Philippines May Lose 400,000 Tons Rice Output, Official Says", *BusinessWeek*, 18 January 2010, http://tinyurl.com/yefs6qk
6 GRAIN field visit and personal communication, July 2008.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