

Like much of the rest of the world, Africa's seed laws are being changed to suit the agenda of the private sector. Nevertheless, because of Africa's context and history, peasant farmers will continue to supply much of the continent's seeds for some time yet. Increasingly, Africa's seeds systems will be split into two disjointed realities: a privatised, uniform and totally accommodated formal sector and a chaotic, diversified and barely tolerated peasant sector.

Africa's seed laws: red carpet for the corporations

GRAIN

Africa did not miss the Green Revolution as some insist. It came to the continent in the 1960s and 1970s with the same seed specialists and foreign agencies that laid out the master plans for Asia and Latin America. As elsewhere, their basic prescription was to replace 'low-yielding' traditional varieties with 'high-yielding' varieties developed by international agricultural research centres and their national counterparts. With strong backing from the likes of the FAO and the World Bank, national seed systems were set up in many African countries on the foundations of the agricultural research systems of the colonial period to get the 'improved' seeds out to farmers, complete with breeding and multiplication programmes, state seed companies, seed regulations and, of course, generous subsidies and loans.

This was only the initial part of the plan. Once farmers began to adopt the seeds, creating a potential seed market, the next step would be to dismantle the public programmes and make way

for the private sector. By the 1980s and 1990s, the state seed companies were to be privatised, the public breeding programmes dismantled and new laws and regulations brought in that would attract private investment in the seed industry. In concrete terms, these new laws would remove trade barriers and, most importantly, encourage or force farmers to buy certified seed every year.¹

All has not gone according to plan. With donor funding, a number of African countries established the technical capacity and regulatory frameworks for formal seed programmes, but the seeds that these programmes produced have been largely rejected by farmers because they don't correspond to their needs. The FAO estimates that the formal seed sector, public and private combined, accounts for only 5-10% of the seed used in Sub-Saharan Africa, with a similar situation in North Africa.² Pretty much all of the food produced for domestic consumption in Africa comes from farmer varieties and farm-saved seed. It doesn't take a 'seed

¹ Niels Louwaars (2003), "Seed Policy: A Widening Area", *WANA Seed Info*, January.

² www.fao.org/ag/AGP/AGPS/abidjan/Paper5.htm#Production and www.fao.org/ag/AGP/AGPS/Cyprus/Paper1.htm#Seed



specialist' to understand the critical importance of farmer seed systems for Africa and the wisdom of crafting seed policies that support and strengthen such systems.

It is rather remarkable, then, that African governments are moving rapidly along with the initial blueprint. Privatisation and industry-oriented seed laws are even perversely hailed as the solutions to the blueprint's early problems! Although few people on the continent are aware of it, Africa is being flooded with a wave of new seed laws that undermine the farmer seed systems that the African people depend upon.

Changing seed laws: the regional approach

Up until the 1990s, seed regulations in Africa were generally organised around public seed programmes, with seed laws, where they existed, mostly limited to import and export restrictions. There was little coordination between countries, with regulations often heavily influenced by the respective donors and very little enforcement on the ground. Indeed, with few exceptions, the vast majority of African farmers have hardly been affected by seed laws or regulations. But out of the larger context of structural adjustment programmes, trade liberalisation, and the consolidation of a transnational seed industry desperate to expand markets, processes have sprouted up over the past decade that are fast-forwarding the implementation of industry-friendly regulations and laws, with scant regard for the impacts on farmer seed systems.

Much of the momentum and direction for the implementation and transformation of seed laws comes from regional seed law harmonisation processes established to facilitate trade. Around a dozen such processes were launched recently in different parts of Africa with the support of various donors. Some of the processes are coordinated by centres of the Consultative Group on International Agricultural Research (CGIAR) or regional umbrellas of national agricultural research services, such as the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). Others are coordinated by regional economic bodies or Western donor agencies.

Southern Africa

One of the earliest regional processes was launched by the Southern African Development Community (SADC).³ In 1994 there was a workshop, some reports from consultants and a general agreement to work towards the harmonisation of seed regulations. The process pretty much died after that until the end of the 1990s, when the World

Bank stepped in with its Sub-Saharan African Seed Initiative (SASSI). Malawi, Mozambique, Zambia and Zimbabwe were selected as pilot countries. A Danish consulting firm was hired to provide technical assistance and the American Seed Trade Association (ASTA) and the US Agency for International Development (USAID) carried out regional assessments to serve as the basis for a series of national reports produced by local consultants. These national reports fed into high-level national workshops, which in turn produced a Regional Strategy Document for the harmonisation of seed regulations. With the process once again on the rails, it was then handed back to the SADC to coordinate through the Seed Security Network that it launched in 2002.

Eastern Africa

A similar process is at work in eastern Africa. The Harmonisation of Seed Policies and Regulations in Eastern Africa project was launched in 1999. It is coordinated by ASARECA, the regional umbrella of the national agricultural research services funded by USAID and part of the World Bank's SSASI project. As in southern Africa, the project began with a few pilot countries: Kenya, Uganda and Tanzania. Country representatives were appointed to produce reports for high-level national workshops, which in turn served as the basis for a regional workshop and the definition of a regional strategy. Other countries were then brought on board (Ethiopia, Eritrea, Burundi, Rwanda and Sudan) and an Eastern Africa Seed Committee was set up, bringing together government officials, plant breeders and national seed trade associations to "oversee completion of the process of harmonisation

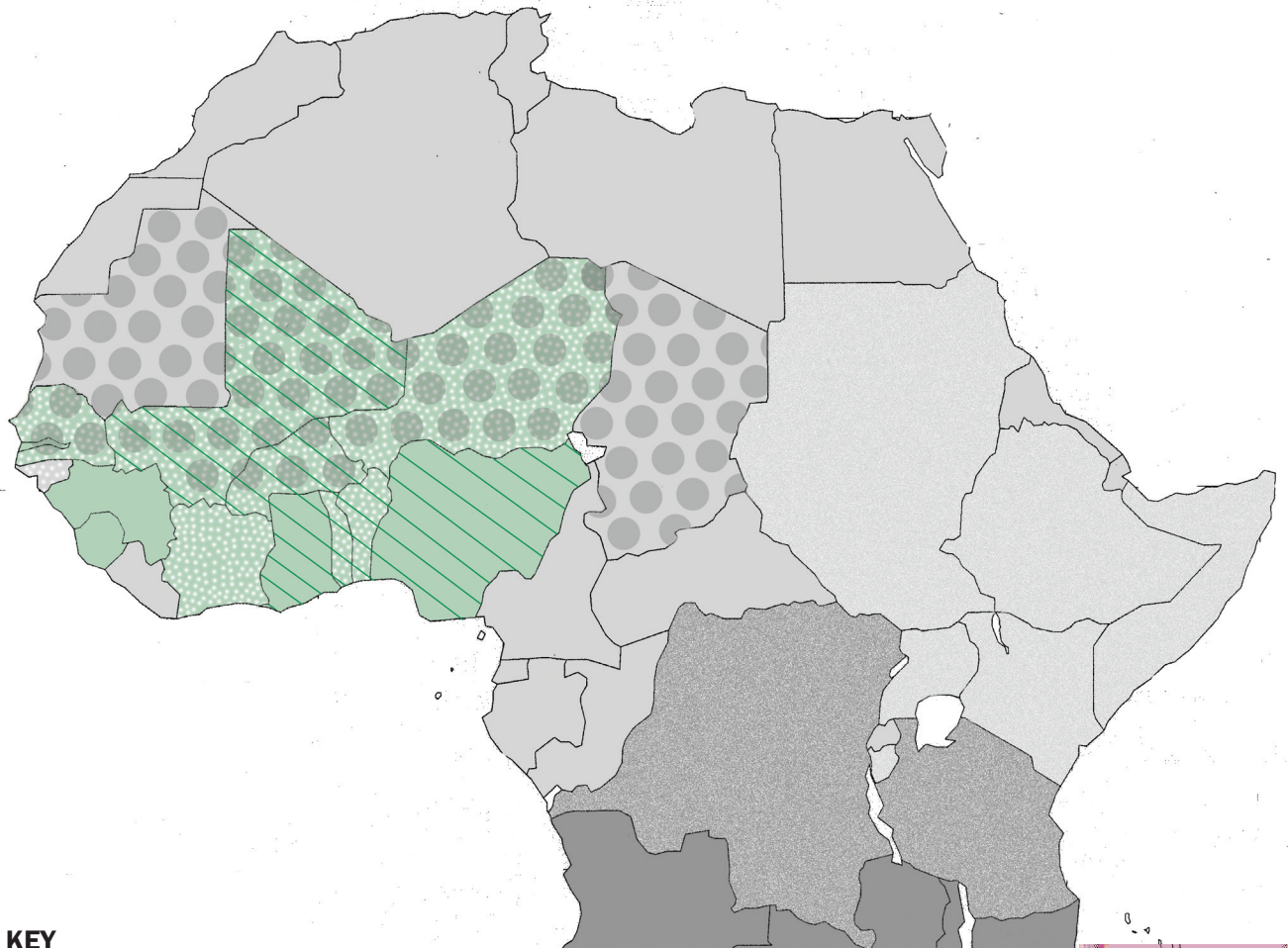
³ A regional trade body that brings together Angola, Botswana, the Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe



Farmers still supply about 90% of the seed that is planted on the continent, but a number of regional initiatives are afoot to change all that.



Regional seed law harmonisation processes in Africa



KEY

-  South African Development Community via SSASI
-  Harmonisation of Seed Policies and Regulation in Eastern Africa (ASARECA) via SSASI
-  SADC and ASARECA members
-  West Africa Seed and Planting Material Network (WASNET)
-  West African and Monetary Union (WAEMU) Seeds Initiative
-  African Trade Investment Programme
-  Interstate Committee for Drought Control in the Sahel (CILSS)



and implement the agreements arrived at by participating member countries”.

Western Africa

The regional processes in West Africa are a little more complicated. There are several different, overlapping processes (see map opposite):

- **The West African Economic and Monetary Union (WAEMU)** is developing a seed regulations initiative. This could reach more countries if plans go ahead for its merger with the Economic Community of West African States (ECOWAS).

- **The International Institute for Tropical Agriculture (IITA)** coordinates a network (known as WASNET) which is developing a model law that participating countries can adopt.

- **The International Fertiliser Development Centre (IFDC)**⁴ just completed a two-year project for the US Department of Agriculture and the American Seed Trade Association that issued national action plans to support the enactment of PVP laws and GMO regulations and the harmonisation of seed regulations in the region.

- **The Interstate Committee for Drought Control in the Sahel (CILSS)** has developed a regional seed catalogue and a draft framework for the harmonised regulation of conventional and GM seeds. All of these processes are increasingly integrated in their functioning and policy objectives.

Cultivating a private seed industry in Africa

By now, most of the national seed programmes that were established in the 1970s in Africa have fizzled out and the parastatal⁵ seed companies have been closed down or privatised. On their ashes, there’s a range of actors trying to articulate a new direction for African seed policy.

Among the more influential actors, the World Bank and the US government (through USAID and USDA) want “competitive markets”, i.e. regional markets with minimal regulations when it comes to phytosanitary restrictions on the flow of seeds across national borders, the introduction of GM crops and variety registration, and tough regulations when it comes to intellectual property rights. This position is, by and large, echoed by the other major outside actors—the European donors (notably France and Germany), the FAO and the CGIAR centres involved in seed policy programmes. There is some disagreement when it comes to variety registration, especially whether it should be compulsory or not. But the general consensus is for

regional, multi-country systems of registration for plant varieties that are distinct, uniform and stable (DUS), with only minimal consideration of local adaptability and performance.⁶ They’ve been widely successful in pushing the regional harmonisation processes, most originally set up to facilitate trade, in this direction with the active collaboration of the international seed industry.

In 1999, the American Seed Trade Association (ASTA) set up the African Seed Trade Association (AFSTA) as a local lobby for the transnational seed industry. AFSTA is mandated to “promote regional integration and harmonisation of seed policies and regulations supportive of U.S. seed trade” with an explicit target of securing a 5% increase in US seed exports to the region within its first five years. AFSTA and its 18 national seed industry associations are deeply involved in all of the major regional and national seed law processes.

The seed industry’s lobbying can’t hide the fact that there is no way that the private seed industry could possibly meet today’s seed needs in Africa. Even the World Bank acknowledges that, for the foreseeable future, the vast majority of farmers in Africa are going to continue to get their seed from their own or their neighbours’ farms.⁷ Yet within policy circles, farmer seed systems are rarely recognised as anything but necessary evils that must be overcome in a transition towards the full development of formal seed systems. The little attention farmer seed systems receive in policy discussions tends to focus on ways to regulate them, through Quality Declared Seed schemes for example (see box over page), or to allow for programmes like participatory breeding that integrate elements of farmer systems into formal structures.

The biggest commercial seed markets in Africa

Country	Annual domestic sales (millions of US\$)
South Africa	217
Morocco	160
Egypt	140
Nigeria	120
Tunisia	70
Kenya	50
Zimbabwe	30
Zambia	15
Malawi	10
Uganda	6

⁴ IFDC also coordinates the Managing Inputs Regionally (MIR) project funded by the Dutch Ministry for Development Cooperation. The MIR project is heavily involved with WAEMU’s seed regulations harmonisation initiative.

⁵ Parastatal: owned or controlled wholly or partly by the government

⁶ The DUS criteria used for varietal marketing clearance are the same as those used for granting plant variety protection certificates.

⁷ David Gisselquist (1999), World Bank, “Regional and Competitive Seed Markets Linked to the World Seed Industry” in *Proceedings of the Preparatory Meeting for the Establishment of an African Seed Trade Association*, Lilongwe, Malawi, 8-10 April 1999, International Seed Trade Federation.



The 'lighter' side of seed quality control

The Quality Declared Seed (QDS) system is a seed quality control mechanism developed by the FAO. The idea was to provide a more easy-going approach to seed certification in areas where seed markets are not functional and government resources are too limited to effectively manage comprehensive certification systems. Under QDS, seed producers are responsible for quality control, while government agents check only a very limited portion of seed lots and seed multiplication fields.

QDS is geared towards the production and distribution of 'improved' formal sector seed. In Africa, QDS is most often used within NGO projects as well as relief efforts to multiply and distribute seeds in times of crisis, such as drought or civil conflict. The initial scheme carried the strict VCU (Value for Cultivation and Use) and DUS requirements, leaving little room for farmers' varieties. But a revised approach was developed in 2003 to accommodate "landraces" and crop varieties developed through participatory plant breeding, even though the requirements for formal sector materials remain the same.⁸

Truth-in-labelling is another seed quality control system promoted in poorer countries. Under this scheme, the government says what information has to go on the label of seed packages and the seed producer is responsible for ensuring that the information provided on the label is correct. There is no third party certifier. If the seeds are bad, farmers have to deal with the seed supplier themselves. This market-based approach, which is supported by the World Bank, doesn't afford much protection to farmers, especially poor farmers.

A snapshot of seed laws in Africa

Just what is emerging from the various seed law processes in Africa?

In the west of the continent, the different regional processes are converging towards one mandatory regional catalogue and the harmonisation of standards for certification based on DUS criteria. The WAEMU draft regional policy that is now being circulated calls for a regional common catalogue of 11 species to start with. It foresees two separate lists of certified seed: an A list for varieties that meet DUS criteria and that are comparable, performance wise, to the most popular varieties of their class; and a B list for varieties that only have to meet the DUS criteria. A variety registered in one country would automatically be released in all WAEMU countries, and potentially all of the ECOWAS countries if the merger between the two economic blocs pushes through.

The same is true in eastern Africa, where the three pilot countries of the ASARECA project have or are in the process of harmonising their regulations towards a common catalogue and a system of mandatory registration for the major field crops based on DUS criteria that will set the stage for

the rest of the member countries. In Uganda, for instance, the revision of the seeds statute in 1994 gave the private sector more representation on the National Seed Board and National Variety Registration Committee and reduced the number of multi-location performance trials from three years to one, making registration simply a matter of DUS criteria.⁹

Variety registration is also mandatory under the seed laws in Cameroon (2001) and Nigeria, where the International Fertiliser Development Centre worked directly with the Ministry of Agriculture over the past couple of years to re-write the country's 1992 Seed Law. Tunisia's 1999 seed law says that you can only market varieties registered in the official catalogue, which, according to a subsequent ministerial decree in 2000, is based entirely on DUS criteria. The newly adopted law in Algeria is the same, except that it also provides for a secondary list of varieties in the national catalogue that do not meet DUS criteria yet have a particular importance for exports or national production. People producing seed from this secondary list are still subject to the same inspection and registration procedures and the same regulations on packaging and labelling. This effectively shuts the legal door on traditional farmers' seed systems for those species included in the catalogue.

To the south, the situation is mixed. South Africa, with its dominant commercial farming sector and its strong seed industry, highly oriented towards export to the rest of Africa and other continents, has a long history of seed legislation similar to what you find in Europe and North America. The situation is similar in Zimbabwe, where seed certification is mandatory for 10 major crops and where enforcement is particularly heavy-handed for maize. (Open-pollinated varieties of maize and sorghum cannot be sold in Zimbabwe. By law, farmers can only buy hybrid seeds of these crops.) Next door in Zambia, seed for the major field crops cannot be sold unless it is certified or Quality Declared. In Malawi, on the other hand, where there is both an active private seed industry and an active informal seed sector, certification is only mandatory for three crops (hybrid maize, hybrid sunflower and tobacco) and the regulations are fairly loose when it comes to non-certified seeds. The mandatory national seed list in Mozambique is pretty much non-functional, with most commercial seed sales and NGO seed projects bypassing the official system.

Overall, governments in Southern Africa appear to have been more open to tweaking the seed

⁸ AJG van Gastel (2003), *Seed Unit, ICARDA, Seed Info No. 25*: www.icarda.org/News/Seed%20Info/SeedInfo_25/news.htm

⁹ Fred Muhuku (2002), "Seed Industry Development and Seed Legislation in Uganda." Co-published simultaneously in *Journal of New Seeds* (Food Products Press) Vol.4, No. 1/2, pp. 165-176; and in *Seed Policy, Legislation and Law: Widening a Narrow Focus* (ed: Niels Louwaars) Food Products Press, pp. 165-176.



Seed laws in selected African countries

ALGERIA: The new 2005 seed law creates two seed lists. An A list based on DUS criteria and a B list for varieties that do not meet DUS criteria yet have a particular importance for exports or national agricultural production. People producing seed from both lists are subject to the same inspection and registration procedures and the same regulations on packaging and labelling. This effectively shuts the legal door on traditional farmers' seed systems for those species included in the catalogue.

MOROCCO: Only varieties that are registered in the official catalogue can be certified and commercialised. Varieties must meet the DUS criteria in order to be registered in the official catalogue.

TUNISIA: The 1999 Seed Law and subsequent Ministerial Decree in 2000 limit the commercial sale of seeds to varieties registered in the official catalogue. Registration in the catalogue is based on the DUS criteria.

GHANA: Seed Bill revised in 2001 with support from the IFDC. The Bill is now before the Attorney General's Office for approval. If the Bill is approved, sale of seed that is not registered and certified will be prohibited.

UGANDA: Seeds of major field crops must be registered on the national list and certified, based on DUS testing, for commercialisation.

KENYA: The Seed and Plant Varieties Act, as amended in 2002, requires DUS testing and certification for the sale of most crop seeds. This is even imposed on farm-saved seed if farmers sell the seeds. In future, the government may allow farmers to sell farm-saved bean and sorghum seed as standard seed instead of certified seed, but maize seed will remain restricted.

TANZANIA: The 2003 Seed Act foresees mandatory registration to produce, distribute (exchange) or sell seed, mandatory registration of commercial varieties for major field crops, and a national catalogue. The only mention of farm-saved seeds is in a small subclause, which says that the provisions of the Act do not affect the sale of Quality Declared Seeds between small scale neighbouring farmers as long as the farmer that purchases the seeds only uses them for his or her own farm.

MALAWI: The seed legislation sets up a two-tiered system. Variety registration and seed certification are compulsory for hybrid maize, tobacco, and hybrid sunflower. For all other "prescribed" crops, seed certification and variety registration are voluntary, but the government sets minimum standards and requires official laboratory seed tests.

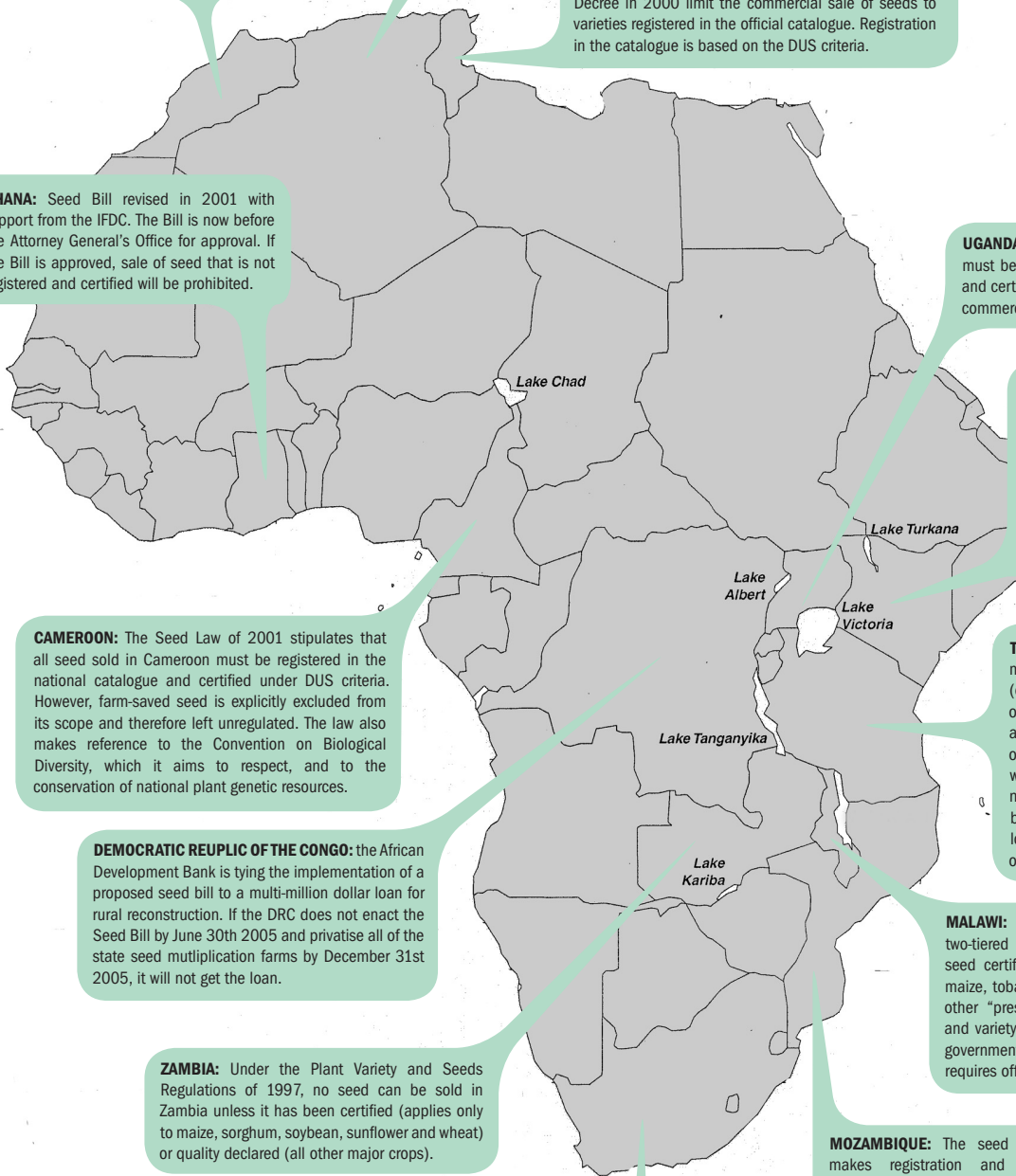
MOZAMBIQUE: The seed law of 2001 makes registration and DUS testing mandatory for all seeds sold in the country. This specifically includes the possibility of registering "traditional" and "local" varieties using the same criteria.

SOUTH AFRICA: Plant Improvement Act, last amended in 1996, requires official registration, based on DUS testing, for the sale of seeds. "Sale" explicitly includes seed exchange when it is "for a consideration".

ZAMBIA: Under the Plant Variety and Seeds Regulations of 1997, no seed can be sold in Zambia unless it has been certified (applies only to maize, sorghum, soybean, sunflower and wheat) or quality declared (all other major crops).

DEMOCRATIC REPUBLIC OF THE CONGO: the African Development Bank is tying the implementation of a proposed seed bill to a multi-million dollar loan for rural reconstruction. If the DRC does not enact the Seed Bill by June 30th 2005 and privatise all of the state seed multiplication farms by December 31st 2005, it will not get the loan.

CAMEROON: The Seed Law of 2001 stipulates that all seed sold in Cameroon must be registered in the national catalogue and certified under DUS criteria. However, farm-saved seed is explicitly excluded from its scope and therefore left unregulated. The law also makes reference to the Convention on Biological Diversity, which it aims to respect, and to the conservation of national plant genetic resources.



law blueprint than those in others parts of the continent, particularly West Africa. There's more sensitivity to social and ecological issues affecting their countries' seed supply systems, such as gender issues, recurring droughts or the impact of HIV/AIDS, and more willingness to take on board the views of NGOs and civil society organisations.

But in practice, this tweaking doesn't add up to much. The South African Development Community has recently decided that given the ongoing lack of coherence in the region it will put the harmonisation of national seed laws on hold and focus instead on the enactment of a separate parallel regional system for variety registration and release. The central element of this system is a regional catalogue for varieties that meet UPOV's DUS criteria and a minimum of performance data. Any variety registered in the regional catalogue will automatically be approved for sale in all member countries, although individual countries can object. There is a plan to develop a second regional catalogue for "landraces" and established popular varieties that don't meet the DUS criteria, but this catalogue will be "for information purposes only" and "would not as such provide market access."¹⁰

Throughout Africa, the picture of seed laws taking shape is one with very little legal room for farmers' seeds. At most, there are small legal openings for informal seed circuits, but typically only for Quality Declared Seed, relief projects or species not covered by the laws. Tanzania, for instance, has had a stringent Seed Act since 1978. The Act prohibited the sale of seed that was not registered on the national list, certified, packaged and labelled. The law was highly divorced from reality, with less than 30% of the country's farmlands planted to varieties from the formal system. Yet the new Seeds Act that came into force in 2003 maintains the strict registration provisions: mandatory registration to sell or produce seed, mandatory registration of commercial varieties form major field crops and a national catalogue. The only mention of farm-saved seeds is in a small subclause, which says that the provisions of the Act do not affect the sale of Quality Declared Seeds between small scale neighbouring farmers as long as the farmer that purchases the seeds only uses them for his or her own farm.¹¹ *De facto*, anything else is illegal. Similarly, Mozambique's new Seed Law of 2001 openly welcomes the registration of 'traditional' and 'local' varieties for commercialisation, but only if they satisfy the industrial DUS criteria.

Seeds of repression

There will continue to be a big gap between the law and what happens on the ground. It's unlikely that any national seed agency is going to embark on a massive crackdown on farm-saved seed at any point soon. But the laws will eventually translate into practice in multiple ways. Kenya's seed agency, KEPHIS, does take its laws seriously. Since it was established in 1996, it has been dishing out fines to seed dealers that operate without a licence or that sell non-certified seed. It has even imposed certification rules on small-scale seed projects for local food crops like beans and sorghum. KEPHIS is particularly adamant about not letting farmers sell their uncertified maize seed, currently responsible for over one-half of Kenya's maize seed needs.¹² The Sierra Leone Seed Board is running after NGOs and seed dealers for side-stepping the certification process in distributing rice and groundnut seeds.¹³ In Uganda, where over 90% of seeds are farm-saved, access to credit is commonly tied to the mandatory use of certified seed.

Furthermore, these new seed laws have to be seen in the context of the parallel expansion of intellectual property laws and the construction of biosafety rules to accommodate the introduction of genetically modified crops in Africa. In most countries, the seed marketing rules are coordinated with PVP legislation and GMO regulations. In Tunisia, Algeria and Kenya, the seed laws and the PVP legislation are actually contained in the very same Act. In West Africa, the WAEMU seed marketing system will work together with PVP law adopted by the member states of the African Intellectual Property Organisation¹⁴ within the Revised Bangui Agreement of 1999. However, this PVP system has not entered into operation yet because there are no facilities in the member states to identify new plant varieties according to its DUS criteria. This is where WAEMU comes in (with a little help from the US and German governments). Its regional seed marketing system will provide the technical infrastructure for testing since the seed law and the PVP law share the same DUS standards. The French seed industry association¹⁵ is identifying trial centres for DUS testing in Cameroon, Sénégal and Côte d'Ivoire. And, with the financial support of the French government it's also busy in northern Africa where, it runs small bilateral training projects with seed agencies in Morocco, Algeria, Tunisia and Egypt on DUS, certification and "*how to implement the UPOV system*" even though Tunisia is the only one of these countries that is a member of UPOV.¹⁶

¹⁰ www.sadc-fanr.org.zw/ssn/news/GaboroneProceedingsApril2003.pdf

¹¹ Art. 19 (2) of the Seeds Act, 2003.

¹² Luke Mulunda (2005), "Govt threatens to deregister companies that have failed to renew," *The East African Standard* (Nairobi), February 13.

¹³ <http://allafrica.com/stories/200502140612.html>; and NP Louwaars et al, *Impacts of Strengthened Intellectual Property Rights Regimes on the Plant Breeding Industry in Developing Countries: A synthesis of five case studies*, Report commissioned by the World Bank, Wageningen UR, 176 pp, www.cgn.wageningen-ur.nl/pgr/images/IPR%20in%20breeding%20industry.pdf

¹⁴ WASNET Newsletter, No. 14, January 2005: www.wasnet.org/newsletter/archive/index.htm

¹⁵ OAPI - African Intellectual Property Organisation, which has 16 members: Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Cote D'Ivoire, Gabon, Guinea-Bissau, Equatorial Guinea, Guinea, Mali, Mauritania, Niger, Senegal, and Togo. For more information about OAPI and IPRs in Africa, see GRAIN (2002), *Intellectual Property Rights in African Agriculture: Implications for small farmers*, www.grain.org/briefings/?id=3.

¹⁶ GNIS - Groupement National Interprofessionnel des Semences et Plantes: www.gnis.fr. A powerful industry lobby which ensures that strict criteria are retained in French seed law, something they are spreading to other Francophone countries.

¹⁷ WASNET Newsletter, No. 12, Feb 2004: www.wasnet.org/newsletter/archive/index.htm



In West Africa, the WAEMU catalogue opens the doors to the registration of GM varieties, even as one of its members, Benin, has a moratorium on GM crops and the others are still in the midst of developing their biosafety legislation. Also in West Africa, there is a draft regulatory framework with a regional catalogue that integrates conventional and GM seeds. Once again, the proposed catalogue in Southern Africa, which does not allow the registration of GM crops, is more responsive to diverging national politics of the region.

The balkanisation of Africa's seed supply

The social, environmental and agricultural situation in most of Africa is diverse and fragile and still reeling from a brutal modern history. Policy, for something as vital as seeds, should reflect this complex context. But if we look at the state of seed laws in Africa, we see governments pursuing a blueprint that could well have been drawn up on Wall Street. The old systems may have been misguided, but at least their priority was to improve seed quality for farmers. Today's seed laws are all about rolling out a red carpet for the transnational seed industry—an industry dominated by a few pesticide corporations that are narrowly focused on just a handful of major export crops and GM varieties. These corporations do not produce seeds that meet the needs of small scale African farmers and therefore can only play a limited role.

Realistically, African farmers will continue to supply the bulk of the continent's seed needs for some time to come. But the cruel irony is that the combination of new seed regulations, intellectual property laws and cutting edge technologies like genetic engineering will continue to marginalise them. So increasingly, Africa's seeds systems will be split into two disjointed realities: a privatised,



African farmers have a long history of working together. This may be their greatest strength in their bid to keep alive their seed and their farming systems

uniform and totally accommodated formal sector and a chaotic, diversified and barely tolerated peasant sector. Public institutions could have provided a bridge, but they are now set to disappear or be absorbed by the private sector, leaving the state to police farmers rather than protect them.

It will not be easy to build up and strengthen farmers' seed systems in this unfriendly legal and political context. But it won't be easy for governments and industry to implement their laws either. The rules are so disconnected from what's happening on the ground that many farmers and local communities may refuse to comply. They may decide to turn their backs on the formal sector altogether and look to their own local seed systems. In this way, the seed laws could in fact clear the air and help sow the seeds of a terrific new direction for seed systems in Africa. 