



## Eastern and Central Africa Programme for Agricultural Policy Analysis

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A Programme of the Association for Strengthening Agricultural  
Research in Eastern and Central Africa

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### Electronic Newsletter

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#### NEWS

**9-17 June:** Participatory Research and Gender Analysis (PRGA) and ECAPAPA will hold their third Gender training of trainers' workshop in Nairobi, Kenya. Participants will come from the Democratic Republic of Congo, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda.

#### **BIOTECHNOLOGY: TOWARDS A REGIONAL POLICY ON GMO CROPS AMONG COMESA/ASARECA COUNTRIES**

*On 30-31 May, the Common Market for Eastern and Southern Africa (COMESA), Association for Strengthening of Agricultural Research in Eastern and Central Africa (ASARECA), African Centre for Technology Studies (ACTS) and Programme for Biosafety Systems (PBS) held a regional workshop in Nairobi, Kenya, with countries in the regions to harmonize biotechnology policies. ECAPAPA will present excerpts from the workshop in the three issues of the newsletter. In this issue, we present the key note presentation by Prof. Robert Paarlberg, urging countries in the COMESA and ASARECA regions to harmonize their policies in order to minimize risks associated with Genetically Modified Organisms (GMOs). The second and third issues will contain a summary of stakeholder findings on food aid policy choices and the potential income gains from GM crops and commercial export risks presented by Dr. Isaac Minde and Mr. James Mbwika respectively.*

#### **Introduction**

**S**INCE 1995, genetically modified (GM) varieties of agricultural crops have been planted commercially and consumed widely in a growing number of countries. As of 2005, some 8.5 million farmers around the world were planting GM crops. Over a total of 222 million acres is currently under GM crops. In the past ten years the total number of countries growing GM crops commercially has increased from 6 to 21. However, despite this increase, GM crops still encounter significant skepticism and resistance, slowing their uptake particularly in Europe and Africa.

#### **The need for a regional approach toward GMOs**

Governments in Africa became convinced of the need to think regionally about their GMO policies following debates that arose in 2002 regarding the import of GM maize as food aid. Prior to 2002, countries in the COMESA/ASARECA region had accepted GM maize as food aid through the United Nations World Food Programme (WFP) without controversy. In 2002, however, a number of

countries within the Southern African Development Community (SADC) took policy decisions that limited the import of food aid with GM content. Zimbabwe, Mozambique, Lesotho, and Malawi placed various restrictions on imports of unmilled GM yellow maize from WFP, and Zambia refused all GM maize even if milled. Only Swaziland continued to accept unmilled GM maize without restriction as food aid through WFP.

This divergence of national policies in the SADC region inspired efforts in both SADC and COMESA to consider closer regional policy coordination. The agricultural ministers of COMESA, at their meeting in Kampala, Uganda, on 4 November 2002, agreed to create a regional policy on GMOs. The Regional Approach to Biotechnology and Biosafety Policy in Eastern and Southern Africa (RABESA) project was initiated in part to inform and support this move toward improved regional policy coordination. When considering issues of GMO trade and biosafety, the potential benefit of greater policy harmonization among countries in the COMESA/ASARECA region is obvious. If one country in the region approves the commercial planting of a GMO crop before a neighboring country has done so, the chance arises that routine formal or informal cross-border trade will begin to bring viable GMO seeds from the approving country into the neighboring country that has not yet given planting approval. This could compromise the neighboring country's national system of biosafety regulation. If the non-approving country tries to block imports in hope of protecting its national regulatory system, commercially important trade flows within the region would be disrupted, perhaps including critical food aid shipments. GMO food commodities are now widely grown and frequently encountered in international markets. This has made national policies designed to avoid all imports of GMOs more difficult to maintain and operate. Yet, it is prudent for governments in Africa to wish to preserve this record of safety by setting in place appropriate GMO regulatory systems of their own, and by seeking ways to harmonize those systems within the region.

### **Tight harmonization versus loose harmonization**

At the national level, separate governments have a range of choices they can make in the regulation of GMOs. The RABESA initiative has described these choices as four different levels or stages of GMO acceptance:

*Stage one:* Approve no GMOs for import, commercial planting, or research. Attempt to remain a "GMO-free" country. In 2002 the government of Zambia decided, at least for the moment, to remain at stage one.

*Stage two:* Approve the planting of GMO crops for research purposes only, in contained facilities and confined areas. The governments of Egypt and Kenya are currently at stage two.

*Stage three:* Approve the commercial planting of industrial GMO crops only, such as Bt cotton. Beyond Africa, the governments of both China and India are currently at stage three.

*Stage four:* Approve commercial planting of GMO food and feed crops, in addition to industrial crops. The government of South Africa is at stage four. The RABESA initiative found that each of these stages of GMO acceptance brought its own mix of advantages and disadvantages. This has led different states to make different policy choices at different times about moving from one stage to the next. The result has been a wide diversity of choices at the national level, making a "tight" harmonization of GMO policies at the regional level quite difficult. Three different ways to establish a "tight"

harmonization of national policies toward GMOs in the COMESA/ASARECA region, each however, with serious drawbacks, are outlined below.

## **1. Tight harmony through centralized approvals**

As a result, alternative, tight policy harmonization could always be achieved through a system of centralized food safety and biosafety approvals. The COMESA/ASARECA countries might decide to create a single region-wide approval committee empowered to decide which GMOs can or cannot be planted or imported into the region as a whole. One policy would then prevail throughout the region. One advantage to this approach would be reduced costs through avoidance of redundant country-by-country application, testing, and approval efforts. All applicants for biosafety and food safety approval in the region would go to a single committee, perhaps constituted within the COMESA Secretariat, or within the AU. This single committee would then be empowered to say yes or no for all states in the region at the same time. Following this approach, low-capacity states in the region would be spared the expense of setting up a separate national approval system; it would be possible to concentrate capacity building investments in the operation of a single and highly capable region-wide system.

The disadvantage of this approach is that regulatory decisions in this area are inherently difficult to centralize. For scientific reasons, most GMO biosafety issues are better addressed locally, with an eye toward highly specific ecosystems and ecosystem differences. Perhaps food safety issues could be responsibly handled by a single regional or continental approval committee, but biosafety issues require at least some localized environmental screening and scrutiny.

A political reality also intrudes. Few states in the region appear willing, at present, to hand over sovereign choice on issues of this kind to a single regional committee. Recent practice in the COMESA/ASARECA region has been to defend the right of different states to make separate (and possibly different) sovereign choices when regulating the import or planting of GMOs, and not just in this region. This state sovereignty approach is implicitly endorsed by the 2000 Cartagena Biosafety Protocol, which establishes the grounds on which “importing countries” may refuse imports of living GMOs. In the special case of imports of GMO food aid, the state-by-state approach has also been explicitly endorsed by SADC and accepted by the World Food Programme (WFP). In a May 2003 statement, the WFP Executive Board said country offices would be “expected to comply fully with existing national import policies, whatever form they may take.”

The African Union (AU) also endorsed state sovereignty in this policy area. In June 1999, the AU (then still the OAU) convened a group of biosafety specialists to draft an African model law on safety in biotechnology, a document finalized in May 2001 and endorsed by the OAU Council of Ministers in July 2001. This model law (which is not in any way legally binding) was being offered to member governments as a template they might use—or not use—in developing their own separate biosafety laws at the national level. The AU hoped the result would be greater similarity of legal systems across the continent, but it has not yet proposed supplanting national sovereignty with a centralized system of region-wide approvals or disapprovals of specific GMOs. In 2003, the AU Executive Council did consider a report that proposed “an Africa-wide biosafety system throughout the continent.” This report cited the likelihood that GMOs approved in one country could easily cross boundaries into neighboring countries, and thus called for “a coordinated regional approach to biosafety legislation as well as to its implementation.”

In 2005, the AU, together with NEPAD created an African Panel on Biotechnology composed of senior scientists and policy makers from across the continent. This panel was given only an

advisory function. Regional harmonization has thus been endorsed in Africa as an overall objective, but there has not yet been any clear endorsement of tight harmonization through a “centralized approval” approach.

## **2. Tight harmony through mutual policy recognition**

A second method for achieving tight regional harmonization might be the creation of a mutual policy recognition system, similar to the system currently employed by the European Union (EU). This European system for tight harmonization of GMO policies relies not on a single centralized approval committee, but instead on a single region-wide set of approval procedures. Under this mutual policy recognition approach, if one member government in the region grants an approval for the import or planting of a GMO crop, then that approval, if there are no objection from other member governments—automatically becomes a generalized approval throughout the region.

If there are objections from other member states, the EU process becomes more complex. The EU procedure first provides for a conciliation process among member states and the Commission. If objections remain after this conciliation process, the EU Commission will ask for the opinion of a community-level scientific expert committee, the European Food Safety Authority (EFSA), and then submit a draft decision of its own to a Regulatory Committee composed of representatives of member states. This Regulatory Committee then votes on the recommendation by qualified majority (a system of weighted voting among the 25 member governments of the EU) and if it gives a favorable opinion the draft decision is adopted. If no qualified majority emerges from this vote, the draft decision is submitted to the Council of Ministers for adoption or rejection by qualified majority. If the Council does not act within three months, the Commission has the authority to adopt its own draft decision.

Between 1995 and 1998, the EU was able to operate this mutual recognition system with few member government objections, and a total of 18 GMO products were given region-wide approval. By 1998, however, anti-GMO activist campaigns had driven the governments of some member countries to begin objecting to all new GMO approvals. Member governments such as Austria, France, Germany, Luxembourg, Italy, and Greece began not only to block new approvals; they also began to ban from their own markets retroactively some GMOs that had already been approved community wide. The scientific justifications they submitted for these retroactive bans were submitted to the Scientific Committees of the EU for an opinion, and in every case they were rejected on scientific grounds, yet the national governments in question kept their bans in place. The Commission then recommended lifting these bans, but the Regulatory Committee failed to reach a qualified majority one way or another. When the Commission recommended lifting the bans to the Council, in June 2005 the Council rejected that recommendation outright. This has left half a dozen EU member governments maintaining a retroactive ban on GMOs earlier approved, over the objections of the EU’s own Scientific Committees and against the recommendation of the EU Commission. In February this year, this regulatory blockage in the EU was found to be a violation of international trade rules by an interim dispute settlement panel of the World Trade Organization (WTO).

Given these recent experiences in Europe, a regional harmonization system based on mutual policy recognition may not be the best option for the COMESA/ASARECA countries to consider. In a setting where decisions are likely to be political as well as technical, with at least some governments likely to disagree, a mutual policy recognition system would be prone to paralysis, just as in Europe. Applicants would seek out governments in the region that are most likely to give approval, but those approvals would then either be blocked at the regional level or flouted and

defied by other national governments not yet ready to approve any GMOs despite what a technical committee in another country or a regional technical committee might have to say.

Another disadvantage of this mutual policy recognition approach is that it would require the creation of an elaborate set of new institutions at the regional level, including new scientific committees, and a technically competent regulatory committee representing all member governments. This approach would require coming to agreement on a qualified majority voting system for the operations of the regulatory committee.

### **3. Tight harmony through pre-emptive disapproval**

A third path to tight harmonization would be to reach a pre-emptive decision to approve no GMOs at all for import, research, or commercial planting anywhere within the COMESA/ASARECA region. Under this approach, the case-by-case scrutiny of applications would be unnecessary; policy would be harmonized around a pre-emptive decision to approve nothing.

There are some tempting attractions to this “pre-emptive disapproval” approach. First, declaring the region a GMO-free zone (or at least an LMO-free zone) is by far the simplest way to harmonize national policies. The need to coordinate national approvals on a case-by-case basis would be eliminated, because there would be no national approvals. This approach also eliminates the need to invest resources in a GMO screening and approval capacity at the national or regional level. The costly laboratory, greenhouse, and field trial infrastructures needed to conduct sound biosafety experiments would not be needed. The only technical capacity needed would be detection and policing capacity, to enforce the regional ban on GMOs (or LMOs). This pre-emptive disapproval approach might also be tempting because it comes so close to many of the de-facto policies currently adopted by countries in the region.

None of the COMESA/ASARECA countries has yet given approval for the commercial release of any GMO crops, so a pre-emptive region-wide ban on commercial planting would not appear to represent any dramatic change from current policies in the short run. This approach would also have some attraction if it could reduce the commercial export risks that might arise if GMO crops were planted in the region. Importers in GMO-sensitive countries in Europe and elsewhere would be less likely to shun exports if the COMESA/ASARECA countries were known to have become a “GMO-free” region. A GMO-free region could be achieved at a cost.

#### *a) Sacrifice of potential farm income gains*

The RABESA project has found that principal costs would be a sacrifice of potential income gains for farmers, a diminished access to needed food imports under some emergency circumstances, and a growing burden of costly policy enforcement. A regional choice to remain GMO-free would take away from farmers all present and future options to gain higher income from a commercial adoption of GMO crop varieties. In effect, farmers would incur a projected annual loss of national farm income 5-10 years into the future, if a decision to remain GMO-free were made today. The best way to appreciate the magnitude of these losses is to remember that they repeat themselves year after year, with every added year that a nation decides to remain GMO-free. They would also increase as new GMO crop varieties emerge that are even better suited to the needs of African farmers, such as GMOs with drought tolerance traits.

*b) Reduced access to commercial food imports and food aid*

A decision to remain GMO-free would also restrict a nation's access to both commercial and concessional food imports. This is because GMO varieties of maize, in particular, are increasingly pervasive in international food markets. RABESA report III showed that of the six study countries in this project, only Zambia, after 2002 was able to avoid imports of maize or soybean from GMO-producing countries. The other countries found themselves occasionally taking such imports (which were likely to have GMO content) either as commercial imports, or as food aid, or at least as food aid trans-shipments through their territory. In 2002-03 it was possible for one country in the region (Zambia) to follow this policy, but this was in part because the others did not follow suit, and it was also because at that time South Africa still had stocks of non-GMO white maize to export. GMO white maize is now more widely planted in South Africa and it is not always segregated from non-GM. As of 2005, roughly nine percent of South Africa's white maize crop was GMO. This increasingly pervasive planting of GM white maize in South Africa has reduced the capacity of the World Food Programme (WFP) to source maize in South Africa as a means to honor GM-free food aid requests in the region.

Commercially as well, quite a bit of GM white maize purchased in South Africa is now likely to be sold into Mozambique, Lesotho, Swaziland, and Zimbabwe. With South Africa disappearing as a completely reliable source of GM-free maize, it may thus become impossible for multiple maize-importing countries in the COMESA/ASARECA region to meet their commercial and emergency import needs from GM-free sources only.

*c) Difficulty of enforcement*

The cost and difficulty of enforcing a "no imports with GM-content" food aid policy must also be considered. For example, Zambia plans to monitor and control the importation of GM maize in part through the building of a new molecular biology laboratory under its National Institute for Scientific and Industrial Research (NISIR). Even with such capabilities in place, governments seeking to pursue a policy of, "no imports with GM content," will have anticipated both detection and enforcement challenges. Detecting GM maize in officially declared shipments at central ports of entry is not too difficult, but trying to screen all informal overland border trade can be a nearly impossible job in much of the COMESA/ASARECA region. In one monitoring effort carried out by the Southern African Regional Poverty Network (SARPN), between July and October 2004, close to 48,000 tonnes of "unrecorded" maize trade took place between Mozambique, Malawi, Zimbabwe, Zambia, Tanzania, and the DRC, much of this from Mozambique into Malawi.

Enforcement is the next challenge. If a government begins the systematic testing of food in its national marketplace, it would be likely to detect some maize or soybean with GM content sooner or later. The harder it looks, the more it would detect. Upon detecting illicit GMOs, what should be the appropriate response? Should the owners of the food be punished? Who would pay for its removal or destruction? Facing such difficult questions, governments that adopt a "no GM content" policy may eventually decide to fall back into an informal practice of not looking very hard for violations, and then looking the other way when violations are found. This posture of "don't ask, don't tell," compromises regulatory equity and invites legal challenge.

In addition, if a nation adopts a "no imports with GM content" policy, it might inadvertently complicate the problem of moving across its borders food aid destined for neighboring countries. In the case of Zambia, for example the government has suspected that supplies of food aid maize

originally from South Africa and the United States, with GMO content, have been moved through the country on their way to a final destination in the Democratic Republic of Congo (DRC).

#### **4. A loose harmonization alternative**

Given the above difficulties presented by a “tight” harmonization of policies in the COMESA/ASARECA region, it may be useful to consider a “loose” harmonization alternative. One means to achieve “loose” harmonization would be to set a common minimum standard of precaution for the region regarding GMOs, allowing individual states to exceed that minimum if they wish, so long as they honor a minimum set of obligations toward their neighbors.

An obvious minimum regional policy standard to use would be the standard contained in the 2000 Cartagena Protocol on Biosafety. This internationally negotiated instrument sets a minimum standard for regulating the trans-boundary movement only of living GMOs (LMOs). The Protocol then draws a distinction between trans-boundary movements of living GMOs intended for planting (release into the environment) versus those intended only for human consumption, animal feed, or processing. The Protocol sets a relatively high standard of precaution for living GMOs intended for environmental release, by spelling out a requirement for Advanced Informed Agreement (AIA) from the importing state. But the Protocol sets a lower standard of precaution for the trans-boundary movement of living GMOs intended “for direct use as food or feed, or for processing.” When shipments of GMOs are intended for food, feed, or processing, the exporter must only notify importers that the shipment “may contain” LMOs, and that those LMOs are not meant for “intentional introduction into the environment.” Beyond this, importers and exporters can treat LMO shipments in the same way they treat conventional food shipments. At an important meeting of the 132 Parties to the Protocol in Curitiba, Brazil, in March 2006, the essence of this minimal standard was effectively extended for another six years.

This Cartagena Protocol standard would be a useful minimum standard for “loose” policy harmonization in the COMESA/ASARECA region. It would not be too demanding a standard, since at present nearly all of the trade in GMOs taking place in the region, or likely to take place, is in GMOs intended for food, feed, or processing, rather than GMO seeds intended for planting. This minimum Cartagena Protocol standard also would provide important flexibility for those countries in the COMESA/ASARECA region that wish to become stage two countries by making investments in GMO research. The Protocol explicitly exempts from any advance informed agreement requirement the trans-boundary movement of an LMO destined for “contained use,” as in a laboratory or greenhouse trial. It is important that any regional policy toward GMOs does not block the right or the capacity of individual governments to import GMOs for research purposes.

If the minimum Cartagena standard were adopted as a regional standard, international biosafety obligations would be honored at minimum cost to trade or scientific research. Of course, some countries might wish to exceed the minimum Cartagena standard. This is a choice that the Cartagena Protocol itself honors and preserves. But when governments go above the Cartagena standard, for example by banning all LMO imports, or by demanding milling of GMO maize, or perhaps by demanding labeling, they might be required to take on at least two obligations toward their neighbors in the region:

- First, they might be required to give WFP advance warning of any new import bans, or of any new milling or labeling requirements. This would be to give WFP the time needed to make adjustments in the sourcing of food aid, and the time needed to mobilize the financial

resources that an adjustment in sourcing or a requirement for milling and labeling would be likely to entail.

- Second, they might be required, particularly if they are port-of-entry countries for land-locked neighboring states, to make an exception and revert to the minimum Cartagena Protocol standard when GM food aid is being trans-shipped through their territory to neighboring states, or to camps holding refugees. This would be to honor the spirit of the Cartagena Protocol, which explicitly exempts LMOs “in transit” from the more demanding advance informed agreement (AIA) requirement.

## Conclusion

There are some clear advantages to this sort of “loose” policy harmonization in the COMESA/ASARECA region. Trade disruptions would be minimized, since nearly all current trans-boundary movements of GMOs within the region (living or otherwise) are intended for food, feed, or processing, rather than for planting, so no new trade barriers would have to spring up. This is commercially important for the region, as the RABESA project has shown that most future exports of GMO products from states in the region are likely to go to other African countries, rather than to export destinations beyond Africa. If the COMESA/ASARECA countries were to harmonize their policies around the minimum standards set by the Cartagena Protocol, the commercial exports risk associated with planting GMO maize would for most states be virtually eliminated.

*Full text of Professor Robert Paarlberg and the RABESA reports cited are available on [www.asareca.org/ecapapa](http://www.asareca.org/ecapapa)*

## COMMUNICATION

### *Vacancy announcement*

The International Crops Research Institute for the Semi-arid Tropics (ICRISAT) and the World Agroforestry Center (ICRAF) are jointly recruiting an Economist to work on two new Technical Assistance Grant (TAG) projects, funded by the International Fund for Agricultural Development (IFAD) entitled:

- 1) *Creating opportunities for poor farmers: intensification of sorghum and millet systems using local biodiversity market opportunities in semi arid west Africa (ICRISAT-TAG) and;*
- 2) *Strengthening livelihood strategies in the West African Sahel through improved management and utilization of parkland agro-forests (ICRAF-TAG).*

Applicants should have a PhD in Marketing Economics and demonstrated ability to coordinate the implementation of the socio-economic research for development components of the two projects in collaboration with other ICRAF and ICRISAT scientists in the region and scientists from partner institutions. The closing date for receipt of applications is **10 June 2006** and the successful candidate is expected to start on **1 August**. For details, contact: Dr. Bonny Ntare, ICRISAT, BP 320, Bamako, Mali or via e-mail: [b.ntare@cgiar.org](mailto:b.ntare@cgiar.org)

### *New global online careers website launched*

Interims for Development, a UK based company has launched **ReConnect Africa** a new online publication addressing the impact of the continuing and devastating drain of professional talent



from Africa. This online publication will offer a one-stop shop for those who recruit and manage talent in Africa and provides jobs, information and advice for job seekers and entrepreneurs around the world looking at career and business opportunities in Africa. Interims for Development works with African businesses and international companies operating in Africa, to support their human resources, business development and capacity building needs. For more information, contact: Frances Williams, Interims for Development, Tel: +44 (0) 20 8200 2373, Fax: +44 (0)20 8200 2383, Mob: +44 (0) 7786 103821, [www.interimsfd.com](http://www.interimsfd.com) e-mail [info@interimsfd.com](mailto:info@interimsfd.com) or visit: [www.ReConnectAfrica.com](http://www.ReConnectAfrica.com)

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