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COMMENTS ON THE PLANT IMPROVEMENT BILL [B-2012]

The African Centre for Biosafety is a non-profit organisation, based in Johannesburg. We provide authoritative, credible, relevant and current information, research and policy analysis on issues pertaining to genetic engineering, biosafety, seed sovereignty and biopiracy.

We are grateful to the Department of Agriculture, Forestry and Fisheries for allowing us the opportunity to attend the stakeholder workshop on the 23rd of May 2013 and for inviting us to submit our comments on the Plant Improvement Bill.

Introduction

According to the United Nations Food and Agricultural Organisation (UNFAO), over the course of the 20th century, 75% of the world's plant genetic diversity was lost, as local varieties and land races have been replaced with genetically uniform seed. A similar process in animal husbandry has put 53% of all livestock breeds at risk of extinction. At the turn of the 21st century, 12 plant and five animal species generated three quarters of the world's food. This is no accident, but the result of a very particular system of food production that demands uniformity and yield, over diversity and nutrition and where vast monocultures can be grown, harvested, processed and then 'freely' traded over thousands of miles. It is a system that, by some estimates, contributes up to 57% of global greenhouse gas (GHG) emissions. It is also a system that, particularly in the USA and European Union, is propped up by a vast subsidy system.

Commercial agriculture in South Africa was built on the basis of exclusion of the majority, and a high level of concentration in ownership of land, water and other resources required for agriculture. In this context, the state provided ongoing support to the creation of a capital intensive farming sector. In 2007 the commercial seed market in South Africa was estimated to be valued at US\$300m, making it the joint 19th largest market in the world with Taiwan, Hungary, Netherlands and the Czech Republic.

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Consequently, agriculture in South Africa has to a large extent, become industrialized and most of the input, including seed, comes from outside the farm. South Africa is also the only country in Africa that grows genetically modified crops on a large scale. Agricultural production is also heavily dominated by genetically uniform, commercially bred varieties, which have ousted the more genetically variable traditional varieties often known as ‘landraces, local varieties or farmers’ varieties. However, informal seed systems do exist in South Africa among heirloom seed sellers, small- holder farmers, family gardeners and so forth. Notwithstanding the dominance of commercial and uniform varieties, landraces are still being maintained around the country. One factor that distinguishes landraces from modern varieties is the continuous development of diversity between and within the former that takes place when these are cultivated, due to natural and human selection pressures. Genetic diversity, rather than genetic uniformity is the result of such selection pressures; and while this diversity is central to the resilience of such crops, it is also part of the reason for difficulties with the maintenance and continued development of such varieties, when it comes to registration and seed certification.

The underlying imperative of the Plant Improvement Bill is to guarantee quality standards for farmers buying seeds, for example, regarding viability and identity, and quality standards for the food-processing industry and consumers, regarding identity and properties of the produce. However, legislation on seed quality control and variety registration has created problems for those seeking to develop or maintain varieties, create local seed enterprises or cultivate locally adapted varieties, because these may not fulfill the requirements for distinctness, uniformity and stability (DUS).

Landraces or farmers’ varieties usually display a high degree of genetic heterogeneity and are adapted to the local environment under which they were developed. In addition, such varieties tend to be unstable, and are not necessarily distinct from each other. The Plant Improvement Bill as currently drafted, does contain provisions that constitute barriers because those involved in these initiatives usually have only limited resources at their disposal for seed inspection and meeting the regulatory requirements pertaining to non-registered seed.

The Plant Improvement Bill is also important for the protection of Farmers’ Rights (a concept defined in the Seed Treaty and the right to food, conceptualized as a human right. The Bill should not be a barrier to the realization of farmers’ rights. In this regard, the findings in 2009 of the UN Special Rapporteur on the right to food, which recommends that all states must ensure that their seed legislation does not negative impact on farmers’ varieties and farmer managed seed systems, is worth noting.

General comments

The ACB’s primary concerns centre around the extent to which the variety release and seed marketing provisions of the Plant Improvement Bill will impact on the conservation of plant genetic diversity of heirloom, traditional, open pollinated varieties and landraces. These varieties are typically unregistered plant varieties and those that are not protected by plant breeders’ rights, patents and other forms of intellectual property. They are also non-GM varieties. These varieties will typically not meet the DUS requirements set out in the law and will not qualify for registration on the variety listing. In this regard, we are seeking an exemption of such varieties from the

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registration and plant variety listing of the legislation. We are not in favour of special variety lists being created for such varieties, and instead, we are seeking that provisions be crafted to enable optional registration and that a system for traceability be developed that could inform the user of the origin of the variety in question, the varieties used to breed it and the specific breeding methods employed. This will enable greater marketing of conservation varieties, amateur varieties and landraces, therefore widening users' choice. The creation of special lists for the varieties mentioned- heirloom, traditional, OPVs and landraces- will over-regulate this small niche and emerging sector, and discourage cultivation and hence will have a strong negative impact on conservation. Small (farmer) breeders already find that the current costs and administration burden with regard to the registration of business and premises to be disproportionately onerous and costly when viewed in terms of market size of landraces, populations or organic varieties.

We are looking for assurances in the Plant Improvement Bill that this crop genetic diversity will not be eroded as a result of stringent and over-regulation as this diversity constitutes an important part of the genetic pool that future generations will need to develop and breed plants able to cope with future crop pests and diseases as well as environmental factors such as climate change.

The law must bear in mind that it impacts on the composition of the South African seed market as well as on cultivation and breeding. As a result, it also affects the maintenance of crop diversity. We are seeking provisions in the law that ensure and promote equal access to the SA seed market for all players. In this regard, the legislation cannot adopt a uniform approach to all players in the sector.

Hence, we are seeking in the law, sufficient flexibility to ensure that small farmers and family gardeners of heirloom, traditional, OPVs and landraces are able to maintain crop diversity by inter alia, exchanging, propagating, importing and selling such seed, subject to complying with minimum requirements with regard to seed quality and phytosanitary standards.

We are also seeking complete certainty and clarity in the law that the Value for Cultivation and Use (VCU) provisions will not apply to the use (broadly defined to include, exchange, propagation, import and sale) of the varieties mentioned. Typically, the VCU trials do not allow for the selection of low-input varieties. Where examination conditions and examinations characteristics have been developed by the Registrar for these trials, we are doubtful that they are suited for the varieties of concern, since VCU would be primarily concerned with yield and quality.

Specific comments/contributions

Definitions to consider

A landrace of a seed propagated crop is a variable population, which is identifiable and usually has a local name. It lacks 'formal' crop improvement, is characterized by a specific adaptation to the environmental conditions of the area of cultivation (tolerant to the biotic and abiotic stresses of that area) and is closely associated with the uses, knowledge, habits, dialects and celebrations of the people who developed and continue to grow it.

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Farmers' varieties mean, varieties developed through the deliberate selection by one or more farmers.

Provisions that impact on small-holder farmers

The provisions of Chapter 4 are aimed principally at types of businesses relating to the propagating, cleaning, selling and trading of seed. Section 18 deals with exemptions from the registration provisions of sections 8 and 9, but these provisions deal specifically with the possibility of a 'business' exemption only. The provisions of section 9 relate to premises from where a **business** is conducted. "Business" is not defined and it is debatable whether the ordinary meaning would include the activities of small-holder farmers and breeders. Is it feasible for hundreds of small farmer groups, interested in propagation, exchange, cultivation and sale of landraces, heirloom and farmers' varieties to apply for exemptions? Would they even know that they need to apply for these exemptions? Would it not be more practical to craft a set of provisions relating to small-holder farmers and setting out the minimum requirements that need to be complied with to ensure quality control? It is important that provisions are created to encourage small -holder farmers to engage in seed breeding, exchange and entering the seed market.

The exemptions contemplated in section 22 do also not come to the assistance of small farmers wishing propagate seed for cultivation, exchange and sale. We do believe special provisions must be drafted for small holder farmers.

Chapter 14 dealing with the import and export of propagating material should also be looked into carefully, with regard to the cross border exchange especially between small-holder farmers of especially farmers' varieties. Section 22(2) does create an opportunity for small farmers to be exempt from the provisions of section 22(1), which we would like to have retained. However, we would need to have some guidance in the regulations when these are drafted as to what requirements small farmers will have to comply with, in order to import seed from outside of South Africa. The SADC Seed Variety listing provisions obviously do not apply to this form of cross border exchange and trade.

The provisions of section 43 exclude or rather preclude small farmers from exporting seed where they have not been registered in terms of sections 8 and 9. This needs to be re-looked at alternatively, as we have submitted, special provisions should be drafted for small farmers.

We have noted the government's commitment to food security, job creation and economic development as set out in the National Policy on Plant Improvement as well as the recognition of the importance of conservation and utilisation of plant genetic resources in food and agriculture. We are thus looking forward to provisions in the law that will make good on the promises set out in the Plant Improvement policy to improve the participation of new entrants and facilitating small scale farmers access to the seed market. In order for this to happen, and for the government to be seen to be contributing positively to the socio-economic upliftment of resource farming households, this will have to be provided for, in the law. In this regard, we also note that government is committed to finding the balance between supporting the commercial sector and broadening the participation of a broad range of stakeholders in the plant improvement sector, promoting fair trade in propagation materials and supporting and promoting breeding programmes.

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Exemptions from variety listing

We support excluding heirloom, traditional and farmers' varieties from the required registration procedures of the law and support the view that no special listing for these varieties should be crafted. Instead, we are in favour of voluntary registration. The USA has a voluntary system where the variety registration, performance testing and seed certification are all voluntary, and there is no national variety release authority. It appears that a two system approach may be needed for South Africa: a system with mandatory basic provisions for registration for the 'industrial' seeds and a voluntary system of high assurance for registration and certification that enables cultivars of diverse varieties to legally market and access seed, which does not meet the current DUS testing requirements. Such a two pronged approach may auger well and be beneficial for the maintenance of agricultural biodiversity especially for those who are directly involved in the maintenance of crop diversity in the country, especially small heirloom, family gardeners and organic OPV seed enterprises.

Having said this, we do also strongly support the inclusion of measures for small farmers in order to safeguard the diversity on-farm as the continued maintenance of heterogeneous crop varieties is vital to ensure food security and resilient food systems for the future. We respectfully draw your attention to the **Ethiopia's Seed Proclamation**, which the Ethiopian government very recently published for comment (April 2013). The Seed Proclamation regulates the entry of improved seed onto the domestic market. The Proclamation clearly excludes from the scope of the law, the exchange and selling of farm saved seeds between small scale farmers; research purposes and for forestry and provides as follows:

"This Proclamation may not be applicable to:

- a) the use of farm-saved seed by any person;
- b) the exchange or sale of farm-saved seed among smallholder farmers or agro- pastoralists;
- c) seed to be used for research purposes; and
- d) forestry seed."

It is to be noted that this exception applies to ANY seed. This is so because small farmers generally do not make any distinction between seeds from the formal system and traditional/local varieties as long as these are useful for their needs and adapted to their farm conditions. Farmers are rarely content to use the same variety every season, fully aware of the constantly changing agro-climatic conditions and also in a constant effort to spread the risks of failure due to pests, diseases and weather patterns. Thus, on-farm experimentation is a constant feature of farmers' crop improvement and selection practices, in the same way that seed exchange and sharing is lifeblood of traditional crop breeding.

Our primary concern is that the law should not impede, inhibit or restrict small farmers from continuing their seed conservation and development efforts and we need assurances that farmers' efforts in seeds conservation and development will not be adversely affected.

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Another approach may be to provide for such similar exceptions as contained in the Ethiopian Seed Proclamation, concerning the activities of smallholder farmers (uses), subject to compliance with minimum quality standards, as opposed to regulation of the type of seed (heirloom, landraces etc).

Protection of germplasm and farmers' contributions

It is our view that the law does not adequately protect farmers from loss of traditional seed varieties and germplasm arising from commercial variety registration. We require the inclusion in the law, of provisions for the compensation to small farmers for the use of traditional knowledge and germplasm. It must be borne in mind that even varieties that are developed and owned by seed companies, public research institutions, and the multinational companies come directly from the common pool of germplasm, which is the product of 10, 000 years of human experimentation. It is important for the law to recognize the invaluable contribution of farmers in the continuous conservation, development and utilization of plant genetic resources that is responsible for the rich diversity that we have today. It is the obligation of the State to protect these resources and to ensure and promote farmers' conservation, development and utilization practices.

Disclosure of information

We need obligations to be firmly placed on an applicant for mandatory variety listing to disclose certain pertinent information such as source of material, parental lines and the passport data of the seed at the time of registration. These are usually mandatory under PBR legislation. Non-disclosure lends itself to abuse of monopolies since in the case especially of hybrid seed, no one except the person registering the seed can produce the same hybrid seed. Non-disclosure will run counter to our competition legislation as it indirectly through the registration process, grants exclusive marketing rights.

Schemes

In regard to these provisions, we look forward to seeing a linkage between the establishment of schemes by the Minister in consultation with small farmers, and the government's evolving agroecology Strategy. The corporate-industrial seed system has led, over time, to the decay of indigenous knowledge about seed and a greater reliance on the formal system than is the case in other African countries. It has also led to the neglect of important, but commercially marginal crops, being left out of variety improvement programmes. If agroecology is to flourish in South Africa, public institutions must be tasked with variety improvement, in tandem with farmers, to create appropriate crops for diverse food systems that do not rely on synthetic inputs. Agroecological systems rely on localised, hardy plants and livestock that include not just crops but green manures, animal fodder, medicines, wild vegetables, crops for shelter and energy to name a few. A collaboration between government and farmers also needs to deal with common problems faced by small holder farmers, such as loss of viability during storage and train farmers to manage their seed and breeding systems optimally.

Conclusion

We look forward to an improved Plant Improvement Bill, one that will be seen to be promoting the

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conservation and sustainable use of agricultural biodiversity. The law should not function as a barrier to this. Varietal change must be allowed during the commercial life of a variety; barriers to the marketing of traditional and or locally adapted varieties must be removed, and every effort must be made towards the development and maintenance of such varieties. Government needs to support and promote the creation of local seed enterprises and upscale existing initiatives. We strongly support the exemption of traditional varieties from the variety registration; oppose special lists being created for these varieties and support voluntary registration. The needs of seed users to know what they are buying could be met without all the varieties having to adhere to the strict requirements regarding distinctness, uniformity and stability.