

Implications for Farmer-Managed Seed Systems and Smallholder Farmers

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On 7 April 2015 the African Centre for Biosafety officially changed its name to the African Centre for Biodiversity (ACB). This name change was agreed by consultation within the ACB to reflect the expanded scope of our work over the past few years. All ACB publications prior to this date will remain under our old name of African Centre for Biosafety and should continue to be referenced as such.

We remain committed to dismantling inequalities in the food and agriculture systems in Africa and our belief in peoples' right to healthy and culturally appropriate food, produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.

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INTRODUCTION

Agriculture has been earmarked as one of the key sectors integral to economic transformation to bring Tanzania into a middle-income country by 2025 (Tanzania Planning Commission, Tanzania Development Vision 2025). The aim of this transformation is to embody a highly commercialized sort of agriculture and thus usher in a Green Revolution. The sector currently constitutes 75% of the Tanzania population and comprises mostly smallholder farmers who cultivate at least 91% of the arable land. Further, it contributes at least 26.5% of the Gross Domestic Product (GDP) (ACB, 2015a).

In Tanzania, the seed supply for agriculture is derived from both the formal and informal (also known as farmer managed seed system); 90% originating from of the farmer managed seed system while 10% stemming from the formal seed sector (Majamba & Longopa, 2012). There is a marked emphasis on the role of the private sector in the provision and commercialisation of improved seeds for farmers. There are also a number of public-private partnership (PPP) initiatives, coupled with policy reform in the agriculture and seed sector to cement the role of the private sector. An example of these PPPs is the G8 New Alliance for Food Security and Nutrition (NAFSN) which was launched in 2012 and is connected to the Tanzania Food Security Implementation Plan (TAFSIP) and other initiatives embedded within the Comprehensive African Agriculture Development Programme (CAADP). The G8 NAFSN has influenced to a great extent policy goals to favor domestic and international private investment.

In light of the wave of the PPP initiatives, seed legislation is being reviewed. In 2012 Tanzania enacted a new Plant Breeders' Rights Act aligned to UPOV 1991. Currently both the Tanzanian Seed Act of 2003 and its regulations of 2007 are under review. In July 2015 in Arusha, Tanzania, a regional harmonised PVP was adopted by African governments. The aim of the regional harmonisation of plant variety protection national laws is to increase the development of new plant varieties, especially



Africa Rising, Babati Tanzania.

S. Malyon, CIAT

from the private sector; facilitate movement and availability of improved seed as a commodity across the region in ARIPO member states; and further increase the participation of the private sector in the formal seed sector. However, none of these efforts recognise the role of the smallholder farmers - who provide 90% of the seed from farmer managed seed systems - or farmers rights as set out in the International Treaty on Plant Genetic Resources in Food and Agriculture (ITPGRFA).

Implications for smallholder farmers and their farmer managed seed systems are bound to be felt with the review of the seed legislation and the adoption of the PBR of 2012. While there could be positive changes envisaged within the revised law such as the expansion of the QDS system from the ward to the district level, there are concerns associated with the restrictions on the sale of uncertified seed, which offer no exemptions for farmer managed seeds.

OVERVIEW OF TANZANIA'S SEED **SECTORS**

Although the formal seed sector in Tanzania supplies a very small amount of improved seed to farmers in Tanzania, (about 4-10%), this sector attracts the lion share of public support, funding, and regulatory mechanisms. On the other hand, the farmer managed seed system remains unrecognized and unsupporteddespite providing at least 90% of the seed used by farmers. Studies conducted by the ACB in 2014 in Morogoro and Mvomero found that over 80% of local maize, legume and rice seed in use was non-certified and majority of farmers kept recycling seed from the previous harvest.

Private Sector involvement in the Seed Sector

Tanzania's commercial sector can be traced in the 1970's when support from USAID led to the establishment of seed farms, the Tanzania National Seed Company (Tanseed) and the Tanzania Official Seed Certification Agency (TOSCA). Liberalization and structural adjustment in the 1990's led to multinational seed companies entering Tanzania targeting profitable seed (mostly hybrid maize and some rice) where private seed companies released 17 hybrid maize varieties between 1993 and 2000. During the late the late 1990's the Tanzania Association of Seed Traders (TASTA) was established but only registered in 2002.

According to figures from 2011, Zimbabwe's Seed Co accounted to 46% of the seed market, followed by Pannar, Monsanto (both 9%) and Dupont (6%). Monsanto and Sygenta have pledged to expand their operations in Tanzania under the auspices of the G8 NAFSN; Monsanto in maize and vegetable seed and Sygenta in rice and vegetable seed.

Large international seed companies from Asia and Europe, East-West Seed of the Philippines and Dutch-based Rijk Zwaan, have entered into a joint venture called Afrisem to produce tropical vegetable seed for local and export markets in Arusha (ACB, 2015c). Another large international seed company from India, Advanta Seed has signed up to the G8 NAFSN in Tanzania and plans to increase adoption of improved varieties. Several other regional African seed companies also have presence in Tanzania, including East Africa Seed Company (Kenya), FICA (Uganda) and MRI (Zambia, now owned by Sygenta). The Kenya Seed Company (KSC) has a presence in Tanzania through its subsidiaries Simlaw (vegetables) and Kibo Seed (ACB, 2015c). Alliance for a Green Revolution in Africa has become a major player in domestic seed industry in Tanzania and has given grants

to 11 Tanzanian seed companies, more than any other countries in SSA including Tanseed which was fully privatised in 2002 (ACB, 2015c).

The business of seed supply is seen as a lucrative profit making arena, with corporations targeting the seed market in Africa. Smallholder farmers are likely to be highly dependent on seed from the commercial sector and incur the huge costs associated with buying certified seeds and the fertilisers that come along with it. Further to this, disregard of farmer-managed seed will lead to the erosion of farmers' varieties and landraces which are key in the conservation of agricultural biodiversity.

Regulation of the Formal Seed Sector

The Tanzanian Seed Act of 2003 provides a foundation for several institutions: a National Seed Committee which functions as an advisory body to the government, and also provides the regulations for compulsory seed certification, laboratory seed testing, variety evaluation and registration, under the Tanzania Official Certification Institute (TOSCI), a semiautonomous institute, responsible for seed certification and quality seed control. The Tanzania's Ministry of Agriculture, Food Security and Cooperatives is the main regulator of the country's formal seed sector. According to the government, farmers' rights are protected when it comes to access good quality seed. However, Tanzania's seed legislation does not recognise farmers' rights, farmer managed seed systems and local varieties. It does, however, allow for the participation of smallholder farmers in seed production through the QDS system only.

Lack of Recognition on the contribution of Farmer Managed Seed System in Legislation

Policy makers emphasise that there are no restrictions regarding the manner in which farmers use, save and exchange their own seeds, as long as this seed does not enter the commercial market, and confirm that they are not concerned with the farmer managed seed system/informal seed sector. The government may recognise the informal seed system if it



Village Based Agricultural Adviser and QDS farmer, Mr. Bakari, showing rice nursery on a Farmer Field Plot in Mvomero, Tanzania.

is organised and incorporated within existing governing institutions. This excludes the smallscale farmers, as funding commitments from private and public partnerships are directed to the private sector.

REVIEW OF THE SEED ACT OF 2003 AND ITS REGULATIONS IN **RELATION TO SMALL-**HOLDER FARMERS IN TANZANIA

The need for reviewing the Seed Act of 2003 and its regulations of 2007 aims to factor in; (a) on-going regional harmonisation in order to remove obstacles at the national and regional level and encourage investment in the seed market by new and existing entrepreneurs; (b) increase participation by the private sector in seed production in order to make seed available including by way of PPP in regard to the multiplication of public seed; (c) to control fake seeds (Department of Legal Unit, MAFSC). A first revision of the Seeds Act of 2003, the Miscellaneous Amendments which included several other laws and sections of the Seed

Act, were published in the Gazette of the United Republic of Tanzania (URT) on 16 May 2014. Further revisions of the Seed Act were conducted in 2015.

Regional Harmonisation and Impacts to Seed Legislation

Tanzania is a member of 2 regional economic communities, the East African Community (EAC) and the Southern African Development Community (SADC). The Seed Act of 2003 have been developed under the EAC/ASARECA harmonisation processes while Tanzania as part of SADC has also signed the SADC Seed Memorandum of Understanding (MoU) which allows registration of a plant variety released by any two SADC member states without further testing (ACB, 2015a). Harmonisation and rationalisation of seed laws across the region aim to ensure the movement and availability of improved seed as a commodity, to increase participation by the private sector in the seed sector, and to reduce the transaction costs involved in the movement and distribution of seed (Waithaka et al., 2011)

Quality Control and Access to Quality

It has been reported by both public and private sector stakeholders that at least 25-30% of



Rwanda Seed Systems, Bean seeds.

SGeorgina Smith, CIAT

certified seed is fake seed¹ (USAID, 2013). This shows the failure of the formal seed system on the precision of seed quality control process, despite its support and funding from the government. The Amendment of the Seed Act of 2014 provide for the appointment of seed certification officers, seed inspectors, samplers and analysts at the local government level. Additional regulations have been set for seed standards, seed classes, tests and labels for the sale of certified seed, and also specify that any seed dealer must ensure the quality of his/ her own seed and be registered before he/she can engage in any seed business. In the case of failure of seed to germinate, the Act requires that the seed dealer compensate the farmer or buyer of seed, according to evidence provided by seed certification officers, inspectors, samplers and analysts. The amendments also further restrict the sale of uncertified seed, untested seed or any seed that has not followed procedures under the Act with fine or imprisonment.

While all the changes regarding quality control are perceived as a benefit that will ensure the provision of quality seed to farmers and, at the same time, prevent unscrupulous seed dealers from selling fake seed to farmers, provisions relating to farmers' rights and the recognition of farmer managed seed systems have been omitted. Farmers engage fully in the seed sector, especially in regard to seed exchanges and the occasional sale of local

varieties or farm saved seeds to kin, neighbours or friends (social networks) community-based seed groups, and to local markets (McGuire & Sperling, 2016). Specific exemptions for small holder farmers should be considered as provided under the Ethiopian Seed Law [Seed Proclamation No. 782/2013] which recognises and provides exemptions for farm-saved seed. The Tanzanian government should adopt exemptions for farm-saved seed as per the Ethiopian law, and also restrict only those persons who sell seed that is not certified as certified, as proposed in one of the seed review meetings..

Expansion of QDS system to the district level, as proposed in the revision of the Act, should garner support in bridging the gaps in the seed system such as lack of financial resources and capacity building. The review process is still ongoing and it is debatable whether the new proposals will find their way into the final Act. If it does, it will represent some key victories for those farmers involved in the QDS. A further benefit would be to limit the prohibition on the marketing of uncertified seed to fake seeds only (i.e. uncertified seeds being sold as certified) and to sanction the marketing of farm-saved (uncertified) seed.

PLANT VARIETY PROTECTION (PVP) IN TANZANIA

WTO and TRIPS

Tanzania is a member of the World Trade Organisation (WTO) and subscribes to its Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement. Art. 27.3.b. of the agreement requires member countries to implement a form of PVP. The TRIPS allows states a degree of flexibility, and provides that members may implement a *sui generis* system; i.e. a system that is unique, or of its own kind, and which is tailored to the needs of plant breeders.

1. Fake seed include seed varieties that are; 1) of poor quality with low germination; 2) of poor quality with moisture and other varieties; 3) have been altered with grain; 4) repackaged in fake containers; 5) sold with expired labels; and/or 6) not registered in the national variety catalogue.

However the model of protection developed under the Union for Protection of New Varieties (UPOV) is promoted by the international seed industry as the only model that will give investors confidence. UPOV and in particular the current convention open for membership, UPOV 91, grants extremely strong rights to breeders and severely limits farmers' rights to recycle, exchange and trade farm-saved seed of protected varieties. This is clearly undesirable for countries where farmer managed seed systems are dominant.

Tanzania joined UPOV 91 in November 2015 and is one of the first LDC countries to join UPOV through its revision and adoption of a new Plant Breeders' Rights Act (PBR) of 2012 and Zanzibar's PBR Act of 2014. There is also a lot of pressure for the regional harmonisation of UPOV-style PVP laws through Regional Economic Communities (RECS) and regional Intellectual Property institutions such as the African Regional Intellectual Property Organisation (ARIPO). Such harmonization will allow breeders including and especially the seed industry to claim intellectual property right protection in several countries across the ARIPO region, in one swoop. This will not only drastically reduce their transaction costs but will ensure their protection on the seeds is recognised and enforced uniformly across the region. On 6 July 2015 at a diplomatic conference in Arusha the Protocol for the Protection of New Varieties of Plants (the 'Arusha Protocol') was adopted. It will come into force once it has been ratified by four countries. Tanzania hosted the Diplomatic Conference at the time and signed the Protocol later in September 2015.

The PBR and Implications to small holder farmers

The Tanzania PBR of 2012 accords stronger rights to breeders, at the expense of rights for farmers, regarding saving, reusing and exchanging propagating material of protected varieties whether these emanate from the private or public sectors. However, the Tanzanian government states that the Act does not restrict the rights of farmers, because the law provides for activities conducted privately and for non-commercial purposes

under section 31 (1) (a). The government further stipulates that breeders' rights do not extend to farmers who use harvested material from planting protected variety for propagating purposes on his/her own holding of a particular variety. Nevertheless, farmers use improved protected varieties from time to time, and restrictions on the saving and exchange of these varieties without authorisation will have an adverse effect on their food production systems. Further to that farmers still conduct local trade of all seed in their systems even on a small scale and the Act may have the effect of eroding these practices. In addition, legal prohibitions on farmers from exchanging seed will result in the loss of genetic material which contributes to the development of locally appropriate seeds and crop diversity.

Impacts on Zanzibar

In order to approve Tanzania's PBR Act, UPOV required that both mainland Tanzania and Zanzibar present their separate laws. However, according to the Constitution of the United Republic of Tanzania of 1977, agriculture is a non-union matter between Tanzania mainland and Zanzibar. Thus it would require that each part of the Union enact a separate law but in harmony. It appears that Zanzibar's process for the enactment of a UPOV compliant legislation was a rushed process, with limited understanding of the implications for farmers, civil society and other stakeholders about the possible impacts of adopting such a PBR Act.

Farmers Rights and the Seed Treaty

The International Treaty on Plant and Genetic Resources for Food and Agriculture (ITPGRFA affirms that the rights recognised to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision making, and in the fair and equitable sharing of the benefits arising from the use of plant genetic resources for food and agriculture, are fundamental to the realisation of farmers' rights, as well as the promotion of farmers' rights at national and international levels. It requires its contracting parties to take responsibility for realising farmers' rights and to take measures to protect and promote farmers' rights. Tanzania ratified the (ITPGRFA)

in April 2004 and began the process of domesticating in 2007 when Tanzania initiated the development of a legal framework for Plant Genetic Resources for Food and Agriculture. Unfortunately the domestication process of the treaty in Tanzania is at a stand-still. The draft document has been stalled at the Cabinet level for a lengthy period of time and it seems that there is no rush by the Tanzanian government to adopt the Treaty. The implementation of farmers' rights under the Treaty rests solely within the jurisdiction of contracting parties as opposed to it being an international obligation in terms of law. In any event, even if legislation is enacted to give effect to the Treaty's provisions on farmers' rights, it is highly likely that such legislation will be subservient to the PBR Act. For Tanzania, striking a balance between the Treaty and its PBR will means that amendments will have to be made to the Act, to include farmers' rights.

CONCLUSION

The current Tanzania law reform process is designed to support public-private partnerships and policy commitments as well as to attract further investment in agriculture. PPPs are the preferred vehicles for agricultural development at present and this is likely to continue in the future. While such partnerships can build institutional and technical capacity in seed, research and development and extension services, support is inclined towards the protection of private interests and profits.

Seed law reform has neglected farmer managed seed systems and their contributions to the seed sector in Tanzania. In particular, the Seed Law does not provide exemptions for smallholder farmers with regard to on farm-saved seed. Lack of awareness about this reform, its intent and impact of the legislation on smallholder farmers is shared by many different groups; it is the government and the private sector who are defining and shaping the policy agenda.

The Tanzanian government should develop policies that prevent commercial seed encroachment that damages farmer seed systems and leads to loss of agricultural biodiversity. It should explicitly recognise farmers' rights and support flexible and adaptive seed quality control processes appropriate to local conditions. Specifically it should recognise and provide for exemptions in the seed law for all uses of farm-saved seeds so as not to criminalise farmers' activities concerning seed, and remove propriety ownership on all seed once it enters the farmers' seed system. Furthermore, public resources through programmes and budgets should be channelled towards experimentation and development in farmers' existing seed systems through the improvement and development of farmers' varieties. Farmers should not only be seen as the end user but as part of the process as breeders and seed producers in meeting the demand of seed in the seed sector.



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