



RESISTING CORPORATE TAKEOVER OF
AFRICAN SEED SYSTEMS AND BUILDING
FARMER MANAGED SEED SYSTEMS
FOR FOOD SOVEREIGNTY IN AFRICA

2017



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The Alliance for Food Sovereignty in Africa brings together small-scale food producers, pastoralists, fisherfolk, indigenous peoples, farmers' networks, faith groups, consumer associations, youth associations, civil societies and activists from across the continent of Africa to create a united and louder voice for food sovereignty.

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EXECUTIVE SUMMARY

Seed is an important entry point for development interventions that can potentially deliver an array of benefits for smallholders, including improved nutrition and food security, livelihoods, environmental benefits and resilience to climate change. Seed and agriculture also play an important role in community cohesion and culture in many African societies. The way that seed is considered through policy, funding and project implementation has a profound impact on the shape of agro-food systems, nutrition, socio-economic systems, social justice and environment. One of the most striking findings of this research is the prevalence and power of a particular narrative that runs through international policy, through national governments and development agencies and all the way to the grassroots, that asserts that it is crucial to replace farmers' varieties with improved varieties, and to 'modernise' African agriculture in order to deal with hunger on the continent. This approach is embedded within a 'Green Revolution' logic that assumes that access to and use of improved varieties and related inputs will lead to greater yields, which will lead to increased income and food security. However, the narrow focus on yield and productivity and the lack of acknowledgement of the multifunctional nature of seed and agriculture in Africa has resulted in blindness to the potential impacts of this model on socio-economic systems, food security, health, social justice, environment and culture.

Two seed related policy processes are being advanced under the guise of this 'feed the world' narrative:

- 1) the implementation of plant variety protection (PVP) regimes that are strongly skewed in favour of breeders' rights over farmers' rights to attract investment from the private seed industry - based on the International Union for Protection of New Varieties of Plants (UPOV) 1991 Convention;
- 2) tightening or development of seed trade laws that privilege 'improved varieties' on the market and severely restrict the trade and exchange of farmers' varieties, which

are deemed to be unproductive and unreliable, thereby causing hunger. An array of stakeholders with vested interests are pushing these policy processes at national levels, as well as implementing projects to harmonise policies through regional bodies in order to create larger markets to operate in and to reduce the regulatory hurdles and costs involved in registering, certifying and diffusing seed.

The implementation of these policies and laws are designed to profoundly transform African agricultural systems right from the roots and create what the International Panel of Experts on Sustainable Food (IPES-Food) call a "path dependency" to lock the continent into industrial agriculture. These seed-related laws privilege seed bred to yield in industrial agriculture systems while eroding Farmer Managed Seed Systems (FMSS) through a number of means, such as criminalising the trade of farmers' varieties and reshaping public funding and research agendas to suit the needs of the seed industry. Ill-conceived seed aid interventions and other agricultural development programmes, such as Farmer Input Subsidy Programmes (FISPs), go hand in hand with this approach, displacing FMSS and eroding farmers' autonomy, skills and agricultural diversity.

Three regional bodies - the African Regional Intellectual Property Association (ARIPO), its French counterpart OAPI, and the Southern African Development Community (SADC), have implemented harmonised PVP laws, which taken together represent 42 African countries. The East African Community (EAC) has signalled its commitment to beginning a similar process. Pressure is also exerted at national level for countries to implement local PVP frameworks based on UPOV 1991.

There has already been substantial work carried out by AFSA members and others players in resisting UPOV-style PVP regimes at national and regional levels. This work has included analysis of the laws, capacity building and the development of campaigning materials,

national and regional advocacy including substantial submission on policies, attendance at relevant decision-making fora and media work. A key focus at the moment is lobbying member states of ARIPO not to sign or ratify ARIPO's Arusha Protocol for the Protection of New Varieties of Plants, which was adopted in July 2015. The Protocol will come into force once four countries ratify. In December 2016 the UN Special Rapporteur on the Right to Food, Dr Hilal Elver, gave her support for this campaign when she wrote an open letter to ARIPO member states warning of the potential impact the Arusha Protocol and similar PVP regimes modelled on UPOV 91 will have on the right to food.

In terms of harmonisation of seed trade laws, three West African regional economic communities (RECs) have harmonised their regulations – the Economic Community of West African States (ECOWAS), West African Economic and Monetary Union (WAEMU) and the Economic Community of West African States (CLISS). In addition, SADC and COMESA and have each implemented harmonised seed trade regulations. All have developed regional variety catalogues for the regional trade of certified seed. However, the regulations of these RECs are not in harmony with one another or necessarily with the national laws of their members. For each of the mentioned RECs, the harmonisation process may in many instances require amendments to national seed laws to ensure compliance and these processes could further threaten FMSS. But at the same time, reviewing national seed laws could also open opportunities to lobby for greater acknowledgement and support for FMSS, if civil society is vigilant and prepared.

SA n alternative and ignored narrative on how to approach the problem of hunger in Africa is based on the reality of African farmers' experience, as well as on cultural norms and values that embrace seed and agriculture beyond commodification. African smallholders produce 80% of the food in Africa on just 14.7% of the agricultural land and control 80% of the seeds produced and exchanged. The majority of these smallholders are women. Farmer managed seed systems are complex, multifunctional and resilient and these systems, not the formal seed industry, form the backbone of African agriculture. However, FMSS are neglected in policy, funding, research and extension support, leaving them exposed to genetic erosion and impeding their ability to adapt to the vagaries of climate change, new pests and the array of other challenges encountered in agricultural production.

The United Nation's Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources in Agriculture (ITPGRFA) both acknowledge the contribution of farmers in the development and conservation of agricultural diversity and set up mechanisms to facilitate the flow of genetic materials that are important for agriculture. The ITPGRFA is the only international legally binding instrument that recognises Farmers' Rights. Forty-three African countries are party to the ITPGRFA and therefore have a clear obligation to take steps to domesticate measures on Farmers' Rights and to develop policies that promote the sustainable

use of plant genetic resources for agriculture (PGRFA). The ITPGRFA's implementing programme, the Second Plan of Action, aims to provide support at national level for a wide range of activities that could support the strengthening of FMSS, including work on in-situ and ex-situ conservation, sustainable use of PGRFA including support for plant breeding and diversification of crop varieties for sustainable agriculture and support for seed production and distribution, and building human and institutional capacity. Unfortunately, despite the fact that the majority of African governments are signatories to the ITPGRFA, there is a lack of political will to domesticate Farmers' Rights legislation at national level or to engage with programmes focussed on promoting the sustainable use of plant genetic resources.

Many organisations are working intensely at grassroots level supporting and building FMSS, for example through community and household seed banks, seed caravans and fairs. This work is currently being carried out in a policy vacuum and within the 'grey areas' of the law because while policy to promote and support the formal seed industry is advancing across the continent apace, the policy environment to support and build FMSS is largely absent at national and regional levels. It is therefore important role to bringing actors together, with farmers at the forefront, along with relevant experts to share information, best practices, challenges and critiques to inform and formulate policy in this regard and advocate at all levels for implementation and financial support.

Recommendations:

AFSA has already identified the need to implement a two-pronged approach to the problem – on the one hand building capacity and solidarity to resist those laws and policies that seek to replace or undermine FMSS, namely plant breeders' rights laws and seed trade laws, and on the other, to work at strengthening FMSS. This research has identified a gap in policy to support FMSS.

At international level there is a clear role to formally engage with the ITPGRFA and to play a role in exerting pressure on pan-African, regional and national bodies to implement their obligations on Farmers' Rights and the promotion of sustainable use of plant genetic resources. There is also a role to play in accessing opportunities for funding, technical support and pilot projects in terms of the Second Plan of Action, to support on-going work on strengthening FMSS at national level.

At the pan-African level farmers, support organisations, experts and a wider range of social movements and stakeholders must come together in a long-term consultative process to critically discuss the state of FMSS on the continent, elaborate a shared vision and the potential policy frameworks or mechanisms to effectively support and develop resilient FMSS. It is recommended that FMSS is placed on the African nutrition agenda, possibly through engaging with the AU's Africa Regional Nutrition Strategy (ARNS) and the Africa



Renewed Initiative on Stunting Elimination (ARISE), and the Scaling up Nutrition (SUN). In terms of resisting industrial style seed policy, pan-African platforms are needed for actors resisting seed harmonisation laws to share their research, to debate and clarify positions, build solidarity and prepare joint plans and proposals. It is crucial for farmers to be involved and well capacitated on these issues. Civil society should also engage with the AU's AfricaSeeds project to counter the strong industry element that is defining the African policy and programme agenda on seed.

Important regional work includes supporting work to stop ARIPO member states from ratifying the Arusha PVP Protocol and monitor activities in the RECs on seed harmonisation. SADC, COMESA and ECOWAS are all underway; EAC is about to initiate activities.

At national level, vigilance is needed with regard to the revision/development of national seed and PVP laws to comply with harmonisation efforts. Work may include building capacity on these issues and using the pan-African voice to strengthen key national campaigns at crucial moments, for example through media statements, petitions or open letters to key institutions, etc.

In terms of building a positive narrative around FMMS and building evidence-based campaigns for the support of FMSS, case studies of best practice and challenges should be compiled, to raise awareness and strengthen FMSS practice and inform policy.

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List of Abbreviations

ABS	Access and benefit sharing
AFSTA	African Seed Trade Association
AGRA	Alliance for a Green Revolution in Africa
ARIPO	African Regional Intellectual Property Organisation
ARNS	Africa Regional Nutrition Strategy
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
ASBP	African Seed and Biotechnology Programme
ASN	African Seed Network
ASTA	American Seed Trade Association
BMGF	Bill and Melinda Gates Foundation
CAADP	Comprehensive African Agricultural Development Programme
CBD	Convention on Biological Diversity
CEN-SAD	Community of Sahel-Saharan States
CLISS	Permanent Inter-State Committee for Drought Control in the Sahel
CNOP	National Coordination of Farmer organisations
COASP	West African Committee for Farmer Seeds
COMSHIP	COMESA Seed Harmonisation Implementation Plan
DUS	Distinct Uniform and Stable
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
FANRPAN	Food, Agriculture and Natural Resources Policy Analysis Network
FAO	UN Food and Agriculture Organisation
FIAN	Food First Information and Action Network
FISP	Farmer Input Subsidy Programme
FMSS	Farmer managed seed systems

ISSD	Integrated Seed Sector Development
ISTA	International Seed Testing Association
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
NAFSN	New Alliance for Food Security and Nutrition
OAPI	African Intellectual Property Organization
PBR	Plant Breeders' Rights
PVP	Plant Variety Protection
QDS	Quality Declared Seed
REC	Regional Economic Communities
TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights
TWN	Third World Network
UPOV	International Union for the Protection of New Varieties of Plants
USAID	United States Agency for International Development
WTO	World Trade Organisation
ZIMSOFF	Zimbabwe Small-scale Organic Farmers' Forum

Introduction

Farmers' Rights are recognised as 'rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources for food and agriculture'. (FAO, Resolution 5/89). The recognition of farmers' rights is due to the undeniable reality that the vast agricultural diversity that sustains humankind, and will continue to do so in a rapidly changing future that needs to adapt to climate change, is the result of the innovation and effort of farmers over countless generations.

It is not only the resources that are precious and in need of protection, but also the cultures, worldviews and ecologies in which these resources are embedded. Smallholder farmers currently provide as much as 70% of the sustenance for our global population (FAO, 2013). It is testament to their knowledge, innovation and labour that they continue to do so, very often in harsh conditions and largely in the absence of support.

By stark contrast, industrial agriculture – propped up by vast subsidies, preferential policy and institutional support, and jaw-dropping research and development budgets – only provides some 30% of our global food. In addition, it does this in a highly inefficient and damaging manner – grabbing and clearing vast lands for monocropping, accounting for more than 80% of fossil fuel emissions (ETC, 2014), and using as much as 70% of the world's fresh water (OECD, 2017). Furthermore, the shift from traditional

methods to industrial agriculture has resulted in genetic erosion (FAO, undated) - it is estimated that the narrow focus on just a few commercially viable crops, breeding of genetically uniform varieties and the aggressive imposition of this system on our agricultural practices, has resulted in the loss of 75% of our global agrodiversity in just 100 years (UN General Assembly A/64/170).

African farmers have steadfastly chosen their own varieties over so-called improved varieties, despite attempts since the 1960s to introduce 'improved varieties' to Africa. A recent study drawn from observations across six African countries and covering 40 crops, found that farmers still access an astonishing 90% of their seed from the so-called informal system. (McGuire, S. & Sperling, L. 2016). In another analysis on the impact of seed aid on farmer managed seed systems (FMSS), it was found that these systems are exceptionally resilient under stress but can be undermined by ill-conceived seed-aid (McGuire and Sperling, 2013) and other programmes focused on the distribution of improved varieties such as Farmer Input Subsidy Programmes (FISPs).

However, the seed industry has concocted a narrative that places hunger squarely at the door of African smallholders and their "backward practices" and "low yielding, diseased seed" (e.g. see AFSTA, 2017). This narrative has found traction amongst many African governments, which are acquiescing to industry demands for enabling legal and policy environments to attract the formal seed industry. They propose nothing less than the wholesale replacement of FMSS (which are based on community cohesion and a diversity of locally adapted farm saved seed) with a small portfolio of 'improved varieties' bred to produce high yields in industrial agricultural systems.

To support the expansion of the private seed industry on the continent, a raft of new policy and legal changes are on the table. Two distinct areas are targeted, namely the establishment of Plant Breeders' Rights (PBR) regimes and the revision or implementation of seed trade laws that regulate standards and procedures to place seed on the market. Strict PBR regimes that are designed to benefit the seed industry are being imposed on multiple countries simultaneously through regional organisations such as the African Regional Intellectual Property Organisation (ARIPO) and its francophone counterpart OAPI, as well as through Regional Economic Communities (RECs) such as the Southern African Development Community (SADC) and the Economic Community of West African States (ECOWAS) (ACB, 2012). At the same time programmes are underway to tighten national seed trade laws which govern seed certification and phytosanitary standards to privilege 'improved varieties' on the market and to criminalise and vilify FMSS. Programmes to harmonise these laws are similarly underway through the RECs, most notably COMESA, SADC and ECOWAS.

According to the ACB the powerful players behind this lobby are numerous and include: African regional trade blocs already mentioned; ARIPO; the World Bank; the United States Agency for International Development (USAID); Citizens Action for Foreign Affairs; the US patent and trademark office; the Seed Science Centre at Iowa State University; agrochemical/seed companies such as Monsanto, Syngenta, Pioneer Hi-Bred; seed associations such as the African Seed Trade Association (AFSTA); the Food and Agriculture Organisation (FAO); public sector research institutions such as the CGIAR; Grow Africa; the G8 New Alliance for Food Security and Nutrition

(NAFSN); and African research institutions such as the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)¹ (ACB, 2012).

This wholesale onslaught against FMSS is in direct conflict with obligations to give effect to Farmers' Rights under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), of which 43 African countries are currently contracting parties. These efforts also infringe on human rights, particularly the right to food and in many instances on Indigenous Peoples' Rights. (Christinck, A. & Walle Tvedt, M., 2015)

AFSA has engaged in fierce resistance against the imposition of these unjust laws through its membership and through submissions and statements to key regulatory bodies such as ARIPO and COMESA. In a complimentary manner, AFSA members have continued to work at grass roots level to celebrate, revitalise and strengthen FMSS and the cultures in which these systems are embedded. However, this grassroots work is being done largely in a policy vacuum and within the 'grey areas' of the law, because while policy to promote and support the formal seed industry is advancing across the continent apace, the policy environment to support and build FMSS is largely absent at national and regional levels. It is therefore to bring together civil society actors, with farmers at the forefront, along with relevant experts, to share information, best practices, challenges and critiques to inform and formulate policy in this regard and advocate at all levels for implementation and financial support.

¹ The African Centre for Biodiversity has a wealth of research on these players, available at www.acbio.org.za. AFSA and GRAIN have also produced an in-depth look at key players in their 2015 publication, *Land and seed laws under attack*. <https://www.grain.org/article/entries/5121-land-and-seed-laws-under-attack-who-is-pushing-changes-in-africa>

1. Background

1.1 Seed Systems

Seed is an important entry point for development, opening up possibilities for the delivery of multiple benefits for smallholder farmers, including improved nutrition, productivity and resilience in the face of climate change. Seed also plays an important role in the social fabric and cultural or spiritual life of many African communities.

“There are many varied and opposing philosophies that shape seed sector development, depending on what the actors see as the starting point for system entry” (McGuire, S. & Sperling, L., 2016). In most instances, two seed systems are recognised – formal and informal and there is now a growing recognition of a third – what is becoming known as integrated seed systems. Another important mechanism for the distribution of seed is through seed aid and development programmes of governments or development agencies. Seed for development and aid is usually strongly tied to the formal sector.

Farmer Managed Seed Systems (FMSS)

Farm-saved seed and community-based seed systems form the bedrock of African agriculture, and are the source of more than 90% of most farmers’ seed. These seeds are from the informal sector, i.e. not certified and regulated according to industry standards. The Food Sovereignty Movement rejects the use of the term ‘informal sector’, as it may imply a sector that is somewhat disorganised and inferior to the formal sector.

Farmer managed seed systems (FMSS) better describes the agency of farmers and the social systems and norms that regulate FMSS, and points to the value that these systems hold in their own right.

FMSS is not only about seed, but also the social and institutional context in which they are deployed. Issues that need to be addressed may include for example, the role of farmers in plant breeding; sources of public sector germplasm and farmer access; seed selection, enhancement and production in the field; seed storage, seed banks, and in situ conservation; culture, indigenous knowledge, women’s knowledge; nutrition; revitalisation and repatriation of indigenous varieties and building of seed diversity; social networks and protocols around seed exchange and management; intersections with formal seed systems and possible benefits and threats to farmer seed systems; and the role of extension services and farmer organisations in supporting and strengthening farmer seed practices (ACB, 2016). There is a recognition that these systems, like industrial systems, will benefit from support, research and development. However, the multifaceted nature of FMSS described above needs to be acknowledged if support is to be appropriate and beneficial.

“Farm saved seed” may refer to any seed that farmers have saved and reused for more than one season and may include seed that was previously certified but was not purchased or distributed through registered seed agents in the past season (ACB, 2016). Protected seed enters into FMSS in a variety of ways, including occasional purchase and distribution by government and development agencies.

The Formal Seed System

The formal system is a highly regulated linear chain of seed production, marketing and distribution. Regulations maintain varietal identity and purity, physical, physiological and sanitary quality. There is a clear distinction between what is called “seed” and what is called “grain”. This distinction has come to posit only certified seed as “seed”, while farmers varieties are categorised as grain, thereby in many cases being exempt from laws regulating “seed”.

Improved varieties are marketed and distributed through official outlets, with significant flows to and from the informal sector (ACB, 2015). Strong protection over plant breeders’ rights (PBRs) is considered vital to stimulate innovation and recoup the costs of research and development, as well as protect industry players from each other in a highly competitive system. The International Union for the Protection of New Varieties of Plants (UPOV) is one of the major international bodies dedicated to ensuring the rights of plant breeders. Seed testing for certification purposes generally follow standards set by the International Seed Testing Association (ISTA). For the most part, seed in the formal system must be Distinct, Uniform and Stable (DUS) to be certified or registered for PBRs. Farmers’ varieties do not conform to these standards, in fact their genetic diversity, as opposed to uniformity, is a treasured characteristic that gives rise to immense diversity and resilience. The genetic uniformity required by DUS standards contributes to the erosion of both genetic and nutritional diversity.

The formal seed industry is only able to provide a narrow portfolio of seed – with global seed companies specialising in field crops and particularly maize, which is the main ‘engine of growth’ for the formal sector on the continent and the centre piece of most of the continent’s FISPs (ACB, 2015). For the most part, vegetable seeds are imported due to lack of specialised facilities, with a few exceptions such Kenya Seed Company and Victoria Seed. Regional (as opposed to global) seed companies may offer additional field crops

such as dry beans, soybeans, sorghum and wheat as well as locally sought after ‘neglected’ crops (Access to Seeds Foundation, 2016). Ultimately, the formal industry has neither the will nor the capacity to service the diverse seed needs of African farmers and their portfolio is dwarfed by the sheer scale and diversity of FMSS.

Quality Declared Seed (QDS)

The Quality Declared Seed (QDS) system is an aspect of the formal system. It is a seed quality control mechanism developed by the FAO to relax seed certification criteria in areas where seed markets are not functional and government resources are too limited to effectively manage comprehensive certification systems (Grain, 2005). Under QDS, seed producers are responsible for quality control, while government agents check limited portions of seed lots and seed multiplication fields. QDS is geared towards the production and distribution of ‘improved’ formal sector seed and for the most part still requires seed to conform to DUS requirements, effectively excluding farmers’ varieties.

Integrated Seed Sector Development (ISSD)

Initiatives have emerged in the last decade or so that recognise the value of both FMSS and the formal sector, the ways in which they interact, and how farmers draw on both. Most notable is Integrated Seed Sector Development (ISSD) promoted by the Netherlands Ministry of Economic Affairs and the Bill and Melinda Gates Foundation (BMGF). This programme aims to facilitate connections between these two systems. However the focus remains primarily on the formal sector and the market, while acknowledging FMSS. The AU’s Agriculture Biotechnology Seed Programme (ABSP) has endorsed the ISSD methodology.

Seed for aid and development

Seed security is seen as important for food security, and hence in times of food crises a common response is to provide seed aid. For

48 countries (McGuire, S. and Sperling, L., 2013). Seed aid is a pillar of the seed system in a number of countries, including Burundi, the Democratic Republic of Congo (DRC), the Republic of Congo, Kenya, South Sudan and Zimbabwe (ACB, 2014). The promotion of improved varieties through subsidy is also generally seen as key to modernising African agriculture, thereby creating food security. The FISPs, which channel large portions of national agricultural budgets into the purchase and distribution of particularly maize seed and fertilizer, are a prime example². As the ACB points out, these are actually corporate subsidies, not farmer subsidies (ACB, 2016).

In many instances seed aid and development interventions destroy the natural resilience of farmer managed seed systems, leaving them worse off than before. According to McGuire and Sperling, “poorly designed seed aid can actually undermine resilience by: providing mal-adapted or untested new varieties; narrowing the diversity of crops/varieties in key supply channels; ‘crowding out’ local seed enterprises; or weakening farmers’ adaptive behaviours through dependency on repeated aid” (McGuire, S. & Sperling, L., 2013). Evidence drawn from four Seed System Security Assessments (SSSAs) in Zimbabwe, South Sudan, Kenya and Haiti, found that “even immediately after a crisis, farmers’ own stocks and local markets supply the majority of seed (57–92% across sites), with gifts via social networks also important in some setting. In contrast, agro-dealers and government projects provide only modest amounts of seed, and mostly of maize” (McGuire, S. & Sperling, L., 2013: 648).

Supply driven seed aid interventions are what the International Panel of Experts on Sustainable Food Systems (IPES-Food) refer to as a “lock-in” to industrial agriculture through the creation of “path dependency” (IPES-Food, 2016). McGuire and Sperling recommend that seed aid initiatives

need to begin with more thorough understanding of the context in which they are deployed, ensure feedback loops, recognise the multifaceted utility of agriculture and plan toward context specific goals – e.g. nutrition, resilience, livelihoods etc., instead of the current standard goal of increased productivity through improved varieties.

Women and seed

Women, who constitute the majority of Africa’s farmers, are the ones most affected by loss of land and seeds (ABN & Gaia Foundation, 2015). In the Green Revolution logic, when any attention is given to women, it usually aims to assist them to participate in the formal economy. Viewed through this narrow lens, seed is simply a commodity. Regassa Feyissa, veteran in Farmers’ Rights and FMSS is of the opinion that the conflation of production-for-food and production-for-commerce in our global and national policymaking is the fundamental misunderstanding that persists and creates deep injustice, and impacts negatively on our biodiversity³.

African small-scale farmers are mainly women and produce 80% of the food in Africa on just 14.7% of the agricultural land, and control 80% of the seeds produced and exchanged. Although in some instances men are involved in managing seed, women have traditionally played a central role in selection, storing and the enhancement of seed diversity. They are the ultimate custodians of our biodiversity, resilience, and medicinal and nutritional base. “The complexity of this knowledge system, the intimate relationship that rural women tend to have with land and seed, and their understanding of the range of needs of the family and the community cannot be underestimated. It has evolved over generations. This knowledge lies at the heart of women’s continuing role in building resilience and in their

² For a detailed description of the mechanisms and impacts of the FISPs in Southern Africa, see *Farm Input Subsidy Programmes (FISPs): A Benefit for, or the Betrayal of, SADC’s Small-Scale Farmers?* <https://acbio.org.za/wp-content/uploads/2016/07/Input-Subsidies-Report-ACBio.pdf>

³ “the policies set in many countries are meant for the commodity producing sector but applied to the food producing sector... both sectors are important but need to be treated separately. This is where the confusion in policy setting persists due to external pressure in particular and also at home and globally due to improper perception of the two sectors. This goes up to the Treaty’s Farmers’ Rights issues that have not been resolved for the past thirty or more years.” Regassa Feyissa, personal communication 21 July 2017

status in the community” (ABN & Gaia Foundation, 2015). However, aggressive corporate agendas and a one-tracked focus on commodification are threatening this knowledge.

Hence, “a profound and radical policy shift that stops the corporate handover of Africa’s land and seeds, and focuses on supporting small scale

farming instead, is urgently needed” (ABN & Gaia Foundation, 2015). At the same time efforts need to be made to ensure that women pass on their seed-related knowledge and skills, to engage women farmers in policy making and to support and link women through Food Sovereignty and other social movements (ABN & Gaia Foundation, 2015).



Resilient seed systems

A key characteristic of industrial agriculture and associated seed systems is the tendency to measure success in terms of increased yield, which should translate into increased profit. This narrow focus has resulted in blindness to impacts on socio-economic systems, health, environment and culture. It is vital that engagement with FMSS encompasses the complexity and multifaceted functions of seed in African agriculture. McGuire and Sperling have developed some useful concepts and tools to better engage with FMSS with the goal of supporting and building resilient seed systems and hopefully informing more appropriate interventions with regard to seed. They define resilient seed systems as having “the capacity to absorb shocks and stress, and reorganize so as to maintain and strengthen seed security over time.” The following principles of resilience may provide a basis for discussion about new indicators of successful seed systems:

1. Perspective of the whole system is important, beyond just the material seed, for example including social systems embedded in particular environments, the various institutions that are active.
2. Resilient seed systems have the capacity to absorb shocks and adapt, while retaining their essential structure, function and identity. Therefore, it is more important to focus on retaining the way a seed system functions than on maintaining discreet elements, such as a crop profile.
3. Diversity is key in the face of unpredictability and change; including diversity in terms of crop and variety, but also in other aspects, e.g. supply channels.
4. Short and long term strategies are necessary to ensure that the right seed is available and accessible for imminent planting as well as several subsequent seasons. Strategies that accommodate learning and flexibility are preferable to setting fixed outcomes.
5. Technology provision must be strategic and informed by relevant information.
6. Feedback loops must be fostered between different parts of the system, e.g. between farmer-clients and suppliers, traders and formal institutions.
7. A repertoire of flexible responses should be available to maintain current seed security features (availability, access and utilisation), while allowing farmers to evolve their systems in light of new positive possibilities.
8. Trade-offs between multiple stresses and risks must be considered in light of smallholders’ vulnerability and small margin for risk, e.g. introducing cash crops for income generation prior to the development of real market demand. (Adapted from McGuire and Sperling 2013).

1.2 A brief history of seed systems policy development in Africa

The first projects aimed at modernising African agriculture and replacing farmers varieties with so-called “improved varieties” began as early as the 1960s and ‘70s, when simultaneous processes were happening in Asia and Latin America. During this period many African countries developed national seed systems through their colonial agricultural research foundations with backing from the FAO and the World Bank. Elements of these programmes included breeding, multiplication programmes, state seed companies, seed regulations and subsidies and loans to tempt farmers into the system (Grain 2005). The next phase of the plan was to privatise the breeding programmes and seed companies with accompanying legal frameworks to remove trade barriers and attract foreign investment, ultimately shifting control of seed from farmers to the private sector (GRAIN 2005). However the plan stalled partly because farmers steadfastly preferred their own seed because the seeds produced through these programmes did not correspond with or fulfil their diverse needs.

The whole process was given new impetus in the late 1990s following structural adjustment processes, trade liberalisation and consolidation in the global seed industry. Various initiatives to harmonise seed-related law and policy began in earnest, backed by USAID and certain European governments, CGIAR and the largely USAID founded organisation ASARECA. In 1999 the American Seed Trade Association (ASTA) set up the African Seed Trade Association (AFSTA) to advance the harmonisation agenda to facilitate easy trade in large markets. An explicit mark was set to secure a 5% increase in US seed exports to the region within its first five years (Grain 2005).

In recent years there has been a renewed interest in ‘modernising’ African agriculture and funds for this project are being invested by

the agricultural input industry, governments, philanthropic capitalists such as Gates and AGRA and big NGOs. Over the past year, there have also been several mergers in the pipeline in ‘Big Agriculture’, which has resulted in the most unprecedented consolidation in the global seed (and agrochemical sector). The ‘Big Six’ (Monsanto, Syngenta, Du Pont, Dow, Bayer and BASF) will potentially become the ‘Big Three’, as plans go ahead for mergers between Monsanto/Bayer (already approved with conditions in South Africa), Dow/ DuPont and ChemChina’s acquisition of Syngenta (ACB 2017). These ever-growing behemoths must find new markets as they grow in a context where industrialised markets of the global north are fairly stagnant and for them to find those markets in Africa, they require an enabling policy environment and large harmonised markets to operate in.

AFSA, through its membership, has been engaging in and resisting against two major policy processes that are designed to lock Africa into industrial agriculture and create perennial dependence on the private sector for agricultural inputs and further down the line, machinery. These are intellectual property laws, which grant state-sanctioned monopolies to plant breeders (at the expense of farmers’ rights), and seed marketing laws, which regulate trade in seeds –often making it illegal to exchange or market farmers’ seeds (AFSA & Grain, 2015).

- **Plant variety protection (PVP) or Plant Breeders’ Rights (PBRs)** are an offshoot of the patent system that creates intellectual property rules to establish and protect monopoly rights over newly developed plant varieties (AFSA & Grain, 2015). All members of the WTO are obliged to adopt some form of PVP law, according to Article 27.3.b of the WTO’s Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). The global seed industry has used TRIPS as a catalyst to impose their preferred PVP system – UPOV 1991 - on African governments and through regional bodies such as the RECs, OAPI and ARIPO. UPOV 1991 is widely criticized as

and as posing a threat to human rights, farmers' rights and the right to food.

- **Seed laws** governing the certification, phytosanitary requirements and trade of seed are being tightened and harmonized through the RECs and revised at national level. These laws limit farmers' rights to exchange and trade their own seed, while limiting the role of the public sector in seed development and creating space for the entrance of the private sector (AFSA & Grain, 2015). These laws deliberately intend to replace farmers'

varieties, which are vilified as unproductive and diseases, with 'improved varieties'. Farmers' varieties are generally excluded from certification on the basis that they do not conform to the requirements of distinctness, uniformity and stability (DUS).

These laws will have the effect of rippling throughout African agro-food systems, mimicking the trend of industrialised countries where small bands of elites grab and concentrate power at every node from the land and seed through to production, distribution and retail.



2. Seed Policy Environment

This section gives an overview of policy spaces related to seed, although it is by no means exhaustive. The following policies and institutions are considered:

- ITPGRFA (Seed Treaty)
- Convention on Biological Diversity and the Nagoya Protocol
- WTO's TRIPS and UPOV
- The African Model Law for the Protection of the Rights of the Local Communities, Farmers and Breeders and for the Regulation of Access to Biological Resources
- The AU's Comprehensive African Agriculture Development Program (CAADP), related seed body AfricaSeeds and Integrated Seed Sector Development (ISSD), as well as
- Potential entry points for putting FMSS on Africa's nutrition agenda.

2.1 International Seed Treaty and Convention on Biological Diversity

2.1.1. ITPGRFA

The International Treaty on Plant Genetic Resources for Agriculture (ITPGRFA or The Seed Treaty) under the FAO and its implementing project, the Second Global Plan of Action, is a natural home for protecting and revitalising FMSS.

The Seed Treaty was adopted in 2001 after many years of negotiation and came into force in 2004. It is the only international legally binding instrument that recognises Farmers' Rights,

acknowledging the past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available these resources (Chaves Posada, J., 2015).

The Treaty missions are as follows:

- To facilitate access⁴ to all seeds in a "global pool of genetic resources" (FAO, 2017) (fields and in gene banks) through what is called the Multilateral System (MLS) for research, breeding and training for food and agriculture;
- To ensure the sustainable use of these seeds; and
- To ensure that farmers' traditional knowledge and farmers' rights (Article 9 of the Treaty) to keep, use, share and sell farmer seeds are protected, and that they benefit from the equitable sharing of benefits over the resources and that they take part in decision making relating to seed systems at the national level.

The Seed Treaty plays a pivotal role in enabling the flow of genetic resources across countries, potentially contributing to vibrant and resilient farmer managed seed systems, which have been historically neglected, and which evolve slowly and cannot keep up with the fast-paced disturbances and mutations engendered by climate change, ecological unbalances triggered by biodiversity losses and the flow of pathogens precipitated by global trade. Hence, access to farmer seeds from other parts of the world plays a big part in accelerating local adaptation of peasant seeds and in contributing to the transition from subsistence farming to agro-ecology. But this cannot happen overnight; the "newcomers" need to be introduced progressively, in small amounts, observed, selected, bred and multiplied locally

so that they can adapt to local agro-ecological systems (Kastler, 2015).

The vast majority of African governments have signed up to the International Treaty and now have a clear obligation to take steps to domesticate measures on Farmers' Rights and to develop policies that promote the sustainable use of plant genetic resources. This explicitly includes revising existing policies, e.g. relating to seed diffusion and PVP (Christinck, A. & Walle Tvedt, M., 2015). However it must be said that the interpretation of farmers' rights is extremely narrow and does not challenge the domination of industrial agriculture as the norm in global policy or the intellectual property regimes that drive it. Instead, small-scale farmers are given a limited space to operate within the dominant system where they may be exempt from laws prohibiting the recycling, exchange and trade of seed, under very particular conditions. What is still lacking is acknowledgement of FMSS as a separate, highly valuable system that is underpinned by different science, values and measures of success that should be explicitly supported in policy and practice. Indeed, FMSS – not the formal system – is the norm in Africa.

Currently, 43 African countries are contracting parties to the Seed Treaty while a further two have signed but not yet acceded (Cape Verde and Nigeria). Only eight African countries have not signed to date - Botswana, Comoros, Equatorial Guinea, Gambia, Mozambique, Somalia, South Africa and South Sudan. (FAO, 2017a) The South African government has signalled their intention to sign.

Implementing activities

The Commission on Genetic Resources for Food and Agriculture is currently implemented by the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture. The aims of the Plan of Action are to:

- Promote cost efficient and effective global efforts to conserve and sustainably use plant genetic resources for food and agriculture (PGRFA);
- Link conservation with a greater use of plant germplasm;
- Strengthen crop improvement and seed systems to foster economic development;
- Create capacities, strengthen national programmes and widen partnerships for PGRFA management; and
- Strengthen implementation of the ITPGRFA.

These aims are achieved through a wide range of activities, including work on in-situ and ex-situ conservation, sustainable use of PGRFA including support for plant breeding and diversification of crop varieties for sustainable agriculture and support for seed production and distribution, and building human and institutional capacity. These activities are deployed at national level. One example of this work is a project called "Promoting open source seed systems for beans, sorghum, finger millet and forages for climate change adaptation in Kenya, Tanzania, and Uganda", funded by the FAO's Benefit Sharing Fund of the ITPGRFA (CGIAR, 2017). Bioversity International is contributing technical support to the programme⁵, which includes amongst other things, hosting farmer and seed exchanges, building farmer capacity on managing seed and setting up community seed banks. (A red flag in the publicity material is the mention of "Climate Smart Agriculture", which in some cases has proven to be a deceptive vehicle for the industry lobby to promote industrial agriculture as a solution to adapt to climate change. These are challenges that come with opportunities that civil society will need to navigate and clarify when working with international institutions such as the FAO.)

⁴ Access to seeds is on condition that it is used for research and selection for food and agriculture. It also forbids patents and binds the receiver to appropriately share resultant benefits

In 2010 the Commission published the Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture – SoWPGR-2 – based on information gathered from more than 100 countries, as well as from regional and international research and support organisations and academic programmes. The report documents the current status of plant genetic resources diversity, conservation and use, as well as the extent and role of national, regional and international efforts that underpin the contributions of PGRFA to food security (FAO 2017a). In short, the report found that there is urgent need to:

- Adopt clear policies and regulations to promote in situ and on-farm management of PGRFA and increase consumer demand for local produce;
- Expand inventories of PGRFA to cover more crops and species;
- Develop better indicators and methodologies to assess conservation status and threats;
- Increase efforts to stop widespread degradation of rangelands in establishing protected areas that cover important PGRFA; and
- Enhance coordination between agencies dealing with agriculture and the environment to ensure conservation of PGRFA.

The Seed Treaty and Farmers Rights

Article 9 of the Seed Treaty deals with farmers' rights and includes the following elements as necessary for the implementation of those rights:

- Protect traditional knowledge relevant to plant genetic resources for food and agriculture;
- Equitably participate in sharing benefits

arising from the use of plant genetic resources for food and agriculture⁶;

- Participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture; and
- Save, use, exchange and sell seeds and propagating material saved in farms.

The responsibility for the implementation of farmers' rights is left up to national governments. Despite this being a legal obligation, progress to date has been negligible. Some of the reasons cited for lack of progress included lack of political will, lack of resources and outright obstruction from powerful seed lobbies at national and regional levels (Mushita, A. 2017). In some cases focal points have simply not been appointed (Ndiaye, 2017) or are located across different ministries creating stagnation and confusion (TABIO, undated).

During interviews with AFSA members and other experts there has been a strong consensus that advocacy on the implementation of Farmers Rights at national level is a priority and that AFSA also has a clear role to play in exerting pressure at international and regional levels. AFSA is also well placed to support governments and regional bodies with information and best practices and co-ordinate evidence-based lobbying on the issue. There are also numerous calls for more and better participation of farmers and indigenous peoples in all levels of decision-making, which requires awareness making and capacity building. Additionally, participating in further deliberations of the Treaty could create opportunities for pilot projects and evidence collection at a practical field level, access to financial and institutional support, as well as opportunities for global solidarity with other like-minded networks and social movements.

⁶ *Bioversity's Community Seed Bank Concept and Practice: Facilitators Handbook is available here <http://cgspace.cgiar.org/handle/10568/81286>*

2.1.2. Convention on Biological Diversity

In the 1980s the deep environmental impact of a global pursuit of infinite economic growth based on exploitation of finite environmental resources began emerging at the international level as urgent. Global leaders came together at the historic Earth Summit in Rio de Janeiro in 1992 where the Convention on Biological Diversity (CBD) was signed and entered into force the following year.

The CBD had three main objectives, namely - the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies and funding (Munye, P. et al, 2017). The CBD recognises the sovereign rights of national governments over their biological diversity and promotes bilateral approaches to access genetic resources. There is also emphasis on the need to maintain the knowledge and practices of indigenous and local communities and protect these in accordance with customary norms and practices. These last two issues should also be guided by indigenous and human rights law (e.g. the UN Declaration on Human Rights and ILO Convention 169) (IIED & IDRC, 2004).

In October 2010 an instrument to implement the third objective of the CBD was adopted - the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits. The aim is to create incentives for the preservation and sustainable use of biodiversity. The Protocol creates predictability of conditions for access to genetic resources and benefit sharing based on mutually agreed terms. The AU has proclaimed that the Nagoya Protocol is a significant international development that must be taken into account by the AU in its exploration of avenues that can

best promote the implementation of the African Model Law for the protection of the rights of local communities, farmers and breeders, and for the regulation of access to biological resources (Munye, P. et al, 2017). (This model law is briefly discussed in section 2.3.)

From the commons to controlled access

The objectives of the CBD and the ITPGRFA are basically identical: the conservation and sustainable use of genetic resources, and the equitable sharing of benefits derived from their use. However, the access and benefit sharing (ABS) systems that they require member states to implement are different in orientation. The ITPGRFA creates a multilateral system (MLS) whereby countries agree to pool and share the plant genetic resources of 64 crops and forages for food and agriculture related purposes. The CBD and its Nagoya Protocol tend to favour the negotiation of bilateral access and benefit-sharing agreements between providers and users of genetic resources and traditional knowledge (Munye, P. et al., 2012:2).

Hence the CBD and the Seed Treaty ushered in a new era with regard to access to genetic resources; whereas the precursor to the ITPGRFA, the 1983 International Undertaking, considered our genetic resources to be our common heritage with unrestricted access for public research and not connected to intellectual property rights, the CBD recognises national sovereignty over genetic resources and sets in place mechanisms for controlled access, private breeding, and intellectual property rights (FAO 2017c). By recognising national sovereignty over genetic resources, the CBD also separates rights between national governments and local communities.

In a framework that focused on the commons rather than the controlled access frameworks we now have, the right to self-determination was implicit and there was an emphasis on protecting the totality of indigenous systems – resources,

⁶ The right to participate in decision-making is also in consonance with international instruments such as the International Covenant on Economic, Social and Cultural Rights (ICESCR), the International Covenant on Civil and Political Rights (ICCPR), and the ILO Convention Concerning Indigenous and Tribal Peoples in Independent Countries (ILO 169). (Munye, P. et al., 2012)

⁷ Officially United Nations Conference on Environment and Development (UNCED)

information, practice, beliefs and philosophy rather than discreet elements such as resources or genes that can be considered out of context. A commons framework engendered an approach based on empowering communities, care for the environment, and local control over the end uses of knowledge. The subject for protection here is the indivisible whole of knowledge, rights and heritage, rather than component parts of culture (IIED & IDRC, 2004).

In our current legal framework, which breaks holistic systems into discreet parts that can be accessed and owned, genetic resources are now being even further alienated from their context by new technologies that can digitise DNA sequences and along with synthetic biology, do away the need to access the physical germplasm. These technologies threaten to expose the multi-lateral germplasm collections to theft/biopiracy. A highly contentious aspect of the ITPGRFA pertains to the DivSeek system, a global information system on genetic sequencing and related knowledge for seed that was born as a partnership between the treaty and an independent organisation ruled by international law called the Global Crop Diversity Trust (now called Crop Trust). Several countries,

(major donors are the USA, Australia, Germany and Norway), international institutions (such as the CGIAR and the World Bank) and private donors (including CropLife International, DuPont/Pioneer Hi-Bred and Syngenta) (Crop Trust 2017) are driving this development. DivSeek started as a single initiative of Crop Trust in 2012, its main purpose then consisting in “sequencing genetic information of the seeds held in national gene banks, in order to make the information more accessible to all”. In 2013, Crop Trust called upon the Treaty to collaborate in strengthening the DivSeek initiative and in 2015 the Treaty and Crop Trust launched it jointly (foodsovereignty.org).

This meant that all the databases of all the specific traits of interest housed in the Treaty’s public gene banks would become available through DivSeek. With sufficiently powerful research engines, industry players can on the basis of this information create new “genetic information” that is patentable and which can be integrated into new commercial varieties (Kastler 2017). DivSeek has therefore been vehemently opposed as a tool that threatens to facilitate biopiracy over the resources made available in the multilateral system (Grain & Via Campesina, 2015:15).

2.2 WTO’s TRIPS

The concept of ‘intellectual property’ emerged historically from the European context, along with simultaneous developments in the United States of America. However, its application to plant varieties is a new area of law for many developing countries (Munye, P. et al., 2017).

The rationale behind PBRs or PVP is that exclusive rights and royalties reward and incentivise innovation and ensure that breeders recoup the costs of their research and development to bring new varieties to the market. Further, the narrative goes, these new varieties are the cornerstone of highly productive agricultural systems, which are essential for food security. However, the former UN Special Rapporteur on the Right to Food, Olivier

de Schutter, has warned that ‘Intellectual property rights reward and encourage standardisation and homogeneity, when what should be rewarded is agricultural biodiversity, particularly in the face of the emerging threat of climate change and of the need, therefore, to build resilience by encouraging farmers to rely on a diversity of crops’ (ACB. 2012).

As already mentioned, with the establishment of the WTO in 1995, intellectual property over plant varieties became obligatory through article 27.3.b of TRIPS. This article obliges member states to provide protection for plant varieties, either by patents or by an “effective sui generis⁸ system or by any combination thereof.”

It is important to note that TRIPS does not specify what system members must adopt, only that it must be an “effective system”. Countries are

therefore at liberty to design any legal regime that suits their need (ACB, 2012). Another crucial point is that WTO members that are categorised as Least Developed Countries (LDCs) (34 African countries fall into this category) are not required to implement any form of PVP until 1 July 2021, and that this transitional period can also be further extended⁹. However, UPOV have taken the opportunity provided by TRIPS to advance their PVP regime in Africa, insisting that the formal seed industry will not invest in Africa under any other legal regime.

UPOV

The International Union for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organisation representing the interests of breeders and the formal seed industry. Headquartered in Geneva, Switzerland, it was established by the International Convention for the Protection of New Varieties of Plants, adopted in Paris in 1961. It was revised in 1972, 1978 and 1991 and each new revision extended and strengthened breeders' rights' while clamping down on farmers' rights to recycle, share, exchange or trade seed of protected varieties.

Any new members wishing to join UPOV may only join the latest - 1991 Convention, which is inflexible and places extreme restrictions of farmers' rights to recycle, exchange, barter and trade protected seed. There are very few African countries that have signed up to UPOV – South Africa and Kenya, Tunisia and Morocco are members of UPOV 1978, with Kenya having recently signed to the 1991 Convention. OAPI is a UPOV 1991 member while Tanzania has the dubious distinction of being the only LDC in the world that is a member of UPOV 1991. Despite the many risks associated with ending the traditional practices of recycling, exchange and trade of seed, there is pressure to implement these laws in a harmonised manner through the RECs, ARIPO

and OAPI, to extend market opportunities and reduce regulatory time and cost. This approach is important for the seed industry, but undermines national sovereignty and destroys any possibility of designing flexibilities tailored to the specific needs of individual countries.

In an open letter to UPOV members in 2014, penned by civil society and signed by AFSA along with 73 other organisations, civil society warned that PVP regimes based on UPOV 91 "proposes an inequitable agriculture policy, fails to recognize smallholder farmers as an integral part of the agricultural innovation systems and undermines farmers' rights". The letter also highlighted that such regimes facilitate biopiracy and stand in direct contravention of Farmers' Rights established under Article 9 of the Seed Treaty, which most African governments are legally bound to implement in their national law (TWN. 2014). In December 2016, the UN Special Rapporteur on the Right to Food, Hilal Elver, wrote an open letter to the member states of ARIPO to voice her numerous concerns about the "considerable negative impacts" implementing a regional PVP regime based on UPOV 91 "may have in relation to fulfilling the right to food in ARIPO Member State countries"¹⁰ (Elver, H. 2016).

In light of the immense pressure being exerted on African governments to adopt UPOV 91 to satisfy their obligations under TRIPS, the German government commissioned a study to assess the relations between the UPOV Convention, Farmers' Rights as enshrined in the ITPGRFA, and human rights, particularly the right to adequate food. Their detailed legal analysis found UPOV to be an inappropriate sui generis system for developing countries and pointed to innovative sui generis systems that are in effect in other countries. The report recommended, amongst other things, that developing countries that have not yet joined UPOV should consider opting for an alternative sui generis system of PVP.

⁸ *Sui generis* means "of its own kind" and implies that a system can be tailored according to the specific needs of each country

⁹ http://www.wto.org/english/tratop_e/ldc_e.htm Article 66.1 accords the possibility of extension upon duly motivated request by a LDC.

¹⁰ Available at: <http://bulawayo24.com/index-id-opinion-sc-letters-byo-100494.html>

They found that members of the ITPGRFA are obliged to take measures to promote Farmers' Rights and maintain, review or develop policies that support the sustainable use of plant genetic resources. However, "UPOV 91 does not promote any of the identified elements of Farmers' Rights but rather restricts these rights once a country adopts UPOV 91-based PVP law in its national legislation" (Christinck, A. & Walle Tvedt, M. 2015). The analysis recommended that the focus of PBR regimes in developing countries should primarily be on facilitating more pluralistic approaches to developing breeding and seed systems and initiatives taken by diverse actors than the extreme focus on breeders' rights contemplated by UPOV (Christinck, A. & Walle Tvedt, M. 2015).

In section 3.2 we give a status quo on the pressure that is being placed on African governments and RECs to adopt UPOV 91 as a sui generis intellectual property system to fulfil their obligations under the WTO.

2.3. The African Model Law

African leadership has for decades been at the forefront of processes to protect biodiversity and natural resources, a high ranking priority because a large majority of Africans directly depend on these natural assets for their livelihoods (Munye, P. et al. 2012). The 2001 African Model Law for the Protection of the Rights of the Local Communities, Farmers and Breeders and for the Regulation of Access to Biological Resources (the African Model Law) was developed to take into account the continent's uniqueness and craft an instrument tailored to African needs. This is a guidance document – it is not legally binding and can be adapted by local governments in their national law, according to local needs and contexts.

The African Model Law recognises PBRs and provides for their protection, but does not do so at the expense of farmers and also excludes patents on life. The Model Law gives breeders exclusive rights to sell and produce new varieties that meet the DUS criteria. Farmers' Rights are protected in

that they have the right to save, use, multiply and sell seeds of protected varieties, with the limitation that sale of material owned by a breeder should not be on a commercial scale (ACB 2012). (This provision is in stark contradiction to the UPOV 1991 Convention.) The African Model Law goes beyond the Seed Treaty and also grants exclusive rights to farmers over their varieties (ACB 2012).

One example where the Model Law has been used is Ethiopia's 2006 Proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights, which provides that 'no legal restriction shall be placed on the traditional system of local communities on the use and exchange of genetic resources and community traditional knowledge.' Communities have a right to 50% of the share that the state obtains in monetary form from the use of their genetic resources. The proclamation vests the rights to knowledge with rights holders within communities, but the rights to the genetic resources themselves are vested in the State and the Ethiopian people (ACB 2012).

2.4. Seed issues in the African Union - CAADP, ASBP and ISSD

The Comprehensive African Agricultural Development Programme (CAADP) is the beating heart of agricultural policy on the continent, from which national and regional agricultural strategy and policy, investment, research and project implementation flow. This is the AU's framework for agricultural development across the continent, which aims to realise an average 6% growth per annum through agriculture. It is divided into four pillars: land and water management, market access, food security, and agricultural productivity. 42 countries have signed CAADP Compacts and committed 10% of national budgets to agriculture (AfricaSeeds, 2015). (In many countries a large portion of these agricultural budgets are channelled into corporate subsidies to pay for inputs, which

potentially erode farmer managed seed systems, farmers' skills base, soil fertility and nutritional diversity.) Additionally, 32 countries have adopted National Agriculture and Food Security Investment Plans development activities (AfricaSeeds, 2015).

CAADP is embedded in Green Revolution logic, i.e. an assumption that increased access to and use of inputs such as hybrid seed, synthetic fertiliser and agrochemicals, along with greater access to finance and irrigation, will lead to higher productivity, which will translate into income to pay for the inputs and household needs (AFSA, 2014). While CAADP does identify social and ecological sustainability as important objectives, it does not wrestle with the problem that the methodology of the market is unlikely to realise these (AFSA, 2014). Instead, the Programme has become an important vehicle for private agribusiness to enter the African market and operate within an enabling policy environment where "regulatory hurdles" and "barriers to trade", such as safety testing or

other regulations that protect socio-economic and environmental rights are diminished.

Many of the players were named in the introduction, but it bears repeating here the influence of the G8 New Alliance on Food and Nutrition Security (NASFN), which is based on country-level cooperation frameworks closely linked to aspects of CAADP. In many instances the NASFN co-operation frameworks explicitly require the adoption of UPOV 91. NASFN has targeted 10 countries and is integrated with other similar initiatives, including the Global Agriculture and Food Security Program (GAFSP), the United States (US) government's Feed the Future Initiative, the Grow Africa Partnership and the Alliance for a Green Revolution in Africa (AGRA). It emphasises establishing "enabling conditions" for private investment in agriculture, especially focusing on legal, policy and institutional reforms to accommodate this objective (AFSA, 2014).



African Seed and Biotechnology Programme

The issue of seed is not directly addressed in CAADP base documents, but the task of aligning seeds with the goals of CAADP is given to the African Seed and Biotechnology Programme (ASBP), overseen by the African Seed Network (AFSA, 2014).

A reading of the ASBP's strategy documents over the years reveal how their objectives have shifted due to the influence of the seed industry. While founding ASBP documents unambiguously valued farmer managed seed systems and related indigenous knowledge and also acknowledged the ITPGRA and CBD (AFSA, 2014), the 2016 programme identifies the low

productivity of African agricultural systems as the major factor causing hunger, and sets out a programme to ensure the expansion of the formal seed industry, faster adoption of improved varieties and development of enabling policy for the seed industry. The CBD and ITPGRFA are not mentioned in their 2016-2025 strategy at all. The "informal" sector is generally considered only in terms of how it can be mainstreamed into the formal sector and how the strategy will enable "scaling up the advantages that the informal seed sector possesses which can be of benefit to the formal sector" (AfricaSeeds, 2015).

In a nutshell, the ASBP's strategy is channelled toward dealing with the following problems that they and their experts have identified:



“Quality seeds are critical for increasing overall crop production (up to 30-40% yield increase), and therefore form the basis for food and nutrition security in Africa. However, in spite of the overwhelming benefits of quality seeds, the record of seed sector contribution to Africa’s agricultural development has been unsatisfactory. Some of the challenges which have constrained the contribution of the seed sector include: inadequate seed policies; inadequacies in variety development and deployment; slow development of the private seed sector; inadequate support for small-scale seed entrepreneurs; poorly developed infrastructure and capacity; inadequate seed marketing; inadequate extension services; inadequate exploitation of informal seed systems; and neglect of such emerging issues as climate change, breeders’ and farmer’s rights and biodiversity loss.”

(AfricaSeeds, 2015).



This is an important body to engage with to counter the misleading claims of the formal seed industry and elevate the needs and voice of farmers as policies and programmes regarding seeds are conceived, funded and rolled out onto the continent.

Integrated Seed Sector Development (ISSD)

The AU has endorsed the Integrated Seed Sector Development (ISSD) to contribute to the implementation of the ASBP. The ISSD is an institution and an approach, supported by the Dutch Ministry of Economic Affairs and the BMGF. It aims to cultivate enabling environments for innovation and the coexistence of different seed systems. ISSD recognises the importance of farmer-based seed systems and aims to expand the interactions between farmer-based and commercial seed systems to include breeding, release, multiplication and strengthening diffusion links. ISSD also proposes to strengthen both commercial and farmer-based systems and to mobilise public resources to assist with this (AFSA, 2014). It is an example of the ‘blended approach’ that characterises emerging Green Revolution parlance; recognising agroecological technologies and values, but emphasising the use of ‘modern’ Green Revolution technologies wherever possible, and the systematic enhancement of these possibilities (AFSA, 2014).

ISSD has initiated a pilot phase to establish an “African-embedded structure and network of experts, seed programs and associated organizations in the public and private sectors”.

The pilot is concerned with the following thematic areas:

- Common challenges to promoting entrepreneurship in seed value chain;
- Access to varieties in the public domain;
- Matching global commitments with national realities; and
- Supporting the AU, CAADP, ASBP and seed sector development.

The ISSD has done a tremendous amount of research on seed policy and seed practice on the continent and their website <http://www.issdseed.org> is a veritable treasure trove of resources for anyone interested in all aspects of seed. They have initiated pilot projects in Ethiopia, Uganda, Burundi, Mozambique and Malawi. They have played a crucial role in highlighting the value of farmer managed seed and the need to keep policy space open for these systems in a political environment where the seed industry has vilified farmer managed seed and with great success promoted an agenda to replace farmers’ seed with formal varieties.

However, the ISSD is intent on bringing farmer managed varieties closer to the formal systems

and provides little policy guidance on how to protect and enhance FMSS. Their core focus is on commercialisation of seed; this approach can only ever reach a tiny fraction of African farmers as the vast majority will, for the foreseeable future, continue smallholder agriculture, have low buying power for external inputs and produce for household and community sustenance. Many smallholders, especially women, will continue to cultivate crops that are of little commercial interest but are vital for household health and nutrition security. For these people, FMSS will continue to be the bedrock of survival, and the integrity of these systems as a whole must be maintained.

The ISSD is an extremely important programme for civil society to interact with where interests overlap, with keen awareness of where agendas diverge.

2.5. Nutrition

It may seem impossible, or absurd, but agriculture and nutrition are dealt with in separate silos, an excellent example of one of the IPES-Food “lock-ins” to industrial agriculture, which they call “compartmentalised thinking”. There is currently a policy disconnect between nutrition policy that seeks to diversify local nutrient intake through diversification of crops, and agricultural and seed policies that are veering towards shrinking diversity through the promotion of improved varieties. For example, in an interestingly frank admission by the Malawian government in their draft national agricultural strategy, it admits that the pursuit of the maize-dominated FISP programme has negatively impacted on nutritional diversity and contributed to malnutrition in that country (ACB 2016). While a nutrition strategy has been developed in Malawi that includes a focus on educating especially women about the nutritional value of indigenous foods and the need for increasing diversity in the diet, the seed policy pulls in the opposite direction with some of the most draconian attitudes to FMSS on the continent. No effort has been made to implement Farmers’ Rights even as

their agricultural policy is undergoing a massive overhaul, and apparently the National Gene Bank has resources simply for accessions to the bank but nothing to assist with repatriation of germplasm, training and deployment of extension workers to link the gene bank with farmers, or to work generally with smallholders in collaborative ways (ACB, 2016). This example illustrates how these links are not being sufficiently made and presents an advocacy opportunity.

A potential opportunity to engage and shape this discourse is through the AU’s Africa Regional Nutrition Strategy (ARNS) and the Africa Renewed Initiative on Stunting Elimination (ARISE), aiming to mainstream nutrition into strategic programmes and policy frameworks. They work in close alliance with the Scaling up Nutrition (SUN) movement, of which at least 44 African countries are members. These programmes have initiated the Africa Day for Food and Nutrition Security, declared in July 2010 (AU, undated).

Engagement in this arena would need to counter the kind of a-political “techno-fix” solutions that usually dominate the food security agenda, for example bio-fortification or genetically engineered crops, and put FMSS squarely on the nutrition agenda as new policy work is developed and framed to mainstream nutrition.

2.6. Policy to support FMSS is lacking

There are no seed related policies and laws on the continent that recognise farmers’ ongoing seed reproduction practices and their role in maintaining agricultural diversity (ACB.2016a). For example, Vernooy et al reviewed literature related to the policy environment in which community seed banks operate and found a glaring gap (Vernooy, R. et al. 2016); these important activities are being implemented in a policy vacuum and they are under constant attack from the seed industry. As local communities form the bedrock of FMSS, discussions on how to formulate policy and programmes to protect, revitalise and build resilient FMSS need to start from the grassroots.

3. The Regional Harmonisation of PVP and Seed Law

The RECs are important bodies for the Green Revolution Project – they are principally concerned with trade and therefore willing to participate in the development of investor-friendly policy environments, often at the expense of smallholders and the integrity of their environments and plant genetic resources.

RECs are also vital in that harmonised laws across many countries provide bigger viable markets compared to individual countries, reduce regulatory hurdles and costs and expedite seamless trade across borders. It is also notoriously difficult for civil society to engage with these bodies – for example gaining access relevant documentation and draft policies, roadmaps, calendars and to gain invites to meetings (for which they must find their own resources). Industry stakeholders, however, often have extraordinary access to these meetings and play a key role in shaping the agenda.

As already mentioned, there are two important regional harmonisation processes, namely the adoption of harmonised PVP regimes based on UPOV 1991 and the harmonisation of seed trade laws. This section provides a brief status quo of these processes on the continent.

3.1 Continental overview of national seed laws

Seed laws generally prohibit the trade of uncertified seed and the certification criteria are set in such a way that farmer's varieties are excluded from certification and therefore may

not be traded. Depending on definitions, in some legal frameworks "exchange" may be defined as a form of trade and therefore forbid even the exchange of farmers' varieties. Seed laws have the effect of eliminating the competition for improved varieties in the market and criminalising the trade of farmers' varieties. Another impact is that farmer managed seed and agricultural systems built on this seed, such as agroecology, are relegated to remain in the domain of subsistence and poverty alleviation. These laws effectively curb the possibility for mainstreaming agroecology as an economically viable pursuit, privileging industrial agriculture in the market.

The misguided rationale for the need for such laws can be inferred from this statement from AFSTA regarding farmers' varieties:

“AFSTA recognizes the importance of using high quality seed to improve yield in agriculture. However, most African farmers sow seeds from informal seed sector whose quality is not known since seeds do not undergo any formal quality control whether in the field or in laboratory. This is one of the main causes of poor agricultural productivity and contributes to the chronic food insecurity in Africa.”
(AFSTA, 2008).

Another rationale for the implementation of seed trade laws is to protect farmers from unscrupulous seed merchants selling "fake seeds". Therefore, in some countries, seed is also dealt with under counterfeit legislation. However, it must be noted that the advent of "fake seeds" only comes about

with the introduction of improved varieties – these are substandard improved varieties, NOT farmers' varieties. Criminalising the movement of farmers' varieties due to the failure of the formal system is patently unjust.

As already mentioned in section 1.2, national seed laws are already in place in most African countries, in some cases for decades. Regional harmonisation of these laws is vital for the industry to deal with a fragmented market, slow variety registration, high costs, easier seed movement and simplified custom procedures. However, coordinating this harmonisation of national legislation is extremely challenging and according to the Syngenta Foundation, *"the most significant factor affecting implementation is domestication; changes in national level legislation or regulation are required in order for harmonization to take full effect"* (Syngenta Foundation 2016). A great deal of vigilance and advocacy is therefore necessary at national level as the seed industry lobbies for changes.

The ISSD has recently completed a study of African seed laws in which they assessed national laws of 35 African countries.¹¹ They did not contemplate the following 13 African countries, which they concluded do not have a seed law: Comoros, Djibouti, Eritrea, Cape Verde, Guinea Bissau, Congo, Chad, the Central African Republic, Equatorial Guinea, Lesotho, Libya, Namibia, Sao Tome and Principe, and Somalia. Although several countries have relevant laws, ISSD was not able to obtain these and therefore unable

to assess them - Gambia, Liberia and Sierra Leone (Herpers, S., et al. 2017).

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Their analysis revealed that that, for the most part, African seed laws require registration in the formal system for growers, sellers and often processors and distributors. In a few cases there are exemptions or lesser criteria for registration of farmer seed producers in communities and/or express support for farmer managed seed systems (Herpers, S., et al. 2017).



Table: Seed laws in relations to farmers' rights in selected African Countries

Forbids sale of uncertified seed	Algeria, Angola, Benin, Botswana, Burundi, Burkina Faso, Cameroon, Cote d'Ivoire, DRC, Egypt, Gabon, Ghana, Guinea, Kenya, Madagascar, Mali, Morocco, Mauritania, Mauritius, Rwanda, Sudan, Togo and Tunisia
Allows for local sale and exchange within farmer-led seed systems	Senegal, Niger, South Africa, Tanzania (full certification is not obligatory, yet seeds do need to have their quality declared), Zimbabwe, Zambia, Malawi, Ethiopia and South Sudan.
Exchange of farm-saved seed is allowed*	Uganda and Nigeria;
Exempt registration or have fewer criteria to enlist as a seed producer within a farmers' community.	Mozambique, Malawi, Nigeria and Zimbabwe
Express support for smallholder seed producers	South Sudan, Uganda and Zambia
Policy commitment to provide for the supply of breeder seed to farmer-led seed systems.	Zambia and Ghana
Mention QDS in their acts or policies	Ethiopia, Ghana, South Sudan (draft policy), Tanzania, Uganda (draft policy), Mozambique and Zambia.
Active list of registered farmer varieties	Benin
Policy commitment to alternative list (no criteria developed as yet)	Niger, Malawi and Uganda will register landraces using looser criteria; Burkina Faso, Mali and Kenya have provisions that protect ownership over and/or strive to preserve local varieties; Ghana does not aim to register farmers' varieties, but will support farmers in releasing their varieties officially

* the law of Swaziland is silent on the matter of exchange.

Source: Compiled from Herpers, S. et al. 2017.

Regional harmonisation processes are intended to further restrict the exchange and trade of farmers' varieties and through this process national laws may need to be amended to conform with regional policies. However, opening up of seed laws may actually provide opportunities for increasing support for FMSS, as is the case in

the Mali case study described in Annex 1. It is therefore important to monitor these processes, or to be in close collaboration with members who are monitoring these national processes and to alert members where resistance, solidarity and advocacy are needed.

11 Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cote d'Ivoire, the Democratic Republic of the Congo (DRC), Ethiopia, Egypt, Gabon, Ghana, Guinea, Kenya, Madagascar, Mali, Morocco, Mauritania, Malawi, Mauritius, Niger, Nigeria, Rwanda, South Africa, Senegal, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe

3.2. Regional harmonisation of seed and PVP laws

There is scant government experience with PVP in Africa; only a handful of countries have implemented any kind of PVP regime to date (these include South Africa, Kenya, Zambia, Zimbabwe, Mozambique, Tanzania, Uganda, Rwanda, Burundi, Mauritius). Even fewer countries are members of UPOV; they are South Africa, Kenya, Tunisia and Morocco. In 2015 Tanzania became the first LDC to join UPOV. OAPI has been a UPOV member since 2014.

Three regional bodies (OAPI, ARIPO and SADC) have drafted harmonised PVP laws, which taken together, represent 42 African countries. Despite the expression of some political will to attend to harmonisation from the RECs covering Central Africa, security issues and strong state sovereignty seem to have dampened such efforts for over the past decade (Diarra, 2013). This does not mean that the harmonization process is totally dormant in Central Africa, but the paucity of online information on the topic hampered the researchers' ability to draw any conclusions on this process.

The table below summarises the status quo of both PVP and seed law harmonisation on the continent.

Harmonisation of PVP and Seed trade laws in Africa

Body	PVP	Seed Trade	Comment
ARIPO Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Sierra Leone, Liberia, Rwanda, São Tomé and Príncipe, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. (10 LDCs)	Target 13:2: Integrate climate change measures into national policies, strategies and planning. Target 13:3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	-	The Arusha PVP Protocol will come into force when four member states ratify – Ghana, Mozambique, Sao Tome and Principe, and the Gambia have ratified so far (AFSA, 2015).
OAPI Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Comoro Islands, Congo, Equatorial Guinea, Gabon, Guinea, Guinea-Bissau, Ivory Coast, Mali, Mauritania, Niger, Senegal and Togo. (13 LDCs)	Target 12:2: By 2030, achieve the sustainable management and efficient use of natural resources. Target 12:8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.		Discussions are currently underway to have the OAPI replaced by a pan African organisation for Intellectual Property (OPAPI). The headquarters of this new regulatory organisation will likely be located in South Africa.

Body	PVP	Seed Trade	Comment
<p>Southern African Development Communities (SADC) Angola, Botswana, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe. (8 LDCs)</p>	<p>Harmonised PVP Protocol based on UPOV 1991 adopted in April 2014.</p>	<p>Technical Agreements on Harmonisation of Seed Regulations adopted 2007. SADC seed regulation MOU 2013.</p> <p>SADC seed catalogue established.</p>	<p>All SADC countries are members of ARIPO, except for Angola. Only Angola, Seychelles, Madagascar and Zimbabwe have not signed. (Mushita, A. 2017)</p> <p>Varieties must have been released nationally in at least 2 SADC countries and be distinct, uniform and stable, plus value for cultivation and use (VCU). Regional trade of QDS is provided for, must also be DUS & VCU. Registration of Farmer Varieties is provided for but benefits are unclear</p>
<p>Common Market for Eastern and Southern Africa - COMESA Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, South Sudan, Swaziland, Uganda, Zambia and Zimbabwe. (13 LDCs)</p>	<p>Not provided for</p>	<p>Seed trade regulations approved September 2013.</p> <p>Regional variety catalogue established.</p>	<p>Not provided for 8 members are also in SADC, which has different regulations.</p> <p>Certification based on the DUS criteria and therefore excludes farmers' seeds and traditional materials from the regional market</p> <p>SADC, COMESA and EAC in tripartite alliance</p>

Body	PVP	Seed Trade	Comment
<p>East African Community EAC: Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda. (5 LDCs)</p>	<p>Member states have committed to put in place a PVP System in line with the UPOV 1991 Convention and start initiatives to either develop their PVP Law or amend the existing laws to be in line with UPOV 1991 Act.</p>	<p>Intends to harmonize seed legislation, as is required under the EAC Treaty, but has not yet done so.</p>	<p>Members with national PVP laws now include Kenya, Tanzania, Uganda, Rwanda, Burundi, and Mauritius. (Syngenta Foundation)</p>
<p>CLISS: Benin, Côte d'Ivoire, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal, Togo, Burkina Faso, Mali, Niger, Chad and Cap Vert</p> <p>ECOWAS*: Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo.</p> <p>WAEMU: Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo. Guinea Bissau</p>	<p>PVP has been channelled through OAPI</p>	<p>Jointly, these three regional bodies have been working towards the harmonisation of seed legislation in Western Africa resulting in:</p> <p>Regional Seed Regulation on the Harmonization of Rules Governing Quality Control¹², Certification and Marketing of Plant Seeds and Seedlings and the West African Catalogue of Plant Species and Varieties (COAfEV).</p>	<p>CORAF/WECARD is effectively ECOWAS' technical branch for agricultural R&D. It is tasked with working in close proximity with national seed committees (NSCs) established in each member country and its executive secretary is ensured by the CORAF.</p>

*Mauritania left ECOWAS in 2000, however it recently expressed its interest in re-join the regional bloc, shortly after Morocco formally applied to become a member of ECOWAS earlier this year (The Sahel Standard 2017).

Registration of farmers' varieties in SADC – opportunity or threat?

It is worth mentioning that SADC has reached out to a number of AFSA members regarding the registration of farmers' varieties in the region, as there are varying opinions on this development. Registration of Farmer Varieties is provided for¹³ and is permissible under the SADC Variety Database upon making available the description of the variety in terms of performance, farmer experiences during cultivation, name(s) as well as merits of the variety. Yet, there are no implications for the varieties included. There is a fair amount of scepticism from some quarters of civil society about the function of the database developed through this process, which seems to be mainly for collection of information for the seed authorities. As it stands, farmers' varieties must still pass

DUS and VCU trials before they are eligible for certification within the SADC system, and can be sold on commercial scale.

However, Andrew Mushita of Community Technology Development Organisation Zimbabwe, who has a long history of working with FMSS, sees an opportunity here to work with SADC to create new certification procedures for regional trade of farmers' varieties. The SADC Seed Centre has stated that a procedure will be developed, taking into consideration the difficulties that may be associated with the provision of DUS and VCU information for such varieties. According to Mushita, this could be an opportunity to implement Article 9 of the Seed Treaty and to establish farmer seed multiplication centres to satisfy national and regional seed demand taking into account farmer preferences. (Mushita, 2017)

Mushita has identified the following challenges and opportunities with regard to the registration of farmers' varieties at SADC.

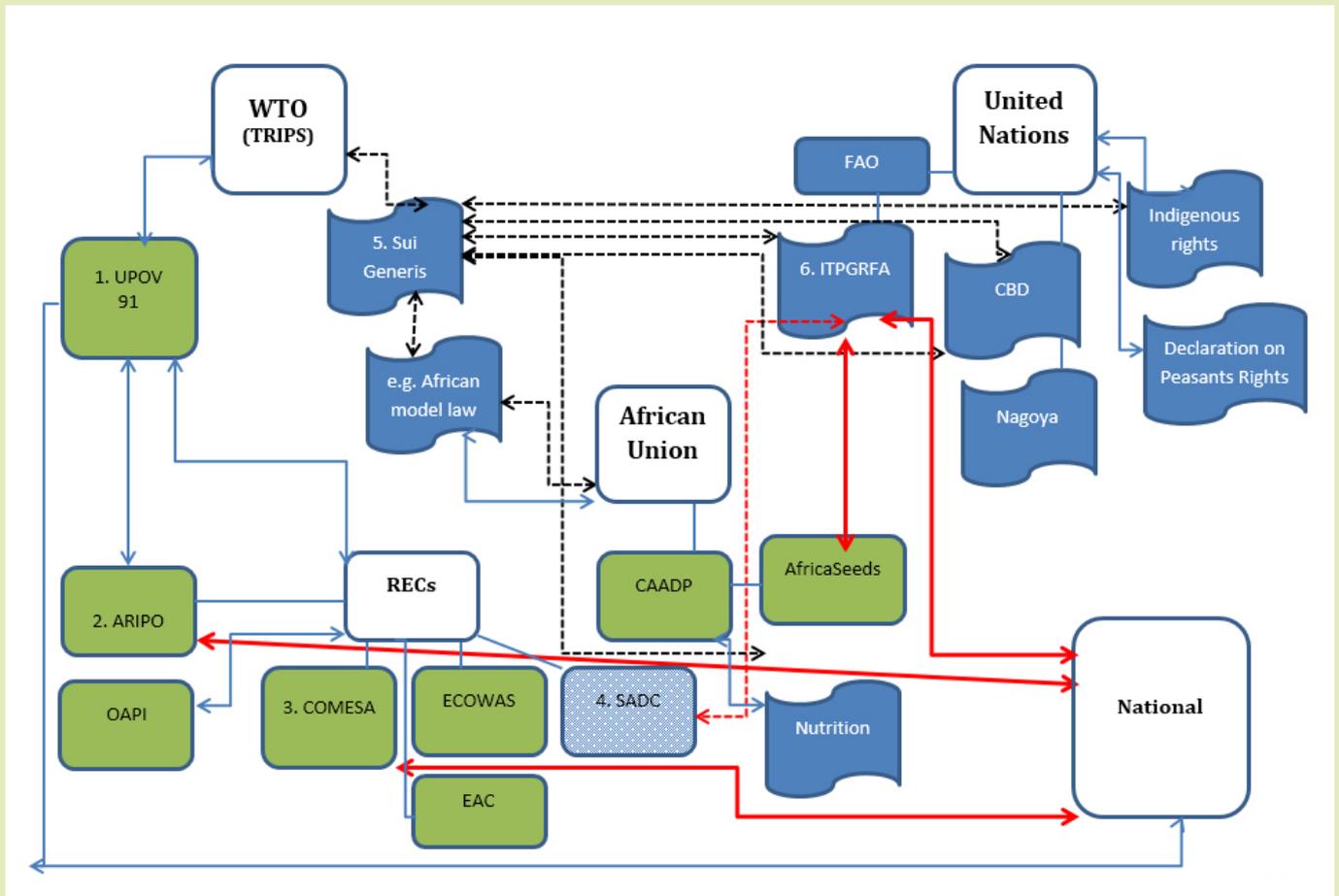
Challenges	Opportunities
SADC regulations are not approved and domesticated at national level	Establishment of Farmer Seed Enterprises (FSE)
The regulations are not aligned with national seed laws in terms of the rules, standards, procedures and supporting measures to facilitate seed movement in the region	Development of the seed market for small grains, legumes and vegetables especially, neglected and under-utilized crops and plants (NUS)
The above elements require legislative changes at national level	Concentrate on the development, registration and seed certification and quality assurance; Creation of adequate capacity to scale up operations to address existing demand within national markets of NUS
Aspects of QDS are not articulated including the relevant procedures	Use the SADC regulations to implement the IT provisions of Art. 9 –Farmers' Rights to save, multiply, sell farm saved seed or exchange and barter
Clarity needed in terms of institutional arrangements and responsibility to register farmer varieties	Establish community seed banks, initiate on-farm PGR characterization and on-farm seed multiplication and organize seed fairs
Competition from multinational companies.	Establish linkages with the SSC and initiate pilot projects.

Source: compiled from Mushita, A. 2017

¹² Regulation N°C/REG.4/05/2008 of the ECOWAS

¹³ Chapter 2 sub-section: 2.3.7 Registration of landraces or and other local varieties

3.3. Summary: Advocacy threats and challenges with regard to seed



Key:

- **Blue rectangles:** threats
- **Green rectangle:** opportunity or threat?
- **Solid blue arrows:** entities that are connected and working together
- **Dotted black arrows:** entities that should be working together
- **Solid red arrows:** work currently spearheaded by AFSA members and potential areas of work
- **Dotted red arrow:** potential for implementation of Farmers' Rights in SADC?

Narrative by numbers:

1. UPOV '91: UPOV has taken advantage of TRIPS Article 27.3b to promote their PVP framework at OAPI, ARIPO, the RECs and national levels.
2. Urgent work is underway on ARIPO to stop national governments from ratifying the Arusha PVP Protocol.
3. COMESA has developed seed harmonisation regulations to be implemented under the COMESA Seed Harmonisation Implementation Plan (COMSHIP). National seed laws will be revisited. Additionally, not only COMESA countries, but all countries should be monitoring amendments to seed trade laws and amendments/drafting of PVP laws.
4. The SADC seed centre is developing a process for the regional registration of farmers' varieties. This could be an opportunity or threat and needs strategic intervention. It may provide an opportunity for the implementation of Farmers' Rights at a regional level.
5. TRIPS allows for a sui generis PVP system. Such a system could be guided by the African Model Law and should, amongst other things, take into account obligations under the ITPGRFA, the CBD and Nagoya Protocol on Access and Benefit Sharing, indigenous rights and nutrition.
6. 43 African Governments are party to the ITPGRFA and are obliged to domesticate measures to ensure farmers' rights and the conservation and sustainable management of agricultural genetic resources. Civil society can represent concerns and case studies at international level. The AU body, AfricaSeeds should be tasked with ensuring implementation of ITPGRFA at Pan-African, regional and national levels. SADC's initiative on farmers' varieties should take ITPGRFA into account and engage with the Commission for technical, research, financial etc. support to fully and holistically support FMSS in the region.

3.4. Resistance: harmonisation processes that have already come under scrutiny and by whom

The AFSA Seed Working Group developed a two-pronged approach on seed - namely promoting FMSS and advocating against unfair seed policies on the continent. There has been consistent work on harmonisation issues under the AFSA seed working group, with a core of organisations driving and contributing, including the African Centre for Biodiversity (ACB), FAHAMU, Commons for Eco Justice, PELUM, COPAGEN, TABIO and ESAFF (Mugambe, B., 2017). The West African Committee for Farmer seeds¹⁴ (COASP) and

JINUKUN also stand out, as does Food Sovereignty Ghana (not an AFSA member) which has led a fierce resistance against the passing of Ghana's PVP Bill.

The ACB has played an especially valuable role in the network on the harmonisation process, with strong support particularly from the Third World Network (TWN) as well as other international groups such as APREBES and the Berne Declaration. This work has entailed monitoring the harmonisation process emanating from ARIPO and SADC as well as COMESA's trade harmonisation process, providing legal analysis, contextual research on the key stakeholders and drivers of these processes in Africa, platforms for membership training and information sharing along with briefings and easy-to-read materials in a variety of languages, engagement with regional

¹⁴ In French: Comité Ouest Africain pour les Semences Paysannes

bodies to force open spaces for civil society and farmer participation and assistance in getting elected representatives into those spaces. Civil society participation at the SADC PVP protocol finalisation meeting resulted in amendments in the text that broadened farmer rights exceptions, inserted a safeguard against biopiracy and rendered the protocol non UPOV-compliant (AFSA, 2015).

The ACB has also worked at national level with many groups, assisting with legal analysis of their seed related laws and creating platforms for national gatherings of farmers, support organisations and local authorities. Additionally, the ACB reached out to allies in the global south – holding a “South-South Dialogue and Learning” on Seed in November 2015, that gathered together members of peasant and civil society organisations and concerned individuals from Africa, Asia, Latin America and Europe who are working on issues of food and seed sovereignty, peasants’ control of seed production and exchange, and biodiversity. The resultant “Declaration on Plant Variety Protection and Seed Laws from the South-South Dialogue”, signed by 23 organisations, is available at <https://acbio.org.za/declaration-on-plant-variety-protection-and-seed-laws-from-the-south-south-dialogue/>

All of this work is available on the ACB website (www.acbio.org.za) and has been distributed to AFSA members as well as a broader database of stakeholders. This goldmine of information can be used as a basis for local advocacy, campaigning and training materials. In some cases the materials may need to be simplified and translated and in some cases this work has already been done by the ACB. The ACB’s expertise lies in research and political and legal analysis and takes on the simplification of the materials at a stress to the organisation, but deems it necessary to ensure that the research is accessible and used. Utilisation, simplification, translation and distribution of such information (with acknowledgement) could be done by AFSA as a way to tap into member expertise for the

benefit of the membership, while adding value to members work.

In support of the harmonisation work, AFSA has at key strategic points collaborated to put out media statements, made policy submissions and engaged with regional bodies to lend the weight of African solidarity. This includes:

- The submission of substantive comments to ARIPO and SADC on PVP protocols¹⁵;
- Lobbying ARIPO to allow civil society participation in meetings;
- Submitting a letter appealing to the AU, United Nations Economic Commission for Africa (UNECA) and member states of ARIPO requesting urgent intervention in the Draft ARIPO PVP¹⁶;
- Writing an open letter to UPOV members highlighting, amongst other things, the way in which the ARIPO process was in violation of Article 9 of the Seed Treaty¹⁷;
- Publishing press releases and mounting social media campaigns at crucial junctures¹⁸; and
- The submission of substantive comments to COMESA on the seed harmonisation treaty, a press release on same and AFSA attendance at the COMESA Harmonisation Implementation Plan (COMSHIP) in 2014¹⁹.

In West Africa, COPAGEN members operate in the eight WAEMU countries as well as the Guinean Republic (Segbenou, 2015). COPAGEN has been spearheading resistance to the harmonisation of biosafety legislation in the region, notably through the training of peasants and NGOs, the analysis and interpretation of legislation and regulations, through initiating dialogue with stakeholders and advocacy and information sharing activities. Under the aegis of COPAGEN, each member country has defined a national road map/action plan focused on food sovereignty and traditional seed systems (Diedhiou, 2017).

COASP was created in 2009 on the occasion of a

¹⁵ Briefing: AFSA makes small gains for farmers’ rights in draft SADC PVP Protocol <http://afsafrica.org/afsa-makes-small-gains-for-farmers-rights-in-draft-sadc-pvp-protocol/>

regional fair. In 2011 a committee was set up and tasked with setting up a cooperation framework aimed at informing and building the capacity Africans with regards to the challenges and threats posed by industrial seed systems. It works across seven countries and is a platform promoting knowledge sharing among the countries of the sub-region. It offers training on traditional and modern seed multiplication and conservation techniques. It is also active in outreach activities and the promotion of seed banks in the villages and involved in advocacy for the recognition of farmer seed systems (Ndiaye, 2016).

JINUKUN has recently instigated a regional collaborative effort focusing on identifying and promoting synergies between participating countries with regards to FMMS. The informal network met in Benin from 12 to 14 July 2017. On this occasion, 40 participants from the main seed organisation of 6 countries in West Africa - Benin, Burkina Faso, Mali, Niger, Senegal and Togo- got together. The collaboration between these 6 countries originally stemmed from a joint study on agro-ecological practices in these 6 countries. A collaborative framework was put in place and the same network decided to keep on collaborating on knowledge sharing and on identifying synergies with regards to FMMS. They will be jointly embarking on a study looking at community based seed management systems in the region, with a commonly defined methodology. The report is expected for April 2018 (Segbenou, 2017).

Seed fairs and caravans as a medium of resistance and networking for regional and national farmer organisations

AFSA network members across the continent are involved in regular seed fairs and caravans, community and household seed banks and libraries, connecting farmers and technical institutions to access germplasm or engage in breeding activities etc. It is beyond the scope of this paper to do justice to all of these initiatives, which constitute active resistance to impending changes in the seed regime. However, we offer just one illustration of the power of seed fairs to create opportunities to share traditional knowledge and display agricultural techniques (construction of traditional granaries, sowing and nursery techniques, seed conservation, bread-making with millet, etc.), debate important issues and in some instances develop declarations that can then be distributed to peasant farmer organisations as well as national and international institutions (BEDE, 2017b).

Several seed fairs took place in Senegal between 2007 and 2014 have raised awareness on the threats to FMSS and the need to defend traditional seed systems. The first West-African Fair for Farmer Seed varieties was organised by ASPSP in the village of Djimini in the Upper Casamance. Such seed fairs have also been organised in Benin and in Togo²⁰.

16 AFSA appeals to ARIPO, AU and UNECA for protection of farmers' rights & the right to food <http://afsafrica.org/afsa-appeals-to-aripo-au-and-uneca-for-protection-of-farmers-rights-right-to-food/>

17 Open letter to UPOV <http://afsafrica.org/open-letter-to-members-of-the-international-union-for-the-protection-of-new-varieties-of-plants-upov-2>

18 PR: ARIPO PVP: Ferocious campaign against seed saving <http://afsafrica.org/aripo-pvp-regulations-ferocious-campaign-against-seed-saving-farmers-in-africa-and-against-state-sovereignty/>

PR: ARIPO sells out African Farmers <http://afsafrica.org/aripo-sells-out-african-farmers-seals-secret-deal-on-plant-variety-protection/>

PR: ARIPO shuns African farmers. <http://afsafrica.org/aripo-shuns-african-farmers-over-pvp-protocol-abolishing-farmers-rights-to-seeds/>

19 PR: AFSA condemns ARIPO www.acbio.org.za/index.php/media/64-media-releases/456-afsa-strongly-condemns-sleight-of-hand-moves-by-aripo-to-join-upov-1991-bypass-national-laws-and-outlaw-farmers-rights

PR AFSA condemns COMESA approval of Seed Trade Regulations <http://www.esaff.org/new/afsa-condemns-comesas-approval-of-seed-trade-regulations/>



On the occasion of the 4th edition of the West African peasant seed fair, held in Djimini, Senegal from 11-13 March 2014, 300 participants, representing 54 delegations from Benin, Burkina Faso, Gambia, Niger, Mali, Togo, Senegal, Guinea, India, Europe and Canada assembled to promote peasant seeds. This event culminated in the formulation of the Djimini Declaration²¹, which can be heralded as a manifesto of what FMMS are about in the region. In it this context that COASP-Mali was born. Malian stakeholders decided to organise themselves as a national network, the vision of which is inspired by the Djimini Declaration (Bede, 2017).

Work in the pipeline:

In East and Southern Africa, ACB has started work on a number of national and regional law and policy scoping studies, which will look at these processes in depth and inform further work. These studies are to be released in the coming months and cover the following:

- A scoping report on the status of seed and PVP laws and policies in East and Southern Africa;
- A scoping report on the status of harmonisation of plant variety protection and seed regulations under the auspices of SADC;
- Status quo report on efforts by SADC to put in place a system to register farmers' varieties;
- A scoping report on the status including implementation of the harmonisation of seed laws under the auspices of COMESA; and

- SADC and USAID's Feed the Future Pilot project to establish a harmonisation of seed laws and implementation thereof with four African countries in regard to certain crops.

In addition, the SADC seed centre has reached out to a number of civil society organisations with regard to the regional registration of farmer's varieties. There is to date no clear and cohesive position regarding the potential pitfalls and opportunities provided by the SADC provisions on farmers' varieties. The related ACB study mentioned above will no doubt provide key insights for further digestion. As previously mentioned, CTDT is keen to embark upon a process with the SADC seed centre to develop mechanisms for the support of trade in farmers varieties, including pilot projects.

In West Africa APREBES are working with IRPAD and Bede to investigate the situation in regard to OAPI and UPOV and they will be holding a general multi-stakeholder consultation workshop in Mali for the revision of the seed law in September 2017.

COPAGEN has just completed a regional workshop (July 2017) to bring together different initiatives on seed regulation in six francophone countries (Benin, Burkina Faso, Mali, Niger, Senegal and Togo). COPAGEN is about to publish documentation reviewing seed regulations in the above-mentioned six countries plus Côte d'Ivoire, Guinea Conakry and Chad.

²⁰ The Bede Association has been documenting these seed fairs: <http://www.bede-asso.org/en/collaborations-par-regions/afrique-de-louest/foires-et-bourses-de-semences/>

²¹ accessible from <http://www.bede-asso.org/coasp-mali-comite-ouest-africain-des-semence-paysannes-mali/>

4. Recommendations

International

1. Engagement with the ITPGRFA:
 - Ensure strong civil society representation at the ITPGRFA. Current issues include: suggestions to catalyse national compliance, improvement of farmer participation, a review of crops considered in Annex 1, improving benefit fund mechanisms, asserting that the Treaty should engage at national level with regard to seed legislation, attention to agribusiness mega-mergers and resistance against new technologies that open the multi-lateral system to biopiracy.
 - Engage with the Commission on Genetic Resources for Agriculture to unlock opportunities for strengthening FMSS at national level. Such opportunities may include in-situ and ex-situ conservation, support for plant breeding and diversification of crop varieties for sustainable agriculture, support for seed production and distribution, and building human and institutional capacity.
 - Monitor and encourage pan-African bodies, regional bodies and national governments to implement their obligations, and expose non-compliance where appropriate.
2. Support civil society organisations that are already engaging with the Draft United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, strengthening consultation, debate and awareness raising to deepen discourse and solidarity.

Pan-African

3. Elaborate a shared vision of FMSS and potential policy frameworks. This is the most glaring policy gap and needs a long-term plan for consultation from grassroots through all levels to critically discuss FMSS and how to support it – underpinning values and vision, strengths and weaknesses, new measurements for success, required institutional, legal and infrastructural support, etc. Elements of such a process may include: national workshops and case studies, cross-country farmer to farmer exchanges including seed fairs, farmer caravans, Pan-African meetings with farmers, NGOs and experts to share experiences and propose policy. Additionally, bring in a wider range of social movements and stakeholders to converge around a common theme and place seed on their agendas, e.g. land, nutrition, labour, indigenous rights, African jurisprudence groups, etc.
4. Create platforms for actors resisting seed harmonisation laws to share their research, to debate and clarify positions, build solidarity and prepare joint plans and proposals. It is crucial for farmers to be involved and well capacitated on these issues.
5. Engage with the AU's AfricaSeeds to counter the strong industry element that is defining the African policy and programme agenda on seed.
6. Engage with AU's Africa Regional Nutrition Strategy (ARNS) and the Africa Renewed Initiative on Stunting Elimination (ARISE), and the Scaling up Nutrition (SUN) initiatives to put FMSS on the nutrition agenda.

Regional

7. Encourage ARIPO member governments to reject ratification of the Arusha Protocol and continue to pressure ARIPO through media and other means. Strengthen solidarity among activist groups to define how best to support emerging plans, e.g. publishing media statements and open letters, making submissions, running media campaigns, producing and distributing relevant campaign materials and briefings, and bringing stakeholders together for sharing and planning.
8. Monitor activities in the RECs on seed harmonisation. SADC, COMESA and ECOWAS are all underway; EAC is about to initiate activities.
9. Engage with the SADC Seed Centre's initiative around registration of Farmers' Varieties to enable regional trade and potential for implementation of Farmers Rights at SADC level, along with national pilot projects.

National

10. Monitor the revision/development of national seed and PVP laws to meet harmonisation efforts. Raise awareness on these processes, and raise the alarm when draconian policy is being drafted.
11. Research FMSS and compile case studies of best practice and challenges, with a view to raise awareness and strengthen FMSS practice and inform policy.



Annex 1: Case Studies

Zimbabwe

Introduction

We chose Zimbabwe as a case study for a number of reasons, including its long history of implementing the Green Revolution, its mature formal seed system alongside an incredibly marginalized and yet still vibrant and sustained farmer managed seed system, and the State's necessary focus on smallholder farmers in the wake of Zimbabwe's radical land reform process. The land reform process, which had a major impact on Zimbabwe's agrarian sector, makes it unique on the continent. However, we don't feel that this unique nature means that lessons learnt from their situation cannot be applied elsewhere. Instead, their uniqueness provides opportunities to see how things may be approached differently. Zimbabwe is a signatory to the ITPGRFA and is also a member of several regional bodies that have developed seed-related protocols – ARIPO, COMESA and SADC.

Background

Zimbabwe is a landlocked country located in southern Africa, between the Zambezi and Limpopo Rivers. It is home to a population of 13 million, 70% of which depend on agriculture for their livelihood. Agriculture contributes up to 18% of the gross domestic product (GDP), over 40% of national exports and provides almost 60% to agro-industries. Commercial agriculture formally provides employment for about one third of the population (ACB, 2015). Maize is the staple food; other cash crops are tobacco, cotton, soya, wheat and horticulture. There is a significant nutrition crisis in Zimbabwe; for example, the incidence of type 2 diabetes has grown from less than 1% in 1980 to about 10% in 2017, while about 35% of children are stunted.

Private seed companies dominate Zimbabwe's industrial seed sector with a strong focus on maize and indeed the adoption of hybrid maize varieties in Zimbabwe is very high. Weak demand by smallholder farmers (largely attributed to low purchasing power) has justified government participation as a big buyer and distributor of seed.

Efforts to research and distribute new varieties go as far back as the 1960s in Zimbabwe when policy and regulations were in place to ensure white monopoly through land allocation, research, marketing & service institutions. From independence in the 1980s a dualistic, state controlled system emerged. At that time Seed Co. Ltd. was the sole producer of seed for seven crops (maize, sunflower, wheat, barley, soybeans, groundnuts and sorghum) and up until 1990, just three companies dominated the seed industry - Seed Co. Ltd., Pannar Seeds, and Pioneer. The 1990s saw economic reform, liberalisation/privatisation, new private entrants, and the decline of public research and extension. Fast-tracked land reform from 2000 onward and the collapse and "dollarization" of Zimbabwe's economy in 2009 (post global economic crash) has entrenched a cycle of seed aid, political patronage, and the domination of private and donor sector agendas. It also ushered in a greater dependency on the informal sector, local trade and seed.

Today there are 38 companies registered with the National Certifying Authority (NCA). Variety registration, seed production and marketing activities are regulated by Seed Services (National Certifying Authority), under the Ministry of Agriculture. An association of seed companies - the Zimbabwe Seed Trade Association (ZSTA) works closely with Seed Service and through these two bodies, the Zimbabwe seed industry works and participates in various regional and international associations and technical bodies such as ISTA,

AFSTA, SADC, COMESA, UPOV, ARIPO and OECD (TASAI, 2015).

Zimbabwe has a relatively high extension officer to farmer ratio of about 1 to 300. Private seed companies maintain active relationships with extension officers, especially during the planting and growing season. Large seed companies like Seed-Co, Pioneer and Pannar also build relationships and efficiency through events such as awarding ceremonies for extension worker and farmer of the year and may also provide extension staff with motorbikes to ensure that they get to where they need them to be (TASAI, 2015). The seed industry is described as “mature” and well functioning, based on well-established seed policies and regulations. However, the economic hardships of the last decade have had an impact on the sector.

Current seed legislation

- Zimbabwe’s Plant Breeders’ Rights (PBR) Act 22 of 2001 is based on the 1978 version UPOV and therefore has greater flexibility in how small scale farmers may use protected seed. For example, farmers cultivating on communal or resettlement land, who make at least 80% of their income from farming, are exempt from breeders’ rights and may therefore multiply and exchange protected seed. This is at odds with ARIPO’s Arusha Protocol, which does not allow for exchange of protected varieties, even for small-scale farmers. Zimbabwe is a member of ARIPO, and, although Zimbabwe has not signed ARIPO’s Arusha Protocol, it is in the process of amending its PBR Act to come in line with UPOV 91. (ACB, 2016)
- The Seed Act, its enabling regulations and the Seed Certification Scheme Notice (2000) lay out the procedures and guidelines for seed certification and quality control. Seed

certification is mandatory for eight crops that are of commercial importance, namely maize, soybean, tobacco, cotton, wheat, barley, oats and potatoes. For these crops, no “standard grade seed” - roughly equated to QDS - may be sold. The Act mandates that only registered sellers may sell seed, however, the law does contain an exemption that allows farmers to sell seed to one another²². If however, farmers want to sell on the market, they would need to meet the country’s certification standards. (Visser, B. 2015)

A core narrative on seed dominates policy in Zimbabwe that runs through government, donors and most NGOs, especially since the global economic crash in 2008. This narrative assumes that there is a shortage of seed that needs to be addressed through subsidization and distribution of improved varieties and is supported politically and institutionally by a powerful network of actors for which seed is a tool of patronage (Mutonhodza-Davies, C. 2015). This centralised, supply-centred, top-down approach guarantees a high volume market for agribusiness, with government as the main buyer of seed in an environment where farmers have low buying power. Research into the Farmer Input Subsidy Programme (FISP) has found that the major beneficiaries of this money, drawn from the public purse, include Seed Co., Pioneer Hi-Bred/Pannar, and Monsanto for seed along with Zimbabwe Phosphate Industries (Zimphos), Zimbabwe Fertiliser Company (ZFC), Sable Chemical Industries and Windmill (ACB, 2015). This emergency narrative, which plays on the need for urgency and welfare to address a humanitarian crisis, has obscured other more systemic solutions and critiques that identify the need for the private sector to be redesigned as demand driven and for the farmer base to be rebuilt from the bottom up (Mutonhodza-Davies, C. 2015).

²² *Seeds Act 2001. Art. 8.1. & 2. Unregistered laboratory or person may not test or sell seed does not apply to “the sale of seed which is grown by any farmer and sold by him to a person for use as seed by such person”.*

Zimbabwe Seed Sovereignty Programme (ZSSP)

Despite the larger political agenda to promote the products of the formal seed industry, there are a number of initiatives that are focusing on the sector that is providing for at least 95% of Zimbabwe's seed needs – FMSS, and establishing good collaborative relationships with government. The Zimbabwe Seed Sovereignty Programme (ZSSP) is one such initiative. It builds on the well-known work of CTDO that has focused on strengthening FMSS for many years in Zimbabwe – by taking the work out more widely and bringing more actors on board in the seed issue. ZSSP is a partnership of seven organisations - Participatory Ecological Land Use Management (PELUM) Zimbabwe, Fambidzanai Permaculture Centre, Chikukwa Ecological Land Use Community Trust (CELUCT), Zimbabwe Small-scale Organic Farmers' Forum (ZIMSOFF), Farmers Association of Community Self-Help Investment Group (FACHIG), Towards Sustainable Use of Resources Organisation (TSURO) and Practical Action. The programme is dedicated to elevating FMSS and capacitating farmers and support organisations to implement effective programmes to revive, protect, nurture and improve local seed systems. ZSSP brings farmers together through seed fairs and capacity building events to build technical skills, promote seed exchange, build and share knowledge on nutrition, celebrate traditional knowledge and also create spaces for understanding laws and policies that impact on seed resilience and sovereignty. Links have been made with Zimbabwe's gene bank to help repatriate lost agro-diversity and access technical expertise and extension services (e.g. Agritex), as well as build farmer capacity to produce and manage seed.

ZSSP events and fairs bring excitement and pride around local seed and foods. A wide array of seeds and prepared dishes have been shared at festivals and other events, including varieties of pearl millet, sorghum, finger millet, cowpeas, ground nuts, pigeon peas, Bambara nuts, pumpkins, yams, maize, indigenous fruits and many more. At the

2016 Good Food and Seed Festival (formally the Zimbabwe Traditional and Organic Food Festival), participants were treated to gastronomic delights such as finger millet sadza, baobab drinks, maheu (traditional beer from sorghum or millet), scones made from small grains and traditional vegetables such as black jack, amaranthus and spider plant. Children and youth were also especially catered for with a "kids zone" featuring live music and traditional instruments (PELUM Zimbabwe, 2016).

The gene bank has lauded the ZSSP seed fairs and programmes, noting that such efforts are crucial for promoting a diversity of high quality traditional and open pollinated seed to mitigate climate change and support household level nutrition (PELUM Zimbabwe, 2016). It is recognised however, by all stakeholders, that these activities are happening within the "grey areas of the law" and that comprehensive laws and policies are needed to safeguard, strengthen and improve FMSS (Pswarayi-Jabson, G. 2017). However, the policy environment is messy terrain, with the private sector blocking the passage Farmers' Rights legislation (Mushita, A. 2017) and Zimbabwe's membership to three regional bodies - ARIPO, SADC and COMESA – is potentially problematic as all have policies on PVP (ARIPO and SADC) and seed trade (SADC and COMESA) that are not in concert with one another or completely aligned with Zimbabwe's national legislation. The pressure being exerted through regional bodies to create industry friendly environments and suppress FMSS is immense. This is at odds with the Zimbabwean experience of great reliance on FMSS through the past decade of economic collapse and weak state institutions and the powerful contribution that FMSS makes to agro-biodiversity, household nutrition and food security. However, the partners and farmers participating in the ZSSP continue to go from strength to strength and showcase the diverse benefits that can be reaped from cohesive communities that have skills to control, manage and improve their agricultural resources in collaboration with support organisations and government institutions.

Mali

Introduction

To some extent, Mali's current seed legislation recognises traditional seeds, but grey areas remain that call for a specific definition of traditional and farmer varieties, as well as provisions regarding the production and distribution and marketing of these varieties. In other words, the Malian Government needs to either make legal provision for FMMS as a distinct piece of legislation or to amend the current seed law so as to integrate FMMS in a comprehensive manner. The opportunity to incorporate FMMS into Mali's legal seed framework has come with the government's recent announcement that the seed legislation would be revised

Two organisations - the Association Biodiversité Échanges et Diffusion d'Expérience (BEDE) and the Institute for Research and Promotion of Development Alternatives (IRPAD) - have jointly pioneered an approach aimed at setting up a collaborative framework between the relevant stakeholders that should shape this new seed system. The process, called "Seeds, norms and farmers" (Semences, normes et paysans - SNP) was initiated in 2016 and is still underway. Their experience is captured in this case study as the methodology adopted could certainly inform other countries about to embark on a similar process - or willing to lobby for a revision/reform of their national seed law.

Background

The Malian Government set about structuring the seed sector in the 1970s, essentially as a response to the need to "better organize" the sector in the wake of the successive years of drought that plagued the Sahel region. The Selected Seed Production Operation (OPSS) - was established in 1977, with the responsibility of harvesting, storing and distributing seed. A national seed plan was then developed in 1987, which defined the orientations of a national policy for selected seed. In 1991, the new

national seed policy was based on a National seed plan (PSN), with the National Seed Service (SSN) serving as the implementing agency. It is in this period that the Malian Government restructured (in the framework of the structural adjustment programmes) the services of the rural development Ministry, which translated in the private sector (the producers) playing an incremental part in seed-related activities (Republic of Mali undated).

A dual seed system operates in Mali - an informal and a formal one. Within the informal seed system, a distinction can be drawn between traditional or farmer-saved seed system, whereby "farmers maintain seed of their local varieties for their own consumption and production, and ... multiply and exchange seed on an in-kind, or cash basis" and the "community-based seed system", whereby "farmers organized in groups or associations produce quality seed of local and improved varieties" (IISD, 2012:1). As traditional and farmer varieties also form part of the genetic resources used by researchers, these effectively also become part of the pool from which "improved" varieties are produced, after having been purified in research stations and then sold back - at a cost - to farmers (IRPAD & BEDE, 2016).

The formal seed system also accommodates two categories: on the one hand, the so-called "commercial, mixed seed system" involves several public, private and community-based stakeholders and conforms to the typical formal value-chain. On the other hand, there is the Malian Cotton Development Company (CMDT), which is a public organization that controls the use of improved cash crop varieties (mainly cotton), through a closed value chain. In both these formal systems, the production process is regulated and controlled; all the seeds are certified and distribution takes place through commercial marketing (IISD, 2012).

The impact of the formal seed industry on agrobiodiversity is often cited as problematic in international discourse on seed. An example of this problem, gleaned from research looking at the past fifty years in the area of Safo (a peri-urban area of Bamako), found that 15 out of a total of 36

cultivated varieties of sorghum are reported to have disappeared. Similarly, 9 out of 34 varieties of maize can no longer be found and neither can 5 out of 10 varieties of millet. According to the research, this trend stands in contrast to the very low ratios of losses for varieties that are traditionally cultivated and saved by women, such as cowpea, for which only 1 out of 16 varieties is said to have disappeared. A variety known as wandzou, also cultivated by women, has not suffered any losses over this time period (Bioporaerie, undated).

Mali's legal framework with regards to seeds

Plant Variety Protection

Mali's PVP falls under the ambit of OAPI, however the national and regional laws are currently not in agreement as Mali's law allows farmers to use protected varieties without authorisation. However, in instances where national and supranational texts clash, the supranational framework prevails in accordance with the Malian Constitution.

Mali has registered 50 PVP varieties under OAPI to date – the highest number of any OAPI member. However, the IER has not been able (and willing) to pay the high registration fees since 2010/11 when the World Bank Funding originally allocated towards this process (50 million CFA francs) came to an end. The cost to the IER to have these varieties IP protected is astronomical (to the tune of 16,5 million CFA Francs per annum) and does not make economic sense because these varieties are hardly bringing in any money due to the fact that locals do not purchase varieties that are not locally adapted (de la Perrière and Berson, 2014:4). These seeds have been back in the public domain since then, providing an illustration of why PVP is not suited to the African context (Coulibaly, 2017).

Seed Trade Law

A major shift occurred in Mali in 2010 with the amendment of the 1995 seed law - which only

authorized the trade of seed registered on the national catalogue, hence criminalising the trade of traditional varieties. The 2010 seed law recognizes traditional varieties as forming part of the national heritage and also signalled the end of the IER's monopoly on seed research as the seed sector became liberalized (IRPAD & BEDE, 2016).

The process that led to the revision of the 2010 seed law in Mali was deeply influenced by a national coalition of farmer associations known as the "Coordination des organisations paysannes du Mali", which spearheaded the compilation of a memorandum that influenced the 2010 legislation. Local farmer associations were also active in preparing for the revision of the 2010 seed legislation. Among these were the West African Coordination Malian Network²³ (COASP-Mali) – a consultation framework counting 29 farmer organisation committed to the promotion of farmer seed and the recognition of farmers rights - and the Association of professional producers of Mali, which is involved in the certification of seeds.

The change in Mali's seed law is construed as an attempt to domesticate the ITPGRFA at the national level. However, an analysis by IRPAD and BEDE shows that although there is a clear political will to recognize and protect traditional varieties, the mechanisms to do so remain undefined. They argue that the legislative intent in the 2010 Seed Law was to deal with the certified seed system and to relegate traditional seeds to the international conventions. An opportunity to remedy this has presented itself with the forthcoming revision of the seed legislation announced by the Malian Government. (At the time of writing the terms of reference had reportedly been issued) (Coulibaly, 2017). IRPAD & BEDE have provided an analysis of the provisions that can serve as entry points to promote the recognition of FMMS, which is available in Annex 1.

Mobilising action on seed legislation

In response to the need to involve farmers in the forthcoming revision to the seed legislation in Mali and to make them effective actors of this process,

IRPAD and BEDE set up a “cooperative framework” aimed at empowering farmer organisations so that they are able to enter into a dialogue with the public institutions to bring about a “consensual legal framework that protects the rights of Malian producers with regards to traditional/farmer seeds” (IRPAD & BEDE, 2017:3).

The process, called “Seeds, norms and farmers” (Semences, normes et paysans - SNP), was initiated in 2016 and included:

- Making available an analysis of all regional and national text, with a specific focus on identifying entry points for the recognition of farmer/traditional seeds,
- Hosting a series of four workshops that gathered over one hundred representatives of stakeholders in the seed sector including COASP Mali, farmers from the certified seed multiplying cooperatives²⁴ (AOPP), producers from the main national seed organisations and the agro-ecological representatives of the National Coordination of Farmer organisations (CNOP),
- An exchange with the relevant public institutions, research centres and NGOs, and
- A workshop gathering all the aforementioned parties to align positions and develop a common strategy. This culminated in

establishing two axes: one focusing on the strengthening of FMMS called “farmer know how and farmer know how to be” and another focusing on political advocacy and the promotion and recognition of farmers rights in the country’s legal framework.

The fact that Mali has contrived to comply with a regional harmonization process that does not recognize FMMS doesn’t mean that the country is unilaterally committed to this process or in agreement with it. In Mali, although the current legislation on FMSS remains unspecific, the important roles played by landraces and local varieties “in the context of crop improvement, adaptation to climate change and resistance/tolerance to pests, diseases and soil disorders, etc.” is recognized by the government, which is committed to preserving these varieties and allowing farmers to multiply and share seed among themselves” (ISSD, 2016). This is exemplified by the fact that the IER is driving several initiatives in support of what are known as “cases de semences” (seed houses) (Coulibaly, 2017). There are high expectations that continued mobilisation, solidarity and policy engagement, along with continued work on the ground to protect and support FMSS, will bring about legal recognition and institutional support for FMSS, which is so crucial for livelihoods, household food and nutrition security, and resilience in the face of climate change.



23 Réseau Malien de la coordination ouest africaine

24 In French: Association des organisations des producteurs professionnels du Mali

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