Matching global commitments with national realities

Summary of theme synthesis

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Summary of activities and outcomes

How can governments of African countries implement their global commitments to various policies whilst fostering a viable and pluralistic seed sector? Global commitments that fail to recognize national realities will also fail to acknowledge the importance of different seed systems in providing farmers access to quality seed. Making these commitments more coherent with the practices and realities of farmers and creating an enabling environment for strengthening multiple seed systems will increase farmers’ access to quality seed.

After several discussions and meetings, the following three Action Learning Questions (ALQs) were selected for analysis during the 24-months piloting phase of ISSD Africa:

1. How can national and regional seed laws support the development of a robust, integrated seed sector that supports smallholder farmers' needs?
2. How can room be created for informal and intermediary seed systems in a UPOV '91 informed Plant Variety Protection system?
3. How can Access and Benefit-Sharing policies make valuable contributions to seed systems that promote farmers’ resilience to climate change?

The three ALQs have been studied by a combination of desktop research, interviews and some field work. Whereas the first two ALQs are characterised by a regional and continental focus, the third ALQ was addressed through country studies in four African countries (Rwanda, Uganda, Zambia and Zimbabwe). Several national and international meetings have been organised in order to bring key stakeholders together to discuss and validate research findings and to reflect on future steps. The research and meetings have been co-organised and co-funded by several organisations, amongst which are Bioversity International, Community Technology Development Trust, the Dutch Ministry of Economic Affairs, Oxfam Novib, the University of Cape Town and Wageningen University, and the Netherlands Organisation for Scientific Research (NWO).

1. How can national and regional seed laws support the development of a robust, integrated seed sector that supports smallholder farmers’ needs?

The term ‘Seed Laws’ refers to a wide range of laws, policies and regulations that deal with plant health, variety protection, and the identity, purity and quality of seed, as well as crop diversity. Many countries and regional organisations in Africa aim to strengthen the seed sector by assuring that certain quality standards and regulatory conditions for the production and trade of seed are being adhered to, as part of a wider policy to reach full food and nutrition security.

From an ISSD perspective, a key question is how the various national and regional seed laws relate to the diversity of seed systems that exist in a given country. In particular, more clarity is needed on how current seed laws affect the so-called ‘informal’ or ‘farmer managed’ seed systems and in what manner seed laws can be adapted to support these farmer seed systems, on which agriculture in many African countries relies to a large extent. In order to answer these questions, an inventory of African seed policies and laws has been executed and an international expert meeting and national stakeholder meeting have been organised.

It was found that smallholder farmer interests and farmer-based seed systems are poorly recognized and supported in current seed laws on the African continent. This seems mainly a result of poor understanding of the importance of farmer seed systems and a general bias towards major market crops in existing legal frameworks. In addition, there is poor participation of smallholder farmer representatives in seed law development and implementation.

Study findings show that obligations for the registration and certification of seed, seed lots and seed producers often impose excessive transaction costs which small-scale farmer seed producers regularly cannot meet. The registration of farmer varieties has proven difficult if not impossible due to strict
standards for Uniformity and Stability for new varieties. Alternative quality assurance mechanisms tailored towards the needs and characteristics of farmer-based seed systems a poorly understood and catered for. Some seed laws were identified that criminalise ‘informal’ farming practices such as the multiplication, selling and exchange of farm-saved seed.

To promote seed policies and laws that also include legal space and support for farmer seed systems awareness needs to be created on the importance, roles, and needs of smallholder farmers, including stronger representation of smallholder farmers in seed law development. Regular review of national and regional seed laws should be promoted and should include explicit consideration for farmer-based seed systems. More specifically, further research is needed to deepen understanding of alternative quality assurance mechanisms for farmer-based seed systems, including the piloting of such systems in willing countries. Similarly, laws and guidelines for the registration of farmer-derived varieties should be developed and tested, as well as seed law provisions that provide support for initiatives that strengthen farmers’ capacities to manage their own diversity, e.g. seed fairs and farmer field schools.

2. How can room be created for informal and intermediary seed systems in a UPOV ‘91 informed Plant Variety Protection system?

Plant Variety Protection (PVP) gives a right holder (breeder) the possibility to exclude others from using his or her invention (plant variety) for a particular period of time. African regional organisations are currently establishing PVP systems which are in line with the international standards set by the International Union for the Protection of New Varieties of Plants (UPOV). Proponents hope that a UPOV-compliant PVP system will incentivize breeding and the introduction of new varieties, while opponents fear that such PVP system favors foreign seed companies and criminalize farmers. The dichotomies between proponents and opponents have taken center stage in national and international debates on this topic and there is much distrust and misunderstanding between the various parties involved.

From an ISSD perspective, the challenge for African countries is to strike a balance between protecting the interests of breeders in order to maintain the incentive function of plant breeder’s rights in the commercial market, while providing leeway to smallholder farmers that depend on informal sources for their seed security and survival. The project has created space for key stakeholders to meet and discuss their viewpoints in order to start a process of mutual learning and understanding, both at the international and national level. An ISSD discussion paper has been produced and the key findings have been published in Nature Biotechnology and the World Intellectual Property Journal.

These findings show that in most African countries, PVP is relevant for only a small segment of the formal seed sector. PVP, like any intellectual property rights, are intended to stimulate innovation and development by regulating rights and obligations amongst parties involved in commercial trade. A PVP system will not incentivize breeding in crops for which there is no commercial market. For that reason, public research organisations should carefully manage PVP applications and not overestimate prospective revenues.

It was also concluded that a UPOV 1991 compliant PVP system can restrict the accessibility of protected varieties for smallholder farmers as it does not allow farmers to trade seed of a protected variety. Recent research confirms that smallholder farmers access their seed mainly from informal channels with the majority being bought from local markets. Therefore, it is recommended that UPOV member countries apply a broad interpretation of the UPOV exemption for acts done privately and for non-commercial purposes. This can be done by developing regulations that allow a certain category of farmers (i.e. smallholder or resource-poor farmers) to freely save, exchange and sell farm-saved seed of protected varieties.

Other concerns raised during the stakeholder meetings relate to the need to improve transparency and democratic accountability in decision-making processes on PVP, and the compatibility of the UPOV system with national and international legislation on Access and Benefit Sharing.
3. How can Access and Benefit-Sharing policies make valuable contributions to seed systems that promote farmers’ resilience to climate change?

The international community has negotiated international laws related to the conservation and sustainable use of genetic resources, and to accessing those genetic resources and sharing benefits associated with their use. These include the Convention on Biological Diversity (CBD), the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and the Nagoya Protocol (to the CBD) concerning access and benefit sharing. In theory, these agreements should provide useful policy support for the exchange and use of genetic resources as part of countries climate change adaptation strategies.

Climate change is increasingly affecting many farmers and rural communities specifically impacting agricultural productivity and food security. Farmers need to access and manage crop diversity (both between and within crops) with a range of genetically based functional traits as insurance to increasingly unpredictable precipitation, droughts, shifting growing seasons, and prolonged dry spells.

Research on this ALQ has involved, amongst others, participatory research with farming communities in four case study countries (Rwanda, Uganda, Zimbabwe and Zambia) to identify 1) local climate changes, 2) impacts on local food crops, and 3) potentially adapted germplasm (suited to the changing climate) that is currently hosted in national and international genebanks. In addition, the four country teams have analyzed the state of ABS policies and evidence of their influence on germplasm flows and benefit sharing, and made recommendations on ways forward to implement the global ABS agreements so that they can support climate resilient seed.

The study findings show that in light of climate change predictions there will be less and less potentially adapted materials in national gene bank collections. In contrast, there is a lot of material in foreign genebanks that is potentially adapted to the four countries’ changing climate conditions. Those materials were originally collected from many different countries and continents. It was also found that quality seed of adapted local varieties is often not available. In participatory exercises, farmers identified some potentially useful, adapted varieties being grown by one or a few farmers locally, but they are not available for use. Impediments to their wider use include lack of quality seed (including foundation seed), seed laws that ‘criminalize’ their sale and/or exchange, and subsidies for alternative materials promoted by companies and national programs.

It can be concluded that countries will become increasingly reliant on materials from other countries. Yet, there are significant challenges to getting materials from other countries. Some of the challenges that came through most clearly from the case study countries are:

- The fact that most countries in sub-Saharan African don’t have on-line accession level documentation (which is geo-referenced) making it impossible to discover whether or not they have potentially adapted materials to climate conditions;
- The ITPGRFA’s multilateral system of access and benefit sharing is not adequately implemented, so systems are not in place to request, and receive facilitated access;
- The Nagoya protocol is not implemented, so there is inadequate recognition of the interests of farmers and breeders as potential providers of materials outside the multilateral system, leading to disincentives to share materials;
- National and regional seed laws make it illegal to market farmers’ varieties within countries and in other countries in the regions.

It will be necessary to invest in capacity building to take full advantage of potential contributions of the ITPGRFA and Nagoya Protocol for climate resilience. These agreements are not self-executing. The studies show that a range of organizations will need to play intermediary roles, between formal sector organizations and farmers, to ensure that they are ‘brought into’ systems for providing and receiving seeds and genetic resources. Considerable effort will be required to overcome historical division between formal and informal seed systems, and to integrate them where useful for climate change adaptation.

Future work should focus on the mutually supportive implementation of the ITPGRFA, Nagoya Protocol and national/regional seed laws, in ways that reflect the reality and diversity of different seed systems,
with the objective of ensuring that all actors involved in formal, informal and mixed seed systems – especially farmers – are able to access and use quality reproductive materials (genetic resources/seeds) to adapt to climate changes. A (sub)regional approach to this effect would make sense given the realities for contiguous climates and agro-ecosystems spanning across international borders, and the likelihood that adapted germplasm will be located across each other’s borders. Also, such approach would hopefully help to build the shared sense of purpose and trust necessary for actors concerned to be willing to share materials and benefits associated as part of climate change adaptation strategies.