

Competitiveness

Emerging insights and perspectives for advancing the transformation of Africa's seed sector

ISSD AFRICA BRIEFS:

BRIEF 1: Terminology

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BRIEF
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Ambition

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Integrated Seed Sector Development in Africa (ISSD Africa) is an international Community of Practice (CoP) working to alleviate the problem of farmers' limited access to quality seed. Its vision is a vibrant, pluralistic, and market-oriented seed sector in Africa. The CoP unites diverse organizations that are inspired in their work by ISSD's guiding principles; they promote pluralism in the seed sector, recognize the value of formal, intermediary, and informal seed systems, take an evidence-driven approach, and pursue multiple desired food system and seed sector outcomes.

This document supports and complements the third ISSD communiqué. It is one in a series of eight briefs.

Brief 1 – Terminology, defines the foundational concepts informing the communiqué and accompanying briefs.

Brief 2 – Initiative, introduces ISSD Africa, the ISSD Africa Conference, and their association with the African Seed and Biotechnology Programme of the African Union Commission.

Briefs 3-7 capture the **five ambitions** for seed sector transformation in Africa. **Brief 8 – Enabling environment**, shares cross-cutting insights into stewarding transformation.

This brief presents insights generated from individual sessions of the ISSD Africa Conference, laying the foundation for developing perspectives and strategies for pursuing the ambition of competitiveness. This document refers to and thereby acknowledges the ISSD Africa Conference sessions, ISSD Africa topics and/or other regional initiatives and hosting organization(s) that contributed to the development and formulation of individual insights.

ISSD Africa encourages your further reading of its communiqués, briefs, and other knowledge products, and participation in the Community of Practice.

For more information, visit www.ISSDafrica.org

ISSD Africa Conference: sessions, insights, ambitions, and perspectives

Concluding the third phase of ISSD Africa, 170 seed professionals met in Kigali from 17 to 19 October 2022 for the ISSD Africa Conference, where they shared and discussed outcomes of the CoP's action research activities. This took place over the course of eight sessions, corresponding with ISSD Africa's eight topics, and was complemented by seven additional sessions on topics proposed by other continental and regional initiatives.

Each of the sessions provided specific insights. A committee comprising participants from diverse backgrounds, expertise, and areas of engagement in the seed sector, prepared a synthesis of emerging insights and perspectives. These have been grouped into five ambitions that provide direction and shape a vision for seed sector transformation in the coming years. These ambitions are food security and nutrition, equity and inclusion, competitiveness, climate change adaptation, and resilience to shocks and stresses. The third ISSD communiqué has been compiled to share these perspectives for advancing seed sector transformation in Africa.

Call for action

ISSD Africa aimed to document the outcomes of the conference in the communiqué and briefs as accessible formats for policymakers, practitioners, and researchers active in and concerned with the transformation of Africa's seed sector. ISSD Africa strives to inspire these readers and encourage their use, exchange, and discussion of the perspectives and insights shared. It is ISSD Africa's hope that the communiqué and briefs support reflection on and guidance of organizations, programmes, and individual professionals in contributing to the transformation of the seed sector with the ultimate goal to improve farmers' access to and use of quality seed of improved varieties.

Ambition

The seed sector is competitive nationally and internationally. There is a level playing field for competition at home, investments of the public and private sector are complementary, and markets are integrated regionally and globally.

PERSPECTIVE 15: **Delineate the roles of the public and private sectors in different seed systems**

The seed sector is complex. Public, private, and civil society actors all have a stake, and many different issues are of concern. Large investments and new developments in the sector, including further commercialization, and challenges in the space where public and private interests meet, require revisiting responsibilities and task division. Evidence needs to guide structural reforms and public-private partnerships and create an environment that endorses public responsibility while truly enabling private investment. Government, civil society, and development organizations should refrain from financial support that distorts markets and undermines seed business. The private sector also has a responsibility in building seed systems' resilience to shocks and stresses.

INSIGHT:
Seed sector investments are not always strategic in the long term

In recent decades, governments, donors, development organizations, and banks have made significant investments in the seed sector. They completely or partially fund public services that are critical to a well-functioning seed sector - e.g., variety development, early generation seed (EGS) supply, and seed quality assurance. Moreover, they subsidize the strategic engagement of private investors in the production and marketing of seed, including EGS. In a dynamic and evolutionary way, dialogue and evidence should inform and guide the investments of the public sector, restructure partnerships, moderate interactions between public and private entities, and foster an enabling environment.

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INSIGHT:
Seed interventions need to recognize sound business cases

Seed companies need to understand and refine their value propositions for specific segments of the market. That should drive their product development and differentiation, and business planning. However, in many African countries, N/GOs have become important clients in so-called institutional markets. Institutional markets not only impact seed business models but farmers' behaviour. To ensure that development efforts do not create structural dependencies or 'tenderpreneurship', it is important that evidence of a sound business is visible. This is especially the case in regions facing stress, where seed markets are less predictable.

INSIGHT:
Humanitarian organizations and the private sector must practice responsible and sustainable interventions

The functioning of seed systems, including formal commercial channels, is impacted by shocks and stresses, while emergency responses impact the functioning of seed markets. The private sector does have an important responsibility in responding to seed security. Too often, seed security interventions, through institutional markets, trigger unsustainable business arrangements with agencies and irresponsible reactions of companies (e.g., provision of substandard seed and the breaking of package integrity during distribution). Understanding seed sector and market dynamics is critical for humanitarian organizations in their procurement of seed from companies. At the same time, they need to assess the best way to deliver seed to farmers, ensuring seed security is addressed, but without negatively impacting market function. Humanitarian organizations also need to recognize the importance of engaging the private sector in seed security response interventions as market-based solutions, rather than as direct procurement and distribution, potentially bringing more positive, and less disruptive results.

INSIGHT:
The private seed sector has a greater role to play in building resilience to shocks and stresses

This needs policy advocacy and action research to identify what options are available for the private sector to better prepare seed business for shocks and stresses and to sustain it thereafter. Several important action research topics for these contexts examine how the private sector can address nutritional needs, climate-stress needs, and last-mile delivery in volatile conditions.

PERSPECTIVE 16: Support community-based seed systems

Farmers have diverse demands for quality seed of a wide range of crops. Seed of certain crops is more profitable than others, and many locally important food crops are not of interest to large-scale commercial seed producers. These crops are covered by farmer-led and community-based seed production and marketing (i.e., informal and intermediary seed systems). The governance systems and incentive mechanisms that drive the seed sector should support all seed systems, spanning all crops.

INSIGHT:
Community-based seed stakeholders contribute to the local availability of quality seed and access to new varieties

Community-based seed stakeholders, such as farmer seed enterprises, local seed businesses, and community seed banks, play an important role in supplying small-scale farmers with quality seed of many locally important food crops, particularly those that are not of interest to commercial seed companies. The critical contributions

of community structures to not only seed supply but also to the conservation of diversity and input to crop improvement should be recognized and supported.

INSIGHT:
Recognize farmers' varieties

It is important to recognize the role that farmers play in developing adapted and preferred local varieties. In many cases, these are not eligible for variety registration,

early generation seed production or quality assurance. As farmers may have limited opportunity, collaboration between breeders and farmers may be pursued to speed up variety improvement in a more participatory way, especially for less or non-commercially incentivized crops.

PERSPECTIVE 17: Develop business models, strategies, and plans to ensure investment pays off

Seed business is costly and requires long-term investment. Companies, including regional, domestic, and more locally operating seed companies, parastatals, small and medium enterprises (SMEs), and seed producer cooperatives have the capacity to analyse customer segments and design effective and tailored business models. It is important they have these business models, and strategies and plans before entering the seed sector. This requires the willingness to invest in demand creation. Development support should be cognisant of this perspective.

INSIGHT:
Empirical evidence enhances inclusion in and effectiveness of seed business models

It should be used to drive the development and scaling of more effective seed business models. Based on economic and business analysis, modalities should be designed for and promoted in organizing access to EGS of public varieties and seed quality assurance services in different seeds systems.

INSIGHT:
Ownership over genetic innovation is a tension that needs navigating

Inter-/national agricultural research institutes, including those of CGIAR, are responsible for the development and release of improved varieties of major food crops. These investments are publicly funded. Considered public goods, this has implications for the (transfer of) intellectual property, access to these varieties, and the sharing of benefits derived from their use. Meanwhile, exclusive access to selected varieties does differentiate a supplier's product from its competitors', which can incentivize greater investment in production and promotion. Interests in obtaining returns on public investments whilst ensuring equity need balancing.

INSIGHT:
Demand creation is a long-term and costly process

It entails gaining the trust of farmers and convincing them that investing in quality seed of new and improved varieties and the application of good agronomic practices pays off in increased production, productivity, and quality. With the limited effectiveness of public agricultural extension in this field, seed companies and other seed entrepreneurs (including cooperatives and agrodealers) play an important role in promoting the use of quality seed and improved varieties. For those stakeholders, this means a long-term and costly process, and for all intents and purposes: more skin in the game.

PERSPECTIVE 18:

Tailor financial services to the needs of different seed entrepreneurs

Seed entrepreneurs in Africa are hampered by their limited access to finance. It is difficult for small and medium enterprises to obtain credit for financing their operations as well as improving their seed production, processing, and/or marketing infrastructure. Compelling business cases need to convince financial institutes, including banks and micro-finance, to develop tailored products for a range of entrepreneurs producing and selling quality seed, including EGS.

INSIGHT:

Seed entrepreneurs lack crucial access to finance

Seed companies, seed producer cooperatives, individual seed producers, and private entities engaged in EGS supply, the production and distribution of quality seed for farmers, and seed quality assurance, have different capital and cost structures, revenue streams, and cash flows, so it is intuitive that they also require different financial products. Evidence of the viability of the business models of seed entrepreneurs and seed service providers alike should inform financial institutes operating in agriculture. Financial institutes, including agricultural and development banks, commercial lenders, and micro-finance institutes, want to reduce their risks while assessing the prospect of returns on investment before tailoring financial products to the needs of diverse seed entrepreneurs and service providers. Financial institutes may not be motivated to invest in the development of tailored financial products if the number of seed businesses that will use a given product is low. Therefore, it is recommended that new financial products be developed and tested with public support at regional scale first to reach a critical mass.

PERSPECTIVE 19:

Ensure that seed companies uphold social and labour rights

Seed production and processing is labour intensive. Regional and national seed companies generally sub-contract this work to local producers. Independent of the scale of operations, seed companies and their subcontractors need to ensure that social and labour rights, like those of the International Labour Organization and/or local governments and civil society, are respected.

INSIGHT:

Seed companies are accountable for social and labour rights

Within regional and national seed companies, seed production of food crops is in many cases implemented through contractual arrangements with domestic seed producers. For the globally operating seed companies,

seed production is organized as a global network of subcontractors (e.g., vegetables). Inspired by SDG8 (Decent Work and Economic Growth), seed companies and their subcontractors, independent of the scale of their operations, are accountable.

PERSPECTIVE 20:

Enforce well-defined seed quality assurance systems

To increase the competitiveness of domestic seed companies and other entrepreneurs in the seed sector, countries must have well-defined and functioning regulatory systems in place that ensure quality, build confidence in the private sector, and level the playing field, thereby encouraging farmers to regularly buy seed. Different public and privately managed systems for seed quality assurance may be considered, including certification, quality declared seed, accreditation, and truth in labelling.

INSIGHT:

There is no one-size-fits-all approach for seed quality assurance

Because of variations in crops, varieties, and seed systems, quality assurance systems need to be diversified and decentralized to respond to different demands. Seed quality assurance can then move beyond certifying a limited group of improved varieties for few food crops. It's important to remember that seed quality assurance serves seed systems and not the other way around.

INSIGHT:

Economics determine the viability of seed quality assurance systems

Economics play an important role in determining the effectiveness of seed quality assurance systems. If the quality assurance is too expensive, producers cannot afford certification and farmers cannot afford seed. Still, seed quality is a concern

for most crops and underpins food security and nutrition. As it stands, the limited suitability of standard certification for crops for which seed production is less commercially attractive, means that they are predestined for informal seed systems. More economically viable systems of quality assurance can improve the economics of seed production for these crops.

INSIGHT:

Decentralization of seed quality assurance requires accreditation

Seed quality inspection and testing is performed by dedicated, skilled, and trained staff of qualified and authorized organizations. These organizations can be both public and private. Quality assurance

can be carried out by accredited professionals in commercial service providers (third parties) or seed companies. Some

companies already use highly sophisticated technology and procedures (also for traceability) for their internal quality control as they consider quality control a competitive advantage.

INSIGHT:
Seed counterfeiting undermines consumer confidence

Substandard seed hurts efforts to promote the uptake of quality seed of improved varieties for increasing the productivity of small-scale farmers' fields. This highlights the need for effective, economically viable, decentralized, and innova-

tive seed quality assurance systems, and the implementation of punitive measures against unscrupulous behaviour.

PERSPECTIVE 21: **Facilitate alignment and transparency in the provision of seed sector information**

Various (digital) platforms provide information guiding the development of the seed sector. To avoid duplication of efforts and confusion among stakeholders, and to facilitate effective information exchange, (digital) platforms need to be aligned and - where beneficial - converged. To enhance opportunities for regional trade, platforms need to include regional information.

INSIGHT:
There are multiple channels for disseminating variety- and seed-related information

A multiplicity of dissemination channels can ensure broad spectrum outreach, but it can also cause confusion and/or duplicate and dissipate efforts. Where beneficial, alignment, integration, and convergence should be encouraged. Such channels should

embrace digitalization and more contemporary media for targeting farmers.

PERSPECTIVE 22: **Involve multiple stakeholders in the development and monitoring of seed sector strategies**

Seed sector strategies and investment plans provide direction to development efforts. Considering the diversity of stakeholders, sometimes with conflicting interests, it is critical to involve a wide diversity of stakeholders for contestation over strategies and plans. Supporting the development of a competitive and economically viable seed sector, it is important that entrepreneurs at different levels (cooperatives, SMEs, national, regional, global) in different parts of the seed value chain (seed production, processing, trade) are included in strategy development and monitoring.

INSIGHT:
Diagnostic and strategic frameworks need the right level of contestation

Various programmes and initiatives support expert and stakeholder consultation in the design and development of seed sector strategies and investment plans. These include diagnostic and strategic frameworks, e.g., SeedSAT and the National Seed

Road Maps Toolbox. To monitor progress in transformation, they include dashboards with a set of performance indicators. In parallel, benchmarking organizations have developed different indices that assess multiple dimensions of seed sector performance, e.g., the African Seed Access Index (TASAI), Access to Seeds Index, and the Enabling the Business of Agriculture project of the World Bank. A common critique is that these tools need to accommodate the different and, in certain cases, conflicting interests of multiple stakeholders, including diverse entrepreneurs (e.g., SMEs; national, regional, and global seed companies, but also service providers, traders, and agrodealers). If the ambition of the assessments and strategies is to contribute to a more competitive and economically viable seed sector, this has implications for the way the frameworks and indices are developed and progress is monitored.

INSIGHT:
Seed regulatory systems maps have a variety of users

Regulatory systems maps (or RSMs) depict regulatory processes in detail and highlight intervention points, good practices, and areas of regional alignment. New Markets Lab develops RSMs

for economic rules, trade agreements, sector-focused regulations (including agricultural regulations, such as those related to seed and fertilizer), and procedures involved in registering businesses. In the seed sector, RSMs represent relevant regulatory processes, e.g., variety registration, seed certification, and seed trade. Additional features of seed RSMs include the cost and time required to complete regulatory processes, aspects of inclusion and sector features related to the variation that exists among crops, seed systems and seed sector stakeholders. Seed sector stakeholders can use RSMs to compare country regulations

and procedures, identify best practices, reform systems, and improve regulation of seed markets.

PERSPECTIVE 23: **Drive the transition towards a nature-positive seed industry**

For transitioning towards a more nature-positive seed industry – one that uses more diversity for resilience, climate change adaptation and mitigation, and improved nutrition – the private sector should be encouraged to work with policymakers to adapt and change the governance systems and incentive structures that currently drive the seed sector. This is required to overcome the negative impacts of conventional crop production systems on the environment and human health.

INSIGHT:
Nature-positive is emerging as an alternative to conventional agriculture

Conventional agriculture contributes significantly to several global crises: a nutrition crisis, a climate crisis, land degradation, deforestation, and loss of biodiversity. Agricultural production systems need to be transformed to become more

sustainable. Nature-positive agriculture is an emerging alternative to what has become conventional. Promoting ecosystem services, regenerative practices, agroforestry, circular economy, and waste management all contribute to nature-positive agriculture. Production systems move from monocropping and uniformity, to more complex and diverse systems. This requires investment in research and development for new farming practices, with new crops, varieties, varietal traits, and seed systems, as well as an enabling environment with policies and institutional support for fostering and advancing the transition to nature-positive agriculture and associated seed systems.

ISSD Africa conference session references:

The insights presented above emerged during specific sessions of the ISSD Africa Conference, organized by partners in the ISSD Africa CoP and global and regional initiatives. These sessions included:

- **ISSD Africa topic:** Enhancing seed quality assurance (CIP/ CGIAR Research Program on Roots, Tubers and Bananas)
- **ISSD Africa topic:** Business models for early generation seed (ICRISAT)
- **ISSD Africa topic:** Creating demand for quality seed (Wageningen University & Research)
- **Initiative:** Are environments truly enabling private companies to invest in the seed sector? (Access to Seeds Index of the World Benchmarking Alliance and Resilience)
- **Initiative:** Seed company strategies targeting smallholder farmers in Africa (Access to Seeds Index of the World Benchmarking Alliance and Resilience)
- **Initiative:** Transforming seed systems to support nature-positive agriculture (the Alliance of Bioversity International and CIAT)
- **Initiative:** Delivering genetic gains in farmers' fields: Genetic innovation in the One CGIAR (CGIAR)
- **Initiative:** Community-based seed production and marketing: Experiences and perspectives (Oxfam-Novib).

Colophon

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