



THIRD COMMUNIQUÉ ON INTEGRATED SEED SECTOR DEVELOPMENT IN AFRICA

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

The Integrated Seed Sector Development in Africa programme (ISSD Africa) is an international Community of Practice (CoP) working to alleviate the problem of farmers' limited access to quality seed by addressing complex challenges of continental importance. The conference entitled 'Emerging insights and perspectives advancing the transformation of Africa's seed sector' was organized as the synthesis event of the current phase of ISSD Africa. This communiqué captures the outcomes of the conference.

Rationale

Food systems urgently need to transform as humanity faces unprecedented challenges in the twenty-first century. We need to ensure the food security and nutrition of almost ten billion people by 2050, and grow our economy inclusively and equitably without exceeding planetary boundaries. We find ourselves in times of great uncertainty: facing food crises caused by the COVID-19 pandemic, geopolitical upheaval, and rising inflation; global supply chains that are straining under pressure; and the already-unfolding consequences of climate change and drastic biodiversity loss.

The seed sector has an important role to play in this transformation. This sector is crucial for genetic and crop innovation to make their contribution to food security, nutrition, and climate change adaptation. In addition, there are demands for the seed sector to make a greater contribution towards socio-economic and environmental outcomes.

The seed sector needs to improve its performance in helping achieve the Sustainable Development Goals of No Poverty (SDG1), Zero Hunger (SDG2), Gender Equality (SDG5), Decent Work and Economic Growth (SDG8), Reduced Inequalities (SDG10), Responsible Consumption and Production (SDG12), and Climate Action (SDG13), complemented with biodiversity conservation and sustainable use (following the Convention on Biological Diversity).

The Third Biennial Review Report (2015-2021) of the Comprehensive African Agriculture Development Programme (CAADP) reveals that only ten member states of the African Union have been able to provide a growth rate for the ratio of the supply of quality agricultural inputs, including seed, to the total national input requirements for food and other crops.

Consequently, strategic choices must be made in the short term by government, industry, science, and civil society when it comes to investment in the seed sector in Africa.

Introduction

Diverse seed systems make up the seed sector. They are broadly categorized as formal, intermediary, and informal; they are distinguished by the types of stakeholders involved, the activities they perform, and the interests they have.

Stakeholders' ambitions provide direction to seed sector transformation. Such ambitions could be to contribute to more inclusive, environmentally sustainable, and resilient food systems. The ambitions consist of multiple and often disparate perspectives, which are informed by differing insights from stakeholders active in policy, practice, and research.

The Third Communiqué on Integrated Seed Sector Development (ISSD) in Africa shares these perspectives; it aims to inform policymakers, practitioners in development and commerce, and researchers, of options to set their agendas for seed sector transformation in Africa for the foreseeable future.

The ISSD Africa Community of Practice (CoP) engages in action research and sharing insights.

The ISSD Africa Conference brought 170 professionals from across Africa and the globe. The conference marked the conclusion of ISSD Africa's third phase (2019-2023) and was organized to share and discuss the outcomes of its eight research topics. Representatives of selected global and regional initiatives active in Africa's seed sector were invited to share and discuss their own topics of interest. This communiqué captures the perspectives emerging from those discussions.

The African Union Commission (AUC), through the first ISSD communiqué (2011), recognized the principles of integrated seed sector development. They guide the efforts to implement the African Seed and Biotechnology Programme (ASBP), which was endorsed by AU heads of state and governments in 2007 during their Eighth Ordinary Session. The second ISSD communiqué called for attention to entrepreneurship (2013); this was followed by the Communiqué on Commercial and Sustainable Supply of Early Generation Seed of Food Crops in Sub-Saharan Africa in 2016. The current communiqué succeeds them with a focus on advancing the transformation of Africa's seed sector.

Emerging perspectives

The perspectives shared in the communiqué are informed by insights from different sessions of the ISSD Africa Conference, synthesized by a multidisciplinary committee, validated by participants, and narrated in a series of eight accompanying briefs. Perspectives, or points of view, include directions and positions taken by stakeholders in seed sector transformation and can be considered options for policy, practice, and research. The perspectives aim to inspire current and future efforts to transform the seed sector to achieve five ambitions in the domains of food security and nutrition, equity and inclusion, competitiveness, climate change adaptation and resilience to shocks and stresses.

The communiqué aims to provide direction and guide future steps for seed sector transformation, contributing to more inclusive and sustainable food systems and to achieving SDGs. Through its synthesis of perspectives on seed sector transformation, the communiqué aims to inspire strategic choices for investing in the seed sector and to advance the needs of the African Seed and Biotechnology Programme. Parties endorsing the Third Communiqué on Integrated Seed Sector Development in Africa can be found at www.ISSDafrica.org

Food security and nutrition

Ambition: The seed sector increases the availability, accessibility, and utilization of quality seed of improved, locally adapted, and farmer-preferred varieties in the production of sufficient food of a wide portfolio of crops for diverse and healthy diets.

1. Invest, professionalize, and collaborate in increasing farmers' seed security

Food security does not exist without seed security. Farmers need physical and financial access to sufficient quantities of quality seed of adapted and preferred varieties at the right time. Physical access means that the right amount of seed is available, while financial access means that farmers can afford the seed. To achieve this, multiple issues need to be addressed simultaneously. The following key areas require attention: demand-driven genetic improvement of a wide range of crops; sustainable models for early generation seed (EGS) supply; implementation of functional seed quality assurance systems; combatting of seed counterfeiting; and seed demand forecasting. A healthy seed sector is critical for bringing the benefits from global investments in genetic innovation to farmers and their fields. However, technical, institutional, and systemic constraints hamper delivery. These constraints include, for example, the struggle to obtain a sufficient EGS supply or to operationalize seed quality assurance systems in a cost-effective manner.

2. Broaden the diversity of crops for which quality seed is produced

Both rural and urban consumers in Africa use and appreciate a diversity of crops in their diets. Beyond the main staple crops, indigenous crops are important for nutrition and cultural reasons. Innovative, localized, and inclusive approaches for enhancing seed supply of those crops are needed to ensure that quality seed of improved and locally preferred varieties of these crops becomes available. This includes vegetatively propagated crops like roots, tubers, and bananas (RTBs), since in many countries these are critical for food security

3. Link variety development programmes with nutrition research

Variety development programmes and biofortification can contribute to reaching nutritional goals by increasing the nutritional value of traditional crops. Varieties should be evaluated for traits like taste, cooking time, and shelf-life, at the same time as for high yield, drought tolerance, and pest and disease resistance. Whilst this is challenging, joint programming of researchers and other stakeholders in the health and agricultural sectors with complementary expertise, may be able to reach these goals together. Greater awareness is required on the importance of diverse and healthy diets underpinned by diverse and sustainable agricultural production systems.

4. Develop improved varieties of traditional crops in an inclusive manner

Crop improvement programmes should focus on traditional crops and not be limited to the major food crops. Traditional food crops are essential for farmers to meet local food and nutritional demands. Indigenous species are locally important and adapted to traditional farming systems. They can often be produced with limited inputs, under harsh conditions, and are a fall-back option when other crops fail. Investment in participatory variety development and enhancement is needed to ensure traditional crops continue to be part of local diets and production systems, contributing to food security and nutrition.

5. Create sustainable models to secure early generation seed supply

Access to sufficient quantities of quality EGS is a key requirement for quality seed production, regardless of whether seed is multiplied by private, public, or farmer seed enterprises. New business models for sustainable EGS supply need to be tested, reviewed, consolidated, and scaled. Complementary roles of CGIAR, national agricultural research systems, and the private sector should be reconsidered and redefined. Critical issues to consider are EGS demand forecasting, quality assurance of EGS, equitable access to EGS for different categories of seed producers, and the sustainable supply of less profitable seed crops.

6. Establish functional seed quality assurance systems for all crops

Effective seed quality assurance systems protect farmers from low quality seed. Practice shows that current seed certification systems are unable to assure seed quality of the diversity of crops that farmers produce. Besides strengthening current formal certification systems, plural models of quality assurance need to be developed and implemented for intermediary and farmer-led seed systems, such as quality declared seed. Seed quality requires an appropriate quality control system at seed producer level, regardless of the seed system in which the producer operates. The notion that farm-saved seed is per definition poor quality needs to be challenged. Use of farm-saved seed is also the result of limited choice.

7. Develop policies supportive of crop and seed system diversity

Seed-related policies mainly focus on few staple crops (cereals), commercialization, and the formal sector. It is important that policymakers tailor policies to other crops, including small-grain cereals, pulses, oilseeds, and roots, tubers and bananas (RTBs), as well as intermediary and informal (farmer-led) seed systems. Policies need to enable farmers to generate a living income, enhance the resilience of their livelihoods and those of their communities, and reinforce household food security and nutrition.

8. Develop policies promoting sustainable agricultural production

Policies need to support a gradual transition towards sustainable agricultural practices and a reduction of the negative impacts of conventional agriculture on the environment and our food systems. This calls for the development and implementation of market-based and other incentives, which encourage both smallholder and commercial farmers to deploy sustainable agricultural practices contributing to nature-positive agriculture.

Equity and inclusion

Ambition: The representation and participation of different groups of individuals in activities of the seed sector and their equitable access to, control over, and benefits from resources in the sector is ensured.

9. Understand the needs, preferences, and barriers of different social groups to develop more socially sensitive and inclusive strategies to variety development, variety promotion, and seed supply

Key to increasing the use of quality seed and better varieties is an in-depth understanding of the social groups targeted by breeding programmes (i.e., who they are, and what their needs, preferences, and barriers are in accessing varieties and seed that they prefer). However, since gender and social norms are highly context specific, the success of a socially responsive approach in one place should not be taken as a given elsewhere. An improved understanding of adoption behaviour requires a context-specific analysis of gender and social relations, and specifically of the power dynamics and the social norms that affect preferences as well as pre-existing perceptions about quality seed. Moreover, solutions developed based on this research need to be tested through rigorous empirical research.

10. Involve farmers, traders, processors, and consumers in variety development

To ensure new varieties meet user demands and preferences, plant breeders need to involve not only farmers but also traders, processors, and consumers in their variety development programmes at the earliest stage. Farmer participatory approaches should be gender balanced with sensitivity to the sociocultural context, inclusive of the most disadvantaged groups, and designed with the goal of empowering diverse local seed users.

11. Enable inclusive access to information about quality seed

Seed companies and extension services should enable seed users to access information that supports them in decision-making on variety and seed purchases. Additionally, they should design and disseminate user-friendly tools that improve seed accessibility for disadvantaged groups.

12. Foster the inclusion of women and youth in seed business

With the support of experts on gender and social inclusion, seed sector stakeholders should identify and address the challenges that limit the participation of women and younger generations in seed business. In addition, to boost confidence among those interested in seed business, stakeholders could identify and showcase champions in seed business to serve as role models for others. While offering an opportunity for empowerment of new seed entrepreneurs, increasing the participation of less represented groups in seed business could lead to an enhanced understanding of the different needs and preferences of farmers and consumers.

13. Develop, test, and evaluate policies to prompt more inclusive interventions

Policymakers should apply a pluralistic lens recognizing multiple seed systems (formal, intermediary, and informal), and include considerations on gender and social equity to facilitate social and financial inclusion of the most marginalized groups. For new policies to challenge the status quo of inequitable gender and social relations, the design of seed sector strategies and investment plans should be conducted in consultation with women, men, and youth from different social backgrounds. To highlight the impacts of this approach, efforts to test more inclusive policies need to be documented and empirically evaluated.

14. Accommodate different interests in diagnostic frameworks for monitoring, evaluation, and learning of seed sector strategies and plans

Various programmes support the design and development of seed sector strategies and investment plans. A common critique is that it is essential that they also accommodate the different, and in some cases conflicting, interests of multiple stakeholders in the seed sector, including those operating in intermediary and informal seed systems, and men and women small-scale farmers of different ages and sociocultural backgrounds.

Competitiveness

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.

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.

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.

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.

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 SMEs 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.

19. Ensure that seed companies uphold social and labour rights

Seed production and processing is labour intensive. Regional and national seed companies generally subcontract 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.

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.

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.

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 in 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.

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.

Climate change adaptation

Ambition: Behaviours, technologies, and systems in the seed sector adapt to future climates that are different, more variable, and/or less predictable than in the past.

24. Conserve genetic resources for future use

Due to climate change and variability, farmers can no longer rely on crops and varieties that used to perform well in their fields without running the risks of not being able to withstand shocks and ensure food security and nutrition. Varieties that have been locally developed over decades may now disappear from their farms. At the same time, these varieties may still perform well in other locations and have traits that are valuable for further variety development and improvement. To combat genetic erosion and guarantee future use, investment in the conservation of crops and varieties, including landraces and wild relatives of domesticated species, needs to be prioritized. This requires action both internationally and at national and community level.

25. Promote community-based approaches

Strengthening the adaptive and mitigative capacities of farming communities requires collaboration between many stakeholders, including those at community level who best understand their context, challenges, and opportunities. Climate change adaptation and mitigation capacities should be strengthened through community-based approaches that promote farmers' use of resilient crops and varieties and farming practices. Examples include the establishment of community-level stakeholder platforms, community seed banks, participatory variety development and evaluation programmes, and community-based schemes for producing and marketing quality declared seed of adapted and farmer-preferred varieties.

26. Consider climate change as an important feature informing variety development and seed supply

Climate change leads to fluctuations in climatic conditions such as rainfall and temperature, and variations in cropping seasons and growing cycles. Fresh water depletion and rising salinity and sea levels may seriously affect crop production. In addition, new pests and diseases impact crop production with increasing frequency. The many features of climate change need to become central to variety development programmes. New objectives and technologies for adaptive breeding must be included. Continuous production, promotion, and supply of quality seed of better adapted crops and varieties with traits critical for adapting to new climate conditions are essential to maintain production and productivity and ensure food security.

27. Develop more sustainable cropping practices in the face of climate change

African farmers not only face erratic rainfall, higher average temperatures, heat spells, and recurring droughts, but also land and soil degradation. Climate change calls for current farming and production practices to be adapted to more sustainable and nature-positive farming systems. This requires understanding existing mechanisms of adaptation and resilience, but also reducing the impact of agriculture on the environment. In addition to providing access to quality seed of crops and varieties that are adapted to changed conditions, associated sustainable cropping practices need to be promoted, such as soil and water conservation measures, integrated soil fertility management, and integrated pest and disease management.

28. Disseminate information on climate and markets to farmers and other seed sector stakeholders

Access to climate and market information is a prerequisite for foresight planning and for stakeholders including seed users to make informed choices on which varieties to multiply, supply, and purchase. Innovations in climate and seed demand forecasting are required. Innovations need to reach farming communities with information on climate, markets, and varietal traits, which is easily applicable.

29. Design policies conducive to climate change adaptation of agri-food systems

To promote the implementation of climate-smart farming practices, including the use of adapted crops and varieties, and more resilient production practices adapted to climate change, clear policies and institutional support are required. These policies need to support farmers and other stakeholders who apply such sustainable practices, protect the environment, and meet climate goals. Policies should promote access to and use of agrobiodiversity. They also need to transform farming and market systems so that they are conducive to and rewarding of sustainable practices. In this context, regional and global dimensions must be considered.

Resilience to shocks and stresses

Ambition: The seed sector withstands, mitigates, and/or recovers quickly from disturbances over time to continue to perform its function and serve farmers. The seed sector also contributes to more resilient food systems.

30. Learn from a humanitarian-development-peace nexus in the seed sector

In fragile states, government, UN agencies, humanitarian and development organizations, and the private sector often engage in emergency response, and sometimes this occurs repetitively and even over many seasons or years. The recurrent, protracted, and complex nature of many crises reinforces the need for a more coherent approach to address immediate humanitarian gaps while at the same time ensuring longer-term sustainability. This requires investment that addresses the systemic root causes and impacts of conflict and vulnerability in the seed sector and supports peace that is essential for development. To achieve this, opportunities should be identified for collaboration, complementarity, and synergy in the humanitarian, development, and peace nexus in the seed sector, to better understand and intervene in seed systems and build their resilience to shocks and stresses in both the short and long term. Relief actions must be linked to more developmental actions soon after the outset of an emergency response.

31. Understand the least and most effective seed system and seed security practices in conflict

Continued access to and use of quality seed of a diversity of crops and varieties in conflict-affected areas is a prerequisite for farmers to thrive in the face of vulnerability. It is a key topic that many donors, humanitarian organizations, and other seed sector stakeholders want to be involved in. Seed sector development strategies and interventions commonly used in more stable environments may not work or be the best fit for conflict-affected areas. A better understanding of the least and most effective practices is sorely needed, to be able to reduce weaknesses and build upon the strengths of seed systems in an efficient and targeted manner during periods of conflict.

32. Promote and use guiding principles for good emergency seed aid practice

Currently, emergency seed aid predominantly uses direct seed distribution responses (although more market-based options, such as cash transfer, are slightly on the rise). Standard response does not adequately distinguish between different types of shocks and stresses (e.g., drought, war, conflict, Ebola, earthquakes) and is usually implemented without understanding the real seed security context and problems. An emergent set of ten guiding principles of good practice for emergency seed aid interventions is available. They guide the design, implementation, and monitoring of interventions, ensuring that they are context- and demand-based, and built on seed-specific knowledge (like choice of appropriate crop and varieties), without undermining existing systems and markets. These principles need to be further tested, refined, and promoted.

33. Leverage the private sector's contribution to seed sector resilience in fragile states

Currently, the major role of the private seed sector in fragile states – especially in conflict zones – has been to supply large amounts of seed to relief agencies, i.e., a one-off action. While seed companies may see large tenders as a business opportunity, free seed handouts often undermine healthy market forces. They depress business development opportunities and the client base of especially smaller local seed companies. New approaches are required for sustaining private sector involvement in conflict contexts, building a continued presence, serving vulnerable farmers directly, and contributing to seed sector resilience. These novel operations need to support the development of a demand- and market-driven seed sector with minimal involvement of government and NGO subsidies for seed procurement and distribution.

34. Develop enabling policies for non-formal seed systems and diverse goals

Seed policies generally promote the development of the formal commercial sector and also focus on major food crops. The development of a seed sector resilient to shocks and stresses requires recognition of the important role of informal seed systems in facilitating access to diverse seed for farmers, and in delivering when all else fails. Seed policies need to enable the functioning of informal seed systems and provide room for their improvement. This requires the review of seed-related policies through the lenses of promoting diversity, nutrition, and climate resilience.

Colophon

Authors and contributors

This communiqué is part of a series that includes eight briefs capturing insights and perspectives from the ISSD Africa Conference.

The briefs were developed by several authors with support from contributors; for further details please visit www.ISSDafrica.org

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