



African Union



Ministry of Agriculture and Natural Resources  
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# Communiqué on Commercial and Sustainable Supply of Early Generation Seed of Food Crops in Sub-Saharan Africa

Based on the EGS Africa Convening organised in Addis Ababa, Ethiopia, 25-27 February 2016



Program for Africa's Seed Systems (PASS)  
Scaling Seeds and Technologies  
Partnership in Africa (SSTP)



## COMMUNIQUÉ ON COMMERCIAL AND SUSTAINABLE SUPPLY OF EARLY GENERATION SEED (EGS) OF FOOD CROPS IN SUB-SAHARAN AFRICA

Most countries in Sub-Saharan Africa face major constraints in the supply of adequate quality Early Generation Seed (EGS)<sup>1</sup> to meet the needs of its suppliers. The purpose of the EGS convening referenced in this communiqué is to bring together key problem solvers to identify practical solutions to this problem of EGS supply and begin to create coalitions of farmers, suppliers, researchers, government and development agencies, and donors in order for farmers, especially smallholder farmers, to have better access to quality seed of new, improved varieties.

**EGS Africa Convening in Addis Ababa, February 25-27, 2016<sup>2</sup>:** 11 organisations<sup>3</sup> jointly organised and sponsored a Convening with the title “*Promoting Commercial and Sustainable Supply of Early Generation Seed of Food Crops in Sub-Saharan Africa*” (*EGS Africa Convening*) to develop practical solutions to technical, institutional, and systemic constraints that hamper EGS supply. Discussions focused especially, but not exclusively, on 11 countries<sup>4</sup> for which multi-stakeholder delegations participated. The Convening involved 148 participants representing 87 organisations, and included representatives from governments, regional and continental organisations, farmers’ organisations, private sector, research, development, donor and international financial organisations, and service providers<sup>5</sup>.

The following points motivated the 11 organisations to organise and sponsor, and informed the participants’ engagement in the EGS Africa Convening:

- 1. Africa’s commitment to double agricultural productivity by 2025:** Recognising the commitment by Africa’s Heads of State and Government at the 23rd Ordinary Assembly of the African Union (AU) in June 2014, in Malabo, (i) to end hunger; (ii) to accelerate agricultural growth by at least doubling current agricultural productivity levels; (iii) to ensure sustainable and reliable production, and access to quality and affordable inputs; (iv) to establish and/or strengthen inclusive public-private partnerships for agricultural commodity value chains with strong linkage to smallholder agriculture; (v) to triple intra-African trade in agricultural commodities and services; (vi) to ensure that at least 30% of farm households are resilient to climate and weather related risks<sup>6</sup>; and (vii) to bring child stunting to 10% and under-weight to 5%<sup>7</sup> by the year of 2025. Furthermore, considering the development of the seed sector as an integral part within the Comprehensive Africa Agricultural Development Programme (CAADP) and its implementation guided by National Governments through National Investment Plans and in the Regional Economic Communities<sup>8</sup> by the Regional Agricultural Policies and the Regional Agricultural Investment Plans.
- 2. Africa’s commitment to seed sector development:** Recognising (i) AU’s commitment through the African Seeds and Biotechnology Programme (ASBP) to address constraints in the seed sector, coordinated by its implementation agency, AfricaSeeds; and (ii) AU’s recognition of taking a pluralistic approach to seed sector development that balances formal, intermediary, and informal seed systems, as well as the roles of public and private sector stakeholders<sup>9</sup>.
- 3. Regional harmonisation relevant to the seed sector:** Taking into account the progress in regional harmonisation that impacts the implementation of seed policies and variety release procedures in African countries, advancements in the development of the seed sector will result in enhanced access by farmers to quality seed of improved varieties of food crops. One example is the Seed Trade Harmonisation Implementation (COMSHIP) by the Common Market for Eastern and Southern Africa

(COMESA) through Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA), which aims to improve access to quality seed for 80 million smallholder farmers by 2020. Likewise, the Economic Community of West African States (ECOWAS) has set a goal for harmonised seed regulation, that by 2020, 60 million smallholder farmers will have access to certified seed of cereals and legume crops.

- 4. Africa's significant national government, donor, scientific, and private sector commitments to promote seed sector development:** Noting the goodwill, knowledge, commitments, policies, and engagement of a diverse set of many stakeholders in the development of the seed sector.
- 5. Access to and adoption by smallholder farmers of new, improved varieties for most food crops:** Noting with concern that access to and consequent adoption by smallholder farmers of new, improved varieties of food crops remains limited. This impedes Africa's commitments to increased crop productivity for the reduction of poverty, increased food and nutrition security among smallholders, enhanced resilience, and accelerated agricultural transformation.
- 6. Vital role of early generation seed supply in contributing to increased productivity:** Realising that Africa's commitment to increased productivity and seed sector development can be met only if current, major constraints in the supply of EGS are addressed. Private seed companies and producers, farmers' organisations, traders and informal suppliers, and all other relevant stakeholders cannot provide smallholder farmers quality seed unless these stakeholders in turn have access in an effective, regular and sustainable manner to access quality EGS of new, improved varieties. This access to quality EGS is independent of what type of quality seed they supply whether this certified, quality declared or trusted seed, with the latter referring to informal seed channels.
- 7. Building on the recent EGS study and findings:** Noting the findings of a recent, widely vetted global study on commercial and sustainable EGS supply<sup>10</sup> that documents differences in the commercial potential (e.g., profitability) of different classes of seed in the value chain for different crop types and provides insights on the ways EGS supply should be organised and structured for these crop types with distinct responsibilities for public and private stakeholders. In the interpretation of the outcomes of the study as well as its recommendations, it is relevant to outline what is referred to as crop types. They are made up of crops that are similar in terms of (i) seed system, (ii) structure of the seed value chain, (iii) crop reproduction system (hybrids, open- and cross-pollinated, and vegetatively propagated crops), and (iv) economic viability (e.g., profitability) for EGS supply. In the Global and National EGS studies and follow-up actions, the following crop types are commonly used: (i) hybrid maize, (ii) major cereals (rice, wheat, and open-pollinated varieties of maize), (iii) small grains (sorghum, millets, and teff), (iv) legumes, and (v) root and tuber crops and bananas. Variations in composition of crops within crop types exist between countries.

## **PRINCIPLES OF COMMERCIAL AND SUSTAINABLE EGS SUPPLY**

The following principles are based on: the global EGS study; the follow-up national studies in Ethiopia, Rwanda, Uganda and Zambia; and a series of discussions during the EGS Africa Convening. These principles guide the formulation of recommendations for promoting commercial and sustainable supply of EGS of food crops in Sub-Saharan Africa. Note that these principles are a synthesis of discussions during the EGS Africa Convening, and are endorsed by the convening and sponsoring organisations.

The principles as outlined below do not necessarily reflect a consensus among the convening participants and their organisations.

- 8. Farmers and seed:** Any intervention in relation to EGS supply is to be guided by the seed value chain; this means starting with the farmer. The demand for quality seed of new, improved, and adapted varieties for a specific crop is determined by farmers (small/large scale; male/female) in meeting their objectives, including household food and nutritional security, household income generation, and resilience. Such objectives define farmers' behaviour for the use of and their willingness to pay for quality seed of new, improved varieties. Moreover, this use and willingness to pay drives the functioning of seed systems and associated seed value chains for respective crops.
- 9. Genetic gain:** The benefits from stakeholders' significant global and national public good investments in the improvement of new, improved varieties of food crops targeting a continued and sustainable genetic gain in farmers' fields (e.g., use of improved varieties by farmers) continues to be hampered by technical, institutional and systemic constraints in EGS supply. To achieve structural impact in genetic gain resulting from farmers' use of those newly developed improved varieties for Africa's major food crops, EGS operations should cover various categories of crops and varieties in hybrid, self-pollinated and vegetatively propagated crops; cater to formal, intermediary and informal seed systems; and consequently engage partners in the public and private sectors, in addition to community-based stakeholders.
- 10. Seed systems:** EGS supply needs to cater to different seed systems in order to contribute to farmers' increased use of quality seed of improved varieties. A major problem has been the sole orientation of EGS supply toward formal seed systems, though it is merely one of the channels for farmers' adoption and use. In this context it is relevant to define formal, intermediary and informal systems. Formal seed systems involve specialised activities of the seed value chain governed by an official regulatory environment. Seed in formal systems predominantly carries the label of full certification, and activities along the seed value chain are to a large extent commercialised. Informal seed systems include the activities of farmers, rural communities and other stakeholders saving, exchanging, bartering, gifting, and selling seed without formal regulatory involvement and varying degrees of commercial orientation. Intermediary seed systems involve individual seed entrepreneurs and varying degrees of organised groups of seed producers and entrepreneurs and/or their associations that are engaged in commercial seed production and marketing with facilitated loose or temporary linkages to formal organisations including research, extension, markets, financial services, and regulation<sup>11</sup>.
- 11. Seed value chains:** Effective supply of EGS, in terms of quality, quantity, affordability, timeliness, and variety appropriateness relative to farmers' and market demands is realised through enhanced seed value chain management and integration. In seed value chain management, stakeholders operate in a coordinated fashion and respond to demand in a structured, well-planned and economically-viable manner. More effective management has implications on the role of seed companies and producers driving the seed value chain in terms of demand. Integration of the seed value chain leads to an increased responsibility of seed companies and producers in the seed value chain (e.g., production of EGS), including forecasting demand, quality assurance, and marketing<sup>11</sup>.
- 12. Rethinking a division of private, public and donor responsibilities:** A rethinking of the division of responsibilities for financing (and supply) of EGS is required given (i) the foreseen continued role of publicly-financed crop improvement; (ii) the existing constraints affecting EGS supply; and (iii) the currently important position of donor organisations in the funding of EGS supply for food crops. Through insights into the profitability of the supply of different classes in the seed value chain (breeders and foundation seed), the global and national studies identified commercial potential as well as incentives that differ depending on crop, seed system, and seed class. These insights are useful

for considering the implications for public expenditure (and donor) trade-offs that are necessary for the seed sector to become more commercial and sustainable. For crops where the current economics do not provide sufficient incentives for private sector supply of EGS, such as crops with open-pollinated and pure-line varieties including various self-pollinating cereals, small grains, and legumes, and to a large degree also vegetatively propagated crops, a process to identify, test, refine, consolidate, and scale appropriate private-public partnership (PPP) models with public (or temporary donor) finance and private sector operationalisation is recommended. Such PPP models are relevant and require adaptation for those crops for which varying seed systems are predominant, e.g., (i) small- and medium-sized seed companies (in formal seed systems); (ii) locally-based seed producers and their organisations (in intermediary seed systems); and/or (iii) informal seed systems. When EGS can be produced at a profit by the private sector (for example, hybrid maize), it is possible to redirect funding from public expenditure or donors to EGS supply from those crops to others with less commercial potential, but with a high relevance to food and nutrition security as well as resilience.

**13. Role of National Agricultural Research Organisations:** New and improved varieties of food crops developed by publicly-financed crop improvement programmes are accessed by farmers through formal, intermediary, and informal seed systems. These crop improvement programmes are and should remain responsible for the production of the corresponding breeder seed. Furthermore, it is recommended that National Agricultural Research Organisations (NAROs) should refrain from direct engagement and instead collaborate through PPPs in the production of foundation seed with small-, medium- and large-scale seed companies and producers or with autonomous commercially-operating (profit/non-profit) foundation seed production units. NAROs should be responsible for making information and new, improved varieties available on a fair and equitable basis to seed companies, producers and other interested stakeholders. In many countries, the division of responsibilities and transactions between NAROs and especially private seed stakeholders hamper EGS supply calls for a re-structure and re-organisation in order to increase accountability and transparency. This situation limits the potential commercial viability of emerging African seed companies and producers, but also negatively impacts wide-scale use by farmers of the new, improved varieties developed in publicly-financed crop improvement programmes.

**14. Role of International Agricultural Research Centres:** The International Agricultural Research Centres associated with the Consultative Group on International Agricultural Research (CGIAR) support the work of NAROs in both crop improvement and EGS supply. For most food crops, CGIAR crop improvement programmes have a major responsibility for the development of improved varieties. Products of these programmes are considered global public goods as they are financed as such through donor organisations. To foster adoption as encouraged by their donors, the CGIAR programmes with their national partners have become involved in the EGS production and dissemination. Moving toward a sustainable seed sector, a gradual withdrawal from direct involvement in EGS supply by CGIAR programmes is recommended, with implications on topics such as material transfer, intellectual property, information management/forecasting, public-private partnerships, and the relationship with NAROs.

**15. Quality assurance:** EGS production requires quality assurance by dedicated, skilled and trained staff of qualified and authorised organisations to perform this function, whether in the public or private sector, performed by formal regulatory or accredited organisations. Given the demands on plant breeders and their priority as a resource for crop improvement, research organisations and their breeders should only partner in the maintenance of breeders' seed. Furthermore, they should be

responsible for assuring the genetic identity of breeders' seed within a larger framework of seed quality management in EGS supply.

**16. Potential contributions of regional harmonisation:** Aspects of regional harmonisation relevant to EGS supply include: (i) common variety release procedures; (ii) free movement/exchange of genetic materials; (iii) economies of scale through common efforts in seed business procedures; (iv) expansion of investment in seed business thus increasing accessibility; (v) expanded efficiency in quality assurance through shared protocols; (vi) easy access to statistics and value of seed markets; (vii) availability of quality-seed movement from excess supply to higher demand within the regions; and (viii) capacity enhancement. Critical topics to be addressed in regional harmonisation contributing to commercial and sustainable EGS supply are the following: (a) the development of mechanisms to facilitate movement of EGS from excess supply to higher demand areas across borders within regions; (b) dissimilar implementation mechanisms and levels of implementation among countries within harmonised regions; (c) issues around coherence of member states into the agreements; and (d) the role of formal, intermediary and informal seed systems in the seed sector. An opportunity exists in the deployment of ICT-based interaction procedures that have the potential to reduce the transaction costs in implementing the procedures in countries with a harmonised seed sector. Likewise, ICT-based regional trade information platforms have the potential to accelerate the utilisation of quality seed of improved varieties, increase the seed trade volumes, and guide production and supply of EGS, thereby increasing the potential and sustainability of both the business and availability of quality seed of improved varieties for smallholder farmers.

**17. Role of donor organisations:** Guided by a commitment to foster genetic gain, and in terms of seed sector development reaching both scale and sustainability, donors should transition from direct interventions in the seed value chain (e.g., financing supply and temporary solutions) to strengthening the public and/or private sector capacity in EGS supply, and playing a catalytic role supporting and providing an evidence base especially at national levels for the restructuring and reorganisation of EGS supply. Furthermore, they should concentrate on the value chain pull function in EGS supply, for example through institutional demands increasing food and nutrition security (such as for legume crops) and enhancing climate resilience.

## **FOLLOW-UP ACTIONS AND EXPECTATIONS**

**18. Country-specific and collaborative approach and a solid evidence base:** While the EGS Africa Convening has raised greater awareness and reaffirmed the critical importance of EGS for the production and marketing of quality seed of new, improved varieties required for increased crop productivity, actual ongoing practical interventions in EGS supply are few and not adequately coordinated. Successful restructuring and reorganising EGS supply at country level requires vision, as well as short- and long-term planning. The 11 country delegations present at the EGS Africa Convening developed elements of a shared vision and action planning as a first step in a national dialogue. They identified next steps to engage other relevant stakeholders beyond those participating in the Convening, to conduct or complete country studies using a common methodology, and to use the country study and its recommendations as a tool to create consensus on next steps with the national stakeholders responsible for implementing them<sup>2</sup>. These recommendations, including outlining specific responsibilities for public and private stakeholders and financing modalities, will require vetting and follow-up actions within the framework of National Seed Platforms or, where such platforms do not exist, other national stakeholder consultation mechanisms. National Seed Platforms include representatives of responsible ministries, NAROs responsible for crop improvement of food

crops and engaged in EGS supply, private seed companies, seed producers and their organisations, development organisations, seed regulatory bodies, and other partners. Country leadership and ownership, as well as stakeholder engagement at all levels, will be essential for reorganising and restructuring EGS; development organisations and their donors only play supportive roles.

**19. Learning from an evidence-based and collaborative EGS approach to foster catalytic change for addressing other major seed sector constraints:** If significant traction at national and regional levels is achieved, the various organisations engaged in the EGS Africa Convening and national studies will, in collaboration with their partners, assess progress in promoting commercial and sustainable EGS supply. Consequently, they will engage in learning lessons from taking the evidence-based and highly collaborative approach to facilitate systemic change in EGS supply. This will support them to decide in what manner they can continue to play a catalytic role in, for example, addressing other seed sector bottlenecks such as quality assurance, access to publicly-developed varieties, counterfeiting, and financial products tailored to the seed sector. In this manner, these organisations will contribute in the long term to a vibrant, pluralistic, and market-oriented seed sector in Sub-Saharan Africa that delivers quality seed of new, improved varieties to smallholder farmers at scale and in a sustainable manner, and thereby contributes to reducing poverty, increasing food and nutrition security, enhancing climate resilience, and fostering agricultural transformation.

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<sup>1</sup> Early Generation Seed (EGS) is the intermediate seed used by seed companies and producers, non-governmental organisations, farmer's groups and other stakeholders who use it as basis for the production of quality seed or planting material that farmers cultivate in their fields. For example, 1600 smallholder farmers growing half a hectare each of cowpeas require about 1,000 tons of seed. But to produce 1000 tons of seed requires about 25 tons of "foundation seed" or "basic seed" to produce the final seed those farmers will use; to produce that foundation seed in turn requires about 63 kg of "breeder seed". These two intermediary steps -- breeder and foundation seed - are referred to as Early Generation Seed. Quality seed is produced by suppliers, e.g., seed companies and producers, NGOs, farmer groups in formal, intermediary and informal seed systems, who subsequently disseminate and market seed to farmers.

<sup>2</sup> See EGS Africa Convening report to be released in June 2016 that will include country fact sheets with a vision, defined short- and long-term action plan, and direct follow up actions (the report will be made available through AGRA at [www.agra.org](http://www.agra.org))

<sup>3</sup> These organisations include: (i) African Union Commission (AUC) represented by AfricaSeeds; (ii) Ministry of Agriculture and Natural Resources, Government of Ethiopia; (iii) Ethiopian Agricultural Transformation Agency (ATA); (iv) Economic Community of West African States (ECOWAS) through West and Central Africa Council for Agricultural Research and Development (CORAF/WECARD); (v) Common Market for Eastern and Southern Africa (COMESA) through Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA); (vi) Pan African Farmers Organization (PAFO); (vii) African Seed Trade Association (AFSTA); (viii) the Bill & Melinda Gates Foundation; (ix) the United States Agency for International Development (USAID); (x) the Alliance for a Green Revolution in Africa (AGRA) through the Program for Africa's Seed Systems (PASS) and Scaling Seeds and Technology Partnership in Africa (SSTP) and (xi) Wageningen University and Research centre (Wageningen UR) Centre for Development Innovation (CDI) implementing with partners the Integrated Seed Sector Development Africa programme (ISSD-Africa)

<sup>4</sup> EGS Africa Convening included multistakeholder delegations of the following countries: Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, Uganda and Zambia

<sup>5</sup> A complete list with participants in the EGS Africa Convening, their organisations and countries will be included in the EGS Africa Convening report to be released in April 2016 (the report will be made available through AGRA at [www.agra.org](http://www.agra.org) )

<sup>6</sup> [African Union, 2014](#). Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods, Malabo, Equatorial Guinea, June 26-27, 2014

<sup>7</sup> [African Union, 2014](#). Declaration on Nutrition Security for Inclusive Economic Growth and Sustainable Development in Africa, Malabo Equatorial Guinea, June 26-27, 2014

<sup>8</sup> The Regional Economic Communities include the Economic Community of West African States (ECOWAS), Common Market for Eastern and Southern Africa (COMESA), and Southern African Development Community (SADC)

<sup>9</sup> [African Union, 2011](#). Communiqué on Integrated Seed Sector Development; [African Union, 2013](#). Second Communiqué on Integrated Seed Sector Development

<sup>10</sup> [Bill & Melinda Gates Foundation, US Agency for International Development and Monitor-Deloitte, 2015](#). Early Generation Study

<sup>11</sup> See [Integrated Seed Sector Development Programme](#)