

ISSD Africa



ISSD Briefing Note – September 2012 Ghana Seed Sector Assessment

The seed sector at a glance

The seed sector in Ghana compared with other countries in Sub-Saharan Africa is characterized by major investments in the seed sector that promote breeding programmes, and support seed companies and agro-input dealers. Major gains have been made in making the seed value chains of maize and cowpea more professional. In spite of advances in these targeted seed value chains, many challenges still constrain the development of a more professional seed system that acknowledges the variation that exists in seed systems in the country.

Whilst the existing Seed Act provides the legal framework for guiding the development of the seed sector, it is silent on intellectual property and plant breeders' rights. However, these issues need to be addressed in a manner that accords with the reality and opportunities in the agricultural development of the country. The regulatory framework required to operationalize and implement the provisions in the Seed Act is at an advanced stage for ratification by Parliament. The seed policy, which targets the development, production, inspection, sampling, analysis, conditioning, and marketing of the seed is in its draft form, requiring stakeholder inputs and refinement.

These policies, combined with the growing economy and the emergence of a vibrant commercial sector, varying from local seed businesses to nationally operating seed companies and dealers; together with the interest of public entities in breeding and quality management, generate a suitable environment for integrated seed sector development to facilitate the creation of a pluralistic and vibrant seed sector to serve the needs of the country, in terms of food security and economic development.

Seed systems assessment

Seed is a key determinant of agricultural production. Six different seed systems have been identified within the seed sector in Ghana. In the first seed system, farmers save seed of locally important crops and varieties from

their fields for their own use. They also exchange and barter seed during the ensuing cropping system. This seed system operates in a completely informal manner. The second system, the community-based seed system, focuses on locally important food and cash crops. NGOs are actively involved in supporting communities in northern Ghana with the aim of enhancing food security. This system operates in an intermediary manner, as it includes both local and improved varieties, but does not involve any formal seed quality procedures. The third system, also an intermediary seed system, refers to local seed businesses, where farmers multiply and sell small quantities of quality seed of improved varieties to other farmers. No formal quality control is in place. This system includes major food crops, as well as vegetables and perennial fruit crops.

The formal sector consists of three systems. The first, the mixed seed system, is probably the most structured and organized of the systems, with various operators within the seed value chain. The seed is formally certified and varieties are improved. Stakeholders within this seed system include:

- breeders in public research institutes engaged in crop improvement and the production of breeders' seed
- the Grain and Legumes Development Board that produces basic seed
- private seed producers (SeedPAG) that produce certified seed
- the Seed Inspectorate Division of the Ministry of Food and Agriculture that is responsible for seed certification and quality assurance
- private agro-input dealers that are very critical in the marketing of certified seed of improved varieties

The second system, the public/quasi-public seed system, includes some public institutions that produce seed and planting materials of improved varieties for cash (e.g. cocoa and oil palm), as well as food crops (e.g. vegetatively propagated crops such as yam and cassava). In the third system, the private, commercial seed system, commercial seed companies are either directly engaged in production or in the import of seed

Table 1. Characterization of seed systems in Ghana

characteristic	farmer-saved	community-based	local seed business	mixed public-private	purely public/ quasi public	private commercial
general description	traditional seed system (informal)	development-oriented and NGO-supported seed system (intermediary)	local business orientation in food and perennial crops (intermediary)	mix with varieties from the public system, out-grower schemes for seed production accompanied by public services and commercial marketing, through networks associated with agro-input dealers (formal)	public organizations that operate the entire seed value chain with market orientation (formal)	completely private, with own seed production or import of seed for high value crops and sales through agro-input dealers and networks (formal)
type of crops	local food crops	food and cash crops	food and cash crops	food and cash crops	high value cash and food	cash and food crops
major crops	millet, sorghum, maize, rice, grain legumes, root and tubers, vegetables, plantain	sorghum, cowpea, groundnut	maize, rice, cowpea, cassava, citrus, cocoa, mango, oil palm, vegetables	maize, rice, cowpea, sorghum, groundnut	cocoa, oil palm, cassava, yam	maize, cowpea, sorghum, tomato, chilli peppers, cucumber, lettuce, cabbage
type of varieties	local varieties, farmer selections	improved varieties, local varieties	improved varieties (open-pollinated varieties - OPV), exotic varieties	improved varieties (OPV and hybrids)	improved varieties	improved varieties (hybrids and OPV), imported varieties
type of seed quality	farmer-saved	informal (no formal certification)	informal	certified	quality assured through internal control and branding, certified	certified, quality-declared
type of distribution and marketing	farmer-saved and exchange, local markets	local marketing and NGO dissemination	exchange, local sales, contract selling and marketing	marketing through agro-input dealers	own marketing and distribution through agents and out-growers	marketing by seed companies, agro-input dealers, seed importers

of high value food and cash crops, which are subsequently marketed through agro-input dealers and their own networks.

Seed-related programmes

Four major seed programmes were addressed in the assessment. The typology is based on the lead organization/institution that is driving the programme.

Agricultural Cooperative Development International-Volunteers in Overseas Cooperative Assistance (ACDI-VOCA) carries out seed activities under its Agricultural Development and Value Chain Enhancement (ADVANCE) programme, which operate in the following areas:

- financial support to research institutes to evaluate the performance of imported Pioneer and PANNAR varieties, within national maize variety trials, to facilitate release and registration; five of the eight varieties have been recommended for further testing in on-farm trials
- financial support to the Crops Research Institute (CRI) for producing the male inbred lines required for the seed production of the Mamaba hybrid
- organization of training workshops for seed growers and inspectors
- connecting farmers to seed growers and agro-input dealers for the supply of certified maize, rice and soybean seed in Brong-Ahafo and the three northern regions of Ghana
- establishing a grant facility for growers and agro-input dealers in these regions to acquire equipment and materials, such as tractors, threshers and seed packaging materials
- sponsoring agro-input dealers to run radio programmes to promote the use of quality seed of improved varieties
- sponsoring the establishment of demonstration farms

The Programme for African Seed Systems (PASS) of the Alliance for the Green Revolution in Africa (AGRA) aims to make quality seed of improved varieties available to small-scale farmers. In Ghana, it is addressing this by supporting breeding, early generation seed and commercial seed production, varietal testing and the certification of maize, cowpea, soybean, sorghum, rice, cassava and yam. The PASS programme has provided financial and technical support to ten breeders and twelve seed companies/entrepreneurs in Ghana.

The Food and Agriculture Budgetary Support (FABS) programme of the Canadian International Development Agency (CIDA) includes a legume seed programme that targets the improvement of soybean and cowpea seed. CRI is spearheading the soybean regional variety trials in collaboration with, and funded by the African based international seed company SeedCo. A crop-livestock integration project at CRI, funded by the Australian Government, has identified dual-purpose cowpea varieties (for human consumption and animal feed). The

Root and Tuber Improvement and Marketing Programme, associated with the International Fund for Agricultural Development (IFAD), and the Government of Ghana, is currently promoting the multiplication of cassava and yam.

National research institutes associated with the Council for Scientific and Industrial Research (CSIR) and the Ghana Cocoa Board have their own programmes on seed and plant material propagation, which aim at improving and releasing new varieties for their mandate crops. In northern Ghana, the Association of Church-based Development NGOs (ACDEP), a network of over 40, largely but not exclusively, church-sponsored development NGOs, runs a community seed programme in which communities are supported in producing seed of locally important food crops. These seed programmes have enhanced the efficiency of many stakeholders in the various seed systems to play their own and important roles in the seed value chain.

Seed-related policies

Ghana has a Seed Act that forms the second part of the Plants and Fertilizer Act, (Act 803) which was enacted in 2010. Among its provisions, the Seed Act remains silent on intellectual property rights and plant breeders' rights. The regulatory framework developed to implement its provisions has passed through most of the requisite processes, and is now awaiting ratification by Parliament. The Act provides for the establishment of a National Seed Council that is mandated to formulate policies for the development, production, inspection, sampling, analysis, conditioning and marketing of seeds in Ghana. Currently, a draft policy has been prepared under the leadership of the Directorate of Crop Services, Ministry of Food and Agriculture. However, the draft policy still requires wider stakeholder input and refinement. This unfortunate state of affairs neither promotes nor supports the development of an efficient and pluralistic seed sector. It is therefore not surprising that many stakeholders in the sector engaged in the various seed systems are constrained in their professionalism and entrepreneurship, which results in limiting farmers' accessing quality seed of superior varieties. This underscores the complaints made by many farmers and other stakeholders concerning the activities of unscrupulous and fake seed dealers, which impacts negatively on the development of the seed sector.

The link between practices, programmes and policies: challenges and opportunities

The large variation of public entities, NGOs and programmes of international organizations active in the Ghanaian seed sector has brought about some improvement in efficiency among players in the various seed systems. For instance, seed producers' access to basic seed for producing certified seed has improved significantly over the past years. Financial and technical

support has strengthened the capacities of not only breeders and seed producers, but also agro-input dealers. This has enabled the stakeholders in the various seed systems to engage in a process of professionalism in targeting the availability of quality seed of improved varieties for Ghanaian farmers.

However, the seed sector faces the following key challenges:

- the operation of fake dealers in the market
- a weak structured seed value chain resulting in inefficient marketing and promotion, the relatively high price of certified seed and, consequently, a low demand by farmers
- a limited number of locally developed crop varieties adapted to local production conditions and to the preferences of farmers and consumers
- inadequate extension service support in both the formal and informal seed systems; the latter constrained by limited access to technical know-how
- the lack of professional capacity of seed producers, particularly those operating in the informal seed systems, and agro-input dealers who market seed from the formal sector
- the absence of a regulatory framework to implement and operationalize the national seed law in a manner that promotes integrated seed sector development

In the face of these challenges, the Ghanaian seed sector presents the following strengths and opportunities:

- the availability of qualified plant breeders and seed inspection with the vision of fostering seed sector development
- the availability of different types of formal quality control and management that foster farmers' access to quality seed
- the use of good packaging and labelling by private operators, ensuring traceability
- well organized maize and cowpea breeding programmes, providing a model for seed value chains for other important food and cash crops
- the enactment of the national seed law, providing a unique opportunity and the momentum for the country to rapidly put the regulatory framework into action, matching the diversity of seed systems whilst promoting entrepreneurship and professionalism in seed value chains, and thereby enhance the performance of the agricultural sector of Ghana

African Seed and Biotechnology Programme

The African Seed and Biotechnology Programme (ASBP), which was adopted during the Eighth Ordinary Session of the Assembly of Heads of States and Governments of the African Union, in January 2007, aims to provide a strategic approach to the comprehensive development of the seed sector and related biotechnology in Africa, taking into account the different needs of the countries and regions. The programme pursues an integrated approach towards enhancing capacities for seed policy development and implementation; strengthening linkages between informal and formal seed sectors; ensuring further adherence to international norms and standards; stimulating the transfer of appropriate technologies and products; and encouraging public-private partnerships to promote the development of local seed enterprises. The Integrated Seed Sector Development (ISSD) in Africa programme is meant both to strengthen these processes and to contribute to the implementation of the programme at the level of national policies, supporting regional economic communities in their contribution to ASBP objectives. This makes the ISSD Africa programme timely and well placed to a continental and regional context.

ISSD Africa II and the current ISSD Briefing Note

The ISSD Ghana assessment of the seed sector is produced in the context of the ISSD Africa II programme. The activities in this programme in Ghana are financed by the Dutch Government, through its Ministry of Economic Affairs, Agriculture and Innovation (ELI), and the Directorate for International Cooperation (DGIS); and through the Technical Centre for Agricultural and Rural Cooperation (CTA)

ISSD Africa is a collaborative programme that is active in Burundi, Ethiopia, Ghana, Mali, Malawi, Mozambique, Uganda and Zambia. It includes partners from the public and private sector, NGOs, farmers' organizations and universities, at national level in each country.

ISSD Africa II is coordinated by the Centre for Development Innovation of Wageningen University and Research centre in the Netherlands. The programme's international partners are Wageningen University Law and Governance Group, Self Help Africa (SHA), IFDC (Eastern and West Africa Programmes), the Royal Tropical Institute (KIT), the Future Agricultures Consortium, Agri-ProFocus and the ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA).

Authors:

Robert Aidoo, Charles Quansah, Richard Akromah, Kwadwo Obeng-Antwi, Kwabena Adu-Gyamfi, Juliette Lampoh and Abishkar Subedi

Picture: CGIAR-Climate

ISSD Africa II – Ghana task force and team members:

- Robert Aidoo, Faculty of Agriculture, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, representing knowledge institutions
- Richard Akromah, Faculty of Agriculture, KNUST, Kumasi, representing knowledge institutions
- Kwadwo Obeng-Antwi, Crops Research Institute of the CSIR, Kumasi, representing the public sector
- Kwabena Adu-Gyamfi, Agri Commercial Services Ltd, Wenchi, representing the private sector
- Juliette Lampoh, Concern-Universal, Accra, representing NGOs

- Charles Quansah, Faculty of Agriculture, KNUST, Kumasi, consultant
- Abishkar Subedi, Centre for Development Innovation, Wageningen University and Research centre, the Netherlands, ISSD Africa Advisor

ISSD Africa editorial team:

Walter Simon de Boef, Gareth Borman and Elizabeth O’Keeffe
Centre for Development Innovation, Wageningen University and Research centre, the Netherlands

ISSD Africa II is supported by:

