TASAI

THE AFRICAN SEED ACCESS INDEX

Zimbabwe Brief 2017 - The African Seed Access Index

Edward Mabaya
Claid Mujaju
Patience Nyakanda
Mainza Mugoya

September 2017

Zimbabwe Brief 2017 – The African Seed Access Index

INTRODUCTION

A competitive seed sector is key to ensuring timely availability of high quality seeds of improved, appropriate varieties at affordable prices to smallholder farmers in Zimbabwe. This country brief summarizes the key findings of The African Seed Access Index (TASAI) study conducted in 2016 to appraise the structure and economic performance of Zimbabwe's seed sector. With a focus on four grain and legume crops important to food security – maize, beans, soybeans, and sorghum – this study evaluates the enabling environment for a vibrant formal seed sector. The cultivation of these four crops covers about 75% of the Zimbabwe's arable land (FAOSTAT, 2017).

The study covers 20 indicators divided under the following categories: Research and Development, Industry Competitiveness, Seed Policy and Regulations, Institutional Support, and Service to Smallholder Farmers. Appendix 1 summarizes all 20 indicators and compares Zimbabwe to 12 other countries where similar studies were conducted. Further, a TASAI study was conducted in Zimbabwe in 2013, allowing us to study the performance of Zimbabwe's seed industry over time. It is important to note that cotton, one of the four focus crops in 2013, was replaced with beans in 2016, to limit the research to food crops.

Overview

Unlike most African countries, Zimbabwe's has a well-established formal seed sector with a long history. As early as the 1960s, the government of Zimbabwe (then Rhodesia) recognised the urgent need to enhance the provision of quality seeds to farmers. Presently, the country has high adoption rates of certified seeds – approximately 80% for hybrid seeds (Chikobvu, Kassie and Lunduka, 2014). However, the country's economic woes that started in the mid-2000s have significantly diminished the country's seed security.

The informal sector broadly refers to the system where farmers produce, obtain, maintain, and distribute seed resources from one growing season to the next (FAO, 1998). Standards in the informal seed sector are not monitored or controlled by government policies and regulations; rather, they are guided by indigenous knowledge and standards, and by social structures. The colloquial nature of transactions means that there is scant performance data on the informal sector. Due to the recent economic problems, a growing number of smallholders have returned to the informal sector.

The formal sector focuses on breeding, evaluating, and releasing improved varieties, and producing and selling certified seed. The formal seed sector is regulated by Seed Services, an institute in the Department of Research and Specialist Services (DR&SS) under the Ministry of Agriculture, Mechanization, and Irrigation Development. Seed Services implements the seed laws and regulations in Zimbabwe. The national association of seed companies known as the Zimbabwe Seed Trade Association (ZSTA), coordinates seed companies' activities and interface with government. Through Seed Services and ZSTA, the Zimbabwe seed industry participates in various regional and international associations and technical bodies such as ISTA, AFSTA, UPOV and OECD. Other key institutions in Zimbabwe's formal seed sector are listed in Table 1.

Table 1: Role of key players in Zimbawe's formal seed sector

ROLE	KEY PLAYERS
Research and breeding	DR&SS; CBI; CBI; ZTS-SIRDC; MNCs; SME seed companies; universities (University of Zimbabwe, Midlands State University, Chinhoyi University of Technology, Africa University)
Variety release and regulation	Seed services (National Certifying Authority)
Breeders and foundation seed production	CBI; ZTS-SIRDC; MNCs; seed companies
Seed production and processing	Seed companies; MNCs; contract farming companies
Education, training, and extension	Seed companies; government extension agents; NGOs
Distribution and sales	ZSTA; Private sector seed merchants; rural agro-dealers; NGOs; Government

Key acronyms: AFSTA – African Seed Trade Association; **CBI** – Crop Breeding Institute; **CIAT** - International Center for Tropical Agriculture; **CIMMYT** – International Maize and Wheat Improvement Center; **COMESA** - Common Market for Eastern and Southern Africa; **ICRISAT** - International Center for Research in the Semi-Arid Tropics; **ISTA** - International Seed Testing Association; **MNC** – Multinational Corporation; **SME** – Small and Medium Enterprise; **UPOV** - International Union for the Protection of New Plant Varieties; **ZSTA** – Zimbabwe Seed Trade Association; **ZTS-SIRDC** – Zimbabwe Technological Services - Scientific Industrial Research and Development Center

Copyright © The African Seed Access Index

RESEARCH AND DEVELOPMENT

Number of active breeders

In 2016, Zimbabwe had 32 active breeders across the four focus crops (maize, beans, soya beans and sorghum), serving 560,000 farming households. Of these, 17 specialize in maize, 5 in beans, 6 in soya bean, and 4 in sorghum. Most (25) of the breeders work for six private seed companies. The other seven breeders work in the public sector. The Crop Breeding Institute (CBI) has a public mandate to develop improved varieties of all field crops grown in Zimbabwe. CGIAR centers including the International Maize and Wheat Improvement Center (CIMMYT), the International Center for Tropical Agriculture (CIAT), and the International Center for Research in the Semi-Arid Tropics (ICRISAT) support the maize, bean, and sorghum breeding programs in the country through the provision of germplasm, capacity building of breeders, and training of scientists. However, at the moment, only CIMMYT has an active breeding program in the country. In addition, several local universities including the University of Zimbabwe, Midlands State University, Chinhoyi University of Technology, and Africa University conduct training and research to support breeding programs. However, the primary role of these institutions in teaching, and as such they are not involved in variety development.

Notably, the number of breeders has reduced from 40 in 2013. By crop, the main reductions have been for maize (from 21 to 17) and for sorghum (from 7 to 4). This reduction in number of breeders is a manifestation of the overall brain drain as skilled labour continues to migrate to other countries in search of better opportunities. Despite this reduction, on average, seed companies rate the adequacy of breeders as excellent (86%).[1]

Varieties released in the last three years

In the last three years on record (2014-2016), 44 new varieties were released of the four focus crops. This compares well to 35 varieties released in the last reporting period of 2011-2013. The drive behind this increase was a demand for varieties with special traits such as drought-tolerance and improved nutritional content. Of the 44 new varieties, 37 were maize, one sorghum, three soya beans, and three beans. Figure 1 illustrates the predominance of maize in breeding programs. Over the years, maize breeding has been given more attention than other crops. For example, since 2000, 125 new varieties of maize have been released compared to only eight for sorghum, 15 for soybean, and 14 for beans. This is in part because maize is the most widely cultivated crop in the country, given its importance for food security.

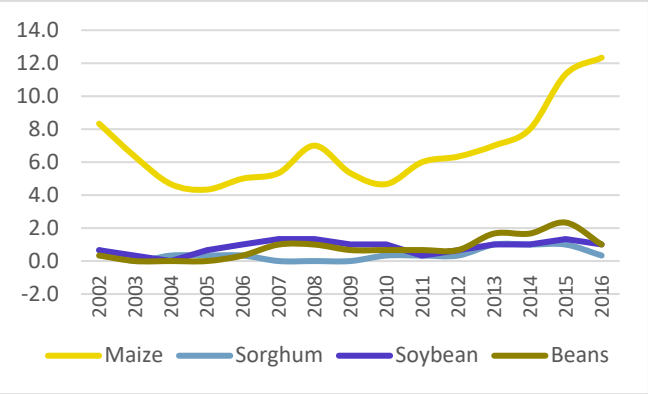

Figure 1: Number of varieties released in Zimbabwe (three-year moving average)

Seed companies sold 95 varieties of the four crops in 2016. Of these, most were maize varieties (59 of 95), while 14 were bean varieties, 12 were sorghum varieties and 10 were soya bean varieties.

Availability of foundation seed

Unlike most African countries, foundation seed production in Zimbabwe is mostly the responsibility of the seed companies. On average, seed companies scored their satisfaction with the availability of foundation seed as good (79%). Seed companies and parastatals that have their own breeding programs rate their satisfaction at 84% and 85%, respectively. Emerging seed companies that rely on CBI are less satisfied (63%). Nevertheless, by crop, seed companies rate the availability of foundation seed as excellent for maize (84%) and soya bean (80%), and good for beans (76%) and sorghum (77%).

One of the main constraints limiting foundation seed production at CBI is the shortage of technical resources (such as machinery and irrigation equipment) and financial resources. This shortage has reduced CBI's capacity to adequately supply foundation seed to emerging companies. Emerging seed companies, given their limited capacity,

[1] All scores reported in this brief are based on industry self-reporting of satisfaction ranging from 0% (completely dissatisfied) to 100% (completely satisfied).

Copyright © The African Seed Access Index

are not willing to invest in foundation seed production because it does not yield short-term financial returns. In addition, these emerging seed companies are unable to project their requirements for foundation seed in advance, which further complicates planning for CBI.

Average age of varieties sold

The average age of the varieties currently on the market is 8.4 years. Broken down by crop, this is 8.5 years for maize, 5.6 years for beans, 8.2 years for soya bean, and 12 years for sorghum. The high average age for sorghum is due to the low commercial interest in the crop, and the resultant minimal investment in breeding and subsequent variety release. The relatively high average age of maize and soya bean varieties, both of which are grown commercially, suggests that farmers still prefer some old and trusted varieties. The oldest varieties for each crop on the market in 2016 are as follows: 28 years for maize, 29 years for sorghum, 17 years for soybean and 10 years for beans. The youngest varieties are only a year old for all focus crops other than sorghum where the youngest variety is three years old. Compared to most other African countries, these varieties are very young, and the high variety turnover in Zimbabwe reflects a responsive industry.

Varieties with climate-smart features

To be classified as climate-smart, a crop variety must meet at least one of two criteria – early maturity and/or tolerance to extreme weather conditions such as drought, flooding, frost, moisture or heat stress. Many maize varieties (21 of 34) and all three sorghum varieties released between 2013 and 2015 are climate-smart. However, only three of the seven bean varieties are climate-smart, and none of the soya bean varieties have any climate-smart characteristics. The high investment in the climate-smart maize varieties is attributed to CIMMYT's Southern Africa Drought and Low Soil Fertility (SADLF) project. Sorghum is naturally well adapted to low rainfall regimes, and thus all recently released varieties are considered drought-tolerant (with two of them also early-maturing). For beans, breeders have emphasized early maturity; 71% of the recent releases are early maturing.

INDUSTRY COMPETITIVENESS

Number of active seed companies

In 2016, Zimbabwe had 16 registered seed companies producing and/or marketing at least one of the four crops. Of these companies, 13 produce maize, 8 produce beans, 6 produce soya bean, and 7 produce sorghum. Further, two are government parastatals and the rest are private companies. The overall number is a reduction from the 20 seed companies reported in 2013. The reason for the reduction is the competitive business environment across the country, which has resulted in further consolidation of the industry. There were two mergers in the last two years. One merger brought together two companies, and a second merger brought together three companies. In a third case, one of the companies went into a technical equity partnership with a non-seed organization.

The estimated aggregate sales of the four crops in 2015 were 49,278 tons. Maize seed accounted for about 90% (44,150 tons) of sales of the four crops. This is slightly lower than the 2013 maize seed sales of 39,889 tons. The aggregate seed sales of the other three crops are as follows: 1,078 tons (beans), 1,300 tons (sorghum), and 2,750 tons (soya bean).

Market share of top seed companies

Market share is calculated using seed sales reported by seed companies. As illustrated in Figure 2, the market shares for the top four companies by crop are as follows: 93% (maize), 85% (beans), 95% (soya bean), and 91% (sorghum) (fig. 2).

The market shares reveal a dominance of a few players, particularly in the maize seed market, which has many active seed companies.

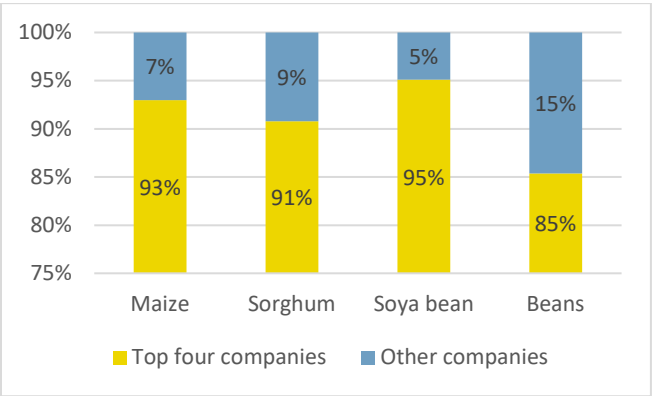

Figure 2: Total market share (%) of top four companies

Copyright © The African Seed Access Index

Market concentration was also analyzed using the Herfindal-Hershman Index (HHI). The HHI measures market concentration by squaring the market share of each firm competing in a market and then summing the resulting numbers. The index ranges from near zero (perfect competition) to 10,000 (pure monopoly). HHI was calculated for all the seed companies, for each crop. The market concentration is fair for beans (2,370), poor for maize (3,380) and sorghum (3,565), and extremely poor for soya bean (8,297). The market shares of the top four companies and the HHI results both indicate that the seed industry is dominated by a few players, with poor or extremely poor levels of competition. The decrease in competitiveness since the last reporting period reflects the four industry mergers and acquisitions that occurred over the past few years.

Market share of government parastatal

Seed production and distribution in Zimbabwe is mostly privatized. However, there are two government parastatals that are currently active in the Zimbabwe's seed sector. ARDA Seeds, registered in 1988 is active in all four of the focus crops. Zimbabwe Technological Solutions (ZTS), recently registered in 2014, only produces maize seed. The two parastatals both have a mandate to meet the needs of smallholder farmers in areas of the market where private seed companies have limited involvement. Because of this market segmentation, the competition between parastatals and private companies is little-to-none, and the seed industry is mostly privatized. Their combined volume weighted market share is for all four crops is 3%. This is a slight reduction from the government market share of 4% in 2013. By crop, the government market share is about 3% for maize, 3% for beans, 4% for soya beans, and 6% for sorghum.

Length of import/export process for seed

The time it takes to import seed is calculated as the number of days from the time an import permit is requested to the time the seed is cleared at the border. In 2016, seed companies report that it took an average of 30 days to import seed into Zimbabwe. This is a significant increase from the 12 days reported in 2013. This increase is reflected in the "fair" rating reported in 2016 (44%) compared to a "good" score (68%) in 2013. The main sources of seed imports are Malawi, South Africa, and Zambia.

The same trend between 2013 and 2016 is observed in seed exports. The average length of time for seed exports in 2016 was 35 days. The companies' satisfaction over this period has dropped significantly from good (69%) in 2013, to poor (27%) in 2016. The main export destinations are Angola, Botswana, Kenya, Madagascar, Mozambique, South Africa, Uganda, and Zambia.

Companies' dissatisfaction is due to the long and bureaucratic process to obtain import and export documentation. Since 2013, the processes for both imports and exports have been expanded to include more government institutions (Seed Services, Department of Economics and Markets, Reserve Bank, Agricultural Marketing Authority, National Biotechnology Authority) that are physically scattered. Consequently, the import/export process has become more expensive and time-consuming, requiring more paperwork and visits to various offices than before. A one-stop-shop for seed import and export would alleviate the companies' frustrations.

SEED POLICY AND REGULATIONS

Length of variety release process

The length of the variety release process is the duration of time from when the application for a variety release is submitted to when the variety is released by the Variety Release Committee. On average, the length of the variety release process in Zimbabwe is 18 months, ranging from 12 months (for soya bean) to 20 months (for beans). This is a slight improvement from an average of 22 months in 2013. On average, seed companies rate the variety release process as excellent (83%). By crop, the level of satisfaction is excellent (85%) for maize and soya bean, and good (78%) for beans and sorghum.

These findings show that Zimbabwe has a relatively straight-forward and well-coordinated variety release system, which is appreciated by seed companies. That said, several breeders recommended that the variety release panel needs to keep abreast of recent data analysis techniques as well as new approaches to variety evaluation.

Status of seed policy framework

Zimbabwe does not have a seed policy, though a task force has been established to formulate a draft policy. The Zimbabwe Seed Act was last amended in 1971, with Seed Regulations passed the same year. The Plant Breeders' Rights

Copyright © The African Seed Access Index

Act was last amended in 2001. However, the various seed regulations and subsidiary legislation are more recent. These were amended and published in 2016 to conform with the Common Market for Eastern and Southern Africa (COMESA) seed harmonization regulations, to which Zimbabwe is a signatory. The recent amendments include the Seed Certification Regulations and the Plant Pests and Diseases Regulations. These, among others, were passed in November 2016 and address issues such as seed certification, inspection, variety release, and seed movement in the region.

Quality of seed regulations and enforcement

The Seeds Act Chapter 19:13 of 1971 accompanied by the regulations and the Seed Certification Scheme of 2000 serve as Zimbabwe's seed laws. The responsible regulatory authority is Seed Services. Seed companies rate their satisfaction with the quality of seed regulations and the quality of enforcement as excellent (86%) and good (77%), respectively. This is comparable to the corresponding ratings of 88% and 83% in 2013. Seed companies are all aware of the main elements of the seed law and regulations, and are satisfied with their enforcement. However, emerging seed companies feel that the seed regulations should be revised to better meet their needs. In addition, some respondents noted that, given the high staff turnover at Seed Services, some of the new government inspectors lack the confidence to enforce the laws, especially when faced with more experienced company seed inspectors.

Adequacy of seed inspectors

The Seed Services Institute in Zimbabwe is guided by the Organization for Economic Cooperation and Development (OECD) seed inspection schemes. Under this scheme, government field inspectors should inspect *at least* 10% of registered seed crops and *all* crops meant for export. The remainder is inspected by private field seed inspectors employed by their respective companies but reporting to Seed Services Institute.

There are 61 seed inspectors in Zimbabwe, a 36% increase from the last reporting period. Of these, 14 are public inspectors, while 47 are from the private sector. This is an increase from a total of 45 inspectors in 2013. Seed companies rate the adequacy of seed inspectors as excellent (84%), which is similar to the 2013 score of 83%. A notable improvement since the 2013 report is the decentralization of Seed Services, which started in 2015. As a result of the process, in addition to the original central office in Harare, three new sub-stations have opened in Masvingo, Bulawayo and Nyanga.

Efforts to stamp out fake seed

Incidents of fake seeds are reported to the national seed authority, which investigates all reported cases. There are provisions in the Seeds Act chapter 19:13 section 24 to prosecute offenders. In 2016, the Seed Services Institute dealt with 10 cases of fake maize seed, mostly from unscrupulous dealers. In addition, seed companies encountered 42 cases of fake seed. The total of 52 cases is a notable increase from 41 cases reported in 2013. Seed companies are less satisfied with efforts to stamp out fake seed in 2016 (56%) than in 2013 (67%). According to the seed companies, the main source of fake seed is at the retail level, where agents have been caught manipulating seed packages. Unfortunately, in most cases, the seed is destroyed but the culprit is not punished. A majority of TASAI survey respondents felt that the incidence of fake seed was on the rise and there was a need for harsher penalties to stem the problem.

Use of smart subsidies

Since 2010, the government of Zimbabwe has implemented various agricultural input support programs. In 2016, the government subsidy program targeted 300,000 poor farmers and cost US$ 28 million. Participating farmers received 10 kg of either maize or sorghum seed plus 50kg Compound D basal fertilizer and 50kg Ammonium Nitrate top-dressing fertilizer. Seed was sourced competitively from seed companies, using an open tender. Six companies participated in the government tender for maize seed, while two participated in the sorghum seed tender. In total, 3,000 tons of maize seed (7% of total sales) and 300 tons of sorghum seed (23% of total sales) were distributed through the program. Collectively, this accounted for 7.3% of the total maize and sorghum seed market, which is low enough not to disrupt market dynamics. Seed was distributed through existing government depots owned by the Grain Marketing Board. A less disruptive way to distribute seed would be through a voucher or e-wallet system that would allow farmers to choose the type of seed they want to receive. Such voucher systems have been successfully implemented (and documented in TASAI reports) in Malawi, Zambia, and Kenya.

Copyright © The African Seed Access Index

INSTITUTIONAL SUPPORT

Availability of extension services

There are approximately 4,408 agricultural extension workers in Zimbabwe, of which 206 (5%) are from private seed companies. The gender disaggregation of extension workers is almost equal, as an impressive 44% of extension workers are female. By these two measures, Zimbabwe's extension system out-performs all other countries covered by TASAI to date. However, the current extension officers are under-resourced and often lack mobility, which is critical for increased impact.

The current government target is to have three extension workers per ward[2]. This would translate to about one extension worker for every 400 farming households. The 2013 TASAI findings recorded a ratio of one extension officer for every 300 farming households, which signifies that the target has been met. Not surprisingly, seed companies are fairly satisfied with the extension services. The companies rate their satisfaction with the extension service, the Agricultural Technical and Extension Department (AGRITEX), as good (72%). This is slightly higher than the satisfaction rating of good (64%) in 2013. AGRITEX covers all farmers across the country. Farmers receive additional services from farmers' associations, agro-input suppliers, non-governmental organisations, and developmental agencies.

A new development is the increasing use of technology in delivering extension services. ECONET, the largest mobile operator in Zimbabwe, has been developing farming tips for a range of crops, including the four focus crops. The Zimbabwe Farmers' Union has also developed messaging service with farming tips using the WhatsApp platform.

Quality of national seed trade association

The Zimbabwe Seed Trade Association (ZSTA) currently has 23 registered members, although only 13 are currently active in the affairs of the association. Fifteen seed companies responded to this survey, of which three are not registered members of the association. The reasons cited for non-membership include the high costs of subscription, especially for emerging seed companies; lack of awareness of the existence of the association; and lack of compelling reasons to be a member. ZSTA sees its two main roles in the national seed systems as the coordinator of the sector and supplier of relevant information to members.

Figure 3 illustrates seed companies' satisfaction with ZSTA's performance in eight service areas. Seed companies rate their satisfaction with the overall quality of ZSTA as fair (50%). This is a decline from their rating of good (64%) in 2013. Seed companies gave particularly low ratings in the following areas: facilitating networking opportunities (35%), skills development for members (33%), democracy in elections (49%), ability to mobilize resources (51%), and providing value for members (50%). Members scored ZSTA higher in the areas of managerial ability (63%) and effectiveness in advocacy (64%).

The low satisfaction ratings and low membership suggest the need for improvements at the ZSTA. See companies propose that ZSTA represents all members' interest irrespective of company size. It should also transparently share information on industry opportunities especially with regard to seed supply tenders.

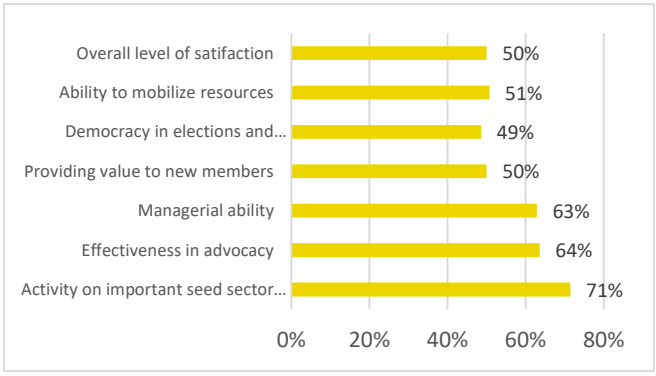

Figure 3: Members' satisfaction with STAM

SERVICE TO SMALLHOLDER FARMERS

Concentration of rural agro-dealer network

In 2016, the number of licensed seed selling agro-dealers in Zimbabwe was 1,278. This was more than a three-fold increase from the 354 agro-dealers in 2013. The new number translates to a ratio of one agro-dealer for every 438 agricultural households. In order to sell agricultural seed, traders have to register with Seed Services and renew their license each year. Seed companies rated their satisfaction with the agro-dealer network as good (75%). The majority of TASAI survey respondents indicated that the agro-dealer distribution network is very good in terms of numbers. However, in most areas it has been observed that the seed stocks were too low to sustain demand. In addition, at the village level, most agro-dealers stock maize seed but not the other three focus crops.

[2] Each ward has 1,200 farming households

Copyright © The African Seed Access Index

Availability of seed in small packages

Across the four focus crops,126% of all seed is sold in package sizes of 2 kg or less. For maize, 12% of seed is sold in packages of 2 kg or less, while the corresponding number for soya bean is 18%, for beans is 7%, and for sorghum 6%. The most popular package sizes for maize are 10kg (59% of sales) and 5kg (23% of sales), for soya bean seed 10 kg (34%). Seed companies rate their satisfaction with the package sizes as excellent for maize (83%) and sorghum (82%), and good (76%) for beans. However, companies' satisfaction with the size of soya bean seed packages is fair (47%). This is because soya bean is a commercial crop grown on large pieces of land. The farmers prefer large package sizes.

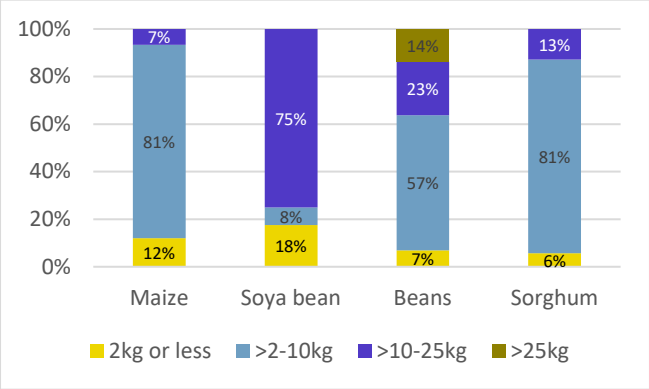

Figure 4. Percentage of seed sold in different package sizes

Seed-to-grain price ratio

Assuming stable prices at planting time, seed-to-grain price ratios can reflect the attractiveness of a variety or affordability of improved seed relative to farmer recycled grain. The seed-to-grain price ratio for the four crops in Zimbabwe is as follows: 9.3:1 for hybrid maize, 3.6:1 for OPV maize, 2:1 for beans, 2.6:1 for soya bean, 8.0:1 for hybrid sorghum and 6.9:1 for OPV sorghum. The ratios for maize hybrid and sorghum (both hybrid and OPV) are high, mainly due to the long-standing high adoption rates for certified seed of in Zimbabwe. These high adoption rates indicate that seed prices do not appear to be a major constraint to the adoption of certified seed in the country.

CONCLUSION

The seed industry in Zimbabwe is mature, with adoption rates of about 80% for maize hybrid seeds. Two key aspects of Zimbabwe's seed sector provide evidence of maturity and strength. First is the presence of a vibrant private sector, where most companies are active at different levels of the value chain, including seed production and marketing, as well as breeding and variety development. In addition, the companies conduct seed inspections services, to complement the government efforts. Second, is the government policy framework. The government has a well-defined and effective system, including extension services, to support key industry functions such as variety development and release. More importantly, the good performance of the government in these different services is acknowledged by the seed companies.

Despite these positive aspects, the seed industry continues to face certain challenges. Chief among these is the persistence of fake seed in the market. Seed companies are not satisfied with government efforts to address this problem. The second challenge is the long duration for seed imports and exports.

In spite of these challenges, there are several opportunities, which if exploited, would provide avenues for industry growth. The on-going efforts to harmonize seed regulations in the COMESA and SADC regions would provide a wider market for seed companies to exploit. This is particularly important for seed companies in Zimbabwe, several of which already have a regional presence. In addition, given the dominance of maize (accounting for 90% of seed sales for the four crops), seed companies should diversify into other crops. This can be done by increasing their investments in variety development for these crops and exploring their national and regional potential. Lastly, ZSTA should increase its activity to become a stronger voice for the industry and to provide a platform for the companies to work with government and other seed industry players.

REFERENCES

Chikobvu, S., Kassie, G. T. and Lunduka, R. W. (2014) *Country Report – DT Maize Adoption Monitoring Survey - Zimbabwe*. doi: 10.13140/RG.2.2.35722.47042.

FAOSTAT (2017) *FAOSTAT*. Available at: http://www.fao.org/faostat/en/#home (Accessed: 1 July 2017).

APPENDIX 1.

For a comparison of TASAI Indicators across 13 countries, please visit: http://tasai.org/wp-content/uploads/TASAI-Appendix-CURRENT.pdf

Copyright © The African Seed Access Index

For more information, contact:
info@tasai.org
www.tasai.org
Follow us on Twitter: **@TASAIndex**
Find us on Facebook: **The African Seed Access Index**

The work of TASAI is supported by:

USAID FROM THE AMERICAN PEOPLE
AGRA Growing Africa's Agriculture
Market Matters INC.
ÉLAN RDC DYNAMISER L'INITIATIVE PRIVÉE
CORNELL UNIVERSITY FOUNDED A.D. 1865
KENYA MARKETS TRUST Better Markets, Better Lives