

CAPACITY BUILDING TRAINING NEEDS FOR AFRICA'S SEED SECTOR



A survey conducted by



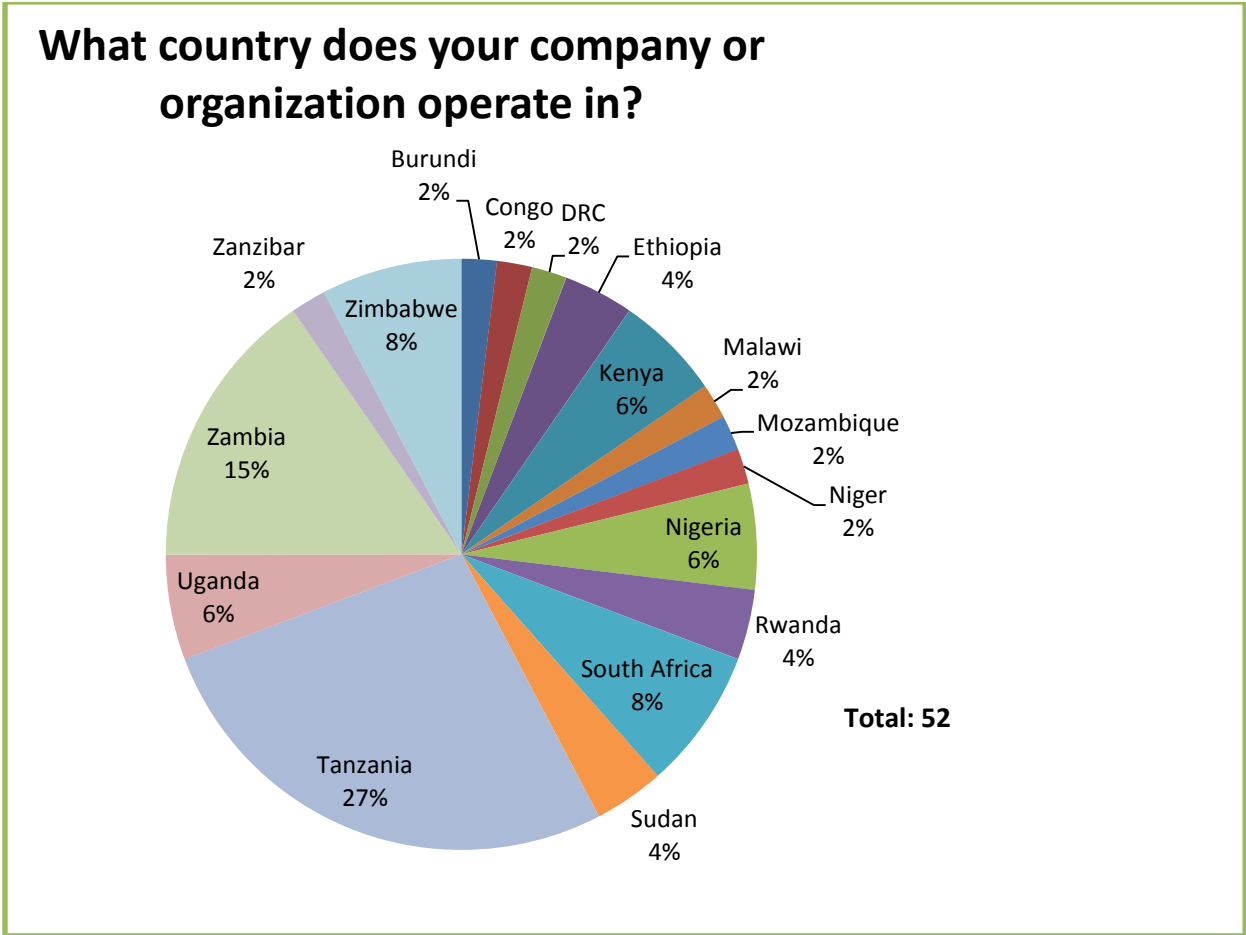
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July, 2012

1. Introduction

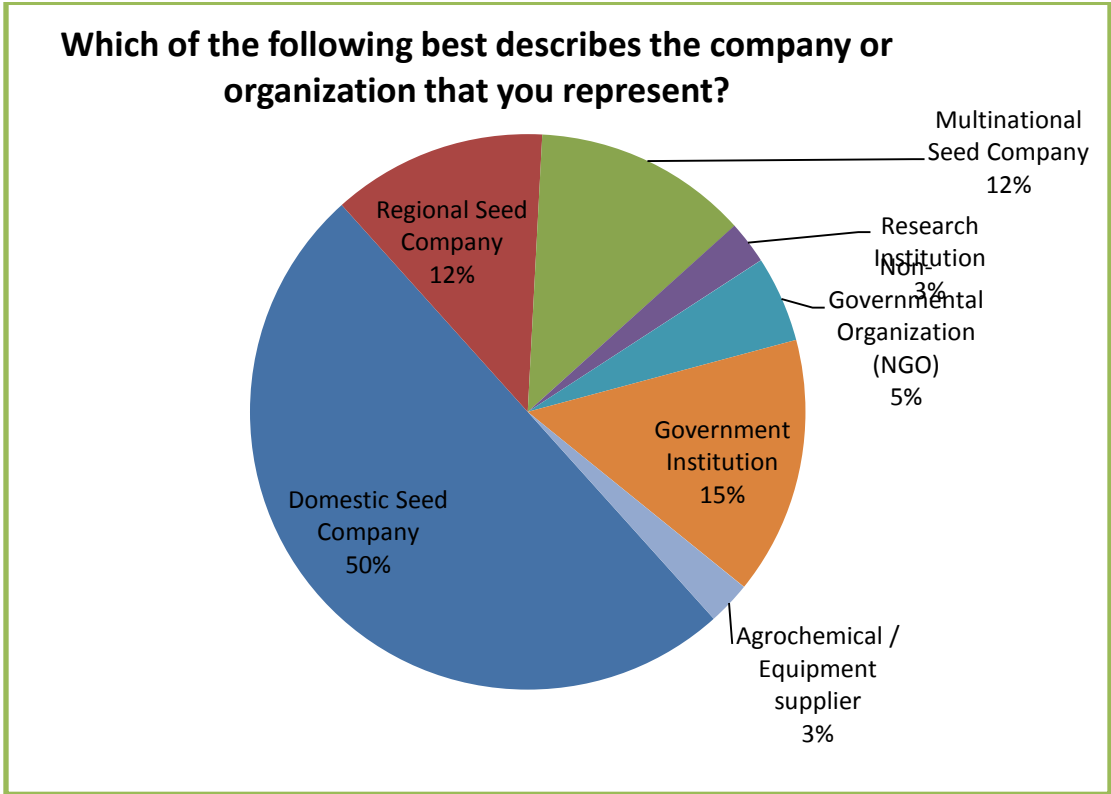
This report presents the results of survey targeting private sector seed companies operating in Africa. The survey was conducted by Dr. Edward Mabaya on behalf of Market Matters Inc. between March and May 2012. A copy of the questionnaire that was used is included in Appendix 1. The survey instrument was self-administered in two locations. First, 32 respondents filled the survey at the AFSTA annual congress that was held in Zanzibar (Tanzania) from the 5th to the 9th of March 2012. The second group of 15 respondents filled the survey and the annual Making Markets Matter workshop held in Somerset West (South Africa) from May 6 to 11, 2012. A total of 47 respondents participated in the survey. As an incentive for participation, respondents were offered a chance to win an iPad 2 through a raffle draw. Financial support for this survey was provided by Syngenta Foundation for Sustainable Agriculture. The survey results are presented herein via graphic illustration and tables with minimal commentary as most of the findings are self-explanatory.

2. Countries of Operation and Organization Type



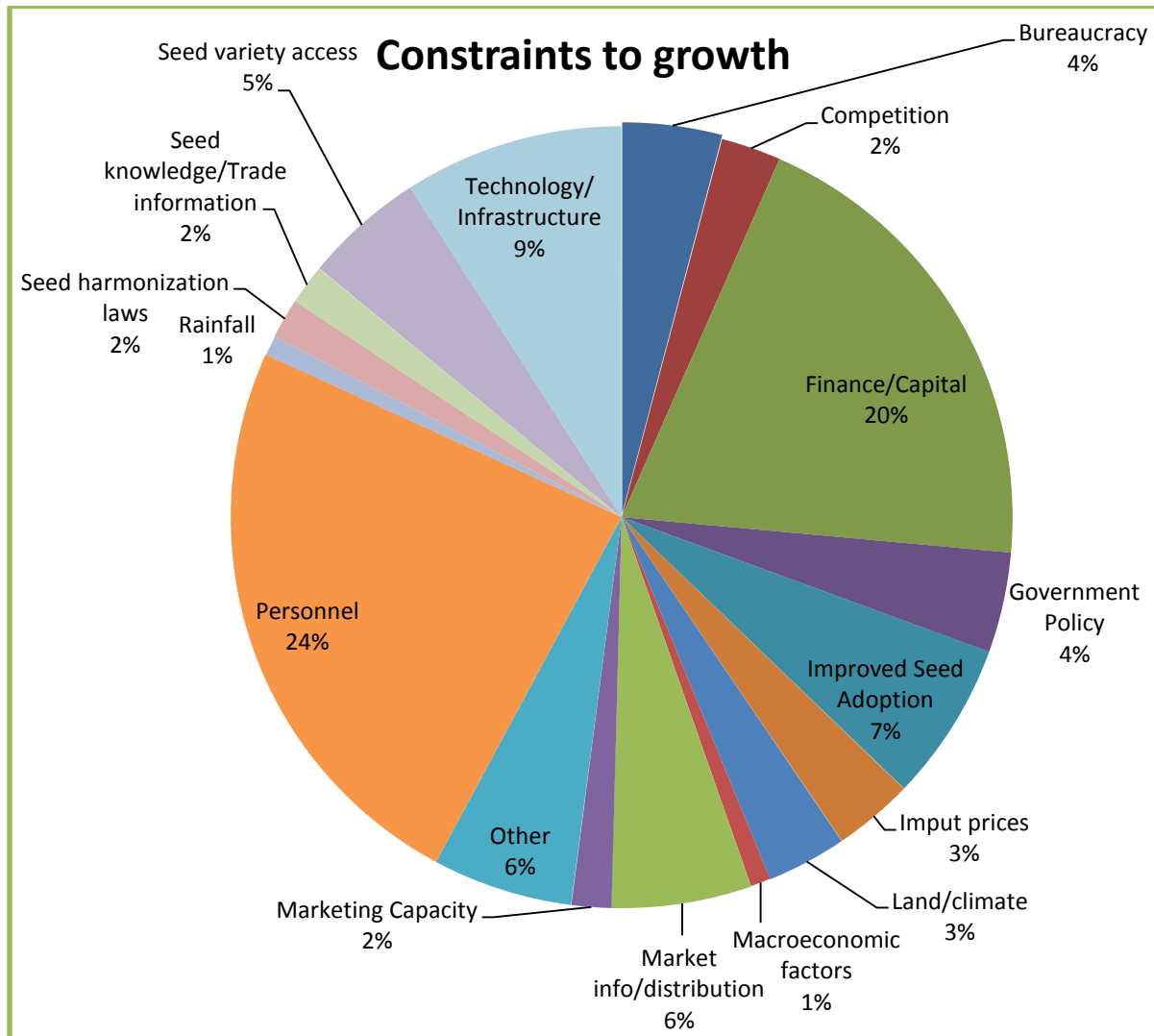
The pie chart above shows countries in which the respondents operate. At 27%, Tanzania had the largest representation followed by at 15%. Nearly half (47%) of respondents came from of the countries in the East African community (EAC), which consists of Kenya, Uganda, Tanzania, Rwanda, and Burundi. The

location of the AFSTA meeting in Zanzibar may have influenced the number of companies from East Africa due to the proximity. There were a total of 52 responses to the question since several companies operate in more than one country.



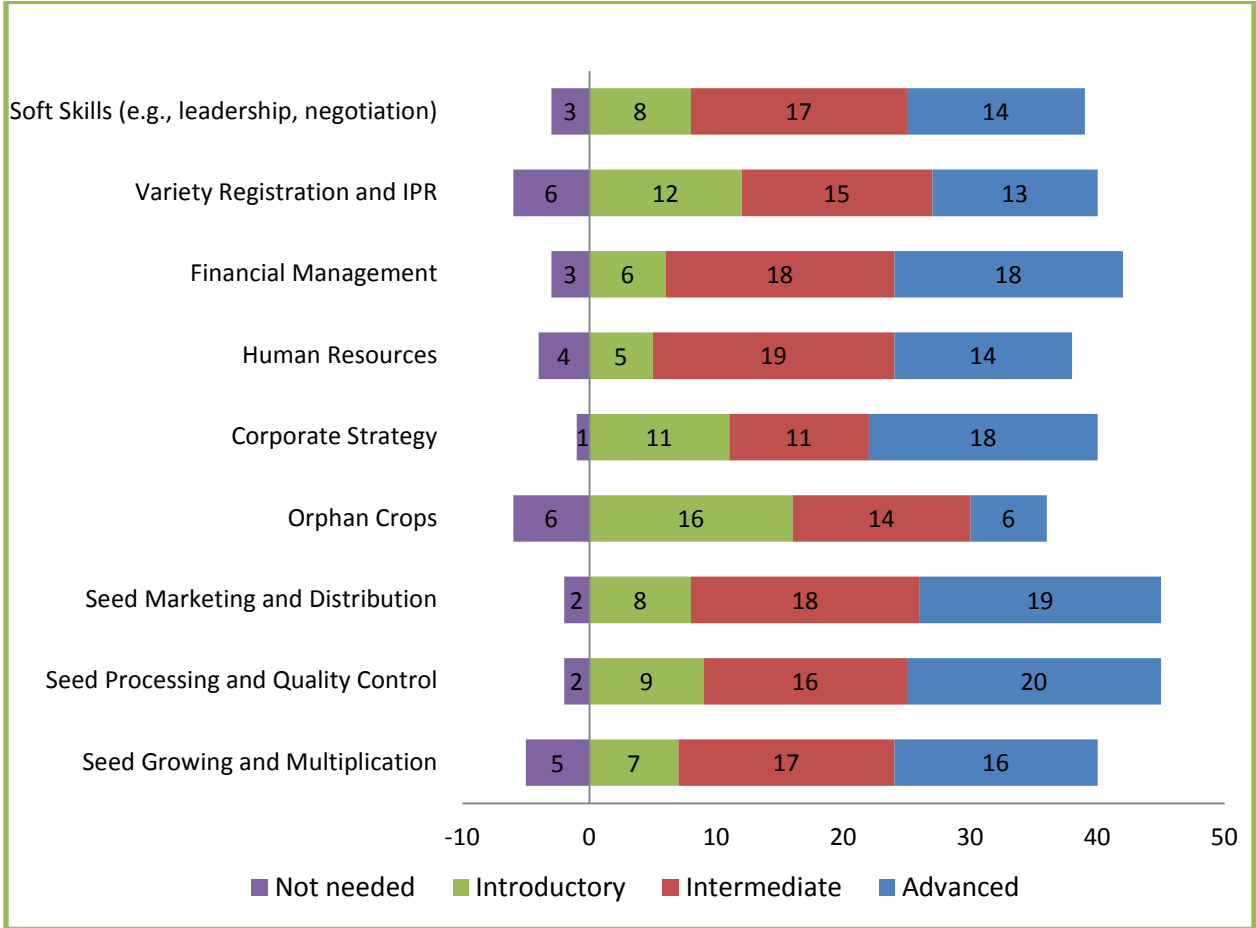
Roughly half of those surveyed represented a domestic seed company, while regional and multinational seed companies each made up 12.5%. Government departments, mostly seed inspection divisions made up 15% of the respondents.

3. Constraints to Growth



The pie chart above presents the constraints to growth for seed companies. The most frequently cited constraint was the lack of skilled personnel on hand. Out of 121 responses, 29 (24%) indicated that skilled personal was a major constraint, implying a strong need for capacity building and training for Africa’s seed sector. Another common constraint to growth was the lack of adequate funding / capital, which received 24 (20%) of the responses. Poor adoption of improved seed also remains a key challenge to seed companies.

4. Training Needs



The bar graph above presents the number of responses within each training category, ranging from not needed (indicating that the training is unnecessary), introductory, intermediate and advanced. First and most importantly the results show a high demand for training across all of the subjects. In order of importance, the highest need for training is in the areas of seed marketing and distribution, seed processing and quality control, financial management, and seed growing and multiplication. The most common response among introductory training needs was orphan crops at 42%, followed by corporate strategy at 28%. This possibly indicates areas where little or no training has been offered.

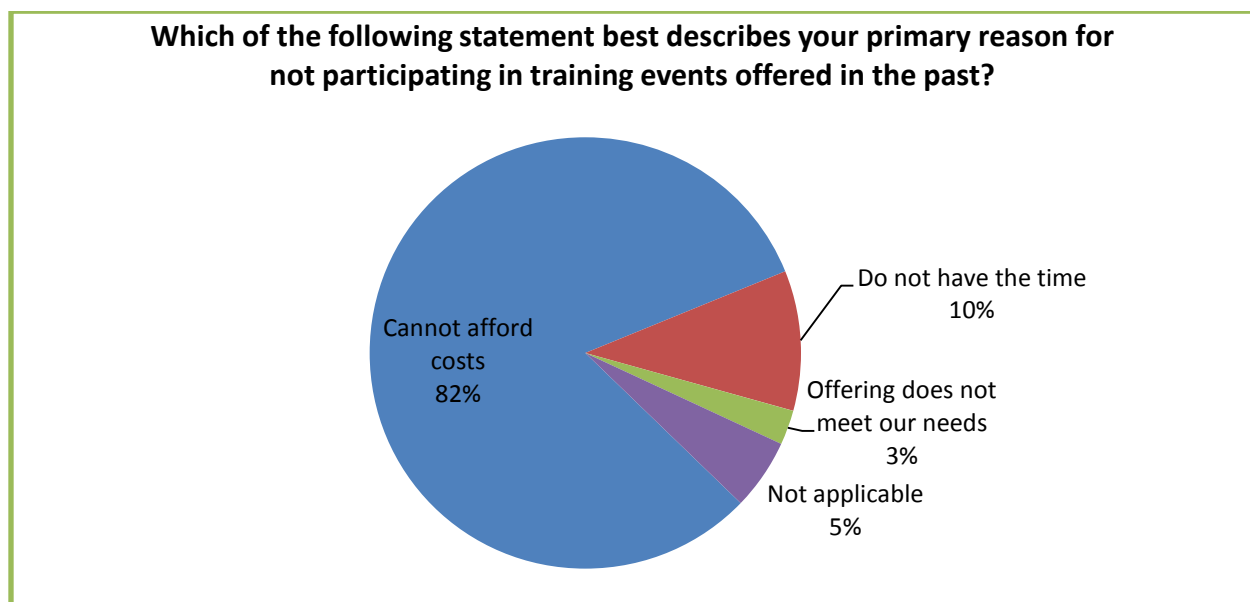
5. Capacity Building and Training Received in Past 3 yrs

Provider	Subject	Number Trained	Average Rating (out of 10)
WASA	Seed marketing and distribution	1	7
ICRISAT	Seed Production and Multiplication	1	6
SPEAR project	Variety Registration and IPR	1	8
Private seed company	Seed Production	5	8.5
	Agribusiness Management	3	8.5
	Human Resource Management	1	NR
	Financial Management	3	7
Agri-Maruku & AGRA	Seed Production and Multiplication	2	7
	Variety Registration and IPR	1	NR
	Other	1	9
Egyptian Int. Center for Agriculture	Vegetable seed production	1	2
Seed Enterprise Management Institute (SEMI)	Seed Production and Multiplication	5	7.5
	Seed marketing and distribution	1	9
	General Business Management	2	9
CIMMYT	Seed Production and Multiplication	1	NR
	General Business Management	2	8.5
Seeds of Development Program	Agribusiness Management	6	9
USAID	Not specified	2	6.5
Iowa State University	Variety Registration and IPR	1	9
Local University	Seed Production and Multiplication	1	9
	Biotechnology	1	9
Local Seed Traders Association	Variety Registration and IPR	2	8
ARIPO	Variety Registration and IPR	1	8
MDFESA	Human Resource Management	1	7
	Soft skills (leadership, negotiation)	1	6
Other / unspecified	Unspecified	6	7.6
	Seed Production and Multiplication	1	9
	General Business Management	1	7

NR=Not Rated

The table above shows some of the received by respondents in the last three years. Private seed companies gave 12 (21.4%) of the trainings while Seed Enterprise Management Institute gave a total of 8 (14.3%) of the trainings. 11 (19.3%) reported having training in seed production and multiplication while seven (12.3%) received training in general business management. Also, the table shows the average ratings (out of ten) assigned to the various training sessions. The wide variation in rating for training programs reflects some differences in the quality of programs offered by different institutions.

6. Reasons for Not Participating in Past Training Events



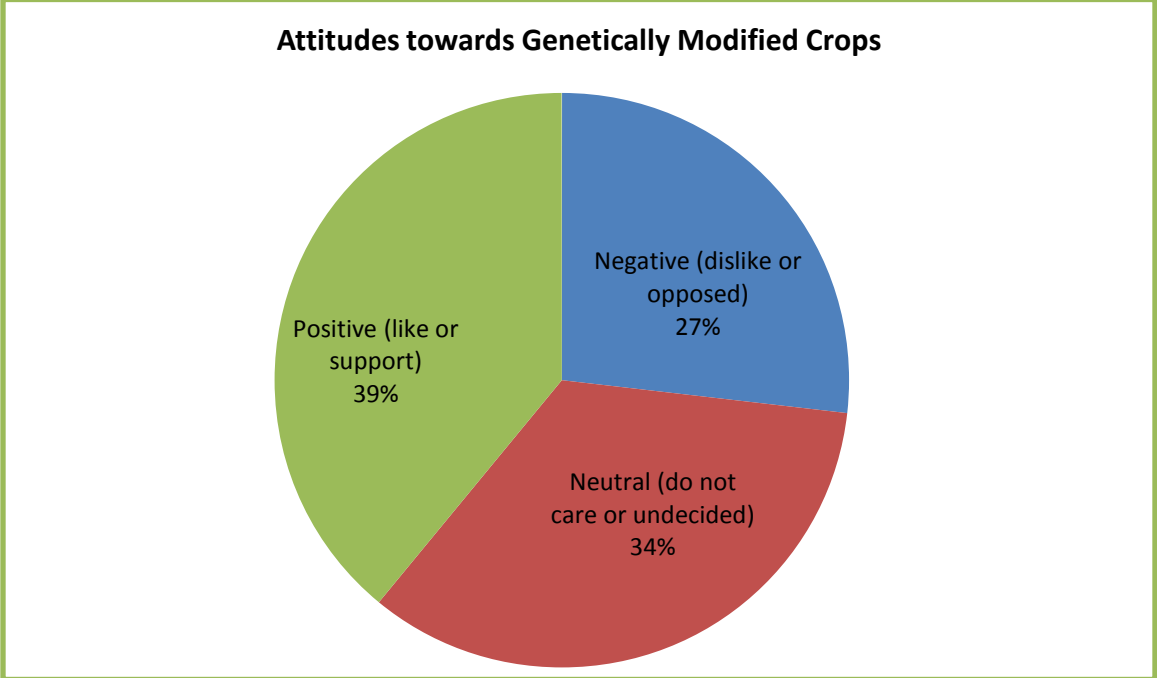
Despite the increasing number of training courses targeting seed industry representatives, participation is still very low. The pie chart above highlights the main reasons why the survey respondents were unable to attend previous training events. The most frequently cited reason for not participating was due to the affordability of the training events. Up to 82% of the respondents indicated that they could not afford the costs. The second most common reason was due to time constraints cited by 10% of the respondents. These numbers indicate that training might have to be subsidized for a while and that training programs should be scheduled during period of low activity.

7. Effectiveness of Capacity Building Methods

Capacity Building Method	Average Ranking	Final Rank
Coach	1.97	1
Workshop Training	2	2
Field Study Tours	2.11	3
Reference Manuals	2.85	4

The table above presents the relative effectiveness of four capacity building methods namely coaching, workshop training, field study tours and reference manuals. The most effective method is coaching followed by workshop training and Field tours. Reference manuals are ranked as the least effective capacity building method. Given that each method has a different cost structure, a more careful cost vs. benefit analysis should inform investments in training programs. Most importantly the above methods are not mutually exclusive and the best approach might be to use a combination of all four.

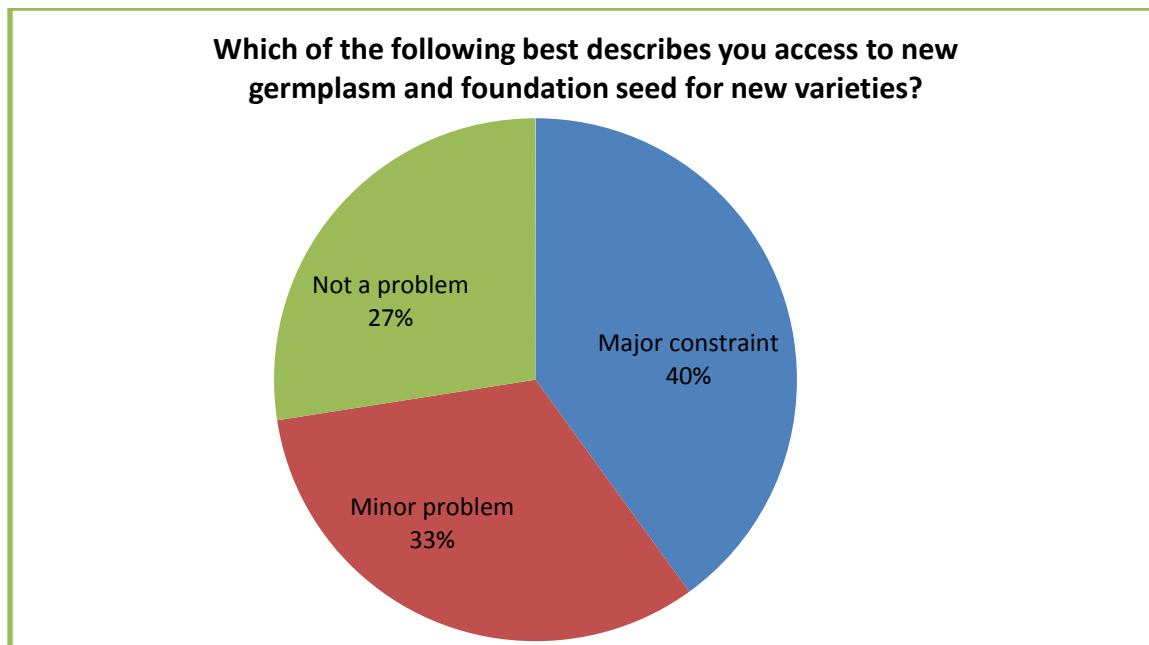
8. Attitudes towards Genetically Modified Crops



The pie chart above shows the attitude towards genetically modified crops (GMOs). 39% of the respondents had a positive attitude towards GMOs, while a third (34%) were neutral towards GMOs. Only 27% of the respondents had a negative attitude (i.e., disliked or opposed) towards GMOs. Many respondents may be undecided about this new technology, which would account for the high proportion of neutral responses. It may be useful to invest more in educating seed companies about the pros and cons of GMOs.

With respect to the attitudes of different types of organizations, only 22% of seed companies had a negative attitude towards GMOs, 44% of seed companies had a neutral response, and 33% had a positive response. In contrast 36% of non-seed company respondents had a negative attitude toward GMOs. This indicates that private seed companies are more receptive to GMO crops than government institutions and non-governmental organizations (NGOs).

9. Access to Germplasm and Foundation Seed



The graph above shows the access that survey respondents have to new germplasm and foundation seed for new varieties. Nearly three quarter (73%) of the respondents indicated that access to germplasm and foundation seed was a problem comprised of 33% indicating that it was a minor constraint and 40% indicating that is was a major constraint. Only a quarter (27%) of respondents did not consider access to be a problem. These numbers suggest that a high demand for a greater accessibility to germplasm and foundation or breeders seed of new varieties across all organization types.

10. Traits Sort

Crop	Trait you would like to see developed by public research institutions	Number of requests
Beans	white bean	1
	early maturity	1
	large seeds	1
	yellowish color	1
	pest resistance	1
Cassava	resistance to Cassava mosaic virus	5
Cotton	insect resistance	2
	disease resistance	1
	higher yields	1
Field Peas	aschochyta resistance	1

Groundnuts	greater yields – 5mt per ha	1
	aflotoxin tolerance	2
Lupins	anthranose disease resistance	1
Maize	Drought resistance / tolerance	21
	maize streak virus resistance	2
	large grain seeds	1
	Striga resistance	2
	Higher yielding	3
	flood tolerance	1
	tolerance to acidic soils	1
	nitrogen efficiency	1
	shorter height	1
	insect resistance	1
	Millet	insect resistance
Potatoes	Nematode resistance	1
	Higher yield	1
	Drought resistance	1
Rice	drought resistance	1
	high yield	3
	early maturity	2
	hybrid rice technology	1
	disease resistance	1
	aromatic	2
	upland	1
Sorghum	drought resistance	3
	bird resistance	2
	hybrid technology	1
	high yield	1
	palatability	1
Soybeans	insect resistance	1
	leaf rust	1
Sunflowers	Replace petrol diesel	1
	early maturity	2
	high oil content	2
Sweet Lupino	anthranose disease resistance	1
Tomatoes	bacterial wilt resistance	1
vegetables	diamond black mot	1
Wheat	wheat setoria resistance	1
	Rust resistance	2
	anti-lodging	1

Note: NR=No response

The table above shows the answers to the question of which crops and traits should be developed by public research institutions. The most common crop and trait sort was a drought resistance / tolerance feature for maize which combination received 21 requests. The second most common trait sort was resistance to the cassava mosaic virus. Most other crop and trait combinations received single requests.

Appendix 1: Survey Instrument

CAPACITY BUILDING TRAINING NEEDS FOR AFRICA'S SEED SECTOR				
Your company or organization				
Name of your Organization (Optional): _____				
Countries where you operate: _____				
Which of the following best describes the company or organization that you represent?				
<input type="checkbox"/> <i>Domestic Seed Company</i> <input type="checkbox"/> <i>Regional Seed Company</i> <input type="checkbox"/> <i>Multinational Seed Company</i> <input type="checkbox"/> <i>Research Institution</i> <input type="checkbox"/> <i>Non-Governmental Organization (NGO)</i> <input type="checkbox"/> <i>Government Institution</i> <input type="checkbox"/> <i>Agrochemical/ equipment Supplier</i> <input type="checkbox"/> <i>Other (specify)</i> _____				
Constraints to Growth: In order of importance, list the three most important constraints limiting the growth of your company (<i>most important constraint first</i>)				
1. _____				
2. _____				
3. _____				
Indicate below the training needs of your company or organization (check the box that applies)				
Area / Subject	Not needed	Introductory	Intermediate	Advanced
<i>Seed growing and multiplication</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Seed processing and quality control</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Seed Marketing and Distribution</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Orphan crops</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Corporate Strategy</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Human Resources Management</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Financial Management</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Variety Registration and Property Rights</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Soft Skills e.g., (leadership, negotiation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Other (specify)</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indicate below all the capacity building and training that your company has received in the past three years				
Provider	Subject	Year	Place	Rating (out of 10)
Which of the following describes your primary reason for not attending training events in the past? <input type="checkbox"/> <i>Cannot afford cost</i> <input type="checkbox"/> <i>Do not have the time</i> <input type="checkbox"/> <i>Training does not address our needs</i> <input type="checkbox"/> <i>Training was below our standards</i> <i>Other (specify):</i> _____				
Rank the effectiveness of the following capacity building methods (1 = Most effective, and 4 = Least effective) ___ <i>Workshop Training</i> ___ <i>Field Study Tours</i> ___ <i>Reference Manuals</i> ___ <i>Coaching (an expert visiting your company)</i>				
Which of the following best describes your attitude towards Genetically Modified crops (GMO)? ___ <i>Negative (dislike or opposed)</i> ___ <i>Neutral (do not care or undecided)</i> ___ <i>Positive (like or support)</i>				
Which of the following best describes your access to new germplasm and foundation or breeders seed of new varieties? ___ <i>Major constraint</i> ___ <i>Minor problem</i> ___ <i>Not a problem</i> <i>Specify current source:</i> _____				
Indicate below what new traits you would like to see developed by public research institutions				
Crop	Trait			
Use the back of this page to make additional comments. Drop your completed form in a box by the registration desk.				