KENYA EGS recommendations

A total of 3 key recommendations to address deficiencies and/or opportunities in the EGS area of Kenya's seed system have been developed by the assessment team and vetted with stakeholders. The recommendations are roughly, but not strictly, listed in order of importance or recommended sequencing.

Recommendation # 1: Develop framework to forecast national demand for early generation seed
Description
Seed companies source basic seed from several sources, including the Kenya Agricultural and Livestock Research Organization (KALRO), the Consultative Group on International Agricultural Research (CGIAR) centers, and private seed companies. A number of seed companies also maintain their own basic seed. However, seed companies that source basic seed from KALRO are occasionally faced with a shortage of quality basic seed, especially for legume seeds that private seed companies do not pay too much attention to. To address this challenge, the seed companies and KALRO should develop a framework to determine the annual national requirement for the different classes of EGS for legumes.
Estimated cost and/or key determinants of costs
The associated costs related to meeting costs between the KALRO and seed companies
Additional comments, if needed
This recommendation mainly pertains to crops that seed companies do not focus on like legume crops and cereals (except maize).

Recommendation # 2: Improve the capacity of the Kenya Agricultural and Livestock Research Organization (KALRO) to produce and store Early Generation Seed of all classes for non-maize crops
Description
KALRO is the main source of EGS for non-maize crops for seed companies. However, due to limitations in its production and storage capacities, it is unable to meet the quantities demanded by seed companies. The recommendation is mainly focused on the non-maize crops, that is, bean, sorghum and potatoes, and is intended to ensure that there is a steady supply of quality EGS for the different seed merchants. In the case of potato, a number of farmer cooperatives have been registered to produce potato seed. These entities will rely on the relevant KALRO centers for their basic seed. The recommendation is for both the production and storage of early generation seed, to minimize the effects of any seasonal fluctuations in demand by seed merchants. KALRO should improve its capacity to produce and store EGS of all classes for non-maize crops.
Estimated cost and/or key determinants of costs
Associated costs: Hiring an independent assessor to determine the specific infrastructure needs for the different KALRO breeding programs. Depending on the results of the assessment, the costs may include: (i) establishment of irrigation facilities at the KALRO centers that focus on non-maize crops; (ii) establishment and/or refurbishment of cold storage facilities at KALRO centers where substantive production of EGS is undertaken

Recommendation # 3: Assess the effectiveness of the current format for licensing agreements between seed companies and KALRO
Description
KALRO is the main developer of varieties for most food crops, owning and/or maintaining 13 of the 21 bean varieties released between 2010 and 2020[1], 6 of the 8 cowpea varieties released between 2010 and 2020, and 7 of 14 potato varieties[2] released between 2015 and 2020. Despite the high number of varieties released by KALRO and other public institutions over the last 10 years, the industry faces the challenge of low level of commercialization. A significant number of varieties that have been developed are not being marketed and sold to farmers. These varieties have important traits that would be needed by farmers such as pest and disease resistance, nutrition-enhancement and early maturity. In 2020, seed companies mainly sold varieties that were released between 10 and 30 years ago. For example, the ages of 5 of the most commonly sold bean varieties were between 11 and 37 years, while the ages of the most commonly sold sorghum and maize varieties were between 25 and 49 years and 13 and 33 years respectively. One of the ways to address this challenge, to assess the effectiveness of the current licensing agreements between seed companies and KALRO. These agreements establish a formal legal relationship between KALRO and the seed company and describe how the varieties will be commercialized by the company. The agreements also outline the amount and modalities for payment of royalties to the owners of the varieties. In 2020, KALRO had 30 licensing agreements with seed companies. The recommendation is to conduct an assessment to determine: (i) whether seed companies understand and adhere to these licensing agreements, (ii) whether KALRO has the human resource capacity required to implement and monitor the agreements, and (iii) whether there is a clear framework for the determination and payment of royalty fees to KALRO.
Estimated cost and/or key determinants of costs
Associated costs: (i) hiring additional legal staff within KALRO to monitor the implementation of the licensing agreements signed with seed companies, (ii) meeting costs to jointly review the effectiveness of the licensing agreements. The main participants in this meeting would be KALRO (management and heads of breeding programs), seed companies and STAK.
Additional comments, if needed
The framework for the licensing agreements should be expanded to include other public institutions that develop varieties such as the University of Nairobi (for bean), Rongo University (for sorghum), Egerton University and Maseno University (for finger millet).

[1] The other 8 bean varieties were released by the University of Nairobi
[2] Some of the potato varieties were released in collaboration with the International Potato Centre (CIP)