

## UGANDA EGS recommendations

A total of 4 key recommendations to address deficiencies and/or opportunities in the EGS area of Uganda'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.

<b>Recommendation # 1: Improve the capacity of the National Agricultural Research Organization (NARO) to produce and store early generation seed of all classes</b>
<b>Description</b>
The NARO and its institutes are a key source of EGS for seed companies. However, due to limitations in their production and storage capacities, they are unable to meet the quantities demanded by seed companies. In 2019, only 42% of maize seed-producing companies and 38% of bean seed-producing companies reported receiving the quantities of basic seed that they had requested from the NARO. One of the reasons for this is the NARO's limited production capacity. To address this limitation, the NARO should improve its internal capacity to produce basic seed through: (i) the use of irrigation systems and other production-enhancing methods and (ii) refurbishing the existing cold storage facilities to prolong the shelf life of EGS that has been produced.
<b>Key determinants of costs</b>
Associated costs: (i) establish irrigation facilities at selected NARO sites; (ii) refurbish existing seed storage facility at Namulonge; (iii) construct seed storage facility at each of the NARO institutions where substantive production of EGS is undertaken
<b>Recommendation # 2: Develop framework to forecast national demand for early generation seed</b>
<b>Description</b>
Seed companies source basic seed from several sources, including NARO, CGIAR centers, and other private seed companies. However, seed companies occasionally face a shortage of quality basic seed. To address this challenge, the seed companies and the different EGS producers should develop a framework to determine the annual national requirement for the different classes of EGS.
<b>Key determinants of costs</b>
The associated costs related to meeting costs between the EGS producers and seed companies
<b>Additional comments, if needed</b>
This recommendation can be linked to the recommendation on the Seed Tracking and Traceability System under the QCSP thematic area.
<b>Recommendation # 3: Strictly adhere to the process by which seed companies procure basic seed from NARO</b>
<b>Description</b>
The NARO has established a system through which seed companies can access basic seed. However, this process is not followed consistently due to capacity limitations within NARO and untimely requests from seed companies. The procedures need to be clearly elaborated and widely circulated among all NARO institutes, seed companies, and Quality Declared Seed (QDS) producers to ensure that they are standardized among the relevant entities. The procedures should include application requirements, timelines for the production of basic seed, payment details, and delivery timelines. These procedures will constitute the components of the contracts that seed companies/QDS producers sign with the NARO.
<b>Key determinants of costs</b>
The associated cost is staff time for NARO and USTA staff to draft the procedures to access basic seed.
<b>Additional comments, if needed</b>
The effective implementation of this recommendation is dependent on recommendations #1 and #2.

<b>Recommendation # 04: Strictly implement the Licensing Agreements between seed companies and breeders</b>
<b>Description</b>
<p>The NARO instituted Guidelines for Intellectual Property in 2018. These guidelines are partly being implemented through Licensing Agreements between breeders and seed companies. The agreements ensure that breeders receive a percentage of the revenue from sales of their developed varieties. Between September and December 2021, 13 seed companies signed Licensing Agreements with breeders. NARO and the Uganda Seed Trade Association (USTA) should monitor the implementation of these agreements and periodically assess the opinions of both breeders and seed companies on the effectiveness of the agreements. NARO is expected to utilize its internal staff (mainly legal staff) capacity to enforce the agreements. However, if the number of agreements increases, NARO may need to hire additional legal expertise to enforce them.</p>
<b>Key determinants of costs</b>
<p>The associated costs: NARO may need to hire additional legal expertise to enforce the licensing agreements</p>
<b>Additional comments, if needed</b>
<p>(1) The last part of the recommendation highlights the need to assess NARO's capacity to enforce the licensing agreements. For now, this is not a separate recommendation as this is the first year of implementation of the agreements. NARO will need to take stock of the overall performance of this arrangement, including its own capacity to enforce the agreements.</p> <p>(2) Effectively addressing recommendation #03 above may partly also respond to this recommendation</p>