

## Early Generation Seed

### Country: Malawi

	Profile Element	Response
1	Focus crops for EGS evaluation	<ol style="list-style-type: none"> <li>1. Maize</li> <li>2. Groundnut</li> <li>3. Cassava</li> <li>4. Bean</li> </ol>
2	Authorized seed classes in the country	<b>Breeder, Pre-basic, Basic, Certified</b> are defined in Seed Regulations of 2018. <b>Quality Declared Seed (QDS)</b> is defined in National Seed Policy of 2018
3	Description of legally permitted EGS production entities	National Seed Policy (2018) defines the <b>Department of Agricultural Research Services (DARS)</b> as the entity in charge of variety development and improvement
4	Government entities (and location) producing EGS by focus crop	<b>DARS</b> produces basic seed for the four crops
5	Presence of seed demand forecasting at the government institutional level	There is no forecasting system at the national level. However, STAM occasionally publishes information on the volume of basic and certified seed available.
6	Number of full-time breeders (note crop) and technicians by government EGS faculty	Maize ( <b>2</b> ); Bean ( <b>2</b> ); Groundnut ( <b>2</b> )
7	Private sector and other non-government entities (and location) producing EGS in the country	<b>Private seed companies</b> (maize, bean, groundnut); <b>ICRISAT</b> (groundnut); <b>individual seed growers</b> (bean, groundnut)
8	Estimated sources of EGS for focus crops for certified seed producers (% of total), e.g., importation from own company, specialized EGS company, CG centres, own local production, NARS, other certified seed company, etc.	Percentage of basic seed produced in Malawi in 2019. <b>Maize:</b> Seed companies (97%); Harvest Plus (3%); <b>Bean:</b> Seed companies (78%); CIAT (10%); Individual seed growers (12%); <b>Groundnut:</b> Seed companies (18%); DARS (0.2%); ICRISAT (78%); Individual seed growers (4%)
9	EGS seed volumes, by crop and seed class, for the last four years	<b>Basic seed (2017/18):</b> Maize (5MT); Bean (392.2MT); Groundnut (2,060MT). <b>Basic seed (2018/19):</b> Maize: (55.3MT); Bean (59MT); Groundnut (1,111MT)

10	<b>Adequacy of government-held nucleus and breeder seed available for EGS production</b>	<b>Maize, bean and groundnut:</b> Government (DARS) faces a significant challenge pertaining to the insufficiency of resources to produce, maintain and store EGS. The challenge occasionally addressed through project funding
11	<b>Adequacy of EGS for commercial seed production, estimated % of the demand met</b>	No data on this. However, SSU Annual Report does not highlight any inadequacies of EGS for commercial seed production. Instead, the report mentions that Certified Seed 1 can be used in case there is a shortage.
12	<b>Evidence of standardized descriptors for parental lines for focus crops</b>	SSU Annual Reports highlights the lack of descriptors as a challenge during the variety release process. Breeders are expected to collect DUS data for variety release
13	<b>General status of line maintenance for key varieties of focus crops, to enable proper ongoing EGS production</b>	Missing information
14	<b>Infrastructure in place to support government EGS production - land for multiplication, irrigation, cold storage, QC labs, etc.</b>	Missing information
15	<b>Infrastructure in place to support private-sector EGS production - land for multiplication, irrigation, cold storage, QC labs, etc.</b>	Private seed companies use their own infrastructure in the production of EGS.
16	<b>Implementation status of national QA for locally produced EGS</b>	SSU Annual Reports mention that all classes of EGS are inspected as per the national QA procedures.
17	<b>Information about quality / effectiveness of national efforts to implement QA for imported EGS</b>	Missing information
18	<b>Working status of pre-ordering and payment systems for EGS for focus crops</b>	To obtain seed from DARS, seed companies are required to apply independently to DARS specifying the crop, variety and volume that is being requested. DARS then sends an invoice to the company. The company then works with DARS to determine the date for collection of the seed. This system is working, however, DARS is no longer a major supplier of EGS for maize, bean and groundnut. According to the SSU Annual Report, DARS did not produce basic seed for maize and bean in 2018/19, but only produced very small volumes of groundnut seed that year. The major producers of basic seed that year were seed companies (for maize and bean) and ICRISAT (for groundnut).

19	<b>Working status of certified seed producer allocation systems for EGS for focus crops</b>	there is no allocation system for EGS. Rather, seed companies are required to apply independently to DARS specifying the crop, variety and volume that is being requested. DARS then sends an invoice to the company. That said, seed companies appear to be satisfied with the basic seed that they received from DARS. According to the TASAI Malawi report of 2020, 71% of maize seed companies and 71% of bean seed companies are satisfied with the quantity of basic seed that they received from DARS.
20	<b>Timely availability of up-to-date information on government websites for EGS availability, ordering and payment</b>	no information available on government (Ministry of Agriculture or DARS) website. However, STAM website provides details of entities supplying foundation seed

14	<b>Infrastructure in place to support government EGS production - land for multiplication, irrigation, cold storage, QC labs, etc.</b>	Land for multiplication is available, however labour is a challenge so some government EGS programs partner with private sector to leverage on infrastructure including irrigation and cold storage
15	<b>Infrastructure in place to support private-sector EGS production - land for multiplication, irrigation, cold storage, QC labs, etc.</b>	LCIC's private facilities include: 50-ton seed gene bank with cold storage; 200-acre farm with irrigation facilities
16	<b>Implementation status of national QA for locally produced EGS</b>	GSID of PPRSD certifies foundation seed that is produced for sale to another entity for certified seed production. EGS produced for entity's own certified seed production is usually not certified, but the source of EGS is declared during the certification of certified seed produced from the EGS
17	<b>Information about quality / effectiveness of national efforts to implement QA for imported EGS</b>	Most imports are for certified seed, and not for EGS. Multinationals like SeedCo who are piloting in-country production of certified seeds import the EGS. This EGS is however not a commercial material but imported specifically for company's own certified seed production
18	<b>Working status of pre-ordering and payment systems for EGS for focus crops</b>	System appears to be working well. more than 85% of seed growers (for maize, rice, soya bean) in TASAI survey reported that they received the quantity of seed that they requested and in a timely manner. In addition, seed growers expressed high satisfaction levels (above 80%) with the quality of basic seed that they received.
19	<b>Working status of certified seed producer allocation systems for EGS for focus crops</b>	There is no allocation system for seed growers. Instead, seed growers that would like to source seed from GLDB, CRI or SARI would need to submit an application to the respective Director, specifying the crop, variety and volume. The grower receives an invoice, against which payment is made.
20	<b>Timely availability of up-to-date information on government websites for EGS availability, ordering and payment</b>	No information available on government (Ministry of Food and Agriculture, CSIR-SARI, CSIR-CRI, or GLDB) websites. However, information on volumes inspected and certified can be obtained from PPRSD