**TERMS OF REFERENCE**

**TITLE:** TO

CONDUCT A MULTI-YEAR STUDY /SEED AUDIT UNDER THE PARTNERSHIP FOR AN INCLUSIVE AGRICULTURAL TRANSFORMATION IN AFRICA (PIATA) SEED SYSTEMS STRENGTHENING PROJECT.

1. **Introduction**

AGRA Malawi has received a buy-in grant under the Partnership for Inclusive Agriculture Transformation in Africa (PIATA) from USAID Malawi mission. The buy-in grant will enable implementation of selected Systems Development interventions all hinged at achieving better functioning, sustainable, and market-led seed systems. AGRA’s interventions are at three levels, as follows: (i) expanding certified seed markets; (ii) improving access to and adoption of improved crop varieties, including early-generation seed; and (iii) addressing policy-related impediments. Specifically, the buy-in grant will contribute towards achieving a viable seed system in Malawi through the following interventions: 1) Conducting an in-depth multiyear study and audit of the whole seed system that would provide guidance into the extent, nature, and causes of seed quality issues in Malawi; 2) Improving seed quality system through capacity building for SSU and seed companies 3) Strengthening government capacity to implement and enforce seed-related policies and regulations under the existing seed law; and 4) an optional component that would roll out a digital anti-counterfeit system as informed by an in-depth appraisal of proposals such as the e-verification scratch card system.

1. **Background**

Malawi has an established seed sector driven by 28 private commercial companies (national, regional, multi-national, and public sector companies), plus a number of public agencies that support the system through plant breeding, seed quality control, and certification[[1]](#footnote-1).Seed certification, testing, and the overall regulatory enforcement is the mandate of the Seed Services Unit (SSU) under the Directorate of Agricultural Research Services (DARS). Whilst there is notable development of the seed sector, availability and access to high quality seed remains insufficient, with a heavy focus on maize and cash crops. Outside the government-supported FISP, adoption of improved varieties remains low.

The government of Malawi, through the Ministry of Agriculture, Irrigation and Water Development, is determined to strengthen and improve the seed sector to alleviate poverty and hunger as stipulated in the National Agriculture Policy (NAP)[[2]](#footnote-2). Although the Government of Malawi is putting in place the relevant policy framework to regulate and monitor the seed sector in line with regional and international guidelines, more work needs to be done in implementation and enforcement of these policies, reforms and strategies.

Strengthening the seed sector cuts across a number of NAIP Policy Priority Areas (PPAs), including: (i) sustainable production and productivity [PPA 3.1]; (ii) institutional development, coordination and capacity development [PPA 3.8] and (iii) food and nutrition security [PPA 3.5].

1. **Rationale for a multi-year study and audit for the whole seed system**

Although there are widespread reports of fake and low quality seed reaching farmers, it is currently difficult to show evidence of circulation of such seed. Driving reforms that enhance the quality of seed on the market requires collaborative effort from all the key stakeholders in the seed sector including; government, seed companies, farmer organizations, civil society and development partners. This collaboration should be anchored on credible evidence on the extent, drivers, and forms of counterfeit and poor quality seed on the market. In addition, attendant to the issue of seed quality is honest conversation on the structural issues relating to compliance and enforcement of compliance.

TASAI did a study in 2018 that has informed the current intervention focus areas. It aims to encourage African governments and other seed industry players to create and maintain enabling environments that will accelerate the development of a vibrant private sector-led seed system serving smallholder farmers. It is this enabling environment that TASAI seeks to measure, track, and compare across African countries. TASAI’s premise is that a competitive seed sector is key to ensuring the timely availability of high-quality seeds of improved varieties at affordable prices to smallholder farmers in Africa. TASAI assesses the status of the seed industry value chain through 20 indicators across five categories: Research and Development, Industry Competitiveness, Policy and Regulations, Institutional Support, and Service to Smallholder Farmers.

This study aims at digging deeper beyond where TASAI stops to flesh out issues around fake seed circulation and root causes to inform remedial action. TASAI is conducting a follow on study this year to track progress of the Malawi seed sector environment after the one-conducted 2 years ago. AGRA has been engaged and provided input on how the study being planned under the USAID PIATA buy in grant can benefit from the TASAI study. Specifically, it was agreed that TASAI engage our partners - SSU, STAM and seed companies to understand any capacity gaps and recommend action to be taken to equip them with the needed capacity to deliver on their mandates for the benefit of smallholder farmers and the whole seed sector.

AGRA seeks to engage the services of a reputable local consulting or research institution and if necessary, supported by a technical expert to assess the Malawi seed system with a particular focus on the quality of seed sold in the market over a two-year period. Generation, dissemination and use of this evidence will be transparent to allow widespread buy-in among stakeholders and enable reinforcement of good practice and exposition of malpractices.

The assessment will include solicitation and review of reports from Seed Services Unit (Ministry of Agriculture) on issues of quality and complaints raised by companies and farmers during monitoring visits. It will collaborate with World Bank to understand and utilize findings from its 2019/2020 FISP seed system assessment as secondary data that will feed into the deep dive not only under FISP but also under the whole seed system. Overall, the assessment will increase farmer awareness on the quality of seed available and compliant seed companies as there will be extensive dissemination of findings across various media. It is anticipated that profiling of seed companies and agro-dealers that are supplying good seed will serve as incentive within the sector. A blend of regulatory enforcement and provision of incentives to good seed companies and agro–dealers is expected to foster buy-in among stakeholders.

Although AGRA will provide technical leadership and assume overall responsibility over the success and effectiveness of this intervention/audit, the Seed Trade Association of Malawi (STAM) will have a central and leading role. This support will focus on building the capacity of SSU to facilitate a sound seed system. SSU will deliver this system through collaboration with STAM or directly through seed companies and agro-dealers. Being cognizant of the inherent vested interest among stakeholders, there will be need for deep engagement of farmer representatives (NASFAM, FUM), Government as the regulator, Agro-dealer associations and civil society organizations such as Civil Society Agriculture Network (CISANET) to minimize the prospects of capture of the process. Other innovative means and approaches will be deployed to ensure authenticity of the findings that will lead to redress of real issues.

1. **Objectives of the assignment**
2. To conduct a comprehensive assessment/audit of the Malawi seed system with a particular focus on the quality of seed sold in the market over a two-year period.
3. Undertake DNA finger printing and analysis to assess the level of quality breakdown in the seed value chain from breeder seed to the certified seed sold to farmers at agro-dealer level
4. Publish the results of the findings with clear recommendations and proposed strategies for dealing with the identified challenges.

Broadly, the assessment will entail getting seed samples from seed companies and having them tested by two different ISTA accredited laboratories to authenticate the results. This study will be done for two consecutive years and findings will be shared and discussed among stakeholders annually including extensive dissemination. Assessment of the seed samples will be done by SSU, as they have ISTA certified laboratory and will be authenticated by the South African laboratory (DAFF) or any other appropriate partner that will also undertake DNA fingerprint analysis.

1. **Tasks/ detailed requirements**
2. Audit the Breeders and basic seed production and supply system to identify issues at the parental level that contribute to proliferation of fake seed e.g. supply versus demand.
3. Establish the sources and quality of the parent seeds used in the production of certified seeds by seed companies.
4. Establish the current systems by which SSU monitors, tests and detects counterfeit and adulterated seeds in the market for purposes of identifying and addressing the gaps.
5. Conduct statistically valid randomized sampling of all main types of seed sold; taken from seed companies’ warehouses and various retail points of sale to confirm quality and trueness to type.
6. Establish if stakeholders (Seed companies, Agro-dealers and other seed distributors such as seed producing Farmer Organizations) have internal quality control systems and are complying with the requirement to recall the remnant seed at the end of a marketing season as per the seed regulations, and disposal of rejected seeds.
7. Undertake random survey of the seed market to assess the nature of seed packages, labelling, and handling in transit and storage conditions.
8. Test for the relevant seed quality attributes such as genetic purity, expiry dates, physical and physiological quality. Quality testing will be done by both a local laboratory and an international laboratory to compare and authenticate the results.
9. Analyze the results to determine the main causes and sources of low quality and counterfeit seeds in the sector. Identify bottlenecks in addressing the challenges and appropriate mitigation and redress measures.
10. Publish and communicate results, recommendations, and validate them among key seed stakeholders, practitioners and professionals.
11. Annually profile seed companies that are supplying good high quality seed and complying to seed regulations in order to incentivize good behavior and practices.
12. Identify and profile agro-dealers and other sources of seed samples in collaboration with key partners
13. Identify competent and efficient seed testing laboratories (ISTA accredited) to carry out the tests.
14. Prepare contracts with the identified laboratories to carryout out the tests
15. Coordinate seed sampling and delivery to the laboratories for analyses as per the guidelines agreed on with the testing laboratories.
16. Follow up and monitor the progress on the tests by the laboratories.
17. Receive the final laboratory reports, analyze, interpret, present to stakeholders for validation and submit final report.

The main focus will be to ensure that an effective seed system thrives under a mutually accountable environment that reinforces breeders’ and farmers’ rights, accessibility to high quality seed to farmers and interest of stakeholders in the value chain. This is expected to build confidence among key players and a viable, sustainable market system based on quality and guaranteed returns. In conducting DNA fingerprint analysis, PIATA will take steps to ensure the reference seed material used by the laboratory is true-to-type and genetically clean. Details of assessment methodology will be agreed upon during implementation through a collaborative process among implementing partners**.** An inception report will be submitted and vetted at the beginning of the consultancy and before proceeding with the work.

1. **Consultant key Responsibilities**
2. Identify research collaborators preferably Seed Services Unit and breeders from DARS who will provide the reference material to ensure genetic purity and the system that is in place.
3. Identify the sources of the reference material for collection (sampling) and the associated logistics
4. Establish the critical points of seed value chain to carry out random sampling (seed warehouses, agro-dealer stores, parent seed stocks etc.)
5. Ensure the correct sampling protocols (ISTA) and intensity is adhered to for the correct representation of seeds from warehouses, stores etc. Package, label and deliver the seed samples to selected seed testing laboratories for viability, physical purity, moisture, vigor, grow outs etc. tests.
6. Collect, pack and label the reference materials in triplicates. Deliver one set to a contracted molecular genetics laboratory for DNA extraction and analysis, use one set for grow out tests and store the third set as reference sample.
7. **Consultant Eligibility;**

Seed Technologist- Skills and Minimum Qualifications:

1. BSc. Plant Sciences
2. At least 5 year experience in Seed Certification (seed field and processing inspection, seed sampling).
3. Track record of professionalism and objectivity in carrying out assignments
4. At least 3 year experience in crop variety testing based on International Union for Protection of New Plant Varieties (UPOV) guidelines including characterization of varieties based DNA analysis methods.
5. Good knowledge of ISTA seed sampling and testing protocols
6. Good communication, writing and presentation skills
7. Thorough understanding of seed sector issues in Malawi and across the region
8. **Tasks of the Seed Technologist**
9. Identify and profile agro-dealers and other sources of seed samples in collaboration with key partners
10. Identify competent seed testing laboratories (ISTA accredited) to carry out the tests.
11. Prepare contracts with the identified laboratories to carryout out the tests
12. Coordinate seed sampling and delivery to the laboratories for analyses as per the guidelines agreed on with the testing laboratories Follow up and monitor the progress of the tests by the laboratories.
13. Receive the final laboratory reports, analyze, interpret, present to stakeholders for validation and submit.
14. **Deliverables**

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| **No.** | **Deliverable Schedule** | **Date Due** |
|  | Submission of inception report detailing the methodology and joint plans for undertaking this work | 3 weeks after Contract award  |
|  | Development of protocols and securing necessary agreements with relevant stakeholders | 5 weeks after Contract award |
|  | Creation of reference library in close collaboration with Seed Service Unit  | 5 weeks after Contract award |
|  | Seed samples collected and delivered to seed testing laboratories for viability, physical purity, vigor, grow out tests etc. | 12 weeks after Contract award |
|  | Seed samples collected and delivered to the designated laboratory for DNA extraction and analysis in RSA or any other agreed location/laboratory for DNA finger-printing | 12 weeks after contract award  |
|  | Receipt, analysis, interpretation of laboratory test results, drafting report and presentation to key stakeholders through validation workshop | 20 weeks |
|  | Final report after incorporating input from key stakeholders | 24 weeks after contract award |
|  | **Total**  |  |
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1. **Time-frame/ Calendar**

The Consultancy will be conducted annually for 2 years and each year it will take a maximum of 6 months to deliver the results. During the first year, the consultant will also utilize secondary data from the WB commissioned FISP seed study to feed into recommendations.

1. **Technical Direction**

The lead consultant shall report to the AGRA Malawi Country Manager and a task force that shall comprise representatives from (Ministry of Agriculture’s Seed Services Unit; Seed Trade Association of Malawi (STAM), Civil Society Agriculture Network (CISANET), Farmers Union of Malawi (FUM) and National Smallholder Farmers Association of Malawi (NASFAM). The Lead Consultant will also provide fortnightly updates on progress to the Task force and the AGRA’s program officer for seed system project.

1. The African Seed Access Index (TASAI) Malawi Brief, 2017 [↑](#footnote-ref-1)
2. Malawi National Agricultural Policy: 2016-2020 [↑](#footnote-ref-2)