



TERMS OF REFERENCE

Consultancy to undertake a National Maize Post-Harvest Management Study

Republic of Uganda

Commissioned by	Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)
Programme	Capacity Strengthening for Policy Implementation towards Improved Livelihoods and Local Agrifood Systems Resilience in Africa (CS-PILLAR)
In collaboration with	Makerere University, College of Agricultural and Environmental Sciences, as the FANRPAN Uganda node; and the National Post-Harvest Management Technical Working Group, chaired by the Ministry of Agriculture, Animal Industry and Fisheries
Duration	Up to fifteen (15) working days, between contract signature in November 2026 and the final package in February 2027
Status	Issued for advertisement, 19 October 2026
Budget ceiling	USD 4,500, all-inclusive and fixed
Closing date	17:00 East Africa Time (EAT), Monday 2 November 2026

1. Background

1.1 The programme

The Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) is an autonomous multi-stakeholder policy network, created in response to a 1994 call by African Ministers of Agriculture and formed in 1997, which works through national policy nodes across Africa. FANRPAN is implementing the Capacity Strengthening for Policy Implementation towards Improved Livelihoods and Local Agrifood Systems Resilience in Africa programme (CS-PILLAR), funded by the Judith Neilson Foundation. The programme runs from 1 March 2026 to 28 February 2029 through national nodes in Eswatini, on seed systems; Uganda, on maize post-harvest management; and Zimbabwe, on the institutionalisation of community animal health workers. It combines country-level evidence generation, structured technical working groups, stakeholder validation and national policy dialogue.

1.2 The Uganda component

In Uganda, CS-PILLAR is coordinated by the College of Agricultural and Environmental Sciences, Makerere University, as the FANRPAN national node, with Prof. Archileo N. Kaaya of the Department of Food Technology and Nutrition as Principal Investigator. The National Post-Harvest Management Technical Working Group, referred to here as the Working Group, held its inaugural meeting on 2 September 2026 and adopted its Terms of Reference. It is chaired by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), with the vice-chair allocated to the Ministry of Trade, Industry and Cooperatives (MTIC), and its members are drawn from government, standards regulation, research, national planning, the grain trade, farmer organisations and civil society.

The Uganda component works towards reduced post-harvest losses and safer maize by strengthening the policy, regulatory and institutional framework for post-harvest management. It does so in three steps: a national study that establishes the evidence; policy and extension advisories on post-harvest best practice, developed in Year 2 from that evidence; and national policy engagement through the Working Group, the validation meeting and a national policy dialogue in Year 3. This study is the first step, and the later steps depend on its quality.

1.3 Why this study, and why now

Maize is one of Uganda's most widely grown crops. It is a staple food, the main ingredient in animal feed, an industrial raw material and a leading regional export. The Fourth National Development Plan (NDP IV, 2025/26 to 2029/30) makes agro-industrialisation a main driver of structural transformation, lists grains among its priority commodities, and includes improved harvest and post-harvest handling and storage among the objectives of the Agro-Industrialisation Programme. Maize is also central to the Parish Development Model, through which Government is moving subsistence households into the money economy, and food crops are among the enterprises its applicants choose most often. Every tonne lost or downgraded after harvest is income lost to those households and raw material lost to the mills and feed processors meant to buy it.

The technologies to reduce losses are well proven. What is missing is the coordination, financing, regulation and market incentive needed to take them to scale. Responsibility is spread across MAAIF, MTIC, the Uganda National Bureau of Standards (UNBS), the Uganda Warehouse Receipt System Authority (UWRS), the National Agricultural Research Organisation (NARO), the Ministry of Health and local governments, and no single institution is accountable from farm to market. The proposed Food and Agriculture Regulatory Authority Bill is an opportunity to settle some of these mandates.

At its inaugural meeting the Working Group set two questions above all others. First, how large maize post-harvest losses are in tonnes and in shillings, not as a percentage alone, and where along the value chain they occur. No current, methodologically consistent national figure exists, and the estimates in circulation do not reconcile (section 2.3). Second, how much public money is actually budgeted and spent on post-harvest management, and by whom. Members observed that the country has many frameworks and little traceable financing behind them. This study is commissioned to answer both, and to turn the answers into options Government can act on.

The assignment builds on the country status update prepared by the node in August 2026, the stakeholder register compiled from Working Group members, and the scoping input members provided in September and October 2026. The consultant is expected to consolidate and verify that base rather than rebuild it.

2. The national context the study must engage

The following is provided so that applicants can scope their work accurately. Figures are reproduced as presented in programme documents and Working Group inputs and have not been independently verified. Confirming or correcting them is part of the assignment.

2.1 Policy, legal and regulatory framework

The instruments most relevant to maize post-harvest management include NDP IV and the Agro-Industrialisation Programme Implementation Action Plan; the Parish Development Model; the National Agriculture Policy, 2013; the National Grain Trade Policy, 2015; the Warehouse Receipt System Act, 2006; the UNBS Act and the maize grain and maize flour standards; the National Strategic Action Plan for the Prevention and Control of Aflatoxin, whose stated period has lapsed; the national strategy for post-harvest loss reduction in grains; the National Food Fortification Strategy; the Food and Agriculture Regulatory Authority Bill; and East African Community standards and sanitary and phytosanitary requirements for maize. The consultant is to confirm which of these are current, which have lapsed or been superseded, and which are in draft.

Working Group input cites the following NDP IV targets for the Agro-Industrialisation Programme by 2029/30: agricultural growth raised from 5.14 to 8 per cent; food and nutrition security raised from 71 to 85 per cent of the population; and export earnings from priority agricultural commodities and their products raised from USD 2.5 billion to USD 4.8 billion. NDP IV is also reported to note duplicated mandates, weak coordination, data gaps and poorly defined indicators across the Programme.

2.2 Institutions and mandates

Mandates for maize post-harvest management are legally defined but organisationally dispersed. MAAIF holds the principal mandate for crop production, post-harvest handling, extension and food safety coordination. MTIC leads grain trade policy, market information, export promotion, East African Community trade matters, cooperatives and industrialisation; UWRSA, UNBS and the Department of Cooperatives fall under it. UWRSA regulates the warehouse receipt system, and UNBS develops and enforces the grain and flour standards. NARO develops and validates post-harvest and aflatoxin-control technologies. The Ministry of Health carries the public health burden of aflatoxin exposure. Local governments deliver extension and can make and enforce by-laws. The National Planning Authority sets the plan indicators against which performance is judged, and the Ministry of Finance, Planning and Economic Development allocates and releases the money. The study must establish how these responsibilities work in practice and where accountability breaks down. The consultant is to verify each institution's mandate from its founding law and current plans rather than take this summary as settled.

2.3 Figures requiring reconciliation

At least eight accounts of losses and production are in circulation. They differ in commodity, method, year and denominator, and the study must settle them into one best-available estimate, stating its basis and limitations:

Figure as presented	Source	The difficulty
Post-harvest losses of 30 to 40 per cent	Third National Development Plan (NDP III, 2020), as cited in the node country status update, August 2026	Stated for agricultural produce generally, not maize, and six years old
Grain post-harvest losses fell from 37 per cent in 2017/18 to about 18.2 per cent in 2022/23	Working Group input, October 2026	Grain, not maize alone; the series and method behind it are not stated
Baseline of 16 per cent, target of 8.5 per cent by 2030	Stated at the inaugural Working Group meeting, 2 September 2026, with reference to NDP IV	Does not match the previous row; the indicator, its definition and its source in NDP IV are to be confirmed
A 17.6 per cent loss-reduction target	Node country status update, August 2026	Source not stated; relationship to the NDP IV indicator unclear
Maize losses of about 20 per cent, worth about UGX 393 billion a year to farmers	Eastern Africa Grain Council, 2024	The only maize-specific monetised figure; the volume, price and year behind the valuation are not stated
Maize losses of 20 to 45 per cent of production	Node country status update, August 2026	Range too wide to plan or budget against
Up to 30 per cent of harvested maize lost	CS-PILLAR programme proposal	Programme framing figure, not a national estimate
Maize production of about 2.8 million tonnes in the 2019 season; 3.5 million tonnes in 2021, 4.95 million in 2023 and 4.27 million in 2024	Uganda Bureau of Statistics (UBOS, 2019 season), as cited in Working Group input; MAAIF statistical abstract, as cited in the node country status update	Two series of different scale; the choice of denominator changes any loss estimate in tonnes and shillings

2.4 Quality, markets and the industries that buy maize

Working Group input reports that maize mills operate at about 46 per cent of capacity, partly for lack of grain of the right quality, and that Uganda exported 562.3 million kg of maize worth USD 172.5 million in 2023/24, about 31 US cents per kg, mostly as unprocessed grain. Standards are enforced more strongly at formal processing points than at farm, aggregation and trading stages, so farmers carry the cost of drying, sorting and testing without a reliable price reward. Members described a common pattern in which aggregators buy maize wet, hold it for about a month, dry it on unsuitable surfaces and move it in unsuitable transport, with the loss falling back on the farmer. Poor drying and storage drive mould and aflatoxin contamination, which threatens human and animal health, leads to rejected consignments in regional markets, and limits the quality of fortified maize flour. The export figure is presumed to cover formal trade only; Ugandan maize also moves through informal cross-border channels, including to South Sudan,

Kenya and the Democratic Republic of Congo. The consultant is to say which series each trade figure comes from and use existing cross-border monitoring data to indicate the scale of informal flows.

3. Purpose and objectives

3.1 Overall objective

To give Government a practical, verified account of how much maize Uganda loses after harvest, where and why it is lost, what is being spent to prevent it and by whom, and what should be done about it, in a form the Working Group can act on and MAAIF, MTIC and local governments can carry into their plans and budgets.

3.2 Specific objectives

1. Establish one best-available estimate of maize post-harvest losses in Uganda, in physical quantity and in economic value, by stage of the value chain from harvest to processing, reconciling the figures at section 2.3; position it against the NDP IV indicator; and propose a harmonised measurement method that can be used for national monitoring. Physical loss, quality downgrading and loss of market value are to be estimated separately, against denominators defined for each stage, and without counting the same grain twice as it moves along the chain.
2. Trace public financing for maize and grain post-harvest management: what was budgeted, released and spent, by which institution and on what, under the Agro-Industrialisation Programme from FY2021/22 to FY2025/26; review the main private and blended financing channels; and estimate the financing gap and the extent of reliance on development partners.
3. Map the policy, legal, regulatory and institutional framework, identifying duplicated functions, gaps and accountability failures from farm to market, and assess the alignment of the maize grain standard with food safety law, the Food and Agriculture Regulatory Authority Bill, the National Food Fortification Strategy and East African Community requirements, including whether the National Grain Trade Policy, 2015 and any export restrictions need review.
4. Assess whether the market rewards quality: how grading, warehouse receipts, institutional buyers, millers, feed processors and exporters price quality; how aggregator and trader practices create or transfer loss; why storage and milling capacity remain underused; what limits value addition and the competitiveness of milling, including East African Community market access and sanitary and phytosanitary barriers; and what limits uptake of proven drying, storage and testing technologies, including through the Parish Development Model and extension services.
5. Bring the findings together into costed and sequenced policy, regulatory, institutional and investment options, with lead institutions, indicative financing, and indicators, baselines and annual targets that MAAIF, MTIC and local governments can build into their plans and budgets and into the Agro-Industrialisation Programme Implementation Action Plan.

3.3 Priority where time is constrained

The assignment is tightly scoped. Where time constrains delivery, objectives 1 and 2 take precedence. The size and value of losses, and the money actually spent on reducing them, are the two questions the Working Group placed first, and the ones on which the policy case depends.

4. Scope of work

The consultant will:

- 4.1 Review national policies, legislation, standards, strategies, plans, budgets, performance reports, studies and administrative data, together with the node country status update, the stakeholder register and Working Group inputs. Identify material gaps and avoid duplicating completed work.

- 4.2** Compile and assess existing loss studies and data, including national surveys, MAAIF and UBOS data, Eastern Africa Grain Council work and the African Postharvest Losses Information System, and derive a best-available estimate of losses by stage in tonnes and shillings, with the method, assumptions and confidence range stated. Distinguish measured losses from respondent-reported estimates and modelled figures, and unavoidable milling transformation from avoidable processing loss. Value grain lost separately from the extra costs actors incur to manage it, such as re-drying, sorting and pest control, and show which actors bear those losses and costs. Valuation is to use farm-gate and market prices and the quality discounts and premiums actually observed, which also provides the evidence on quality incentives needed under objective 4.
- 4.3** Extract and analyse budget allocations, releases, expenditure and reported results for post-harvest management across MAAIF, MTIC, UNBS, UWRSA, NARO and local governments for FY2021/22 to FY2025/26, and review private and blended finance including the Agricultural Credit Facility, Uganda Development Bank, warehouse receipt finance and agricultural insurance. Data holders include the planning and finance functions of MAAIF and MTIC, UWRSA and the Department of Cooperatives; FANRPAN and the node will request access letters from both ministries at inception.
- 4.4** Map institutional mandates, capacity and coordination, confirm the current status of each instrument at section 2.1, and assess the fit between grain standards, food safety law, fortification requirements and East African Community rules.
- 4.5** Examine market incentives for quality and the practices of aggregators, traders, warehouse operators and millers, including moisture at purchase, drying, storage duration, deductions, rejection and price differentials, and the condition and use of storage, aggregation and milling facilities.
- 4.6** Assess uptake, cost and adoption barriers for key post-harvest technologies, and identify extension approaches, including the Parish Development Model and digital services, that could widen access, with attention to women and young people and to how roles in harvesting, drying and marketing, and control over income, shape investment in loss reduction.
- 4.7** Draw on relevant experience from comparable countries in the region from published sources, where it helps answer objectives 1 to 5. No country visits are required.
- 4.8** Develop costed and sequenced options and a national roadmap with lead institutions, timing, indicative resource requirements and measurable indicators, and identify the content the Year 2 best-practice guide and extension advisory should carry. Each proposed indicator is to carry a definition, unit, data source, frequency and responsible institution. Options are to be sorted into actions that can start now, those that need piloting, and those that need further research before scale-up. Each institution proposed as a lead is to be consulted before the draft is finalised, and indicative financing is to reflect what that institution can realistically budget.

5. Approach and coverage

The assignment combines desk review and records analysis with key-informant interviews and field verification. Document, data and budget analysis is the core of the work and the basis for objectives 1 and 2. It is complemented by key-informant interviews, in person in Kampala where the principal institutions are located and remotely elsewhere, and by field verification in at least two major maize-producing areas, selected at inception with the Working Group. Approximately four of the fifteen working days are to be spent in the field.

Field verification comprises focus group discussions with farmer groups and cooperatives, with women and young people represented in each, and a rapid structured check of fifteen to twenty aggregators, traders, warehouse operators and millers in the areas visited, covering moisture at purchase, drying and storage practice, storage duration, deductions, prices paid for quality and grain rejected. Its purpose is to ground the loss estimate and the findings on market incentives in observed practice. A national household loss survey and laboratory testing for aflatoxin are outside the scope and budget of this assignment and should not be proposed; where the evidence points to the need for either, the consultant should recommend and cost it as a follow-on activity, drawing on the scope for a fuller

national loss study prepared by the Working Group, which FANRPAN will share with the appointed consultant. The loss estimate under objective 1 rests on existing studies, administrative records and data series, tested against what the field verification observes; interviews and focus groups explain the figures but cannot by themselves produce them.

Institutions to be engaged include MAAIF; MTIC and UWRSA; the Ministry of Finance, Planning and Economic Development; the National Planning Authority; UNBS; NARO; the Ministry of Health; the Ministry of Local Government and selected district local governments; the Uganda Bureau of Statistics; the Grain Council of Uganda, the Eastern Africa Grain Council and grain trader associations, millers, feed manufacturers and exporters; the Department of Cooperatives and the Uganda Cooperative Alliance; the Uganda Revenue Authority and the Ministry of East African Community Affairs; the Uganda Free Zones and Export Promotion Authority; the Private Sector Foundation Uganda and the Uganda Manufacturers Association; the World Food Programme and other institutional buyers; farmer organisations and cooperatives; financial institutions; academia; civil society; and development partners active in the sector.

Evidence must be triangulated, disaggregated by sex and age where feasible, and presented with sources and limitations stated. Where a figure cannot be reconciled, the consultant is to say so and explain why, rather than select one silently. Reporting is in English, with local languages used in the field where they improve participation. Findings from purposively selected sites are not to be presented as nationally representative. Stakeholder views complement measurement and records; they do not replace them, and material differences between the two are to be explained.

6. Deliverables and payment schedule

No.	Deliverable and basis of acceptance	Due	Payment
1	Inception report (not more than 10 pages): refined questions and method, including the method for estimating losses by stage and for tracing budget data; interview plan and instruments; field verification plan (areas, sites, focus group guide and aggregator and miller checklist); work plan; and the schedule of figures to be reconciled with the sources against which each will be tested. Presented to the Working Group for review.	Week 1	20%
2	Draft study and validation pack: draft report of not more than 30 pages excluding annexes; loss estimate by stage with method and confidence range; budget and financing tables with sources; institutional map; field verification findings; draft options and roadmap; consultation log; materials for the validation meeting.	Week 5	45%
3	Final package: final report; policy brief of not more than 6 pages; presentation of not more than 12 slides; sequenced national roadmap with indicators, baselines and targets; a note of content for the Year 2 best-practice guide and extension advisory; and a response matrix showing how validation comments were addressed.	Within seven working days of the validation meeting	35%

The inception report is reviewed by the Working Group at a technical meeting in week 2, before field work begins, so that members see and shape the method before the evidence is gathered. Before the draft goes to validation, each institution whose mandate or performance is assessed may check the findings about it for factual accuracy within five working days; the consultant considers every correction, records any disagreement, and retains independent judgement on findings and recommendations. The draft is then presented at a national validation meeting convened by the Working Group with the support of the node. The consultant's preparation for and attendance at both meetings fall within the fifteen working days.

Payment will be made upon submission, satisfactory completion and approval of the agreed outputs by FANRPAN, against the milestones in the table above. FANRPAN's review of each deliverable will take account of written comments from Makerere University and members of the Working Group, provided within ten working days of receipt. The consultant will be required to submit an invoice with full banking details (account name, bank, branch name and code, bank address and SWIFT code). Payment will be processed

within 21 days of receipt of all the requirements as detailed in the contract. A deliverable that does not address objectives 1 and 2 will be returned for revision.

7. Duration of the assignment

Stage	Indicative date
Contract signature	November 2026
Inception report	Within one week of contract signature
Working Group technical meeting on the inception report	Within two weeks of contract signature, before field work
Draft report and validation pack	Within five weeks of contract signature, with field verification in weeks 3 and 4
National validation meeting	January 2027, date to be set by the Working Group
Final package	Within seven working days of the validation meeting, and no later than 12 February 2027

The assignment will require a maximum of fifteen (15) working days, spread from contract signature to the submission of the final deliverables. The work schedule should allow sufficient time for the Working Group's review of the inception report, for review and feedback on the draft report, for the national validation meeting, and for incorporating its outcomes into the final deliverables. The consultant may engage research or field assistance within the fee.

8. Governance, supervision and quality assurance

Technical oversight rests with the National Post-Harvest Management Technical Working Group. The Working Group reviews the inception report including the proposed methodology, considers the draft and final outputs, and endorses the findings for national validation. MAAIF, as chair, and MTIC, as vice-chair, provide sector leadership and will facilitate access to institutions and records in their areas.

FANRPAN commissions, contracts, pays and manages the consultancy, and provides programme and regional quality assurance. Makerere University, as the FANRPAN Uganda node, supports national coordination and stakeholder mobilisation, provides the secretariat to the Working Group, and gives written technical comments on each deliverable. The consultant reports to the FANRPAN Programme Manager, CS-PILLAR, as Contract Manager, who issues instructions and accepts deliverables.

The assignment is based in Uganda and requires domestic travel for field verification. FANRPAN and the node will ask MAAIF and the relevant district local governments to facilitate access to records, extension staff and communities; they do not provide transport or funding for the assignment. Unless the contract provides otherwise, the consultant supplies all personnel, equipment, communications, insurance and travel required for delivery within the ceiling in section 9.

9. Budget

The maximum budget available for this assignment is USD 4,500, inclusive of professional fees, applicable taxes, domestic travel for field verification, and all other costs associated with the execution of the assignment. This amount represents a fixed budget ceiling and is not subject to negotiation. The costs associated with organising the Working Group meeting on the inception report and the national validation meeting, including venue hire and participants' transport, will be covered separately by the programme and are therefore excluded from the consultant's budget.

10. Consultant profile

- 10.1** A master's degree or higher in agricultural economics, food science or post-harvest technology, public policy, public finance or a related field.
- 10.2** At least seven years of relevant professional experience, with demonstrable work on grain value chains, post-harvest management, food safety or agricultural policy in Uganda. National consultants are encouraged to apply.
- 10.3** Demonstrated ability in loss estimation and economic valuation, public budget and expenditure analysis, key-informant interviewing and clear technical writing for a government audience. Knowledge of grain markets and trade, or of standards and quality systems, is an advantage.
- 10.4** Working knowledge of Uganda's grain standards, warehouse receipt system and Agro-Industrialisation Programme, and of East African Community grain trade arrangements, and experience of comparable national or regional assignments.
- 10.5** Members of the Working Group and staff of the node may apply, provided they declare the interest, take no part in the evaluation, and step aside from the Working Group's and the node's review of the study outputs for the duration of the assignment.

11. Application requirements

Applications must include the following:

- 11.1** A motivation letter of not more than two pages, setting out the applicant's understanding of the assignment and how they would estimate losses in tonnes and shillings by stage (objective 1), trace public spending on post-harvest management (objective 2) and carry out the field verification at section 5, and declaring any conflict of interest.
- 11.2** A curriculum vitae of not more than four pages, with contact details for three referees.
- 11.3** One recent example of comparable work, or a link to it.
- 11.4** A single all-inclusive fee in United States Dollars for the assignment, within the ceiling at section 9.

12. Evaluation of applications

Criterion	Weight
Qualifications	20
Post-harvest, food safety or agricultural policy experience and comparable work	35
Knowledge of Uganda's grain sector, public budget processes and East African Community grain trade	20
Motivation letter: understanding of the assignment and proposed approach	25
Total	100

Shortlisted applicants may be invited to a short interview. The assignment will be offered to the highest-scoring applicant whose fee falls within the ceiling, subject to satisfactory references. FANRPAN is not bound to accept any application.

Members of the Working Group and of the node taking part in the identification, shortlisting or evaluation of consultants shall declare any interest and shall recuse themselves where they, or the institution they represent, have an interest in an application.

13. Ethics, data, confidentiality and intellectual property

- 13.1** The consultant will obtain informed consent, protect privacy, and apply safe, inclusive and appropriate safeguarding practice throughout. Any research ethics approval or authorisation required in Uganda for the field work is to be identified in the inception report and obtained before field work begins.
- 13.2** Research data will be stored securely with restricted access, and anonymised before handover. All non-public information will be treated as confidential.
- 13.3** Any conflict of interest must be disclosed promptly. No report, data or finding may be released publicly without prior written approval from FANRPAN.
- 13.4** All commissioned outputs, working files and underlying data are owned by FANRPAN, for use by FANRPAN, Makerere University, MAAIF, MTIC and the Working Group. Use in a portfolio or publication requires prior written permission.
- 13.5** The executed contract may clarify these Terms of Reference, and may be amended or cancelled in line with applicable procurement and contracting procedures.

14. Submission

Closing date	17:00 EAT, Monday 2 November 2026
Submit to	ssinyangwe@fanrpan.org, copied to policy@fanrpan.org
Subject line	National Maize Post-Harvest Management Study, Uganda, CS-PILLAR
Enquiries	In writing to the same address, no later than five working days before the closing date

Late or incomplete applications will not be considered.