



KENYA SUGAR BOARD

Sukari Plaza, Upper Kabete Area, off Waiyaki Way
Email: info@ksb.co.ke Mobile Number: (+254) 722-203127/8, (+254) 733-333378/9
<https://ksb.go.ke/>
P. O. Box 51500 - 00200
NAIROBI

TENDER No: KSB/SCM/OT/004/2025/2026

**UPGRADE AND MAINTENANCE OF SUGAR INDUSTRY
MANAGEMENT INFORMATION SYSTEM (SIMIS) –
*RETENDER***

(OPEN TENDER)

**TENDER CLOSING DATE AND TIME:
FRIDAY, 29TH MAY, 2026
11:00 AM**

TABLE OF CONTENTS

PART I –TENDERING PROCEDURE	1
Section I - Instructions to Tenderers	1
A. General	1
1. Scope of Tender.....	1
2. Unfair Competitive Advantage.....	1
3. Fraud and Corruption.....	1
4. Eligible Tenderers.....	1
5. Qualification of the Tenderer.....	3
B. Contents of Tendering Document.....	3
6. Sections of Tendering Document	3
PART 1: Tendering Procedures	3
PART 2: Procuring Entity's Requirements.....	4
PART3: Contract.....	4
7. Site Visit.....	4
8. Pre-Tender Meeting and a pre-arranged pretender visit of the site of the works	4
9. Clarification of Tender Document, Site Visit, Pre-Tender Meeting.	4
10. Amendment of Tendering Documents	5
C. Preparation of Tenders	5
11. Cost of Tendering	5
12. Language of Tender	5
13. Documents Comprising the Tender	5
14. Form of Tender and Activity Schedule.....	6
15. Alternative Tenders.....	6
16. Tender Prices and Discounts.....	6
17. Currencies of Tender and Payment.....	6
18. Documents Establishing Conformity of Services.....	6
19. Documents Establishing the Eligibility and Qualifications of the Tenderer	7
20. Period of Validity of Tenders	8
21. Tender Security	8
22. Format and Signing of Tender	9
D. Submission and Opening of Tenders.....	9
23. Sealing and Marking of Tenders.....	9
24. Deadline for Submission of Tenders	10
25. Late Tenders	10
26. Withdrawal, Substitution and Modification of Tenders.....	10
27. Tender Opening	10
E. Evaluation and Comparison of Tenders	11
28. Confidentiality	11
29. Clarification of Tenders	11
30. Deviations, Reservations, and Omissions.....	11
31. Determination of Responsiveness	12
32. Correction of Arithmetical Errors.....	12
33. Conversion to Single Currency.....	12
34. Margin of Preference and Reservations.....	34
35. Evaluation of Tenders	34
37. Abnormally Low Tenders and Abnormally High Tenders	34
38. Unbalanced and/or Front-Loaded Tenders	14
39. Qualification of the Tenderer.....	14
40. Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders.....	15

F. Award of Contract	15
41. Award Criteria.....	15
42. Notice of Intention to enter into a Contract.....	15
43. Standstill Period.....	15
44. Debriefing by the Procuring Entity.....	15
45. Letter of Award	15
46. Signing of Contract.....	16
47. Performance Security	16
48. Publication of Procurement Contract	16
48. Adjudicator	16
49. Procurement Related Complaint.....	16
SECTION II - TENDER DATASHEET (TDS)	17
SECTION III - EVALUATION AND QUALIFICATION CRITERIA	21
1. General Provision	21
2. Preliminary examination for Determination of Responsiveness	21
3. Tender Evaluation (ITT 35)	21
4. Multiple Contracts	21
5. Alternative Tenders (ITT 14.1).....	22
6. MARGIN OF PREFERENCE.....	22
7. Post qualification and Contract ward (ITT 39), more specifically	22
SECTION IV-TENDERING FORMS	24
1. FORM OF TENDER	24
i) TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE	27
ii) CERTIFICATE OF INDEPENDENT TENDER DETERMINATION	29
iii) SELF-DECLARATION FORM	30
iv) APPENDIX 1- FRAUD AND CORRUPTION	33
2. TENDERER INFORMATION FORM	35
OTHER FORMS	36
3. FORM OF TENDER SECURITY - DEMANDBANK GUARANTEE.....	36
4. FORM OF TENDER SECURITY(INSURANCE GUARANTEE)	37
5. FORM OF TENDER-SECURING DECLARATION.....	38
QUALIFICATION FORMS	40
6. FOREIGN TENDERERS 40% RULE	40
7. FORM EQU: EQUIPMENT	41
8. FORM PER -1	42
9. FORM PER-2	44
TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION	46
10. FORM ELI -1.1	46
11. FORM ELI -1.2	47
12. FORM CON- 2	48
13. FORM FIN- 3.1	50
14. FORM FIN- 3.2	52
15. FORM FIN- 3.3	52
16. FORM FIN- 3.4	53
17. FORM EXP- 4.1	54
18. FORM EXP- 4.2(a).....	55
19. FORM EXP- 4.2(b)	56
SCHEDULE FORMS	58
1. Method Statement.....	61
2. Work Plan	62
3. Others –Time Schedule	63

CONTRACTFORMS	64
1. NOTIFICATION OF INTENTION TO AWARD	64
2. LETTER OF AWARD	66
3. FORM OF CONTRACT	67
4. FORM OF TENDER SECURITY (Bank Guarantee)	69
5. FORM OF TENDER SECURITY (Insurance Guarantee)	70
6. FORM OF TENDER-SECURING DECLARATION	71
 PART II – PROCURING ENTITY'S REQUIREMENTS	 72
SECTION V – ACTIVITY SCHEDULE	73
1. Objectives	73
2. Day work Schedule	73
3. Provisional Sums	73
4. PERFORMANCE SPECIFICATIONS AND DRAWINGS	74
 PART III – CONDITIONS OF CONTRACT AND CONTRACT FORMS	 75
SECTION VI - GENERAL CONDITIONS OF CONTRACT	76
A. General Provisions	76
1. Definitions	76
2. Commencement, Completion, Modification, and Termination of Contract	77
3. Obligations of the Service Provider	79
4. Service Provider's Personnel	82
5. Obligations of the Procuring Entity	82
6. Payments to the Service Provider	82
7. Quality Control	84
8. Settlement of Disputes	84
 B. SECTION VII - SPECIAL CONDITIONS OF CONTRACT	 88
 C. APPENDICES	 91
Appendix A - Description of the Services	91
Appendix B - Schedule of Payments and Reporting Requirements	91
Appendix C - Breakdown of Contract Price	91
Appendix D - Services and Facilities Provided by the Procuring Entity	91
 D. SECTION VIII – CONTRACT FORMS	 92
FORM NO. 1 - PERFORMANCE SECURITY – (Unconditional Demand Bank Guarantee)	92
FORM No. 2 - PERFORMANCE SECURITY OPTION 2 – (Performance Bond)	93
FORM NO. 3 - ADVANCE PAYMENT SECURITY [Demand Bank Guarantee]	95
FORM NO. 4 - BENEFICIAL OWNERSHIP DISCLOSURE FORM	95

INVITATION TO TENDER

PROCURING ENTITY: KENYA SUGAR BOARD (KSB)

CONTRACT NAME AND DESCRIPTION: UPGRADE OF SUGAR INDUSTRY INFORMATION MANAGEMENT SYSTEM

The *KENYA SUGAR BOARD (KSB)* invites sealed tenders for the provision of services, ***UPGRADE AND MAINTENANCE OF SUGAR INDUSTRY INFORMATION MANAGEMENT SYSTEM (SIMIS)***

1. Tendering will be conducted under open competitive method using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
“Tenderers will be allowed to tender for one lot”.
2. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours 0800 TO 1700HRS at the address given below. More details on the Services are provided in **PART 2 - Services' Requirements**, Section V - Description of Services of the Tender Document.
3. A complete set of tender documents may be purchased or obtained by interested tenders upon payment of a non-refundable fees of Kshs. 1,000 in cash or Banker's Cheque and payable to the address given below. Tender documents may be obtained electronically from the Website(s) <https://ksb.go.ke>. Tender documents obtained electronically will be free of charge.
4. Tender documents may be viewed and downloaded for free from the website <https://ksb.go.ke>.
5. All Tenders must be accompanied by a tender Security of Kshs. 2,000,000.00 (Kenya Shillings Two Million Only)
6. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
7. Completed tenders must be delivered to the address below on or before. Electronic Tenders [*will not*] be permitted.

**The Chief Executive Officer
Kenya Sugar Board
Sukari Plaza, Upper Kabete Area, off Waiyaki Way
P. O. Box 51500 - 00200
NAIROBI**

**Venue: Kenya Sugar Board Ground Floor Boardroom
Friday 29th May, 2026 at 1100Hrs**

8. Tenders will be opened immediately after the deadline date and time specified above or any deadline date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.
9. Late tenders will be rejected.
10. The addresses referred to above are:

A. Address for obtaining further information and for purchasing tender documents

**The Chief Executive Officer
Kenya Sugar Board
Sukari Plaza, Upper Kabete Area, off Waiyaki Way
P. O. Box 51500 - 00200
NAIROBI**

B. Address for Submission of Tenders.

- 1) Name of Procuring Entity: **Kenya Sugar Board (KSB)**
- 2) Postal Address **Sukari Plaza, Upper Kabete Area, off Waiyaki Way P. O. Box 51500 – 00200 NAIROBI**
- 3) Physical address for hand Courier Delivery to an office or Tender Box Ground Floor

C. Address for Opening of Tenders.

- 1) Name of Procuring Entity **Kenya Sugar Board (KSB)**
- 2) Physical address for the location **Sukari Plaza, Upper Kabete Area, off Waiyaki Way P. O. Box 51500 – 00200 NAIROBI – Ground Floor**

THE AG. Chief Executive Officer
KENYA SUGAR BOARD (KSB)

PART 1 - TENDERING PROCEDURES

SECTION I -INSTRUCTIONS TO TENDERERS

A. General

1. Scope of Tender

- 1.1 This tendering document is for the delivery of Non-Consulting Services, as specified in Section V, Procuring Entity's Requirements. The name, identification and number of this tender are specified in the **TDS**.

2. Throughout this tendering document:

2.1 The terms:

- a) The term “in writing” means communicated in written form (e.g., by mail, e-mail, fax, including if specified **in the TDS**, distributed or received through the electronic- procurement system used by the Procuring Entity) with proof of receipt;
- b) if the contexts or esquires, “singular” means “plural” and vice versa; and
- c) “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Procuring Entity. It excludes the Procuring Entity's official public holidays.

- 2.2 The successful Tenderer will be expected to complete the performance of the Services by the Intended Completion Date provided **in the TDS**.

3. Fraud and Corruption

- 3.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015 (the Act), Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 3.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.
- 3.3 **Unfair Competitive Advantage** - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **TDS** and make available to all the firms together with this tender document all Information that would in that respect give such firm any unfair competitive advantage over competing firms.
- 3.4 Unfair Competitive Advantage-Fairness and transparency in the tender process require that the Firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. The Procuring Entity shall indicate in the **TDS** firms (if any) that provided consulting services for the contract being tendered for. The Procuring Entity shall check whether the owners or controllers of the Tenderer are same as those that provided consulting services. The Procuring Entity shall, upon request, make available to any tenderer information that would give such firm unfair competitive advantage over competing firms.

4 Eligible Tenderers

- 4.1 A Tenderer may be a firm that is a private entity, a state-owned entity or institution subject to ITT 4.6, or any combination of such entities in the form of a Joint Venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a Form of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a sub contract or in a separate tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the TDS.
- 4.2 Public Officers, of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse in which they have a substantial or controlling interest shall not be eligible to tender or be awarded contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 4.3 A Tenderer shall not have a conflict of interest. Any Tenderer found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest for the purpose of this Tendering process, if the Tenderer:
- a Directly or indirectly controls, is controlled by or is under common control with another Tenderer; or
 - b Receives or has received any direct or indirect subsidy from another Tenderer; or
 - c has the same legal representative as another Tenderer; or
 - d has a relationship with another Tenderer, directly or through common third parties, that puts it in a position to influence the Tender of another Tenderer, or influence the decisions of the Procuring Entity regarding this Tendering process; or
 - e or any of its affiliates participated as a Service provider in the preparation of the Procuring Entity's Requirements (including Activities Schedules, Performance Specifications and Drawings) for the Non-Consulting Services that are the subject of the Tender; or
 - f or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity or Procuring Entity for the Contract implementation; or
 - g would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the TDS ITT 2. 1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
 - h has a close business or family relationship with a professional staff of the Procuring Entity or of the project implementing agency, who:
 - i. are directly or in directly involved in the preparation of the tendering document or specifications of the contract, and/or the Tender evaluation process of such contract; or
 - ii. Would be involved in the implementation or supervision of such contract unless the conflicts teeming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the procurement process and execution of the Contract.
- 4.4 A firm that is a Tenderer (either individually or as a JV member) shall not participate in more than one tender, except for permitted alternative Tenders. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Tenders in which the firm is involved. A firm that is not a Tenderer or a JV member may participate as a sub-contractor in more than one Tender.
- 4.5 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4 .9.
- 4.6 A Tenderer that has been sanctioned by PPRA or are under a temporary suspension or a debarment imposed by any other entity of the Government of Kenya shall be ineligible to be pre-qualified for, initially selected for, tender for, propose for, or be awarded a contract during such period of sanctioning. The list of debarred firms and individuals is available at the PPRA Website www.ppra.go.ke
- 4.7 Tenderers that are state-owned enterprises or institutions in Kenya may be eligible to compete and be awarded a Contract(s) only if they can establish that they: (i) are legally and financially autonomous; (ii) operate under Commercial law; and (iii) are not under supervision of the Procuring Entity.

- 4.8 Firms and individuals may be ineligible if (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country, or (b) by an act of compliance with a decision of the United Nations Security Council take under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person or entity in that country.
- 4.9 A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub Service providers for any part of the Contract including related Services.
- 4.10 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, subcontracts and labor) from national suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided in for this purpose is be provided in “SECTION III-EVALUATION AND QUALIFICATION CRITERIA, Item 9”.
- 4.11 Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer, if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan citizens. The JV shall not sub contract to foreign firms more than 10 percent of the contract price, excluding provisional sums.
- 4.12 The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke
- 4.13 A Tenderer may be considered ineligible if he/she offers goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.
- 4.14 A Kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing a valid tax compliance certificate or tax exemption certificate is sued by the Kenya Revenue Authority.

5 Qualification of the Tenderer

- 5.1 All Tenderers shall provide in Section IV, Tendering Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 5.2 In the event that pre-qualification of Tenderers has been undertaken as stated in ITT 18.3, the provisions on qualifications of the Section III, Evaluation and Qualification Criteria shall not apply.

B. Contents of Tendering Document

6 Sections of Tendering Document

- 6.1 The tendering document consists of Parts 1, 2, and 3, which include all the sections indicated below and should be read in conjunction with any Addenda issued in accordance with ITT 10.

PART 1: Tendering Procedures

- i) Section I - Instructions to Tenderers (ITT)
- ii) Section II - Tender Data Sheet (TDS)
- iii) Section III - Evaluation and Qualification Criteria
- iv) Section IV - Tendering Forms

PART 2: Procuring Entity's Requirements

- v) Section V-Procuring Entity's Requirements

PART 3: Contract

- vi) Section VI - General Conditions of Contract (GCC)
- vii) Section VII - Special Conditions of Contract (SCC)
- viii) Section VIII - Contract Forms

6.2 The Invitation to Tender (ITT) notice or the notice to pre-qualify Tenderers, as the case may be, issued by the Procuring Entity is not part of this tendering document.

6.3 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Tender meeting (if any), or Addenda to the tendering document in accordance with ITT 10. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

6.4 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the tendering document and to furnish with its Tender all information or documentation as is required by the tendering document.

7. Site Visit

7.1 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Required Services and its surroundings and obtain all information that may be necessary for preparing the Tender and entering in to a contract for the Services. The costs of visiting the Site shall be the Tenderer's own expense.

8 Pre-Tender Meeting

8.1 The Procuring Entity shall specify in the **TDS** if a pre-tender conference will be held, when and where. The Procuring Entity shall also specify in the **TDS** if a pre-arranged pretender site visit will be held and when. The Tenderer's designated representative is invited to attend a pre-arranged pretender visit of the site of the works. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

8.2 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.

8.3 Minutes of the pre-Tender meeting and the pre-arranged pre tender visit of the site of the service, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT6.3. Minutes shall not identify the source of the questions asked.

8.4 The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the service at the web page identified **in the TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-Tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT10 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

9 Clarification of Tender Documents

9.1 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting and the pre-arranged pretender visit of the site of the Service if provided for in accordance with ITT 8.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender Documents in accordance with ITT 6.3, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the webpage identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents appropriately following the procedure under ITT 8.4.

10 Amendment of Tender Documents

- 10.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tendering document by issuing addenda.
- 10.2 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tendering document from the Procuring Entity in accordance with ITT 6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's web page in accordance with ITT 8.4.
- 10.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity shall extend, as necessary, the deadline for submission of Tenders, in accordance with ITT 24.2 below.

C. Preparation of Tenders

11 Cost of Tendering

- 11.1 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

12 Language of Tender

- 12.1 The Tender as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Procuring Entity shall be written in the English language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages into the English language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

13 Documents Comprising the Tender

- 13.1 The Tender shall comprise the following:
 - a **Form of Tender** prepared in accordance with ITT 14;
 - b **Schedules:** priced Activity Schedule completed in accordance with ITT 14 and ITT 16;
 - c **Tender Security or Tender-Securing Declaration** in accordance with ITT 21.1;
 - d **Alternative Tender:** if permissible in accordance with ITT 15;
 - e **Authorization:** written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 22.3;
 - f **Qualifications:** documentary evidence in accordance with ITT 19 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
 - g **Tenderer's Eligibility:** documentary evidence in accordance with ITT 19 establishing the Tenderer's eligibility to Tender;
 - h **Conformity:** documentary evidence in accordance with ITT 18, that the Services conform to the tendering document; and
 - i Any other document required in the **TDS**.

The Tenderer shall chronologically serialize pages of all tender documents submitted.

- 13.2 In addition to the requirements under ITT 13.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a Form of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed Agreement.
- 13.3 The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

14 Form of Tender and Activity Schedule

- 14.1 The Form of Tender and priced Activity Schedule shall be prepared using the relevant forms furnished in

Section IV, Tendering Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 22.3. All blank spaces shall be filled in with the information requested.

- 14.2 The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

15 Alternative Tenders

- 15.1 Unless otherwise indicated **in the TDS**, alternative Tenders shall not be considered. If alternatives are permitted, only the technical alternatives, if any, of the Best Evaluated Tender shall be considered by the Procuring Entity.
- 15.2 When alternative times for completion are explicitly invited, a statement to that effect will be included **in the TDS** and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.
- 15.3 When specified **in the TDS**, Tenderers are reemitted to submit alternative technical solutions for specified parts of the Services, and such parts will be identified **in the TDS**, as will the method for their evaluating, and described in Section VII, Procuring Entity's Requirements.

16. Tender Prices and Discounts

- 16.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Activity Schedule (s) shall conform to the requirements specified below.
- 16.2 All lots (contracts) and items must be listed and priced separately in the Activity Schedule(s).
- 16.3 The Contract shall be for the Services, as described in Appendix A to the Contract and in the Specifications (or Terms of Reference), based on the priced Activity Schedule, submitted by the Tenderer.
- 16.4 The Tenderer shall quote any discounts and indicate the methodology for their application in the Form of Tender in accordance with ITT 16.1.
- 16.5 The Tenderer shall fill in rates and prices for all items of the Services described in the in Specifications (or Terms of Reference), and listed in the Activity Schedule in Section VII, Procuring Entity's Requirements. Items for which no rate or price is entered by the Tenderer will not be paid for by the Procuring Entity when executed and shall be deemed covered by the other rates and prices in the Activity Schedule.
- 16.6 All duties, taxes, and other levies payable by the Service Provider under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the total Tender price submitted by the Tenderer.
- 16.7 If provided for **in the TDS**, the rates and prices quoted by the Tenderer shall be subject to adjustment during the performance of the Contract in accordance with and the provisions of Clause 6.6 of the General Conditions of Contract and / or Special Conditions of Contract. The Tenderer shall submit with the Tender all the information required under the Special Conditions of Contract and of the General Conditions of Contract.
- 16.8 For the purpose of determining the remuneration due for additional Services, a breakdown of the lump-sum price shall be provided by the Tenderer in the form of Appendices D and E to the Contract.

17 Currencies of Tender and Payment

- 17.1 The currency of the Tender and the currency of payments shall be Kenya Shillings.

18 Documents Establishing Conformity of Services

- 18.1 To establish the conformity of the Non-Consulting Services to the tendering document, the Tenderer shall furnish as part of its Tender the documentary evidence that Services provided conform to the technical specifications and standards specified in Section VII, Procuring Entity's Requirements.

- 18.2 Standards for provision of the Non-Consulting Services are intended to be descriptive only and not restrictive. The Tenderer may offer other standards of quality provided that it demonstrates, to the Procuring Entity's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Procuring Entity's Requirements.
- 18.3 Tender to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a Service provider or group of service providers, qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement processor contract management.
- 18.4 The purpose of the information described in ITT 18.3 above, overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
- 18.4 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT18.3. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 18.6 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 18.7 If a tenderer fails to submit the information required by these requirements, its tenderer will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 18.8 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
- i) If the procurement process is still on going, the tenderer will be disqualified from the procurement process,
 - ii) if the contract has been awarded to that tenderer, the contract award will be set aside, pending the outcome of (iii),
 - iii) The tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.
- 18.9 If a tenderer submits information pursuant to these requirements that is in complete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 18.9 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine err or which was not attributable to the intentional act, negligence or recklessness of the tenderer.

19 Documents Establishing the Eligibility and Qualifications of the Tenderer

- 19.1 To establish Tenderer's their eligibility in accordance with ITT4, Tenderers shall complete the Form of Tender, included in Section IV, Tendering Forms.
- 19.2 The documentary evidence of the Tenderer's qualification stopper form the Contract if its Tender is accepted shall establish to the Procuring Entity's satisfaction that the Tenderer meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.
- 19.3 All Tenderers shall provide in Section IV, Tendering Forms, a preliminary description of the proposed methodology, work plan and schedule.

- 19.4 In the event that pre-qualification of Tenderers has been undertaken, only Tenders from prequalified Tenderers shall be considered for award of Contract. These qualified Tenderers should submit with their Tenders any information updating their original pre-qualification applications or, alternatively, confirm in their Tenders that the originally submitted pre-qualification information remains essentially correct as of the date of Tender submission.
- 19.5 If pre-qualification has not taken place before Tendering, the qualification criteria for the Tenderers are specified- in Section III, Evaluation and Qualification Criteria.

20 Period of Validity of Tenders

- 20.1 Tenders shall remain valid for the Tender Validity period specified in the TDS. The Tender Validity period starts from the date fixed for the Tender submission deadline date (as prescribed by the Procuring Entity in accordance with ITT 24.1). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.
- 20.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT20, it shall also be extended for a corresponding period. A Tenderer may refuse the request without forfeiting its Tender Security. A Tenderer granting the request shall not be required or permitted to modify its Tender.

21 Tender Security

- 21.1 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender security, as specified **in the TDS**, in original form and, in the case of a Tender Security, in the amount and currency specified **in the TDS**.
- 21.2 A Tender Securing Declaration shall use the form included in Section IV, Tendering Forms.
- 21.3 If a Tender Security is specified pursuant to ITT 21.1, from a reputable source, and an eligible country and shall be in any of the following forms at the Tenderer's option:
- i) cash;
 - ii) a bank guarantee;
 - iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority; or
 - iv) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya,
- 21.4 If a Tender Security is specified pursuant to ITT 20.1, any Tender not accompanied by a substantially responsive Tender Security shall be rejected by the Procuring Entity as non-responsive.
- 21.5 If a Tender Security is specified pursuant to ITT 21.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the contract and furnishing the Performance Security pursuant to ITT 46. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.
- 21.6 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security.
- 21.7 The Tender Security may be forfeited or the Tender-Securing Declaration executed:
- a. If a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer in the Form of Tender, or any extension there to provide by the Tenderer; or
 - b. if the successful Tenderer fails to:
 - c. sign the Contract in accordance with ITT 46; or
 - d. Furnish a performance security in accordance with ITT 47.
- 21.8 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debar the Tenderer from participating in public procurement as provided in the law.
- 21.9 The Tender Security or Tender-Securing Declaration of a JV must be in the name of the JV that submits the

Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of Tendering, the Tender security or Tender-Securing Declaration shall be in the names of all future members as named in the Form of intent referred to in ITT 4.1 and ITT 13.2.

21.10 A tenderer shall not issue a tender security to guarantee itself.

22 Format and Signing of Tender

22.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 13, bound with the volume containing the Form of Tender, and clearly marked “Original. “In addition, the Tenderer shall submit copies of the Tender, in the number specified **in the TDS**, and clearly marked as “Copies. “In the event of discrepancy between them, the original shall prevail.

22.2 Tenderers shall mark as “CONFIDENTIAL “information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

22.3 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified **in the TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

22.4 In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

22.5 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. Submission and Opening of Tenders

23 Sealing and Marking of Tenders

23.1 Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

- a. in an envelope or package or container marked “ORIGINAL”, all documents comprising the Tender, as described in ITT13; and
- b. in an envelope or package or container marked “COPIES”, all required copies of the Tender; and
- c. if alternative Tenders are permitted in accordance with ITT15, and if relevant:
 - i. in an envelope or package or container marked “ORIGINAL–ALTERNATIVE TENDER”, the alternative Tender; and
 - ii. in the envelope or package or container marked “COPIES- ALTERNATIVE TENDER”, all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:

- a) Bear the name and address of the Procuring Entity.
- b) Bear the name and address of the Tenderer; and
- c) Bear the name and Reference number of the Tender.

23.2 If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.

24 Deadline for Submission of Tenders

24.1 Tenders must be received by the Procuring Entity at the address and no later than the date and time specified **in the TDS**. When so specified **in the TDS**, Tenderers shall have the option of submitting their Tenders

electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified **in the TDS**.

- 24.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the tendering document in accordance with ITT9, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

25 Late Tenders

- 25.1 The Procuring Entity shall not consider any Tender that arrives after the dead line for submission of Tenders, in accordance with ITT 24. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

26 Withdrawal, Substitution and Modification of Tenders

- 26.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by a n authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITT 21.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

- a) Prepared and submitted in accordance with ITT 21 and ITT 22 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and
- b) Received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 23.

- 26.2 Tenders requested to be withdrawn in accordance with ITT 25.1 shall be returned unopened to the Tenderers.

- 26.3 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

27 Tender Opening

- 27.1 Except as in the cases specified in ITT 23 and ITT 25.2, the Procuring Entity shall, at the Tender opening, publicly open and read out all Tenders received by the deadline at the date, time and place specified **in the TDS** in the presence of Tenderers' designated representatives and anyone who choose to attend. Any specific electronic Tender opening procedures required if electronic tendering is permitted in accordance with ITT 23.1 shall be as specified **in the TDS**.

- 27.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding Tender shall not be opened, but returned to the Tenderer. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Tenderer, the corresponding Tender will be opened. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

- 27.3 Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

- 27.4 Next, envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

- 27.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Prices, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.

- 27.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further. The Form of Tender and the priced Activity Schedule are to be initialed by representatives of the Procuring Entity attending Tender opening in the manner specified **in the TDS**.

- 27.7 The Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT25.1).
- 27.8 The Procuring Entity shall prepare are cord of the Tender opening that shall include, as a minimum:
- a) The name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) The Tender Price, per lot (contract) if applicable, including any discounts; and
 - c) any alternative Tenders;
 - d) The presence or absence of a Tender Security or Tender-Securing Declaration, if one was required.
 - e) Number of pages of each tender document submitted
- 27.9 The Tenderers' representatives who a rep resent shall be requested to sign the record. The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record. A copy of the tender opening register shall be distributed to Tenderer upon request.

E. Evaluation and Comparison of Tenders

28 Confidentiality

- 28.1 Information relating to the evaluation of Tenders and recommendation of contract award, shall not be disclosed to Tenderers or any other persons not officially concerned with the Tendering process until information on the Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 42.
- 28.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation or contract award decisions may result in the rejection of its Tender.
- 28.3 Notwithstanding ITT 28.2, from the time of Tender opening to the time of Contract Award, if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tendering process, it should do so in writing.

29 Clarification of Tenders

- 29.1 To assist in the examination, evaluation, and comparison of Tenders, and qualification of the Tenderers, the Procuring Entity may, at the Procuring Entity's discretion, ask any tenderer for clarification of its Tender including break downs of the prices in the Activity Schedule, and other information that the Procuring Entity may require. Any clarification submitted by a Tenderer in respect to its Tender and that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the Tenders, in accordance with ITT32.
- 29.2 If a Tenderer does not provide clarifications of its Tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

30 Deviations, Reservations, and Omissions

- 30.1 During the evaluation of Tenders, the following definitions apply:
- a) "Deviation" is a departure from the requirements specified in the tendering document;
 - b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tendering document; and
 - c) "Omission" is the failure to submit part or all of the information or documentation required in the tendering document.

31 Determination of Responsiveness

- 31.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the Tender itself, as defined in ITT 12.
- 31.2 A substantially responsive Tender is one that meets the requirements of the tendering document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- a) If accepted, would:
 - i. affect in any substantial way the scope, quality, or performance of the Non-Consulting Services specified in the Contract; or
 - ii. limit in any substantial way, inconsistent with the tendering document, the Procuring Entity's rights or the Tenderer's obligations under the Contract; or
- b) if rectified, would unfairly affect the competitive position of other Tenderers presenting substantially responsive Tenders.

31.3 The Procuring Entity shall examine the technical aspects of the Tender submitted in accordance with ITT 18 and ITT 19, in particular, to confirm that all requirements of Section VII, Procuring Entity's Requirements have been met without any material deviation or reservation, or omission.

31.4 If a Tender is not substantially responsive to the requirements of tendering document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

31.5 Provided that a Tender is substantially responsive, the Procuring Entity may waive any non-conformity in the Tender.

31.6 Provided that a Tender is substantially responsive, the Procuring Entity may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities or omissions in the Tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.

31.7 Provided that a Tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the TDS**.

32 Arithmetical Errors

32.1 The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

32.2 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis:

- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
- b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive .and
- c) If there is a discrepancy between words and figures, the amount in words shall prevail

32.3 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

33 Conversion to Single Currency

33.1 For evaluation and comparison purposes, the currency (ies) of the Tender shall be converted into a single currency **as specified in the TDS**.

34 Margin of Preference and Reservations

34.1 Margin of preference on local service providers may be allowed if it is deemed that the services require participation of foreign tenderers. If so allowed, it will be indicated in the **TDS**.

34.2 Where it is intended to reserve the contract to specific groups under Small and Medium Enterprises, or enterprise of women, youth and /or persons living with disability, who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses/firms belonging to the specified group are eligible to tender as specified in the **TDS**. Otherwise, if not so stated, the invitation will be open to all tenderers.

35 Evaluation of Tenders

- 35.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies, the Procuring Entity shall determine the Best Evaluated Tender. This is the Tender of the Tenderer that meets the qualification criteria and whose Tender has been determined to be:
- a) Substantially responsive to the tendering document; and
 - b) The lowest evaluated cost.
- 35.2 In evaluating the Tenders, the Procuring Entity will determine for each Tender the evaluated Tender cost by adjusting the Tender price as follows:
- a) Price adjustment due to discounts offered in accordance with ITT 16.4;
 - b) price adjustment due to quantifiable non material non-conformities in accordance with ITT 31.3;
 - c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 33; and
 - d) any additional evaluation factors specified **in the TDS** and Section III, Evaluation and Qualification Criteria.
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.
- 35.4 In the case of multiple contracts or lots, Tenderers are allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) and for combinations, including any discounts offered in the Form of Tender, is specified in Section III, Evaluation and Qualification Criteria. For one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT
- 35.5. The methodology to determine the lowest evaluated tenderer or tenderers based one lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.

36 Comparison of Tenders

- 36.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.2 to determine the Tender that has the lowest evaluated cost.

37 Abnormally Low Tenders and Abnormally High

Tenders Abnormally Low Tenders

- 37.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price.
- 37.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.
- 37.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Abnormally High Tenders

- 37.4 An abnormally high price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

37.5 In case of an abnormally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

37.6 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

38 Unbalanced and/or Front-Loaded Tenders

38.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or front loaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

38.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

- a) Accept the Tender; or
- b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding 10% of the Contract Price; or
- c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works; or
- d) Reject the Tender.

39 Qualification of the Tenderer

39.1 The Procuring Entity shall determine to its satisfaction whether the Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender is eligible and meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

39.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 18. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors or any other firm(s) different from the Tenderer that submitted the Tender.

39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated cost to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

40 Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders

40.1 The Procuring Entity reserves the right to accept or reject any Tender, and to annul the Tendering process and reject all Tenders at any time prior to Contract Award, without there by incurring any liability to Tenderers. In case of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

F. Award of Contract

43 Award Criteria

43.1 The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.

42 Notice of Intention to enter in to a Contract

- 42.1 Upon award of the contract and Prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract/Notification of a ward to all tenderers which shall contain, at a minimum, the following information:
- a) The name and address of the Tenderer submitting the successful tender;
 - b) The Contract price of the successful tender;
 - c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in(c) above already reveals the reason;
 - d) the expiry date of the Stand still Period; and
 - e) instructions on how to request a debriefing and/or submit a complaint during the stand still period;

43 Stand still Period

- 43.1 The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.
- 43.2 Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter in to a Contract with the successful Tenderer.

44 Debriefing by the Procuring Entity

- 44.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 42, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing with in five days of receipt of the request.
- 44.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

45 Letter of Award

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 43.1, upon addressing a complaint that has been filed within the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

46 Signing of Contract

- 46.1 Upon the expiry of the fourteen days of the Notification of Intention to enter into contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.
- 46.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.
- 46.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period

47 Performance Security

- 47.1 Within twenty-one (21) days of the receipt of the Form of Acceptance from the Procuring Entity, the successful Tenderer, if required, shall furnish the Performance Security in accordance with the GCC 3.9, using for that purpose the Performance Security Form included in Section VIII, Contract Forms, or another Form acceptable to the Procuring Entity. If the Performance Security furnished by the successful Tenderer is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Tenderer to be acceptable to the Procuring Entity. A foreign institution providing a bond shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent financial institution is not required.
- 47.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security or sign the Contract

shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

48 Publication of Procurement Contract

48.1 Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:

- a) Name and address of the Procuring Entity;
- b) Name and reference number of the contract being awarded, a summary of its scope and the selection method used;
- c) The name of the successful Tenderer, the final total contract price, the contract duration.
- d) Dates of signature, commencement and completion of contract;
- e) Names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening.

49 Adjudicator

49.1 The Procuring Entity proposes the person named **in the TDS** to be appointed as adjudicator or under the Contract, at an hourly fee specified in **the TDS**, plus reimbursable expenses. If the Tenderer disagrees with this Tender, the Tenderer should so state in the Tender. If, in the Form of Acceptance, the Procuring Entity has not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the Special Conditions of Contract at the request of either party.

50 Procurement Related Complaints and Administrative Review

50.1 The procedures for making a Procurement-related Complaint are as specified in the **TDS**.

50.2 A request for administrative review shall be made in the form provided under contract forms.

SECTION II - TENDER DATA SHEET (TDS)

The following specific data for the Non-Consulting Services to be procured shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions here in shall prevail over those in ITT.

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	A. General
ITT 1.1	<p>The reference number of the Request for Tenders (ITT) is : KSB/SCM/OT/004/2025/2026</p> <p>The Procuring Entity is: Kenya Sugar Board (KSB)</p> <p>The name of the ITT is: <i>NA</i></p> <p>The number and identification of lots (contracts) comprising this ITT is: ONE</p>
ITT 2.1(a)	<p>Electronic –Procurement System</p> <p>NOT APPLICABLE</p>
ITT 2.2	<p>The Intended Completion Date is <i>AFTER THREE YEAR FROM THE CONTRACT SIGNING DATE</i></p>
ITT 3.3	<p>Information that any unfair competitive advantage over competing firms is as follow: AS PER THE ITT 3.3</p>
ITT 3.4	<p>The firms that provided consulting services _____ NOT APPLICABLE</p>
ITT 4.1	<p>Maximum number of members in the Joint Venture (JV) shall be: <i>[insert a number]</i> _____ NOT APPLICABLE _____</p>
B. Contents of Tendering Document	
ITT 8.1	<p>(a) A pre-tender conference will <u>will not be held</u> on</p>
ITT 8.2	<p>The questions in writing, to reach the Procuring Entity not later than 7 DAYS BEFORE TENDER OPENING DATE</p>
ITT 8.4	<p>Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the works shall be published on the website _____ NOT APPLICABLE</p>
ITT 9.1	<p>3) The Tenderer will submit any request for clarifications in writing at the Address _</p> <p style="text-align: center;">THE CHIEF EXECUTIVE OFFICER Sukari Plaza, Upper Kabete Area, off Waiyaki Way P. O. Box 51500 – 00200 NAIROBI</p> <p>i) to reach the Procuring Entity not later than _7 DAYS BEFORE TENDER OPENING DATE AND TIME</p> <p>ii) The Procuring Entity shall publish its response at the website _____ NOT APPLICABLE _____</p>
	<p>The Procuring Entity shall also promptly publish response at the website NOT APPLICABLE _____</p>

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	C. Preparation of Tenders
ITT 13.1 (i)	The Tenderer shall submit the following additional documents in its Tender: NOT APPLICABLE
	Other documents required are _____
ITT 15.1	Alternative Tenders SHALL NOT BE considered.
ITT 15.2	Alternative times for completion SHALL NOT BE permitted. If permitted, the range of acceptable completion time is: _____ NOT APPLICABLE If alternative times for completion are permitted, the evaluation method will be as specified in Section III, Evaluation and Qualification Criteria.
ITT 15.3	Alternative technical solutions shall be permitted for the following parts of the Services: NOT APPLICABLE:
ITT 16.7	The prices quoted by the Tenderer SHALL NOT be subject to adjustment during the performance of the Contract.
ITT 20.1	The Tender validity period shall be <u>210</u> days.
ITT 21.1	A Tender Security <i>shall be</i> required. If a Tender Security shall be required, the amount and currency of the Tender Security shall be <u>Kshs. 2,000,000.00 (Kenya Shillings, Two Million Only)</u>
ITT 21.3 (a)	The Contract price shall be adjusted by <u>15</u> %.
ITT 22.1	In addition to the original of the Tender, the number of copies is: One Original – No Copy is required
ITT 22.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: _____ POWER OF ATTORNEY
	D. Submission and Opening of Tenders
ITT 24.1	For <u>Tender submission purposes</u> only, the Procuring Entity's address is: THE CHIEF EXECUTIVE OFFICER Sukari Plaza, Upper Kabete Area, off Waiyaki Way P. O. Box 51500 – 00200 NAIROBI
ITT 24.1	The deadline for Tender submission is: Friday 29th May, 2026 at 1100Hrs
ITT 27.1	The Tender opening shall take place at: Physical Address: Kenya Sugar Board (KSB) , Sukari plaza Friday 29th May, 2026 at 1100Hrs
ITT 27.1	The electronic Tender opening procedures shall be: NOT APPLICABLE
ITT 27.6	The Form of Tender and priced Activity Schedule shall be initialed by <u>AT LEAST 3 MEMBERS OF THE TENDER OPENNG COMMITTEE</u> representatives of the

ITT Reference	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Procuring Entity conducting Tender opening.
E. Evaluation and Comparison of Tenders	
ITT 31.7	For comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified as follows: The adjustment shall be based on the LOWEST EVALUATED price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
ITT 33.1	The currency that shall be used for Tender evaluation and comparison purposes only to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: KENYA SHILLINGS The source of exchange rate shall be: The Central bank of Kenya The date for the exchange rate shall be: the deadline date for Submission of the Tenders.
ITT 34.1	Margin of preference allowed or not allowed YES...../NO....
ITT 34.2	The invitation to tender is extended to the following group that qualify for Reservations <u>ALL</u>
ITT 35.2 (d)	Additional evaluation factors shall be _____ AS PER THE EVALUATION AND QUALIFICATION CRITERIA _____
ITT 35.4	Tenderers shall be <u>allowed</u> to quote separate prices for different lots (contracts) and the methodology to determine the lowest tenderer is specified in Section III, Evaluation and Qualification Criteria.
F. Award of Contract	
ITT 49.1	The Adjudicator proposed by the Procuring Entity is _____ TO BE DETERMINED UPON CONTRACT SIGNING _____. The hourly fee for this proposed Adjudicator shall be _____ NOT APPLICABLE _____. The biographical data of the proposed Adjudicator is as follows: NOT APPLICABLE _____.
ITT 50.1	The procedures for making a Procurement-related Complaint are available from the PPRa Website www.ppra.go.ke or email complaints@ppra.go.ke . If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to: For the attention: ACCOUNTING OFFICER Title/position: CHIEF EXECUTIVE OFFICER Procuring Entity: KENYA SUGAR BOARD (KSB) Email address: INFO@KSB.CO.KE In summary, a Procurement-related Complaint may challenge any of the following: (i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION III – EVALUATION AND QUALIFICATION CRITERIA

1. General Provision

- 1.1 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:
- a) For construction turnover or financial data required for each year-Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year are to be converted) was originally established.
 - b) Value of single contract-Exchange rate prevailing on the date of the contract signature.
 - c) Exchange rates shall be taken from the publicly available source identified in the ITT. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.
- 1.2 This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity should use **the Standard Tender Evaluation Report for Goods and Works** for evaluating Tenders.

1.3 Evaluation and contract award Criteria

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that (i) meets the qualification criteria,(ii)has been determined to be substantially responsive to the Tender Documents, and(iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

2 Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered non- responsive and will not be considered further.

3 Tender Evaluation (ITT 35)

Price evaluation: in addition to the criteria listed in ITT 35.2 (a)–(d) the following criteria shall apply:

- i) **Alternative Completion Times**, if permitted under ITT 15.2, will be evaluated as follows:
.....
- ii) **Alternative Technical Solutions** for specified parts of the Works, if permitted under ITT 15.3, will be evaluated as follows:.....
- iii) **Other Criteria**; if permitted under ITT 35.2 (e):

4 Multiple Contracts

Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and the lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

OPTION1

- i) If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.

- ii) If a tenderer wins more than one Lot, the tender will be awarded contracts for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the Lots. The tenderer will be awarded the combination of Lots for which the tenderer qualifies and the others will be considered for award to second lowest tenderers.

OPTION 2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combinations with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combinations provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

5 Alternative Tenders (ITT 15.1)

An alternative if permitted under ITT 13.1, will be evaluated as follows:

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2- Procuring Entity's requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

6 MARGIN OF PREFERENCE

Apply Margin of Preference, if so allowed to all evaluated and accepted tender as follows.

- 6.1 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of foreign tenderers, where the percentage of shareholding of Kenyan citizens is less than fifty-one percent (51%).
 - 6.2 Contractors applying for such preference shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractor's qualifies for a margin of preference.
 - 6.3 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:
 - i) Group A: tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty one percent (51%).
 - ii) Group B: tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).
 - 6.4 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 3.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.
- ### **7 Post qualification and Contract award (ITT 39), more specifically,**
- a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.
 - b) In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.
 - i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of Kenya Shillings _____.

- ii) Minimum average annual construction turnover of Kenya Shillings _____ *[insert amount]*, e
- iii) At least _____ (*insert number*) of contract(s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings _____ equivalent.
- iv) Contractor's Representative and Key Personnel, which are specified as _____

- v) Contractors key equipment listed on the table “Contractor's Equipment” below and more specifically listed as *[specify requirements for each lot as applicable]* _____

vi) Other conditions depending on their seriousness.

a) **History of non-performing contracts:**

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non- performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last _____ (*specify years*). The required information shall be furnished in the appropriate form.

b) **Pending Litigation**

Financial position and prospective long-term profitability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above if all pending litigation will be resolved against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

c) **Litigation History**

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last _____ (*Specify years*). All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the year's specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

SECTION III – EVALUATION AND QUALIFICATION CRITERIA

TABLE 1: PRELIMINARY EVALUATION

MR No.	Mandatory requirements
1.	Certificate of incorporation/ Registration
2.	Submit copy of CR12 / CR 13 Form or copy of the National Identity Cards for Sole Proprietor Issued within the last 6 Months from the date of the tender opening
3.	Submit valid Tax Compliance Certificate
4.	Provide ODC-Data Processor and data controller certifications a. Valid Data Controller Certificate b. Valid Data Processor Certificate
5.	Provide copy of company’s current certificate of accreditation issued by ICT authority (ICTA) in a. Systems and applications [ICTA 1] b. Information security [ICTA 1] c. ICT networks [ICTA 1] d. Data Centre [ICTA 1] e. End user computing devices [ICTA 1] f. Cloud Computing [ICTA 1]
6.	Submit a valid telecommunication contractor license Issued by Communications Authority of Kenya
7.	Must submit two Tender Documents (Original and Copy) neatly tape bound. Spiral or any other binding, shall be rejected
8.	Tenderers must sequentially serialize/paginate all pages of the bid document sequentially i.e. 1, 2, 3..... up to the end
9.	Tender must be signed by authorized representative with power of attorney
10.	Fill, sign and stamp the Confidential Business Questionnaire as provided in the tender document
11.	Fill, sign and stamp disclosure of interest form as provided in the tender document
12.	Fill, sign and stamp the certificate of independent tender determination as provided in the tender box
13.	Fill, sign and stamp the self-declaration forms as provided in the tender document (SD1)
14.	Fill, sign and stamp the self-declaration form as provided in the tender document (SD2)
15.	Fill, sign and stamp the declaration and commitment to the code of ethics
16.	Fill and sign schedule of prices form
17.	Fill, sign and stamp Form of Tender as per format provided in the tender document

Note:

- **Certificates/Licenses shall be verified from or with the Issuing Authorities or Agencies**
- **Please note that all pages of the tender documents submitted by bidders shall be sequentially serialized numerically i.e. 1,2,3,4..... That is, serialization shall be undertaken by the bidder, by doing fresh numbering on its documents. The pagination of the tender documents as downloaded from the website should not be used as a means of Serialization. The bidder’s serialization should follow the same logical sequence from the first page to the end.**
- **Bids that fail at any of the Preliminary Evaluation criterion shall not be evaluated further.**

TECHNICAL EVALUATION CRITERIA

TABLE 2: TECHNICAL EVALUATION CRITERIA

No	Technical evaluation criteria	Maximum Marks
1.	<p>Specific Experience</p> <ol style="list-style-type: none"> a. The bidder must demonstrate that it is duly registered/incorporated and has been actively engaged in Information Technology (IT) – related services and other relevant disciplines as its core business for a minimum period of fifteen (15) years. (15 Marks) b. Attach Evidence of at least Five (5) No. of Signed contracts/ Purchase or Service orders/award letters/ completion certificates – 2 marks for each year (10 Marks) 	25
2	<p>KEY STAFF Requirements of the Tenderer's Technical Team: (Attach CV, certified Academic Certificates and other certifications)</p> <ol style="list-style-type: none"> 1. Team Leader/GIS & Remote Sensing Specialist: Should possess the following; <ol style="list-style-type: none"> a) Master's in Geospatial Sciences (5 Marks) b) 5 years' experience in similar projects – attach CV (5 Marks) 2. GIS Analyst: <ol style="list-style-type: none"> a. Bachelor's degree in Geomatic Engineering and Geographic Information System (GIS)- (2.5 Marks) b. 5 years' experience- (2.5 Marks) 3. Project Manager <ol style="list-style-type: none"> a. Project Management certificate – (Attach PMP certificate) (3 Marks) b. At least five (5) years’ experience in Project Management/ planning and Management (2 Marks) 4. 2 No. of Technical Lead <ol style="list-style-type: none"> a. Bachelor’s degree in ICT or related field (5 Marks) b. At least 10 years of experience in similar projects – attach CV (5 Marks) 	35
3	<ul style="list-style-type: none"> ❖ Technical Approach, Methodology & Work plan - The Workplan should clearly indicate the following; <ol style="list-style-type: none"> a) Technical approach and methodology (10 marks) b) Project Coordination and Management Methodology Requirements - (10 marks), c. Project Quality Assurance Methodology and Approach- (5 marks) 	25
4	<ul style="list-style-type: none"> ❖ Submit audited financial statements for the last three (3) financial years, 2025, 2024 and 2023 – 2 Marks for each year (6 marks) ❖ Attach valid ICPAK Certificate. (4 Marks) <p>The following shall be determined. Average annual turnover of at least Ksh. 3 million per year (5 Marks)</p>	15
TOTAL MARKS		100

Note: Bidders must score a minimum of 80% in order to proceed to the next stage of evaluation.

1. FINANCIAL EVALUATION

– Bidders who shall have passed the technical evaluation qualify to be evaluated in the financial

stage.

SECTION IV - TENDERING FORMS

1. FORM OF TENDER

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS

i) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (s) below.

Date of this Tender submission:.....

Tender Name and Identification:.....

Alternative No.: NOT APPLICABLE

To:*[Insert complete name of Procuring Entity]*

- a) **No reservations:** We have examined and have no reservations to the tendering document, including Addenda issued in accordance with ITT9;
- b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITT4;
- c) **Tender-Securing Declaration:** We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing Declaration or Proposal-Securing Declaration in Kenya in accordance with ITT21;
- d) **Conformity:** We offer to provide the Non-Consulting Services inconformity with the tendering document of the following:

.....
.....

[insert a brief description of the Non-Consulting Services];

- e) **Tender Price:** The total price of our Tender, excluding any discounts offered in item(f) below is:
[Insert one of the options below as appropriate]

Option1,in case of one lot: Total price is:

.....
.....
.....
.....

[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies];

Or

Option 2, in case of multiple lots:(a)Total price of each lot[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]; and (b) Total price of all lots (sum of all lots) [insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies];

f) **Discounts:** The discounts offered and the methodology for their application are:

i) The discounts offered are:

.....

[Specify in detail each discount offered.]

ii) The exact method of calculations to determine the net price after application of discounts is shown below:

.....

[Specify in detail the method that shall be used to apply the discounts];

g) **Tender Validity Period:** Our Tender shall be valid for the period specified in TDS 19.1 (as amended if applicable) from the date fixed for the Tender submission deadline (specified in TDS 23.1(as amended if applicable),and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

h) **Performance Security:** If our Tender is accepted, we commit to obtain a Performance Security in accordance with the tendering document;

i) **One Tender Per Tenderer:** We are not submitting any other Tender(s) as an individual Tenderer, and we are not participating in any other Tender(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITT4.3, other than alternative Tenders submitted in accordance with ITT14;

j) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, Service providers, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the PPRA. Further, we are not ineligible under Kenya's official regulations or pursuant to a decision of the United Nations Security Council;

k) **State-owned enterprise or institution:** [select the appropriate option and delete the other] [We are not a state-owned enterprise or institution] / [We are a state-owned enterprise or institution but meet the requirements of ITT 4.6];

l) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering process or execution of the Contract: [insert complete name of each Recipient, its full address, r gratuity].

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

a) [Delete if not appropriate, or amend to suit]We confirm that we understand the provisions relating to Standstill Period as described in this tendering document and the Procurement Regulations.

m) **Binding Contract:** We understand that this Tender, together with your written acceptance thereof included in your Form of Acceptance, shall constitute a binding contract between us, until a formal

contract is prepared and executed;

- n) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Tender, the Best Evaluated Tender or any other Tender that you may receive; and
- o) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.
- p) **Collusive practices:** We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the “Certificate of Independent tender Determination” attached below.
- q) **Code of Ethical Conduct:** We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from _____ (*specify website*) during the procurement process and the execution of any resulting contract.
- r) We, the Tenderer, have completed fully and signed the following Forms as part of our Tender:
 - i) Tenderer's Eligibility; Confidential Business Questionnaire—to establish we are not in any conflict to interest.
 - ii) Certificate of Independent Tender Determination—to declare that we completed the tender without colluding with other tenderers.
 - iii) Self-Declaration of the Tenderer—to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.s
 - iv) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in “**Appendix 1- Fraud and Corruption**” attached to the Form of Tender.

Name of the Tenderer:.....

**[insert complete name of person signing the Tender]*

Name of the person duly authorized to sign the Tender on behalf of the

Tenderer:.....

***[insert complete name of person duly authorized to sign the Tender]*

Title of the person signing the Tender:.....

[insert complete title of the person signing the Tender]

Signature of the person named above:

[insert signature of person whose name and capacity are shown above]

Date signed.....**day of**, 2026

i) TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

Tender is instructed to complete the particulars required in this Form, *one form for each entity if Tender is a JV*. Tenderer is further reminded that it is an offence to give false information on this Form.

a) Tenderer's details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	
2	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person. 8. Mobile Number
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address of state which stock exchange	

General and Specific Details

b) **Sole Proprietor**, provide the following details.

Name in full _____ Age _____
 Nationality _____ Country of Origin _____
 Citizenship _____

c) **Partnership**, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

d) **Registered Company**, provide the following details.

i) Private or public Company _____

ii) State the nominal and issued capital of the Company-

Nominal Kenya Shillings (Equivalent)

Issued Kenya Shillings (Equivalent)

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

e) **DISCLOSURE OF INTEREST-Interest of the Firm in the Procuring Entity.**

i) Are there any person/persons in..... (*Name of Procuring Entity*) who has/have an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

ii) **Conflict of interest disclosure**

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a Service provider in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	professional staff of the Procuring Entity who would be involved in the implementation or supervision of the Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract?		

f) Certification

On behalf of the Tenderer, I certify that the information given above is complete, current and accurate as at the date of submission.

Full Name _____

Title or Designation _____

(Signature)

(Date)

ii) CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the _____
_____ [Name of Procuring Entity] for: _____

_____ [Name and number of tender] in response to the request for tenders made by: _____

_____ [Name of Tenderer] do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of _____ [Name of Tenderer] that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the Tender on behalf of the Tenderer;
4. For the purposes of this Certificate and the Tender, I understand that the word “competitor” shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) Has been requested to submit a Tender in response to this request for tenders;
 - b) could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;
5. The Tenderer discloses that [check one of the following, as applicable]:
 - a) The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
 - b) the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
6. In particular, without limiting the generality of paragraphs(5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) methods, factors or formulas used to calculate prices;
 - c) the intention or decision to submit, or not to submit, a tender; or
 - d) the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5) (b) above;
7. In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above;
8. The terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, which ever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5) (b) above.

Name _____

Title _____

Date _____

[Name, title and signature of authorized agent of Tenderer and Date]

iii) SELF-DECLARATION FORMS

FORM SD1

SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015

I,, of Post Office Box being a resident of.....
..... in the Republic of do hereby make a statement as follows:-

1. THAT I am the Company Secretary/ Chief Executive/ Managing Director /Principal Officer/Director of
..... (*insert name of the Company*) who is a Bidder in respect of **Tender No.** for.....(*insert tender title/description*) for(*insert name of the Procuring entity*) and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.
3. THAT what is deponed to herein above is true to the best of my knowledge, information and belief.

.....
(Title)

.....
(Signature)

.....
(Date)

Bidder Official Stamp

FORM SD2

SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE

I,of P. O. Box.....being a resident of
..... in the Republic of do hereby make a statement as follows:-

1. THAT I am the Chief Executive/Managing Director/Principal Officer/Director of
..... (*insert name of the Company*) who is a Bidder in respect of Tender No.....
..... for(*insert tender title/description*) for(*insert name of the Procuring entity*) and duly authorized and competent to make this statement.

2. THAT the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any corrupt or fraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of..... (*insert name of the Procuring entity*) which is the procuring entity.

3. THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of..... (*name of the procuring entity*)

4. THAT the aforesaid Bidder will not engage /has not engaged in any corrosive practice with other bidders participating in the subject tender

5. THAT what is deponed to here in above is true to the best of my knowledge information and belief.

.....
(Title) (Signature) (Date)

Bidder's Official Stamp

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I, (person) on behalf of (*Name of the Business/ Company/Firm*) declare that I have read and fully understood the contents of the Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

I do hereby commit to abide by the provisions of the Code of Ethics for persons participating in Public Procurement and Asset Disposal.

Name of Authorized signatory.....

Sign.....

Position.....

Office address..... Telephone.....

E-mail.....

Name of the Firm/Company.....

Date.....

(Company Seal/ Rubber Stamp where applicable)

Witness

Name.....

Sign.....

Date.....

iv) APPENDIX1-FRAUDANDCORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

1.1 The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (*no. 33 of 2015*) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.

2. Requirements

2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Service providers, Contractors and Suppliers; any Sub-contractors, Sub-Service providers, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.

2.2 Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:

- 1) A person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or asset disposal proceeding;
- 2) A person referred to under sub section (1) who contravenes the provisions of that sub-section commits an offence;
- 3) Without limiting the generality of the subsection (1) and (2), the person shall be: -
 - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
 - b) if a contract has already been entered into with the person, the contract shall be voidable;
- 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;

3. An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement: -

- a) Shall not take part in the procurement proceedings;
- b) shall not, after a procurement contract has been entered into, take part in any decision relating to the procurement or contract; and
- c) Shall not be a subcontractor for the tender to whom was awarded contract, or a member of the group of tenders to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.

4. An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;

4.1 If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5) (a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the a warding officer. etc.

In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:

- a) Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:
 - i) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

- ii) “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v) “obstructive practice” is:
 - a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - b) acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3e. below.
 - c) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
 - c) Rejects a proposal for award¹ of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-Service providers, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
 - d) Pursuant to the Kenya's above stated Acts and Regulations, may sanction or recommend to appropriate authority(ies) for sanctioning and debarment of a firm or individual, as applicable under the Act and Regulations;
 - e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Service providers, Contractors, and Suppliers, and their Sub-contractors, Sub-Service providers, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect²all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
 - f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a “Self-Declaration Form” as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

2. TENDERER INFORMATION FORM

[The Tenderer shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date:.....*[insert date (as day, month and year) of Tender submission]*

ITT No.:..... *[insert number of Tendering process]*

Alternative No:..... *[insert identification No if this is a Tender for an alternative]*

1. Tenderer's Name:*[insert Tenderer's legal name]*
2. In case of JV, legal name of each member:*[insert legal name of each member in JV]*
3. Tenderer's actual or intended country of registration:*[insert actual or intended country of registration]*
4. Tenderer's year of registration:*[insert Tenderer's year of registration]*
5. Tenderer's Address in country of registration:*[insert Tenderer's legal address in country of registration]*
6. Tenderer's Authorized Representative Information
Name:*[insert Authorized Representative's name]*
Address.....*[insert Authorized Representative's Address]*
Telephone:.....*[insert Authorized Representative's telephone/fax numbers]*
Email Address:.....*[insert Authorized Representative's email address]*
7. Attached are copies of original documents of..... *[check the box(es) of the attached original documents]*
 Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 4.4.
 In case of JV, Form of intent to form JV or JV agreement, in accordance with ITT 4.1.
In case of state-owned enterprise or institution, in accordance with ITT4.6 documents establishing:
i) Legal and financial autonomy
ii) Operation under commercial law
iii) Establishing that the Tenderer is not under the supervision of the agency of the Procuring Entity
 A current tax clearance certificate or tax exemption certificate in case of Kenyan tenderers issued by the Kenya Revenue Authority in accordance with ITT 4.14.
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

OTHER FORMS

3. TENDERER'S JV MEMBERS INFORMATION FORM

[The Tenderers shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Tenderer and for each member of a Joint Venture]].

Date:*[insert date (as day, month and year) of Tender submission]*

ITT No.: *[insert number of Tendering process]*

Alternative No.: *[insert identification No if this is a Tender for an alternative]*

1. Tenderer's Name: <i>[insert Tenderer's legal name]</i>
2. Tenderer's JV Member's name: <i>[insert JV's Member legal name]</i>
3. Tenderer's JV Member's country of registration: <i>[insert JV's Member country of registration]</i>
4. Tenderer's JV Member's year of registration: <i>[insert JV's Member year of registration]</i>
5. Tenderer's JV Member's legal address in country of registration: <i>[insert JV's Member legal address in country of registration]</i>
6. Tenderer's JV Member's authorized representative information Name: <i>[insert name of JV's Member authorized representative]</i> Address: <i>[insert address of JV's Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Member authorized representative]</i> Email Address: <i>[insert email address of JV's Member authorized representative]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 4.6.
8. Included are the organizational chart and a list of Board of Directors.

FORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee]

Beneficiary: _____

Request for Tenders No:

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

1. We have been informed that _____ (here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of _____ under Request for Tenders No. _____ ("the ITT").
2. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
3. At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:
 - (a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or
 - b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.
4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

1. Whereas [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated [*Date of submission of tender*] for the [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of__under Request for Tenders No._____ (“the ITT”).
2. KNOW ALL PEOPLE by these presents that WE of [**Name of Insurance Company**] having our registered office at (hereinafter called “the Guarantor”), are bound unto [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

Sealed with the Common Seal of the said Guarantor this ___day of _____ 20 __.

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:
 - a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
 - b) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document.

then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[Date]

[Signature of the Guarantor]

[Witness]

[Seal]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

TENDER-SECURING DECLARATION FORM

[The Bidder shall complete this Form in accordance with the instructions indicated]

Date:.....[insert date(as day, month and year) of Tender Submission]

Tender No.:.....[insert number of tendering process]

To:.....[insert complete name of

Purchaser] I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.
- 2. I/We accept that I / we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of [insert number of months or years] starting on [insert date], if we are in breach of our obligation (s) under the bid conditions, because we – (a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or(ii) fail or refuse to furnish he Performance Security, in accordance with the instructions to tenders.
- 3. I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:
 - a) Our receipt of a copy of your notification of the name of the successful Tenderer; or
 - b) thirty days after the expiration of our Tender.
- 4. I / We understand that if I am / we are / in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid , and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:.....

Capacity / title (director or partner or sole proprietor, etc.)

Name:

Duly authorized to sign the bid for and on behalf of:[insert complete name of Tenderer]

Dated on day of..... [Insert date of signing]

Seal or stamp

QUALIFICATION FORMS

6 FOREIGN TENDERERS 40% RULE

Pursuant to ITT 4.10, a foreign tenderer must complete this form to demonstrate that the tender fulfils this condition.

Item	Description of Work Item	Describe location of Source	COST in K. shillings	Comments, if any
A	Local Labor			
1				
2				
3				
4				
5				
B	Sub contracts from Local sources			
1				
2				
3				
4				
5				
C	Local materials			
1				
2				
3				
4				
5				
D	Use of Local Plant and Equipment			
1				
2				
3				
4				
5				
E	Add any other items			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXX	
	PERCENTAGE OF CONTRACT PRICE			

7. FORM EQU: EQUIPMENT

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

9. FORM PER-2:

Resume and Declaration - Contractor's Representative and Key Personnel.

Name of Tenderer		
Position [#1]: <i>[title of position from Form PER-1]</i>		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Details	Address of Procuring Entity:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Procuring Entity:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

DECLARATION

I, the undersigned.....*[insert either "Contractor's Representative" or "Key Personnel" as applicable]*, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:-

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>

I understand that any misrepresentation or omission in this Form may:

- a) be taken into consideration during Tender evaluation;
- b) result in my disqualification from participating in the Tender;
- c) result in my dismissal from the contract.

Name of Contractor's Representative or Key Personnel: _____ *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

TENDERERS QUALIFICATION WITHOUT PRE-QUALIFICATION

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

10 FORM ELI -1.1

Tenderer Information

Form

Date: _____

ITT No. and title: _____

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 4.4 <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 4.1 <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 4.6, documents establishing: <ul style="list-style-type: none">• Legal and financial autonomy• Operation under commercial law• Establishing that the Tenderer is not under the supervision of the Procuring Entity
2. Included are the organizational chart and a list of Board of Directors.

11. FORM ELI -1.2

Tenderer's JV Information Form
(to be completed for each member of Tenderer's JV)

Date: _____

ITT No. and title: _____

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 4.6.
2. Included are the organizational chart and a list of Board of Directors.

12. FORM CON –2

Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Reason(s) for nonperformance: [indicate main reason(s)]	[insert amount]
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	

Litigation History in accordance with Section III, Evaluation and Qualification Criteria

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Entity" or "Contractor"]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

13. FORM FIN – 3.1:

Financial Situation and Performance

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title:

Financial Data

Type of Financial information in _____ (currency)	Historic information for previous _____ years, _____ (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

*Refer to ITT 15 for the exchange rate

Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

Financial documents

The Tenderer and its parties shall provide copies of financial statements for _____ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

- a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
- b) Be independently audited or certified in accordance with local legislation.
- c) Be complete, including all notes to the financial statements.
- d) Correspond to accounting periods already completed and audited.

Attached are copies of financial statements¹ for the _____ years required above ; and complying with the requirements

14. FORM FIN – 3.2:

Average Annual Construction Turnover

Tenderer's Name: _____ Date: _____ JV Member's Name: _____

Annual turnover data (construction only)			
Year	Amount Currency	Exchange rate	Kenya Shilling equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

15. FORM FIN–3.3:

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contractor contracts as specified in Section III, Evaluation and Qualification Criteria.

Financial Resources		
No.	Source of financing	Amount (Kenya Shilling equivalent)
1		
2		
3		

16 FORMFIN-3.4:

Current Contract Commitments / Works in Progress

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

No.	Name of Contract	Procuring Entity's Contact Address, Tel,	Value of Outstanding Work [Current Kenya Shilling /month Equivalent]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]
1					
2					
3					
4					
5					

17. FORM EXP-4.1

General Construction Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

_____ Page _____ of
 _____ pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

18. FORM EXP -4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Kenya Shilling			
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address:				
Telephone/fax number				
E-mail:				
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:				
1. Amount				
2. Physical size of required works items				
3. Complexity				
4. Methods/Technology				
5. Construction rate for key activities				
6. Other Characteristics				

19. FORMEXP-4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____

Date: _____

Tenderer's JV Member Name: _____

Sub-contractor's Name³ (as perITT35): _____

ITT No. and title: _____

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1. Key Activity No One: _____

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount				Kenya Shilling
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

³If applicable

2 Activity No. Two

3.

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	
1	
2	
3	
4	
5	

1. The Specifications and Priced Activity Schedules

Date: _____, ITT No: _____, Alternative No: _____ Page N° _____ of _____						
1	2	3	4	5	6	7
Service N°	Description of Services	Unit	Delivery Date	Quantity and physical unit	Unit price	Total Price per Service (Col. 5*6)
<i>[insert number of the Service Line]</i>	<i>[insert name of Services]</i>		<i>[insert delivery date at place of final destination per Service]</i>	<i>[insert number of units]</i>	<i>[insert unit price per unit]</i>	<i>[insert total price per unit]</i>
Service Line No 1	Clearing and forwarding services of farm equipment from Mombasa Port to Headquarters of various Counties. The assignment involves clearing the items from the port, storing and transporting them to the Counties	100 tractors, 47 Combine Harvesters and 47,000 wheelbarrows.	To reach each County by June 30, 2018.	(i) 100 tractors at least 2 to each county. (ii) 47 Combine Harvesters; ditto (iii) 47,000 wheelbarrows; 10 to each County.		
No 2						
No 3						
Service Package No 1	(a) Service Line 1					
	(b) Service Line 2					
	(c) Service Line 3					
Total Tender Price						

Name of Tenderer *[insert complete name of Tenderer]* Signature of Tenderer *[signature of person signing the Tender]* Date *[insert date]*

2. Method Statement

[Procuring Entity shall provide main features of the expected method of carrying out the contract, including indicating the material, personnel and equipment in puts

1. NOTIFICATION OF INTENTION TO AWARD

[This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender.] [Send this Notification to the Tenderer's Authorized Representative named in the Tenderer Information Form] For the attention of Tenderer's Authorized Representative

Name:*[insert Authorized Representative's name]*
 Address:*[insert Authorized Representative's Address]*
 Telephone numbers:*[insert Authorized Representative's telephone/fax numbers]*
 Email Address:..... *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

DATE OF TRANSMISSION:..... This Notification is sent by: *[email/fax]* on *[date]* (local time)

Procuring Entity:*[insert the name of the Procuring Entity]*

Contract title:..... *[insert the name of the contract]*

ITT No:*[insert ITT reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period you may:

- a) Request a debriefing in relation to the evaluation of your Tender, and/or
- b) Submit a Procurement-related Complaint in relation to the decision to award the contract.

D). The successful Tenderer

Name:	<i>[insert name of successful Tenderer]</i>
Address:	<i>[insert address of the successful Tenderer]</i>
Contract price:	<i>[insert contract price of the successful Tender]</i>

ii). Other Tenderers *[INSTRUCTIONS: insert names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out.]*

Name of Tenderer	Tender price	Evaluated Tender price (if applicable)
<i>[insert name]</i>	<i>[insert Tender price]</i>	<i>[insert evaluated price]</i>
<i>[insert name]</i>	<i>[insert Tender price]</i>	<i>[insert evaluated price]</i>
<i>[insert name]</i>	<i>[insert Tender price]</i>	<i>[insert evaluated price]</i>
<i>[insert name]</i>	<i>[insert Tender price]</i>	<i>[insert evaluated price]</i>
<i>[insert name]</i>	<i>[insert Tender price]</i>	<i>[insert evaluated price]</i>

iii). How to request a debriefing

DEADLINE: The deadline to request a debriefing expires at midnight on [insert date] (local time).

You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:

Attention:[insert full name of person, if applicable]

Title/position:[insert title/position]

Agency:[insert name of Procuring Entity]

Email address:..... [insert email address]

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.

The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of the Contract Award Notice.

iv. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by [insert date and time].

Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:

Attention:.....[insert full name of person, if applicable]

Title/position:..... [insert title/position]

Agency:[insert name of Procuring Entity]

Email address:..... [insert email address]

At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Stand still Period and received by us before the Stand still Period ends.

In summary, there are four essential requirements:

1. You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a Notification of Intention to Award.
2. The complaint can only challenge the decision to award the contract.
3. You must submit the complaint within the period stated above.
4. You must include, in your complaint, all of the information required to support the complaint.
5. The application must be accompanied by the fees set out in the Procurement Regulations, which shall not be refundable (information available from the Public Procurement Authority at info@ppra.go.ke or complaints@ppra.go.ke)

v). Standstill Period

DEADLINE: The Standstill Period is due to end at midnight on [insert date] (local time).

The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.

The Standstill Period may be extended as stated in Section 4 above. If you have any questions regarding this Notification please do not hesitate to contact us.

On behalf of the Procuring Entity:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____

2 REQUEST FOR REVIEW

FORM FOR REVIEW(r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO.....OF.....20.....

BETWEEN

.....**APPLICANT**

AND

.....**RESPONDENT (Procuring Entity)**

Request for review of the decision of the..... (Name of the Procuring Entity ofdated the...day of20.....in the matter of Tender No.....of20..... for(Tender description).

REQUEST FOR REVIEW

I/We.....,the above named Applicant(s), of address: Physical address.....P. O. Box No..... Tel. No.....Email, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:

- 1.
- 2.

By this memorandum, the Applicant requests the Board for an order/orders that:

- 1.
- 2.

SIGNED(Applicant) Dated on.....day of/...20.....

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on.....day of20.....

SIGNED

Board Secretary

3. LETTER OF AWARD

[Form head paper of the Procuring Entity]

.....*[date]*

To:.....*[name and address of the Service Provider]*

This is to notify you that your Tender dated*[date]*forexecutionofthe*[nameoftheContractandidentificationnumber, as given in the Special Conditions of Contract]* for the Contract Price of the equivalent of *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers is hereby accepted by us (Procuring Entity).

You are requested to furnish the Performance Security within 28days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the tender document.

Please return the attached Contract dully signed

AuthorizedSignature:.....

Name and Title of Signatory:.....

Name of Agency:.....

Attachment: Contract

4. FORM OF CONTRACT *[Form head paper of the Procuring Entity]*

LUMPSUM REMUNERATION

This CONTRACT (herein after called the “Contract”) is made the *[day]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of Procuring Entity]* (herein after called the “Procuring Entity”) and, on the other hand, *[name of Service Provider]* (hereinafter called the “Service Provider”).

*[Note: In the text below text in brackets is optional; all notes should be deleted in final text. If the Service Provider consist of more than one entity, the above should be partially amended to read as follows: “... (herein after called the “Procuring Entity”) and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Procuring Entity for all the Service Provider's obligations under this Contract, namely, *[name of Service Provider]* and *[name of Service Provider]* (herein after called the “Service Provider”).]*

WHEREAS

- a) The Procuring Entity has requested the Service Provider to provide certain Services as defined in the General Conditions of Contract attached to this Contract (herein after called the “Services”);
- b) the Service Provider, having represented to the Procuring Entity that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract at a contract price of.....;

NOW THEREFORE the parties hereto hereby agree as follows:

- 1. The following documents shall be deemed to form and be read and construed as part of this Agreement, and the priority of the documents shall be as follows:
 - a) The Form of Acceptance;
 - b) The Service Provider's Tender
 - c) The Special Conditions of Contract;
 - d) The General Conditions of Contract;
 - e) The Specifications;
 - f) The Priced Activity Schedule; and
 - g) The following Appendices: *[Note: If any of these Appendices are not used, the words “Not Used” should be inserted below next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.]*

- Appendix A: Description of the Services
- Appendix B: Schedule of Payments
- Appendix C: Subcontractors
- Appendix D: Breakdown of Contract Price
- Appendix E: Services and Facilities Provided by the Procuring Entity

- 2. The mutual rights and obligations of the Procuring Entity and the Service Provider shall be as set forth in the Contract, in particular:
 - a) The Service Provider shall carry out the Services in accordance with the provisions of the Contract; and
 - b) The Procuring Entity shall make payments to the Service Provider in accordance with the provisions of the Contract.

IN WITNESS WHERE OF, the Parties here to have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of _____ *[name of Procuring Entity]*

_____ *[Authorized Representative]*

For and on behalf of *[name of Service Provider]*

[Note : *If the Service Provider consists of more than one entity, all these entities should appear as signatories, e.g., in the following manner:*]

For and on behalf of each of the Members of the Service Provider

..... *[name of member]*

..... *[Authorized Representative]*

..... *[name of member]*

..... *[Authorized Representative]*

4 FORM OF TENDER SECURITY (Bank Guarantee) *[The bank shall fill in this*

Bank Guarantee Form in accordance with the instructions indicated.] [Guarantor Form head or SWIFT identifier code]

Beneficiary:.....*[Procuring Entity to insert its name and address]*
ITT No.:.....*[Procuring Entity to insert reference number for the Request for Tenders]*
Alternative No.:*[Insert identification No if this is a Tender for an alternative]* **Date:***[Insert date of issue]*
TENDER GUARANTEE No.:.....*[Insert guarantee reference number]*
Guarantor:*[Insert name and address of place of issue, unless indicated in the Form head]*

We have been informed that _____*[insert name of the Tenderer, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof]*(hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (hereinafter called "the Tender") for the execution of _____*under Request for Tenders No. _____ ("The ITT")*.

Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____*(_____)* upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

- (a) Has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Form of Tender ("the Tender Validity Period"), or any extension there to provide by the Applicant; or
- (b) Having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension thereto provided by the Applicant, (i) has failed to sign the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Tenderers ("ITT") of the Beneficiary's tendering document.

This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the Contract agreementsignedbytheApplicantandtheperformancesecurityissuedtothe Beneficiary in relation to such Contract agreement; or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

[Signature(s)]

Note: *All italicized text is for use in preparing this form and shall be deleted from the final product.*

5 FORM OF TENDER SECURITY (TENDER BOND) *[The Surety shall fill*

in this Tender Bond Form in accordance with the instructions indicated.] BOND NO. ____

BY THIS BOND *[name of Tenderer]* as Principal (herein after called “the Principal”), and *[name, legal title, and address of surety]*, **authorized to transact business in Kenya**, as Surety (hereinafter called “the Surety”), are held and firmly bound unto *[name of Procuring Entity]* as Obligee (hereinafter called “the Procuring Entity”) in the sum of *[amount of Bond]**[amount in words]*, for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHERE AS the Principal has submitted or will submit a written Tender to the Procuring Entity dated the _____ day of _____, 20_____, for the supply of *[name of Contract]*(herein after called the “Tender”).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

- c) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Form of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
- d) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension there to provide by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to Tenderers (“ITT”) of the Procuring Entity's tendering document.

then the Surety undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

The Surety hereby agrees that its obligation will remain in full force and effect up to and including the date 28 days after the date of expiration of the Tender Validity Period set forth in the Principal's Form of Tender or any extension thereto provided by the Principal.

IN TESTIMONY WHERE OF, the Principal and the Surety have caused these presents to be executed in the irrespctive names this _____ day of _____ 20_____.

Principal: _____
Corporate Seal (where appropriate)

Surety: _____

(Signature)

(Signature)

(Printed name and title)

(Printed name and title)

6 FORM OF TENDER-SECURING DECLARATION

[The Tenderer shall fill in this Form in accordance with the instructions indicated.]

Date:.....*[date (as day, month and year)]*

ITT No.:*[number of Tendering process]*

Alternative No:..... *[insert identification No if this is a Tender for an alternative]*

To:..... *[complete name of Procuring Entity]* We, the undersigned, declare

that: We understand that, according to your conditions, Tenders must be supported by a Tender-Securing

Declaration.

We accept that we will automatically be suspended from being eligible for Tendering or submitting proposals in any contract with the Procuring Entity for the period of time of *[number of months or years]* starting on *[date]*, if we are in breach four obligation(s) under the Tender conditions, because we:

- a) Have withdrawn our Tender during the period of Tender validity specified in the Form of Tender; or
- b) having been notified of the acceptance of our Tender by the Procuring Entity during the period of Tender validity, (i) fail to sign the Contract agreement; or (ii) fail or refuse to furnish the Performance Security, if required, in accordance with the ITT.

We understand this Tender Securing Declaration shall expire if we are not the successful Tenderer, upon the earlier of (i) our receipt of your notification to us of the name of the successful Tenderer; or (ii) twenty-eight days after the expiration of our Tender.

Name of the Tenderer* _____

Name of the person duly authorized to sign the Tender on behalf of the Tenderer** _____

Title of the person signing the Tender _____

Signature of the person named above _____

Date signed _____ day of _____, _____

*: In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer

** : Person signing the Tender shall have the power of attorney given by the Tenderer attached to the Tender

PART II – PROCURING ENTITY'S REQUIREMENTS

SECTION V - ACTIVITY SCHEDULE

SECTION 1: INTRODUCTION AND BACKGROUND

The Kenya Sugar Board (KSB) is a State Corporation established under the Sugar Act, 2024 and mandated to regulate, develop, and promote the sugar industry in Kenya.

The Board plays a central role in regulating production, trade, compliance, and development across the sugar industry value chain. It collaborates with key stakeholders including millers, growers, traders, county governments, and regulatory institutions to ensure sustainable growth of the sector.

KSB currently operates an Integrated Management Information System (IMIS) to support regulatory processes such as registration, licensing, and permit management. However, the system has limitations in:

- Scalability and performance
- Real-time monitoring and enforcement
- Integration with external systems
- Data analytics and reporting
- AI, BI ,GIS, mobile, and traceability capabilities

To address these gaps, KSB intends to upgrade IMIS into a modern, scalable, and integrated platform known as the Sugar Industry Management Information System (SIMIS).

The upgrade will be implemented in two phases, with Phase One focusing on enhancing existing functionality, addressing critical system gaps, and introducing foundational capabilities of the SIMIS digital ecosystem.

SECTION 2: OBJECTIVES

The Board requires the services of a competent service provider to implement SIMIS to achieve the following objectives:

2.1 To Streamline Regulation and Compliance

- Digitalize registration and licensing of growers, millers, importers, and exporters
- Automate monitoring and enforcement of compliance with:
 - Industry agreements
 - Levy payments
 - Trade regulations

2.2 To Enhance Transparency, Accountability and Service Delivery

- Provide end-to-end workflow visibility with audit trails
- Enable stakeholders to track applications, contracts, permits, and payments in real time
- Integrate SIMIS with third-party and GIS systems to enable full value chain traceability

2.3 To Improve Data-Driven Policy and Planning

- Collate and analyse industry data
- Enable predictive analytics and decision support
- Automate statutory reporting

2.4 To Automate Fund Management and Financial Accountability

- Automate Sugar Development Levy processes
- Enhance transparency in levy allocation
- Automate SDF loans and grants management

2.5 To Support Collaborative Framework and Information Sharing

- Provide digital collaboration platforms for:
 - Farmers

- Millers
- County Governments
- Regulatory agencies

2.6 To Ensure Seamless Data Migration and Integrity

- Migrate legacy IMIS data into SIMIS
- Preserve data integrity and auditability
- Implement data archiving mechanisms

2.7 To Ensure Robust, Scalable and Secure Infrastructure

- Provide scalable infrastructure
- Implement high availability and disaster recovery
- Enable AI- and GIS-driven analytics capabilities

SECTION 3: KENYA SUGAR BOARD MANDATE

The bidder shall implement a system that supports KSB's mandate under the Sugar Act, 2024, including:

3.1. Licensing and Registration

- Registration of millers and growers
- Licensing and regulatory approvals
- Management of industry agreements
- Regulation of imports and industrial sugar

3.2. Fund Management

- Management of Sugar Development Fund
- Levy collection and allocation
- Loans and grants financing

3.3. Compliance and Enforcement

- Quality control and inspections
- Enforcement of standards and penalties

3.4. Research, Pricing, and Policy

- Collaboration with research institutions
- Support for pricing frameworks
- Policy data and reporting

SECTION 4: SCOPE OF ASSIGNMENT (PHASE ONE)

4.1 INTRODUCTION

The service provider shall upgrade and transform IMIS into SIMIS while ensuring uninterrupted operations. To manage delivery risk, ensure value for money at each stage, and align with KSB's budget cycles, this tender is structured into two (2) sequential phases. Each phase has clearly defined deliverables, acceptance criteria, and a stand-alone milestone payment triggers. Phase 1 establishes the universal foundation on which the subsequent phase depends on.

Phase One shall:

- Retain and enhance existing IMIS functionalities into the new SIMIS system
- Introduce strategic process re-engineering to improve workflows
- Address critical system gaps
- Introduce new foundational modules

- Strategic process re-engineering to transform workflows, enhancing efficiency, reliability, and scalability, while providing a robust foundation for future phases.

4.2 SCOPE

Item description	Details
<p>Scope of work:</p> <p>Location of the 3,000 sq. km areas</p>	<ul style="list-style-type: none"> ❖ The surface area under consideration is estimated at approximately 3,000KM² covering the entire gazetted sugarcane catchment areas as defined under the Sugar Act, 2024 (refer to the Act for detailed delineation of these catchments). It is important to clarify that this 3,000KM² does not constitute a continuous or consolidated land mass. Rather, sugarcane cultivation is spatially dispersed across the catchments, with significant heterogeneity in land use, meaning that within these areas, there are portions where sugarcane is not cultivated. The production landscape is characterized by a large smallholder base of over 350,000 farmers, each with an average farm size of approximately 0.8ha, resulting in a highly fragmented practice. Consequently, the mapping and digitization effort will involve capturing numerous discrete and scattered field parcels rather than a single contiguous block. Further details regarding the AOIs, including precise spatial extents, shapefiles, or geographic coordinates, will be provided by the Board through individual Work Orders issued under the framework agreement.
<p>Whether parcels are clustered and requests for spatial extents</p>	<ul style="list-style-type: none"> ❖ Yes, parcels are expected to be spatially clustered within the miller catchment zones, agroecological zone and administrative boundaries, depending on the nature of the work order ❖ Detailed spatial extents will be shared at Work Order level, not at the framework stage ❖ The service provider must therefore support flexible AOI ingestion and processing workflows
<p>Whether imagery will be new tasking</p>	<ul style="list-style-type: none"> ❖ The scope of work allows both new tasking and archive imagery, subject to quality compliance: <ul style="list-style-type: none"> ➢ Cloud cover ≤10% ➢ Appropriate seasonal timing for sugarcane mapping ❖ Preference will be given to very recent imagery aligned with crop growth cycles, as specified in the work orders
<p>Spectral resolution requirements</p>	<p>The minimum required spectral bands are: Blue, Green, Red, Near Infrared (NIR). These are required to support:</p> <ul style="list-style-type: none"> ❖ Vegetation analysis (e.g., NDVI) ❖ Crop health monitoring ❖ Field boundary delineation
<p>Confirmation of NIR resolution (50 cm)</p>	<ul style="list-style-type: none"> ❖ The 50 cm specification applies to pan-sharpened spatial resolution, not individual band resolution ❖ Multispectral bands (including NIR) should be consistent with standard commercial satellite specifications and suitable for pan-sharpening to 50 cm
<p>Minimum order size (25 sq. km)</p>	<ul style="list-style-type: none"> ❖ This is a supplier constraint, not a KSB requirement ❖ KSB will issue AOIs as required; providers should factor minimum order sizes into pricing and mosaicking strategies
<p>Type of ancillary data to be provided</p>	<p>KSB will provide available supporting datasets, including:</p> <ul style="list-style-type: none"> ❖ Farmer registration data (where available) ❖ Administrative boundaries (County, Sub- County, Ward)

	<ul style="list-style-type: none"> ❖ Existing geospatial layers (if available)for the AOI ❖ Field verification datasets
Type of systems for geodatabase integration	<p>The geo database must be compatible with standard GIS environments, including:</p> <ul style="list-style-type: none"> ❖ ESRI (ArcGIS) ecosystems ❖ Open-source platforms (e.g., QGIS, PostGIS) <p>Deliverables must support:</p> <ul style="list-style-type: none"> ❖ Enterprise geo-databases ❖ Web-based visualization platforms
Whether KSB has an existing platform	KSB is in the process of establishing a geospatial monitoring system. The service provider is expected to integrate into this system
Requirements of the platform	<p>The platform should support:</p> <ul style="list-style-type: none"> ❖ Visualization of satellite imagery and vector layers ❖ Querying and filtering of sugarcane fields ❖ Monitoring crop conditions over time ❖ User access control (credential-based access) ❖ Data export and reporting capabilities ❖ Yield prediction
Details on analytical reports	<ul style="list-style-type: none"> ❖ Sugarcane acreage estimation ❖ Crop health indicators (e.g., NDVI or equivalent indices) ❖ Spatial distribution of sugarcane fields ❖ Temporal change detection (where applicable) ❖ Yield proxy indicators (where feasible) ❖ Yield prediction
Request for an extension	<ul style="list-style-type: none"> ❖ The tender has attracted widespread interest, and the Board expects submissions from multiple bidders who are working within the specified timelines. Therefore, it would be unfair to extend the deadline based on a request from a single bidder. Furthermore, extending the tender submission deadlines is an administrative decision that is only considered under exceptional circumstances where there is a strong justification affecting the integrity or accessibility of the procurement process. In this case, no such circumstances have been identified. Additionally, the project operates under strict timelines linked to the government financial calendar, key programme objectives, including the timely acquisition of satellite imagery, digitisation of sugarcane fields, and deployment of the monitoring system.

SECTION 5: DETAILED MODULES AND SYSTEM COMPONENTS

5.1 IMIS Core Platform & Architecture

The current IMIS platform is built on a multi-tier, web-based client–server architecture utilizing open-source enterprise technologies. The system supports key regulatory workflows including licensing, permits, inspections, and reporting, and is accessed by both internal and external stakeholders over a WAN/LAN environment.

a) Core Technology Stack

The existing IMIS system is developed and operated using the following core technologies:

- JAVA (iDempiere Framework) as the primary enterprise application framework
- PostgreSQL Database for transactional data management
- JavaScript for user interface and portal functionality
- JBoss Application Server for backend services
- Metabase for reporting and dashboards

b) Application Server Environment

Item	Technology Deployed
Application Development Environment	iDempiere Framework
Supported Databases	PostgreSQL
Database Server OS	Linux Enterprise Server
Client OS	Windows / Linux
Network Environment	Ethernet
Application Configuration	WAN / LAN, Client-Server Architecture

c) Web Portal Operating Environment

Item	Technology Deployed
Application Development Environment	Java
Application Server	GlassFish
Framework	Spring MVC
Supported Databases	PostgreSQL / Oracle
Database Server OS	Linux / Windows Server
Client Platforms	Windows / Linux / Mac / Android
Network Environment	Ethernet
Application Configuration	WAN / LAN, Client-Server

5.1.1 Architecture Description

The current IMIS architecture is composed of the following layers:

a) User Access Layer

Provides access to internal and external stakeholders including:

- KSB staff
- Millers
- Importers/exporters
- Farmers
- Inspectors

b) Application Layer

Implements core business functions using:

- Java (iDempiere framework)
- Spring MVC portal

Limitation: Monolithic structure limits flexibility and rapid enhancements

c) Application Server Layer

- JBoss and GlassFish servers handle system processing

Limitation: Limited scalability and performance optimization under high transaction loads

d) Data and Analytics Layer

- PostgreSQL for transactions
- Data warehouse for historical records
- Metabase for reporting

Limitation: Limited advanced analytics and real-time reporting

e) Integration Layer

Supports limited connectivity to:

- Payment systems
- Trade systems
- Messaging services

Key Gap: Lack of real-time integration with government systems

f) Infrastructure Layer

- Hosted on Linux and Windows environments
- Accessed via WAN/LAN

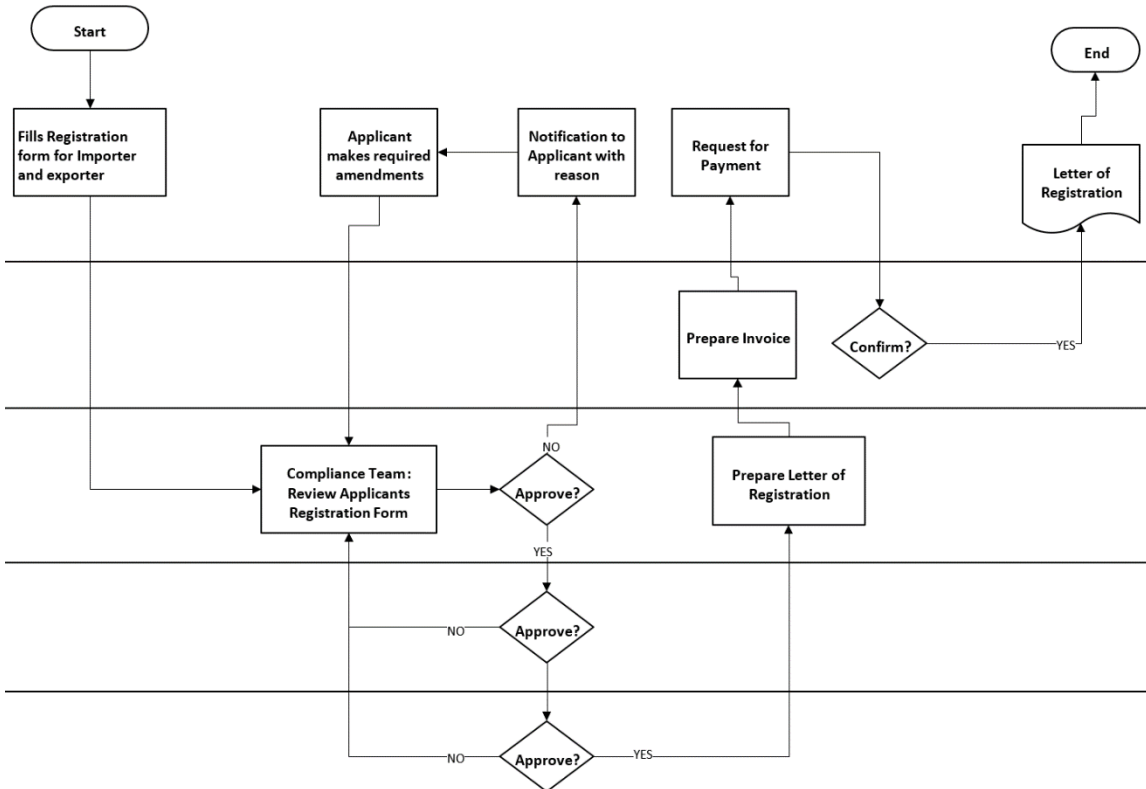
Challenges:

- Fault Tolerance
- Not cloud-optimized

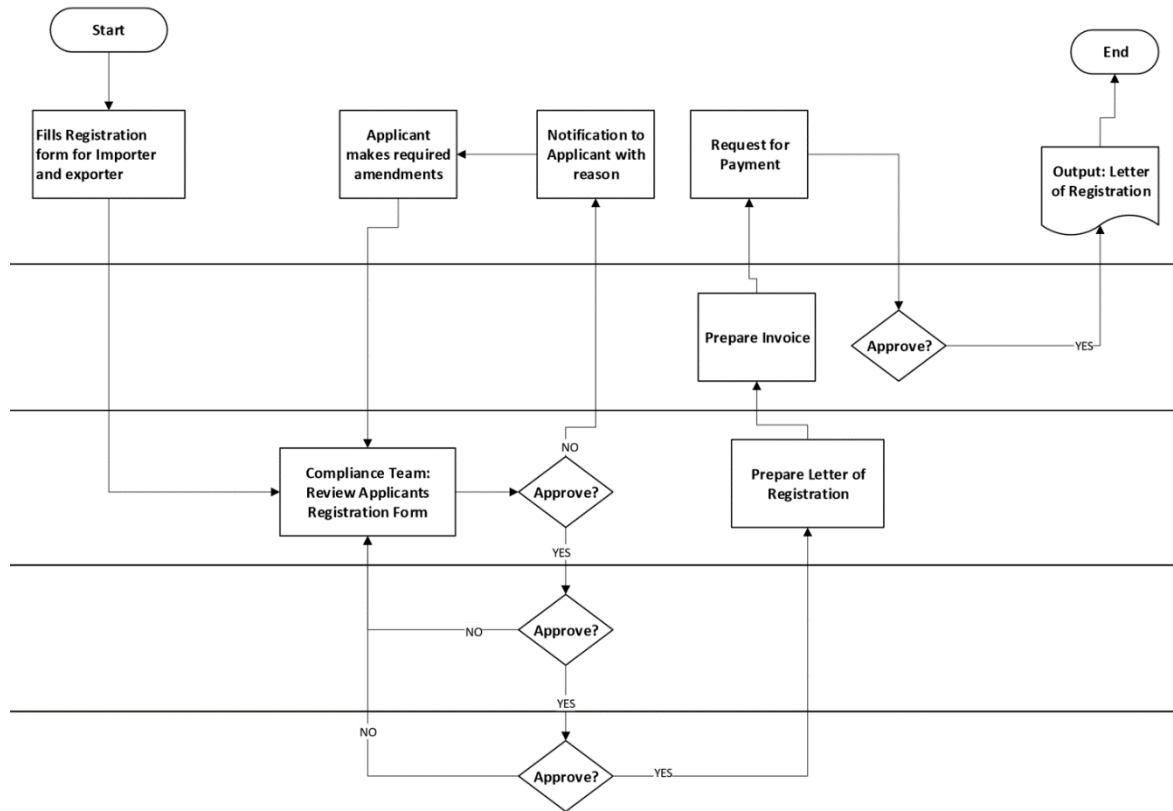
5.1.2 Sample Workflow for existing system Modules

The bidder will be required to review existing workflows and undertake a business process re-engineering as part of his proposal.

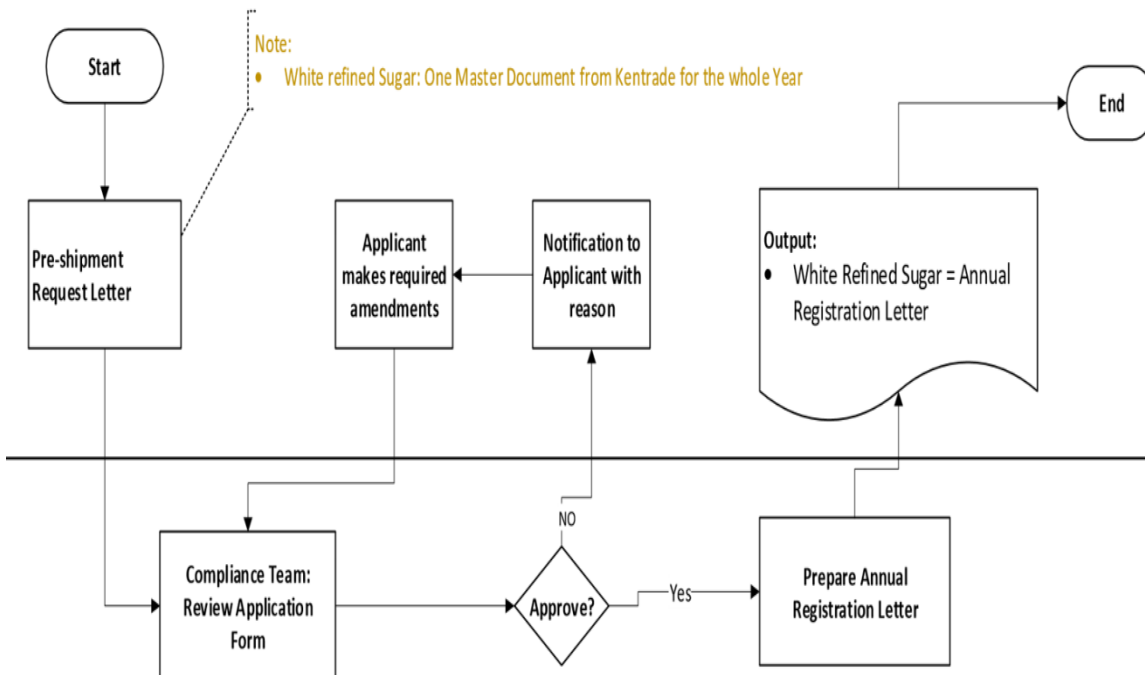
Registration of Sugar Dealers



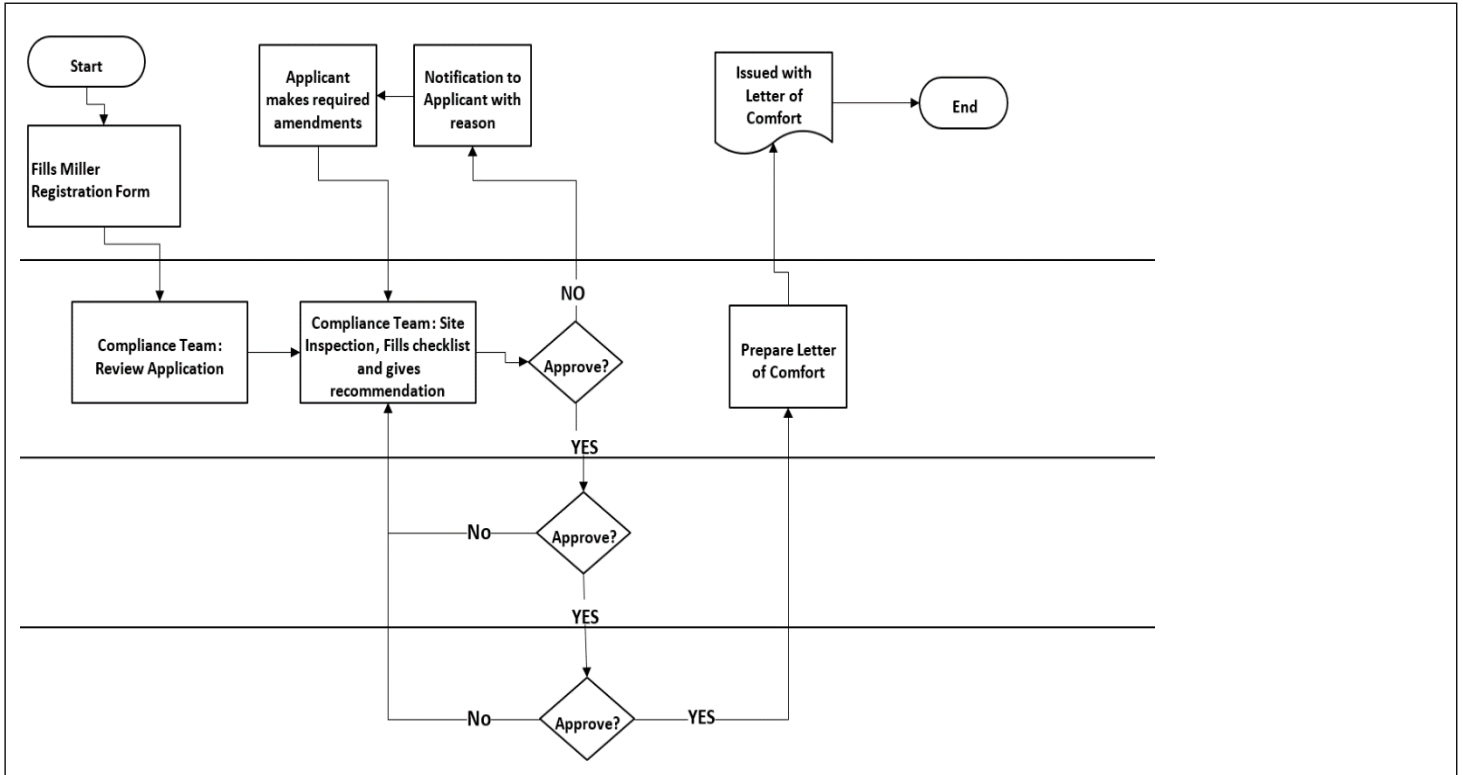
Sugar Dealer Registration Renewal



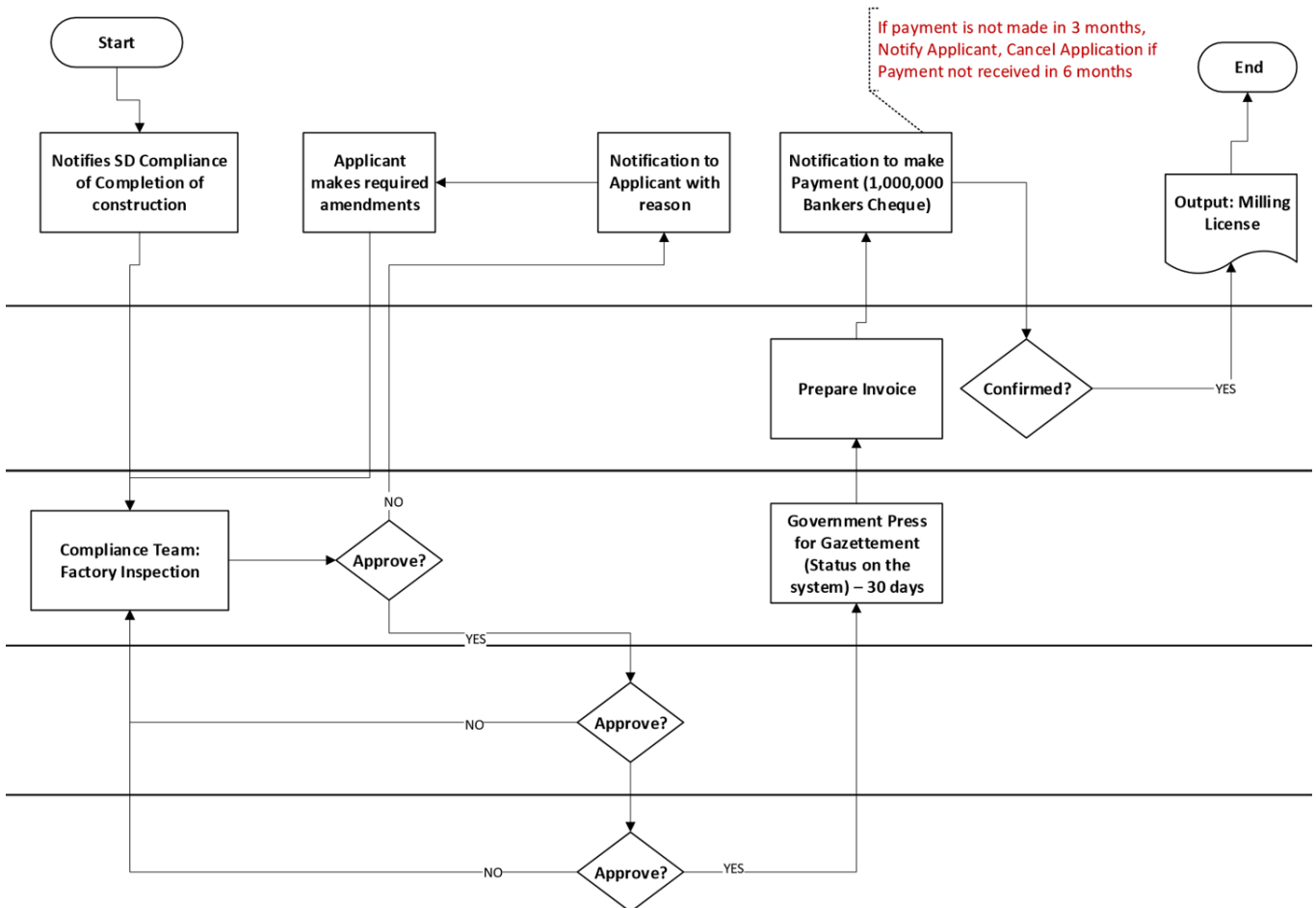
Allocation of Quantities (Pre-shipment)



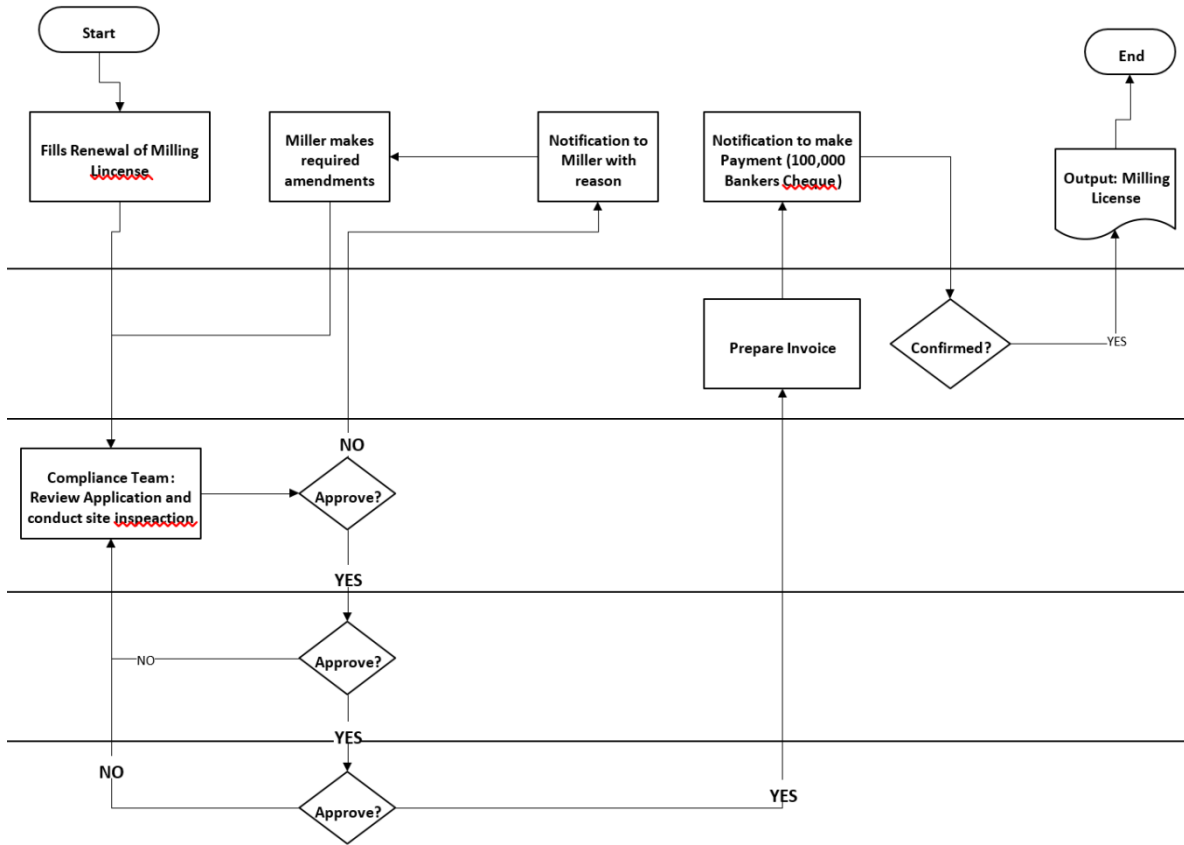
Registration of sugar millers (New Applicants)



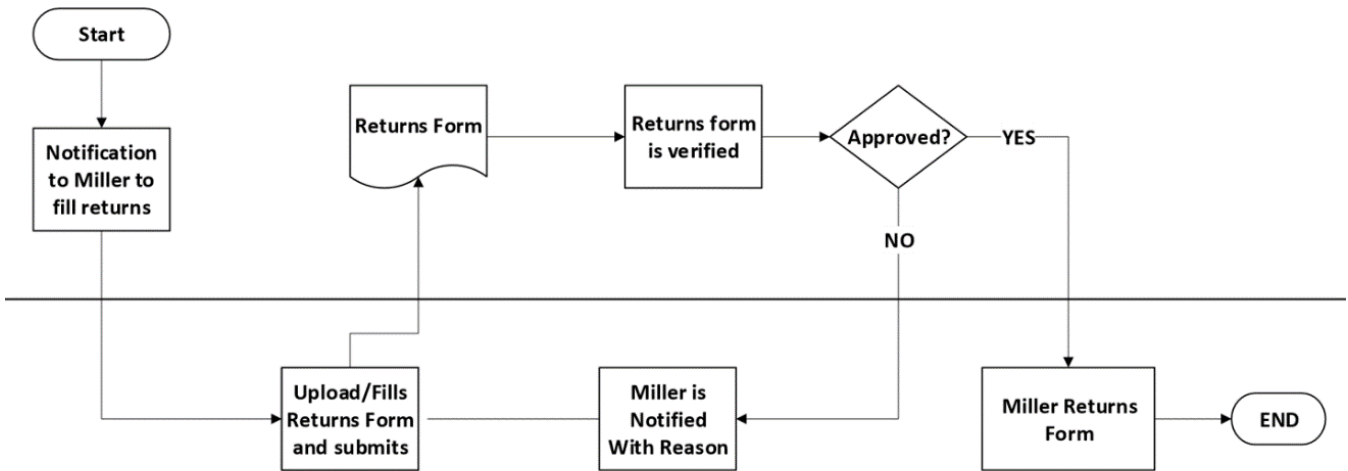
Application for Millers operating license (Pre-requisite = Registration of sugar millers)



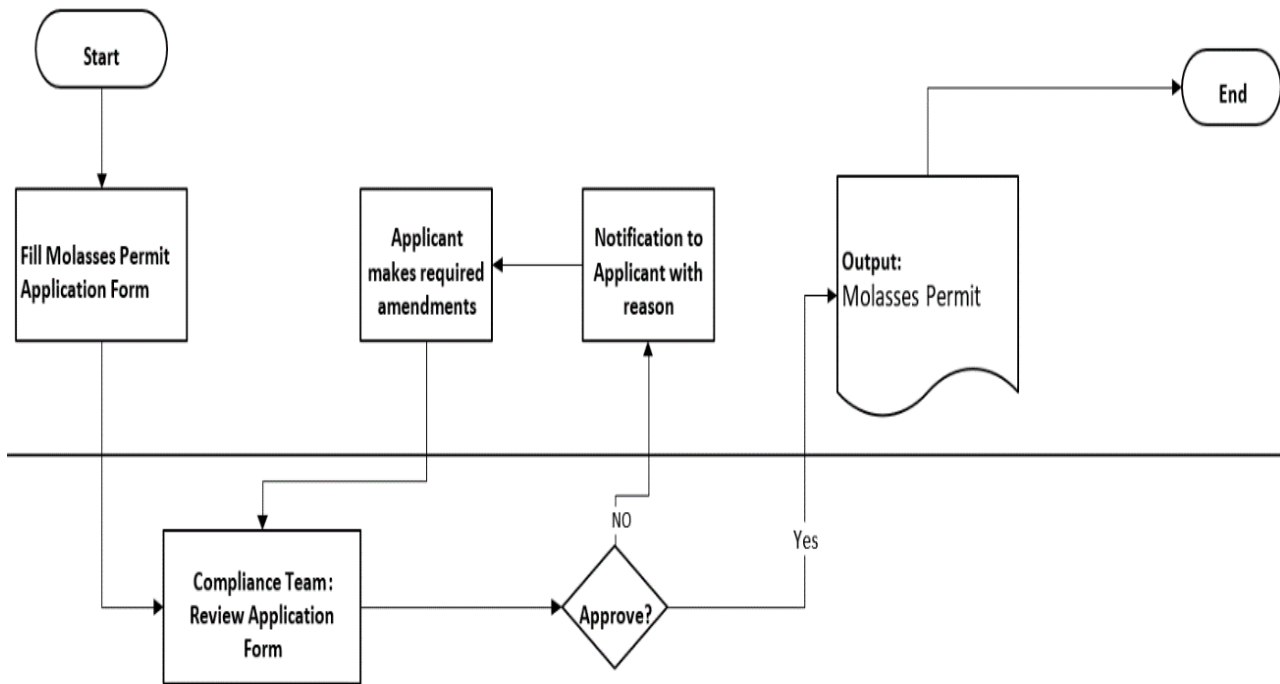
Renewal of Milling License



Miller Returns



Molasses Permit Application



5.1.2 Phase One Upgrade Requirements

5.1.2.1 Core Platform

In Phase One, the Service provider shall upgrade the architecture to:

- Modular and service-oriented system design
- API-first integration architecture
- High availability and fault tolerance capabilities
- Secure authentication and audit logging mechanisms
- Performance optimization and scalability improvements
- Cloud-ready or hybrid infrastructure capability

5.1.2.2 Required Computing Equipment

The service provider shall supply, install, configure, and integrate the following hardware components as part of SIMIS implementation. The service provider is supposed to set up his solution based on the following Architecture;

1. Application Cluster

- a. 2 physical machines to be set up at KSB HQ's (24 cores, 3.2GHz, 256GB DDR4 RAM, 2TB NVMe SSD) with Kubernetes VM clusters (16 vCPU, 64GB RAM per node).
- b. 2 physical machines to be set up at KSB's HQ Office(24 cores, 3.2GHz, 256GB DDR4 RAM, 2TB NVMe SSD) with Kubernetes VM clusters (16 vCPU, 64GB RAM per node).
- c. Role: Hosts core microservices with high availability (HA) and scalability.

• VMware Setup:

- Deploy Kubernetes clusters as VMs managed via vCenter.
- Use VMware vSphere HA for local failover at KSB HQ.

• Veeam Setup:

- Schedule daily backups of VM states and persistent volumes.
- Use Veeam Replication to mirror VMs to the replication servers
- Enable SureBackup to test recoverability.

2. Web Host Cluster

- a. 2 physical machines (24 cores, 3.2GHz, 256GB RAM, 2TB NVMe SSD) with Kubernetes VM clusters (12 vCPU, 64GB RAM per node).
 - b. Role: Supports web/mobile interfaces for stakeholders.
- **VMware Setup:**
 - Host web services in VMs with **vSphere DRS** for load balancing.
 - **Veeam Setup:**
 - Replicate VMs to the replication servers with **failover orchestration**.
 - Use **Veeam ONE** for performance and availability monitoring.

3. Primary Database Servers

- a. 2 servers (32-core CPU, 256GB RAM, 10TB NVMe SSD) for PostgreSQL.
 - b. Role: Handle production data and transactional records.
- **VMware Setup:**
 - Run PostgreSQL on dedicated VMs with **resource reservations**.
 - **Veeam Setup:**
 - Use **Veeam Agent for Linux** for application-aware backups.
 - Enable **transaction log backup** for point-in-time recovery.
 - Replicate DB VMs to Replication Servers with a **RPO < 15 minutes**.
- **Replication Database Servers**
 - a. 2 servers (same specification as for the primary) for backups and recovery and reporting.
 - b. Role: Provide redundancy and support analytics.
- **VMware Setup:**
 - Host reporting DBs in isolated VMs.
 - **Veeam Setup:**
 - Use **asynchronous replication** from primary DBs.
 - Schedule **daily full backups** and **hourly incremental**.

4. Power and Cooling

To ensure operational reliability:

- UPS system (minimum 6000VA) shall be installed
- Server rack cooling (CRAC or equivalent) shall be deployed

5. SAN Storage Solution

The Service provider shall design, supply, install, configure, and commission a **high-performance, enterprise-grade Storage Area Network (SAN)** solution to support the **Sugar Industry Management Information System (SIMIS)**.

The SAN shall:

- Provide centralized, scalable, and high-availability storage
- Support transactional, analytical, GIS, and real-time data workloads
- Enable seamless integration across all SIMIS modules
- Ensure data integrity, security, and business continuity

5.1 Storage Requirements Driven by SIMIS Modules

The SAN solution must support data demands from:

Module	Storage Requirement
Registration & Licensing	Structured data, document storage
Imports & Exports	Transactional + document records
SDL	Financial data, historical records
SDF Loans & Grants	Financial + reporting data
Compliance & Enforcement	Inspection records, evidence (images, files)
Traceability & Repackaging	High-volume transactional + QR trace data

GIS	Spatial data (maps, coordinates, satellite layers)
SUGARSTAT	Real-time operational data streams
Notification/SMS	Logs and reporting
Integration (ICMS, Kentrade, WRC)	API logs, transactional exchange data

5.2 Storage Architecture

The SAN shall:

- Be **modular and scalable**
- Support **block-level storage (FC/iSCSI)**
- Be deployable in:
 - On-premise or
 - Hybrid cloud-ready configuration

5.2.1 Storage Capacity Requirements

Initial Capacity

- Minimum usable storage: **100 TB (expandable)**

Scalability

- Must scale to **500 TB without downtime**

5.2.2 Storage Tiering

The SAN shall support multi-tier storage:

Tier	Usage	Technology
Tier 1	High-performance workloads (SDL, real-time, SUGARSTAT)	SSD / NVMe
Tier 2	Transactional systems (licensing, loans, traceability)	SAS
Tier 3	Archival / historical data (reports, audits)	Nearline SAS / SATA

5.2.3 PERFORMANCE REQUIREMENTS

Throughput

- Minimum aggregate throughput: **≥ 10 GB/s**

IOPS (Input/Output Operations per Second)

- Minimum: **50,000 IOPS scalable to 200,000+**

Latency

- **< 5 ms for mission-critical workloads**
- **< 10 ms for standard workloads**

Concurrent Access

- Must support:
 - High concurrency for:
 - SIMIS users
 - API integrations
 - GIS queries
 - dashboards

HIGH AVAILABILITY & REDUNDANCY

Storage Redundancy

The SAN shall support:

- RAID 5, RAID 6, RAID 10
- Hot-swappable disks

Controller Redundancy

- Dual active-active storage controllers

Network Redundancy

- Dual fabric SAN architecture
- Redundant switches (FC/iSCSI)

Disaster Recovery

The system shall support:

- Real-time replication (site-to-site)
- Snapshot backups
- Failover systems

DATA PROTECTION & BACKUP

Backup System

- Automated backup scheduling
- Full, incremental, and differential backups

Backup Frequency

Type	Frequency
Critical data (SDL, financial)	Daily
SIMIS operational data	Hourly (where needed)
Full system	Weekly

Archiving

The system shall:

- Support long-term archival
 - Enable retrieval for:
 - Regulatory audits
 - Traceability history
- SECURITY REQUIREMENTS

The SAN shall support:

- Data-at-rest encryption
 - Data-in-transit encryption
 - Role-based access controls
 - Secure authentication (LDAP/Active Directory integration)
- TRAINING

The Service provider shall:

- Train KSB ICT staff on:
 - SAN management
 - Backup and recovery
 - monitoring and performance tuning
- DELIVERABLES

The service provider shall deliver:

- SAN hardware and software
- Fully configured storage environment
- Backup and recovery system
- Documentation and user manuals
- Training and handover

5.1.2.3 SECTION: NETWORK SECURITY – NEXT GENERATION FIREWALL

The Service provider shall supply, install, configure, and commission a Next Generation Firewall (NGFW) based on Fortinet to secure the SIMIS platform.

The firewall shall provide enterprise-grade security, high availability, and threat protection to support:

- SIMIS application access
- External integrations (KRA, Kentrade, WRC, GIS, APIs)
- Stakeholder portal and remote access
- Data protection, compliance, and cyber security

Functional and Security Requirements

Security Architecture

The firewall shall:

- Support multi-zone security architecture for segmentation of:
 - Internal network
 - DMZ (public-facing systems like SIMIS portal)
 - External integrations
- Allow policy-based traffic control per zone

Threat Protection (NGFW Capabilities)

The Firewall shall provide:

- Deep packet inspection and protection against:
 - Viruses
 - Worms
 - Malware
 - DDoS attacks
- Traffic inspection for:
 - HTTP/HTTPS
 - SMTP, POP3, IMAP
 - FTP
- Policy-based application of protection features

2.3 Web Filtering & Content Security

The firewall shall:

- Block malicious or unauthorized:
 - URLs
 - IP addresses
- Support:
 - Custom URL filtering categories
 - Dynamic web filtering database
- Inspect:
 - Incoming and outgoing email traffic

Application Control

The firewall shall:

- Support identification and control of 1000+ applications
- Detect and manage:
 - Peer-to-peer (P2P) traffic
 - Instant messaging applications
- Enforce application-level policies

VPN and Secure Access

The FortiGate 100F shall support:

- IPsec VPN and SSL VPN (built-in)
- Hardware-accelerated encryption (AES, 3DES, etc.)
- Secure remote access for:
 - KSB staff
 - External system integrations

Hardware and Performance Requirements

Interfaces

The firewall shall provide:

- Minimum 2 × 10GE interfaces
- Minimum 10 × 1GE interfaces (RJ45)

Performance

The firewall shall support:

- Firewall throughput: ≥ 3.5 Gbps
- Concurrent sessions: ≥ 3 million
- High throughput for:
 - API integrations (KRA, Kentrade, WRC)
 - GIS and analytics systems

Routing and Failover

The system shall support:

- Dynamic routing protocols:
 - OSPF, BGP, RIP, OSPFv3
- Static routing and policy-based routing
- Automatic ISP failover (multi-WAN support)

Logging, Monitoring and Reporting

The firewall shall provide:

- Real-time dashboards showing:
 - Traffic analytics
 - Application usage
 - Security events
- Detailed logs by:
 - IP, Port, Protocol, Application
- Ability to:
 - Export logs
 - Forward logs to SIEM/Syslog systems
- Scheduled reports via email

High Availability and Redundancy

The firewall solution shall:

- Support high availability (HA) clustering
- Provide failover between primary and secondary firewalls
- Ensure no downtime for SIMIS services

Updates, Licensing and Subscriptions

The Service provider shall provide:

- 3-year Fortinet subscription licenses, including:
 - FortiGuard Antivirus
 - Intrusion Prevention System (IPS)
 - Web filtering
 - Firmware and security updates
 - FortiCare support

Security and Compliance Requirements

The firewall shall:

- Encrypt all traffic (HTTPS, VPN)
- Enforce access control policies
- Protect SIMIS against unauthorized access and cyber threats

Installation and Configuration Requirements

The Service provider shall:

- Supply and rack-mount the appliance
- Configure:
 - Network zones
 - Security policies
 - VPN access
 - Integration with SIMIS systems
- Test:
 - Security policies
 - Performance
 - Failover scenarios

Support and Maintenance

The Service provider shall provide:

- 24/7 support services
- SLA commitments:
 - Response time: ≤ 4 hours
 - Resolution time: ≤ 8 hours
- Hardware replacement (RMA):
 - Within 48 hours

Warranty Requirements

The Service provider shall provide:

- 3-year comprehensive warranty covering:
 - Hardware
 - Software
 - Licenses
- All features must be functional without additional purchases

Deliverables

The Service provider shall deliver:

- Firewall appliance
- Fully configured NGFW system
- Security policy configuration
- Documentation and training
- Support and maintenance plan

Expected Outcomes

The firewall solution shall:

Secure all SIMIS modules and integrations

Protect against cyber threats and data breaches

Ensure reliable, high-performance network traffic

Enable secure external connections (KRA, Kentrade, WRC)

Provide audit-ready logging and monitoring

5.1.2.3 SOFTWARE ENVIRONMENT

1. Overview

The Kenya Sugar Board shall establish a modular, interoperable and scalable software environment comprising:

- A GIS authoring and analysis layer
- A data science and spatial analytics layer
- Supporting libraries, integration interfaces, and automation tools

This environment shall support:

- Farmer registry digitization
- Census data processing
- Spatial mapping and analysis
- Dashboard development for SIMIS platform
- Future integration of AI, remote sensing, and predictive modelling

2. GIS SOFTWARE ENVIRONMENT

2.1 GIS Desktop Platform (ArcGIS Pro)

The Service provider shall deploy a GIS desktop environment using ArcGIS Pro

2.1.1 Core Functional Capabilities

Capability Area	Detailed Functions	Phase 1 Use Cases	Future Phase Relevance
Data Editing & Management	Creation, editing, and updating of spatial datasets	Farmer registry polygon capture	Continuous updates and versioning
Spatial Analysis	Buffering, overlay, proximity, intersection	Zoning validation, farm overlap checks	Advanced spatial modelling
Geoprocessing	Batch processing, workflows, automation tools	Census data aggregation	Large-scale raster processing
Projection & Coordinate Systems	Support for multiple CRS (WGS84, UTM, local grids)	Standardization of spatial datasets	Integration with remote sensing data

Attribute Management	Tabular data linking and editing	Farmer biodata integration	Data warehousing
Map Production	Creation of maps, layouts, reports	Operational maps for KSB	Policy and reporting outputs

2.1.2 Advanced GIS Capabilities

Capability	Description	Phase II/III
Raster Analysis	Handling satellite/drone imagery	NDVI, crop health
3D GIS Analysis	Terrain and elevation modelling	Yield modelling
Network Analysis	Route planning, optimization	Cane transport logistics
Plugin/Extension Support	QGIS plugins / ArcGIS extensions	Custom workflows
Versioned Editing	Multi-user editing workflows	Concurrent updates

2.1.3 Integration Requirements

The GIS platform must support:

- API-based integration (REST/HTTP services)
- Integration with:
 - SIMIS database
 - Licensing system
 - BI dashboards
- Support for:
 - GeoJSON
 - Shapefiles
 - CSV / Excel
 - Web services (WMS/WFS)

2.1.4 Deployment Considerations

- Multi-user environment (analysts + administrators)
- Role-based access control
- Synchronization with central GIS server
- Offline/online edit synchronization

3. Data Science & Analytics Environment

3.1 Purpose

The Python/R environment shall serve as the analytical core, supporting:

- Statistical analysis
- Data processing and cleaning
- Automation of workflows
- Predictive modelling (Phase 2 and 3 readiness)

3.2 Python Environment (Primary Engine)

3.2.1 Core Functional Capabilities

Capability	Description	Phase 1 Application	Future Use
Data Processing	Handling large datasets (tabular and spatial)	Cleaning census data	Big data pipelines
Spatial Analysis	Integration with GIS (via GeoPandas, Shapely)	Spatial queries	Advanced geospatial modelling
Automation	Script-based workflows	Census processing automation	Full pipeline automation
API Integration	Data exchange across systems	Linking SIMIS to GIS	System interoperability
Visualization	Graphs, interactive charts	Basic reporting dashboards	Advanced analytics dashboards

3.2.2 Key Python Libraries

Category	Libraries	Purpose
Data Analysis	Pandas, NumPy	Data manipulation
Spatial Analysis	GeoPandas, Shapely, Rasterio	GIS processing
Visualization	Matplotlib, Plotly, Seaborn	Reports, dashboards
Machine Learning	Scikit-learn	Predictive analytics (future)
API/Integration	FastAPI, Flask	System integration
Workflow Automation	Airflow / Cron jobs	Data pipelines

3.3 R Environment (Statistical & Modelling Engine)

3.3.1 Core Functional Capabilities

Capability	Description	Application
Statistical Analysis	Regression, forecasting	Yield estimation
Spatial Statistics	Spatial modelling and clustering	Regional productivity analysis
Data Visualization	Graphing and reporting	Trend reporting
Modelling	Scenario simulations	Policy-level modelling

3.3.2 Key R Packages

Category	Packages
Data Analysis	dplyr, tidyverse
Spatial Analysis	sf, sp
Visualization	ggplot2
Modelling	caret, forecast

4. Integrated Analytics & GIS Workflow

4.1 Workflow Structure

The system shall support the following pipeline:

1. **Data Collection**
 - Mobile apps
 - GIS mapping
2. **Data Storage**
 - PostgreSQL/PostGIS
3. **Processing**
 - GIS (ArcGIS/QGIS)
 - Python/R analytics
 - DJiTerra
4. **Visualization**
 - Dashboards (Power BI/Superset)

4.2 Automation Requirements

- Automated ETL (Extract, Transform, Load)
- Scheduled data updates
- Scripted GIS operations
- API synchronization between systems

5. Software Governance and Standards

5.1 Key Requirements

- Version control
- Coding standards for scripts
- Documentation of all workflows
- Reproducible analytical pipelines

5.2 Interoperability Standards

- OGC-compliant GIS formats
- RESTful APIs for data exchange
- Open data formats to avoid vendor lock-in

5.2 Registration & Licensing

5.2.1 Overview

The Service provider shall upgrade, enhance, and re-engineer the **Registration and Licensing Module** within SIMIS to provide a **fully digital, automated, transparent, and compliant system** for managing all industry stakeholders and regulatory approvals in accordance with the **Sugar Act, 2024** and applicable regulations.

The module shall support **end-to-end lifecycle management** of stakeholders and licensing processes while ensuring integration with compliance, enforcement, and financial systems.

5.2.2 Functional Scope

The Service provider shall design and implement the following functional capabilities:

a) Stakeholder Registration

The system shall support digital registration of:

- Sugar millers (including jaggery operators)
- Sugarcane growers (linked to mills/regions)
- Importers and exporters
- Sugar dealers and traders
- Out-grower institutions

Key Requirements:

- Online registration forms aligned to statutory formats
- Document upload and validation (CR12, TCC, IDs, BRS)
- Automated completeness checks
- Unique stakeholder identification and profiling
- Linkage of stakeholders to:
 - Geographic locations (GIS integration)
 - Mills and supply chains

b) Licensing and Permit Management

The system shall support the issuance and lifecycle management of:

- Mill operation licences
- Import and export licences
- Dealer licences

- Molasses permits
- Special permits (industrial sugar, exemptions, etc.)

Key Features:

- Digital application submission and processing
- Configurable approval workflows
- Multi-level review (compliance, technical, finance)
- Licence issuance in a verifiable secure digital format
- Licence validity tracking and expiry alerts

c) Licence Renewal and Amendments

The system shall:

- Support automated licence renewal processes
- Track:
 - Expiry dates
 - Renewal status
- Allow amendments such as:
 - Change in ownership
 - Change in capacity
 - Change in location

Enhancements:

- Pre-filled renewal applications using existing data
- Auto-validation of compliance status before renewal
- Automated fee computation and invoicing

d) Workflow Automation and Process Re-Engineering

The Service provider shall:

- Submit Re-engineered existing licensing workflows to:
 - Reduce manual steps
 - Minimize approval delays
 - Eliminate redundancy
- Implement:
 - Dynamic workflow engines
 - Configurable approval hierarchies
 - SLA-based processing timelines
 - Escalation rules for delayed approvals

e) Compliance and Validation Integration

The system shall incorporate real-time validation by integrating with:

- KRA iTax (PIN validation)
- KRA TIMS (where applicable)
- KEBS certification (standards compliance)
- Internal compliance and inspection modules
- Business Registration
- IPRS

Key Capability:

- Automatic blocking of applications where:
 - Compliance conditions are not met
 - Mandatory documents are missing or invalid

f) Inspection and Approval Linkages

The module shall:

- Trigger inspection workflows before license approval
- Link licensing to:
 - Site inspections
 - Technical assessments
- Capture inspection reports and recommendations

g) Digital Certificates and Security

The Service provider shall:

- Enable generation of secure, tamper-proof digital licenses and permits
- Incorporate:
 - QR codes for verification
 - Digital signatures
 - Online verification portal

h) Notifications and Alerts

The system shall provide automated notifications via:

- SMS
- Email
- System alerts

For events such as:

- Application submission
- Approval/rejection
- Licence expiry reminders
- Compliance deadlines

i) Stakeholder Portal and Self-Service

The module shall provide a stakeholder-facing portal to:

- Submit applications
- Track application status in real time
- Download licences and certificates
- Update profile information

5.2.3 Integration Requirements

The Registration & Licensing Module shall integrate with:

- **SDL Module** → to validate levy compliance before licensing
- **SDF Module** → to check loan status and eligibility conditions
- **Compliance & Enforcement Module** → for enforcement actions
- **GIS Module** → for geospatial mapping of stakeholders
- **Payment Systems** → for licence fee processing (eCitizen, PesaFlow, KRA PG)

5.2.4 Data Management Requirements

The Service provider shall ensure:

- Centralized stakeholder registry
- Master data governance
- Data validation rules and duplicate detection
- Historical tracking of:
 - All licence actions
 - Status changes
 - Amendments

5.2.5 Reporting and Analytics

The system shall generate:

- Registered stakeholders by category
- Licences issued, expired, suspended
- Compliance status reports
- Processing timelines and SLA adherence
- Geographic distribution of industry participants (via GIS)

5.2.6 Security and Audit

The module shall:

- Maintain comprehensive audit trails for:
 - Applications
 - Approvals
 - Changes
- Enforce:
 - Role-based access control
 - Data encryption
 - Secure document storage

5.2.7 Deliverables for this Module

The Service provider shall deliver:

- Configured and deployed Registration & Licensing Module
- Digital forms and workflows
- Integration interfaces
- Reporting dashboards
- User manuals and SOPs
- Training for KSB staff and stakeholders

5.3 Imports & Exports

5.3.1 Overview

The Service provider shall design, upgrade, and implement an integrated **Imports and Exports Management Module** within SIMIS to support the **full lifecycle management of sugar import and export processes**.

The module shall ensure:

- Full compliance with statutory requirements
- Real-time monitoring and control of trade
- Transparent, efficient, and auditable processing of permits and approvals

- Seamless integration with national trade and revenue systems

5.3.2 Functional Scope

The Service provider shall implement the following core functional areas:

a) Registration and Licensing Integration

The module shall:

- Integrate with the Registration & Licensing Module to:
 - Validate importer/exporter registration status
 - Verify licensing compliance before transaction processing
- Prevent application submission where:
 - Licence is expired
 - Compliance requirements are unmet

b) Pre-Import and Pre-Export Approval Management

The system shall support:

- Submission of **pre-import and pre-export applications**
- Capture of:
 - Applicant details
 - Type of sugar or by-products
 - Quantity requested
 - Country of origin/destination
 - Intended import/export schedule

Enhancements:

- Automated validation against:
 - National sugar supply/demand position
 - Regulatory quotas and trade agreements
- Configurable workflows for:
 - Compliance review
 - Technical evaluation
 - Approval/rejection

c) Consignment-Based Permit Management

The module shall support:

- Issuance of **consignment-specific import/export permits**
- Electronic submission of supporting documents:
 - Bill of lading
 - Commercial invoices
 - Certificate of origin
 - Phytosanitary and conformity certificates

Key Features:

- Document validation and verification workflows
- Permit status tracking
- Digital issuance of permits

d) Consignment Tracking and Monitoring

The system shall:

- Track each consignment from approval to final clearance
- Capture real-time data including:
 - Shipment details
 - Entry/exit points
 - Clearing details
- Provide visibility into:
 - Pending consignments
 - Cleared consignments
 - Delayed shipments

e) Inspection and Release Order Management

The Service provider shall enable:

- Integration with inspection workflows
- Recording of:
 - Consignment inspection details
 - Compliance verification results
- Issuance of **release orders** upon successful inspection

Enhancements:

- Inspector mobile access (linked to Mobile Module)
- Real-time inspection reporting

f) Integration with Kentrade, KRA, and National Trade Systems

The Service provider shall design and implement robust, secure, and real-time integration of the Imports & Exports Module with national trade and customs systems, including:

a) Kentrade – National Electronic Single Window System

The SIMIS platform shall integrate with **Kentrade (Single Window System)** to:

- Enable submission of trade-related documentation through a single interface
- Facilitate seamless exchange of import/export permit data
- Synchronize regulatory approvals issued by KSB with other government agencies
- Reduce duplication of data entry and improve processing efficiency

b) KRA ICMS (Integrated Customs Management System)

The Service provider shall ensure integration with the **KRA Integrated Customs Management System (ICMS)** to:

- Enable real-time validation of import/export consignments
- Facilitate exchange of customs clearance data, including:
 - Entry and exit declarations
 - Bill of entry information
 - Consignment status updates
- Support verification of:
 - Approved quantities
 - Product classifications

- Country of origin/destination
- Ensure alignment between:
 - SIMIS-issued permits
 - Customs declarations and clearances
- Enable automated cross-checks to detect:
 - Over-declaration or under-declaration
 - Unauthorized imports/exports
 - Permit misuse or duplication

c) End-to-End Trade Process Synchronization

The integration shall ensure:

- End-to-end visibility of trade transactions from:
 - Application → Approval → Shipment → Customs Clearance → Release
- Real-time updates between SIMIS, Kentrade, and ICMS
- Elimination of manual reconciliations across systems

d) Data Exchange and Interoperability Standards

The Service provider shall:

- Implement secure APIs for data exchange
- Adhere to approved government interoperability frameworks
- Ensure:
 - Data consistency across SIMIS, Kentrade, and ICMS
 - Transaction traceability
 - System auditability

e) Compliance and Enforcement Integration

The integrated system shall:

- Automatically flag inconsistencies between:
 - SIMIS permits and ICMS declarations
 - Approved quantities vs actual imports/exports
- Trigger alerts for enforcement actions where anomalies are detected

The Service provider shall ensure integration with:

- **KRA iTax**
 - Validation of importer/exporter PINs
- **KRA Payment Gateway**
 - Payment of import/export fees and levies

f. Integration with Warehouse Receipt System (WRS) – Warehouse Receipt Council (WRC)

The Service provider shall design and implement integration between SIMIS and the **Warehouse Receipt System (WRS)** administered by the **Warehouse Receipt Council (WRC)** to enhance traceability, accountability, and control of imported sugar stored in warehouses.

a) Purpose of Integration

The integration shall ensure:

- Real-time tracking of imported sugar stored in licensed warehouses

- Verification of quantities received, stored, and released
- Strengthened regulatory oversight over sugar stock movement
- Prevention of diversion, hoarding, and misuse of imported sugar

b) Functional Requirements

The SIMIS platform shall integrate with WRS/WRC systems to:

1. Capture Warehouse Receipt Data

- Automatically retrieve or validate warehouse receipt information, including:
 - Receipt number
 - Warehouse location
 - Commodity type (sugar/by-products)
 - Quantity stored
 - Owner/importer details

2. Link Import Permits to Warehouse Storage

- Associate import consignments approved in SIMIS with:
 - Corresponding warehouse receipts
 - Storage locations
- Ensure that all imported sugar is properly accounted for upon entry into warehouses

3. Track Storage and Movement of Sugar Stocks

- Monitor:
 - Quantities stored
 - Quantities released
 - Remaining balances
- Maintain real-time visibility of stock levels

4. Validate Release and Distribution

- Ensure that release of sugar from warehouses is:
 - Linked to valid permits
 - Recorded in SIMIS
- Track onward distribution to:
 - Processors
 - Industrial users
 - Markets

c) Compliance and Control Mechanisms

The system shall:

- Enforce mandatory linkage between:
 - Import permits
 - Customs clearance (ICMS)
 - Warehouse receipts
- Automatically flag:
 - Discrepancies between declared import quantities and stored quantities
 - Unauthorized withdrawals from warehouses
 - Expired or invalid warehouse receipts
- Trigger alerts for:
 - Stock anomalies
 - Non-compliant transactions

d) Integration with Trade and Customs Systems

The WRC integration shall operate in coordination with:

- **KRA ICMS**, to confirm:

- Cleared import quantities
- **Kentrade Single Window**, to align:
 - Permit approvals
 - Import documentation

e) Data Exchange and Interoperability

The Service provider shall:

- Develop APIs or data exchange mechanisms between SIMIS and WRC systems
- Ensure:
 - Secure data exchange
 - Real-time or near-real-time synchronization
 - Data consistency across systems

f) Reporting and Analytics

The system shall provide reports on:

- Imported sugar utilization
- Sugar stock levels by importer
- Warehouse occupancy and turnover
- Movement of sugar across the supply chain

g) Audit and Traceability

The system shall:

- Maintain full audit trails for:
 - Receipt issuance
 - Storage transactions
 - Release movements
- Enable traceability from:
 - Import permit → customs clearance → warehouse receipt → final usage

h) Sugar Development Levy Linkage

The module shall:

- Automatically link import consignments to **SDL obligations**
- Support:
 - Levy computation based on CIF value
 - Integration with SDL module for invoicing and reconciliation

i) Trade Compliance and Enforcement

The system shall:

- Enforce regulatory controls such as:
 - Approved quotas
 - Market protection measures
- Flag:
 - Non-compliant consignments
 - Excess quantity requests
- Generate compliance alerts and enforcement triggers

j) Reporting and Analytics

The module shall provide comprehensive reporting, including:

- Import/export volumes by product and period
- Trade by country of origin/destination
- Permit approval timelines
- Compliance status reports
- Market supply analytics

5.3.3 Process Automation Requirements

5.3.3.1 Overview

The Service provider shall design and implement a **fully automated, end-to-end process workflow** within SIMIS for managing import and export transactions in the sugar industry.

The objective is to eliminate manual processes, enhance efficiency, improve transparency, enforce compliance, and ensure real-time visibility across all stages of trade operations.

The automation shall cover the full lifecycle from **application submission → approval → shipment → customs clearance → warehousing → release → reporting.**

5.2.3.2 End-to-End Workflow Automation

The Service provider shall automate all trade-related processes, including:

a) Application Submission and Validation

- Enable fully digital application submission for:
 - Pre-import approvals
 - Pre-export approvals
- Implement automated validation checks for:
 - Stakeholder registration and licensing
 - Compliance status
 - Required documentation completeness

b) Intelligent Workflow Routing

The system shall:

- Automatically route applications through:
 - Compliance review
 - Technical assessment
 - Financial validation (where applicable)
- Support configurable approval hierarchies based on:
 - Product type
 - Volume thresholds
 - Risk level

c) Service Level Agreement (SLA) Management

The Service provider shall implement:

- SLA tracking for each workflow stage
- Automated alerts for:
 - Pending approvals
 - Delayed actions
- Escalation mechanisms for overdue tasks

d) Document Management Automation

The system shall:

- Digitally manage all trade documentation
- Provide:
 - Secure document upload and storage
 - Automated document verification workflows
- Integrate with external systems where available for document validation

e) Automated Permit Generation

The system shall:

- Automatically generate:
 - Pre-shipment approval letters
 - Import/export permits
- Ensure permits include:

- Unique identifiers
- QR/barcode verification
- Digital signatures

f) Integration-Driven Automation

The Service provider shall automate workflows triggered by system integrations, including:

- **KRA ICMS**
 - Automatic validation of customs declarations
 - Status updates upon clearance
- **Kentrade**
 - Synchronization of permits and documentation
- **Warehouse Receipt System (WRC)**
 - Automatic recording of warehouse receipts
 - Validation of stored quantities

g) Consignment Lifecycle Automation

The system shall:

- Automatically track consignments across stages:
 - Application → Permit issuance → Shipment → Customs clearance → Warehousing → Release
- Update status dynamically based on system inputs

h) Inspection and Compliance Automation

The system shall:

- Automatically trigger inspections for:
 - High-risk consignments
 - Selected random audits
- Assign inspectors
- Capture inspection results digitally
- Trigger:
 - Release orders
 - Enforcement actions (if non-compliant)

i) Warehouse and Stock Automation

The system shall:

- Automatically link:
 - Import permits
 - Customs clearance
 - Warehouse receipts
- Track:
 - Quantities received
 - Quantities stored
 - Quantities released

j) Compliance and Enforcement Automation

The Service provider shall configure rules to automatically:

- Detect anomalies such as:
 - Over-importation
 - Permit misuse
 - Inconsistent declarations
- Trigger:
 - Alerts
 - Compliance flags
 - Enforcement workflows

k) Notifications and Alerts Automation

The system shall provide automated notifications via:

- SMS
- Email
- System alerts

Triggered by:

- Application submission
- Approval/rejection

- Inspection scheduling
- Shipment updates
- Compliance breaches

l) Financial Automation

Where applicable, the system shall:

- Automatically generate:
 - Fees and invoices
 - Levy obligations
- Integrate with payment systems for:
 - Payment initiation
 - Payment confirmation

m) Audit and Logging Automation

The system shall:

- Automatically record all transactions
- Maintain detailed audit trails for:
 - Applications
 - Approvals
 - Modifications
 - System actions

5.3.3.3 Process Re-Engineering Requirements

The Service provider shall:

- Analyze existing IMIS workflows
- Identify inefficiencies, redundancies, and delays
- Redesign processes to:
 - Reduce processing time
 - Improve transparency
 - Minimize manual intervention

5.3.3.4 Configuration and Flexibility

The system shall:

- Allow configuration of:
 - Approval workflows
 - Business rules
 - Thresholds
- Enable KSB to modify workflows without major system changes

5.3.3.5 Deliverables for Process Automation

The Service provider shall deliver:

- Fully automated workflow engine
- Configured process flows
- Integration-driven automation rules
- SLA monitoring dashboards
- Audit and reporting tools
- User manuals and SOPs

5.4.4 Stakeholder Portal Features

5.4.4.1 Overview

The Service provider shall design and implement a **comprehensive, secure, and user-centric Stakeholder Portal** as part of the SIMIS platform to provide **self-service access** for all external stakeholders involved in sugar import and export processes.

The portal shall:

- Provide **end-to-end digital access** to regulatory services
- Enable **real-time interaction, tracking, and communication**
- Improve transparency, efficiency, and stakeholder satisfaction
- Reduce reliance on physical visits and manual processes

5.4.4.2 Target Users

The Stakeholder Portal shall support access for:

- Importers and exporters
- Sugar millers
- Traders and dealers

- Warehouse operators
- Out-grower institutions (where applicable)
- Clearing agents and logistics providers

5.4.4.3 Functional Scope

The Service provider shall implement the following features:

a) User Registration and Account Management

The portal shall:

- Allow self-registration of stakeholders
- Integrate with the Registration & Licensing Module to:
 - Validate user identity
 - Link users to registered entities

Key Features:

- KRA PIN validation integration
- Profile creation and management
- User role assignment within organizations
- Account security and authentication

b) Application Submission Interface

The portal shall allow users to:

- Submit applications for:
 - Pre-import approvals
 - Pre-export approvals
 - Consignment-based permits
- Upload required documents electronically

Enhancements:

- Dynamic forms based on applicant type
- Built-in validation rules
- Auto-saving of applications in progress

c) Real-Time Application Tracking

The system shall provide real-time tracking of:

- Application status across workflow stages
- Approval progress (e.g., under review, approved, rejected)
- Inspection status
- Permit issuance and validity

Features:

- Dashboard view of all applications
- Status indicators and timelines

d) Document Management and Retrieval

The portal shall:

- Allow upload of required documentation
- Provide secure access to:
 - Submitted documents
 - Approved permits
 - Certificates

Features:

- Document versioning
- Downloadable digital permits
- QR-coded document verification

e) Digital Permit and Certificate Access

The system shall:

- Allow users to:
 - View issued permits
 - Download and print documents
- Ensure documents are:
 - Digitally signed
 - Secure and verifiable

f) Payment Integration and Transaction Management

The portal shall enable users to:

- View applicable fees and charges
- Generate invoices
- Initiate payments via integrated systems (e.g., KRA PG, eCitizen, PesaFlow)

Features:

- Payment status tracking
- Automated receipt generation

g) Notifications and Alerts

The portal shall provide automated notifications via:

- SMS
- Email
- In-portal alerts

For events such as:

- Application submission
- Approval or rejection
- Inspection scheduling
- Shipment updates
- Compliance notices

h) Communication and Feedback Mechanism

The system shall provide:

- Communication channels between KSB and stakeholders
- Ability to:
 - Submit queries
 - Respond to compliance requests
 - Provide feedback

i) Dashboard and Analytics for Users

The portal shall provide:

- Personalized dashboards showing:
 - Active applications
 - Approved permits
 - Outstanding compliance requirements
- Historical records of transactions

j) News and Sector Dashboard

The Service provider shall design and implement a **centralized Sugar Industry News and Sector Intelligence Dashboard** accessible through the Stakeholder Portal.

i) Purpose of the Dashboard

The dashboard shall:

- Provide real-time **industry information and updates**
- Enhance transparency and knowledge sharing
- Support stakeholders in making informed decisions
- Serve as a **single source of truth for industry communication**

ii) Functional Requirements

The dashboard shall display:

1. Industry News and Announcements

- Official circulars and notices from KSB
- Policy updates and regulatory changes
- Trade advisories and import/export guidelines
- Industry news and developments

2. Market and Trade Insights

- Sugar import and export trends
- Price updates and market indicators
- Supply and demand analysis
- Key trade statistics

3. Operational Status (Linked to SUGARSTAT)

- Status of sugar mills:
 - Active
 - Suspended
 - Under maintenance

- Production trends and performance indicators

4. Compliance and Regulatory Alerts

- Non-compliance alerts
- Regulatory deadlines
- Enforcement notices

5. Weather and Agricultural Insights (GIS Integration)

- Weather trends affecting cane production
- Crop and regional agricultural information

iii) User Personalization

The system shall:

- Provide customized dashboard views based on user type (e.g., importer, miller)
- Allow filtering of:
 - News
 - Data insights
 - Alerts

iv) Content Management

The system shall provide:

- Administrative interface for KSB to:
 - Publish updates
 - Upload documents
 - Manage announcements
- Role-based publishing rights

v) Data Visualization

The dashboard shall support:

- Graphs, charts, and maps
- Real-time KPI displays
- Drill-down capabilities

vi) Integration Requirements

The dashboard shall integrate with:

- SUGARSTAT module
- SDL module (for revenue insights)
- Import/export data
- GIS module (for spatial data visualization)

vii) Notifications Integration

Key updates from the dashboard shall trigger:

- Push notifications
- SMS/email alerts

i) User Dashboard and History

- Personalized tracking dashboard
- Historical records of transactions

j) Multi-Device Accessibility

- Responsive web design
- Mobile access integration

k) Role-Based Access Control

- Multi-user roles within organizations
- Access delegation

l) Linkage to Core Modules

- Registration & Licensing
- Imports & Exports
- SDL
- WRC, Kentrade, ICMS

K) Multi-Device Accessibility

The portal shall:

- Be responsive and accessible via:
 - Desktop
 - Mobile devices
 - Tablets

- Integrate with SIMIS Mobile Module

k) Role-Based Organizational Access

The system shall support:

- Multiple user roles per organization
- Access control based on role (e.g., admin, compliance officer)
- Delegated access for:
 - Agents
 - Clearing representatives

5.4.4.4 Security Requirements

The portal shall enforce:

- Secure login and authentication
- Role-based access control
- Encryption of sensitive data
- Protection against unauthorized access

5.4.4.5 Performance and Usability Requirements

The Service provider shall ensure:

- Fast response times and system availability
- User-friendly interface design
- Simplified workflows and minimal navigation complexity

5.4.4.6 Deliverables

The Service provider shall deliver:

- Fully functional Stakeholder Portal
- Configured user interfaces and workflows
- Integrated payment and notification systems
- User guides and training materials
- Tested and validated portal functionality

5.4.5 Notifications and Alerts

The system shall provide automated notifications via:

- SMS
- Email
- In-app alerts

For:

- Application submissions
- Approval/rejection decisions
- Inspection scheduling
- Shipment status updates

5.4.6 Repackaging Traceability

The Service provider shall implement functionality to enable repackers to register in SIMIS through the repackaging module.

The Service provider shall implement the Repackaging Module in compliance with:

- **Sugar Act, 2024 (Section 61)**
- **Sugar (General) Regulations, 2025**

The system shall govern **all repackaging activities across the sugar value chain**, including:

1. Imported sugar → repackaging
2. Warehouse → repackaging
3. **Factory → repackaging → wholesale/retail distribution**

The system shall support:

i) Mandatory Registration

All entities engaged in:

- Re-bagging sugar
- Re-labelling sugar products
- Packaging for retail sale
- Bulk breaking into smaller commercial packages shall be required to **register within SIMIS**

ii) Expanded Coverage of Repackers

The system shall cover:

- Independent repackaging companies
- Warehouse-based repackaging operations

- **Factory-linked repackaging units**

- Retail packaging operations

5.4.6.1. Repackaging and Code Generation Framework

The system shall provide functionality for generating **unique repackaging codes** that shall:

a) Code Characteristics

Each code shall:

- Be **unique and system-generated**
- Be linked to:
 - Original consignment or factory production batch
 - Repackaging entity
 - Product classification (raw, refined, industrial)
- Be embedded in:
 - QR codes
 - Barcodes
 - Digital certificates

Codes shall serve as the **primary traceability reference** for repackaged sugar products.

b) Scope of Code Application

The system shall generate codes for:

1. **Imported Sugar Repackaging**
 - Linked to:
 - Import permits
 - KRA ICMS records
 - Warehouse receipts (WRC)
2. **Factory-Origin Repackaged Sugar**
 - Linked to:
 - Factory production batch
 - Processing data
 - Repackaging facility

This will ensure **uniform traceability across import and domestic supply chains**

c) Batch and Unit-Level Traceability

The system shall:

- Generate codes at:
 - Batch level (bulk tracking)
 - Retail package level (unit tracking where applicable)
- Allow scanning and verification at:
 - Warehouse
 - Distribution
 - Retail points

5.4.6.2 Repackaging Authorization and Code Control

The system shall enforce:

- **Mandatory issuance of codes before any repackaging activity**
- Blocking of:
 - Uncoded repackaged sugar
 - Unauthorized repackaging operations

The system shall:

- Validate:
 - Source product eligibility
 - Available stock
 - Licensed repackaging entity

This will ensure that **no repackaging occurs outside SIMIS control**

5.4.6.3 Integration with Traceability Framework

The repackaging codes shall integrate with:

- **Traceability Module**
- **Imports & Exports Module**
- **KRA ICMS**
- **WRC (Warehouse Receipt System)**
- **Factory Production Systems**

Each code shall provide full traceability path:

Code → Repackaging batch → Source stock → Import permit / Factory production → Origin

This enables **audit-ready traceability across the entire lifecycle**

5.4.6.4 Code Verification and Consumer Protection

The system shall provide:

- Public verification interface
- Ability to scan codes to confirm:
 - Product origin
 - Repackaging entity
 - Compliance status

c) Fees

a) Registration Fees for Repackers

The system shall:

- Charge fees for:
 - Registration of repackaging entities
 - Licensing and renewal of repackers
- Integrate with payment systems for:
 - Fee collection
 - Receipting
 - Reconciliation

b) Repackaging Code Issuance Fees

The system shall:

- Charge **per-code or per-batch fees** for:
 - Generation of repackaging codes
- Support configuration of:
 - Fee structures based on:
 - Volume
 - Product type
 - Packaging category

d) Revenue Tracking and Reporting

The system shall:

- Provide dashboards showing:
 - Revenue from repacker registration
 - Revenue from code generation
 - Revenue trends over time
- Integrate with financial systems (GL, SDL module)

5.4.6.5 Compliance and Enforcement

The system shall:

- Automatically flag:
 - Repackaged products without SIMIS codes
 - Duplicate or invalid codes
- Enable enforcement actions:
 - Confiscation
 - Suspension of licences
 - Audit trails for prosecutions

5.5 Sugar Development Levy (SDL)

The Service provider shall design, upgrade, and implement a fully automated Sugar Development Levy (SDL) Management Module within SIMIS to support:

- Accurate assessment, billing, and collection of Sugar Development Levy
- Real-time integration with national revenue systems
- Transparent allocation and accounting of levy funds
- Strengthened compliance, enforcement, and auditability

The module shall serve as a core revenue assurance and financial management component of SIMIS.

5.5.2 Functional Scope

a) Levy Registration and Stakeholder Linkage

The system shall:

- Automatically link SDL obligations to:

- Licensed millers
- Importers
- Jaggeries and other liable entities
- Validate compliance before levy processing
- Integration with Registration & Licensing Module

b) Domestic Sugar Levy Management

The Service provider shall implement functionality to:

- Capture monthly sugar production and sales declarations from millers
- Automatically compute:
 - Net sales
 - Levy payable at prescribed rate (e.g., 4%)
- Validate sales data through:
 - KRA TIMS integration

c) Import Sugar Levy Management

The system shall:

- Assess levy on imported sugar based on:
 - CIF value
 - Consignment data
- Link levy obligations to:
 - Import permits
 - ICMS customs declarations

d) Automated Levy Computation

The Service provider shall configure:

- Automated levy calculations based on:
 - Applicable rates
 - Product categories
- Configurable rules for:
 - Rate changes
 - Policy updates

e) Penalty Management

The system shall:

- Automatically compute penalties for late payment
- Apply:
 - Monthly penalty rates (e.g., 3%)
- Track:
 - Outstanding balances
 - Accrued penalties

f) Invoicing and Billing

The system shall:

- Automatically generate:
 - Levy invoices
- Include:
 - Detailed computation breakdown
 - Due dates
 - Penalties (if applicable)
- Support:
 - Invoice approval workflow
 - Digital delivery to stakeholders

g) Payment Processing Integration

The system shall integrate with:

- KRA Payment Gateway (PG)
- eCitizen / PesaFlow
- ERP

To support:

- Payment initiation
- Real-time payment confirmation
- Automatic receipting

- Automatic Reconciliation

h) Revenue Collection and Reconciliation

The system shall:

- Automatically reconcile:
 - Levies assessed
 - Payments received
- Integrate with:
 - Financial systems (GL)
- Generate:
 - Reconciliation reports

i) Levy Apportionment and Fund Allocation

The Service provider shall configure the system to:

- Automatically distribute collected levy according to statutory percentages, including:
 - Factory development
 - Cane development
 - Infrastructure
 - Research (KESRETI)
 - Administration
 - Farmers' organizations
- Maintain:
 - Separate accounts for each allocation
- Ensures compliance with levy distribution policy

j) Reserve Fund Management

The system shall:

- Deduct and maintain the statutory reserve fund portion (e.g., 5%)
- Track:
 - Accumulated reserves
 - Fund utilization

k) Compliance Monitoring and Enforcement

The system shall:

- Automatically detect:
 - Non-declaration
 - Under-declaration
 - Late payment
- Trigger:
 - Alerts
 - Compliance notices
 - Enforcement workflows

l) Integration with Other Modules

The SDL Module shall integrate with:

- Registration & Licensing Module → validate eligibility
- Imports & Exports Module → import levy computation
- SDF Loans & Grants Module → funding and eligibility
- Repackaging & Traceability Module → track levy compliance in supply chain
- KRA TIMS → validate sales
- KRA Payment Gateway → payment processing

m) Reporting and Analytics

The system shall generate:

- Levy collection by:
 - Stakeholder
 - Period
 - Product category
- Outstanding payments and arrears
- Penalties and compliance reports
- Revenue trends and projections
- Support financial management and policy decisions

n) Dashboard and Monitoring

The system shall provide dashboards showing:

- Total levy collected
- Monthly and annual performance
- Compliance rates
- Top contributors

5.5.3 Process Automation Requirements

The Service provider shall ensure:

- Fully automated workflows for:
 - Declaration
 - Computation
 - Billing
 - Payment
- SLA-based monitoring of:
 - Declaration timelines
 - Payment deadlines
- Automatic escalation of non-compliance

5.5.4 Audit and Security Requirements

The system shall:

- Maintain complete audit trails for:
 - Declarations
 - Calculations
 - Payments
 - Adjustments
- Enforce:
 - Role-based access control
 - Data integrity controls
 - Secure financial transactions

5.5.5 Data Management Requirements

The system shall:

- Store historical levy data
- Enable traceability of:

- Payment → invoice → declaration → source transaction
- Support archival and retrieval

5.5.6 Revenue Assurance and Risk Management

The system shall:

- Detect anomalies such as:
 - Under-reporting of production
 - Sudden fluctuations in sales
- Trigger risk alerts for investigation
- Enhance revenue protection

5.5.7 Deliverables

The Service provider shall deliver:

- Fully configured SDL Module
- Integrated billing and payment workflows
- Reconciliation engine
- Dashboards and reports
- User manuals and training

5.6 SDF Loans Module

5.6.1 Overview

The Service provider shall design, upgrade, and implement a fully integrated SDF Loans Management Module within SIMIS to support the end-to-end lifecycle of loan management under the Sugar Development Fund (SDF).

The module shall enable KSB to:

- Provide structured financing to the sugar industry
- Automate loan administration processes
- Ensure compliance with policy and regulatory frameworks
- Improve loan monitoring, recovery, and reporting
- Strengthen financial governance and risk management

5.6.2 Functional Scope

a) Loan Product Configuration

The system shall support configuration and management of multiple loan products, including:

- Cane development and productivity loans
- Factory development and rehabilitation loans
- Infrastructure and equipment financing
- Irrigation, machinery, and modernization loans

Key Requirements:

- Configurable loan terms (interest rates, repayment periods, grace periods)
- Categorization by beneficiary type:
 - Individual growers
 - Farmer organizations

- Millers
- Enable flexibility and policy-driven lending

b) Loan Application Management

The system shall support:

- Online submission of loan applications
- Capture of:
 - Applicant details
 - Project proposals
 - Financial statements
 - Supporting documentation

Features:

- Validation of eligibility criteria
- Document completeness checks
- Application tracking
- Eliminate manual application processes

c) Eligibility and Compliance Validation

The system shall automatically validate applicants against:

- KSB regulatory compliance status
- Existing loan exposure and repayment history
- SDL compliance status
- CRB (Credit Reference Bureau) reports (where applicable)
- Ensure responsible and compliant lending

d) Loan Appraisal and Credit Assessment

The Service provider shall implement tools for:

- Financial and technical appraisal
- Risk assessment and scoring
- Project viability analysis

Features:

- Configurable scoring models
- Risk classification (low, medium, high)
- Appraisal workflow and approvals
- Supports objective and transparent decision-making

e) Loan Approval Workflow

The system shall:

- Support multi-level approval processes including:
 - Technical team
 - Fund Management Directorate
 - SDF Committee / Board
- Capture decisions:
 - Approval

- Rejection
- Deferral
- Enables traceable and auditable approvals

f) Offer Letter Generation and Acceptance

The system shall:

- Automatically generate digital loan offer letters including:
 - Terms and conditions
 - Repayment schedule
 - Interest rates
- Track:
 - Applicant acceptance
 - Payment of appraisal fees
- Ensures formal loan contracting

g) Loan Disbursement Management

The system shall support:

- Tranche-based disbursement
- Conditional disbursement based on:
 - Compliance milestones
 - Inspection reports

Features:

- Direct payments to suppliers (where approved)
- Integration with financial systems for posting entries
- Ensures controlled fund release

h) Loan Repayment Management

The system shall:

- Support multiple repayment methods:
 - Crop-based deductions
 - Monthly/quarterly payments
 - Direct payments
- Enforce:
 - In duplum rule (interest cap)
- Automatically:
 - Allocate payments (interest first, then principal)
- Ensures compliance with financial regulations

i) Interest and Penalty Computation

The system shall:

- Automatically compute:
 - Interest (daily or periodic basis)
 - Penalties for late payment
- Allow configurable parameters for:
 - Rates
 - Payment frequency

j) Loan Monitoring and Evaluation

The system shall support:

- Post-disbursement monitoring
- Periodic progress reporting from beneficiaries
- Site inspection tracking

Integration:

- Mobile Module (for field inspections)
- Ensures loans are used for intended purposes

k) Loan Restructuring and Rescheduling

The system shall:

- Support restructuring of loans including:
 - Extension of repayment period
 - Adjustment of instalments
- Enforce:
 - Policy limits (e.g., one-time restructuring rule)

- Provide flexibility while maintaining control

l) Delinquency and Recovery Management

The system shall:

- Automatically detect:
 - Non-performing loans (NPLs)
 - Missed instalments
- Trigger:
 - Alerts
 - Recovery workflows
- Track:
 - Recovery actions and outcomes
- Enhance loan recovery performance

m) Integration with Other Modules

The SDF Loans Module shall integrate with:

- SDL Module → assess applicant compliance
- Registration & Licensing Module → validate beneficiaries
- GIS Module → track funded projects geographically
- Compliance & Enforcement Module → enforcement actions
- ERP Financial/GL System → accounting entries
- Ensure end-to-end system coherence

n) Reporting and Analytics

The system shall provide:

- Loan portfolio performance reports
- Performing vs non-performing loans
- Loan utilization reports
- Exposure by sector and borrower category
- Risk and credit dashboards
- Supports management decision-making

o) Dashboard and Monitoring

The system shall provide dashboards showing:

- Total loans issued
- Outstanding loan balances
- Recovery rates
- Loan distribution by sector

5.6.3 Process Automation Requirements

The Service provider shall ensure:

- Full automation of:
 - Application → appraisal → approval → disbursement → repayment
- SLA tracking for each process stage
- Automatic alerts and escalations
- Eliminate manual inefficiencies

5.6.4 Data Management and Traceability

The system shall:

- Maintain full audit trail of:
 - Loan applications
 - Payments
 - Changes
- Provide traceability for funds from:
 - Disbursement → utilization → repayment

5.6.5 Security and Access Control

The system shall enforce:

- Role-based access control
- Segregation of duties (approval vs disbursement)
- Secure handling of financial data

5.6.6 Compliance and Audit Requirements

The system shall:

- Maintain compliance with:

- Public finance and audit requirements
- Provide:
 - Audit logs
 - Transaction traceability
- Support internal and external audits

5.6.7 Deliverables

The Service provider shall deliver:

- Fully configured SDF Loans Module
- Loan workflow automation system
- Risk scoring and appraisal tools
- Disbursement and repayment system
- Dashboards and reports
- Documentation and training

5.7 SDF Grants Module

5.7.1 Overview

The Service provider shall design, develop, and implement a fully integrated SDF Grants Management Module within SIMIS to support the end-to-end lifecycle of grants administration under the Sugar Development Fund (SDF).

The module shall enable KSB to:

- Provide structured grant funding to eligible industry stakeholders
- Ensure transparent allocation and utilization of funds
- Automate grant management workflows
- Strengthen compliance, monitoring, and reporting
- Enhance accountability and auditability of public funds

5.7.2 Functional Scope

a) Grant Programme and Category Management

The system shall support configuration of various grant categories, including:

- Infrastructure development and maintenance grants
- Sugarcane farmers' organization grants
- Community and sector support grants
- Strategic development and capacity-building grants

Key Requirements:

- Configurable eligibility criteria per grant category
- Definition of funding limits and conditions
- Alignment with SDF allocation policies
- Enable flexible and policy-driven grant administration

b) Grant Application Management

The system shall support:

- Online submission of grant applications
- Capture of:
 - Applicant information
 - Project proposals
 - Objectives and expected outcomes
 - Budget and funding requirements
 - Supporting documentation

Features:

- Dynamic application forms
- Automated validation of completeness
- Application tracking and status visibility
- Eliminate manual submission processes

c) Eligibility and Compliance Validation

The system shall automatically validate applicants against:

- KSB registration and licensing status
- SDL compliance status
- Past grant or loan performance
- Compliance with regulatory requirements

- Ensure only eligible applicants receive funding

d) Grant Appraisal and Evaluation

The Service provider shall implement:

- Structured grant evaluation workflows
- Scoring models based on:
 - Project viability
 - Economic and social impact
 - Alignment with industry priorities
- Technical and financial appraisal processes
- Enables objective and transparent grant allocation

e) Approval and Award Management

The system shall:

- Support multi-level grant approval workflows
- Capture decisions:
 - Approval
 - Rejection
 - Conditional approval
- Generate:
 - Grant award letters
 - Agreements and conditions
- Ensures governance and accountability in approvals

f) Grant Disbursement Management

The system shall support:

- Disbursement of funds based on:
 - Approved budgets
 - Milestone achievements

Features:

- Tranche-based disbursement
- Direct payments to:
 - Beneficiaries
 - Service providers
- Integration with financial systems
- Ensures controlled and purposeful disbursement of funds

g) Grant Utilization Tracking

The system shall:

- Track grant utilization against approved budgets
- Capture reports from beneficiaries on:
 - Project progress
 - Fund utilization
- Link utilization to:
 - Supporting evidence
 - Milestone completion
- Ensure funds are used for intended purposes

h) Monitoring and Evaluation (M&E)

The Service provider shall implement:

- Monitoring frameworks for:
 - Periodic project reporting
 - Performance indicators
- Support:
 - Field inspections (via Mobile Module)
 - Outcome verification
- Enables ongoing project oversight

i) Compliance and Enforcement

The system shall:

- Detect:
 - Misuse of funds
 - Non-compliance with grant conditions

- Trigger:
 - Alerts
 - Enforcement actions
 - Suspension of funding
- Enhance accountability and fund control

j) Integration with Other Modules

The SDF Grants Module shall integrate with:

- Registration & Licensing Module → eligibility validation
- SDL Module → funding source and compliance
- SDF Loans Module → cross-check beneficiary exposure
- Compliance & Enforcement Module → oversight and action
- GIS Module → location-based tracking of projects
- Financial/GL systems → accounting and reporting

k) Reporting and Analytics

The system shall provide:

- Grants issued by category and beneficiary
- Utilization and performance reports
- Budget vs actual expenditure
- Impact analysis reports
- Compliance and audit reports
- Support policy-making and oversight

l) Dashboard and Monitoring Tools

The system shall provide dashboards showing:

- Total grants disbursed
- Grant performance indicators
- Funding distribution by region/sector
- Project status (ongoing, completed, delayed)

5.7.3 Process Automation Requirements

The Service provider shall ensure:

- Full automation of:
 - Application → appraisal → approval → disbursement → monitoring
- SLA-based tracking of:
 - Application processing times
 - Reporting deadlines
- Automated alerts and escalation mechanisms
- Improves efficiency and reduces delays

5.7.4 Data Management and Traceability

The system shall:

- Maintain full traceability of:
 - Grant allocation → disbursement → utilization
- Store historical records and audit trails
- Link funds to:
 - Specific projects
 - Beneficiaries
 - Outcomes
- Ensures transparency and audit readiness

5.7.5 Security and Access Control

The system shall enforce:

- Role-based access control
- Segregation of duties (approval, disbursement, monitoring)
- Secure handling of financial data

5.7.6 Audit and Compliance Requirements

The system shall:

- Maintain audit logs for all grant activities
- Support internal and external audit processes
- Ensure compliance with public financial management standards

5.7.7 Deliverables

The Service provider shall deliver:

- Fully configured SDF Grants Module
- Automated workflows and evaluation tools
- Monitoring and reporting dashboards
- Integrated financial controls
- User manuals and training materials

5.8 Compliance & Enforcement

5.8.1 Overview

The Service provider shall design, develop, and implement a fully integrated Compliance and Enforcement Module within SIMIS to support the Kenya Sugar Board (KSB) in:

- Monitoring compliance across the sugar value chain
- Enforcing statutory and regulatory requirements
- Detecting, preventing, and managing violations
- Supporting inspection, investigation, and enforcement actions
- Strengthening regulatory oversight, transparency, and accountability

The module shall be tightly integrated with all SIMIS modules to enable real-time compliance monitoring and automated enforcement triggers.

5.8.2 Functional Scope

a) Compliance Monitoring Framework

The system shall provide a centralized compliance monitoring framework to:

- Track compliance status of:
 - Millers
 - Importers/exporters
 - Dealers
 - Repackers
 - Warehousing entities

Key Features:

- Compliance scoring and status indicators
- Real-time compliance dashboards
- Integration with SDL, licensing, and traceability modules

b) Inspection Management

The Service provider shall implement a robust inspection management system to:

- Schedule inspections (routine, ad-hoc, risk-based)
- Assign inspections to officers
- Capture inspection reports electronically

Features:

- Mobile-enabled inspection tools
- Geo-tagged inspection records (GIS integration)
- Standardized inspection forms and checklists

c) Risk-Based Inspection and Targeting

The system shall support:

- Identification of high-risk entities based on:
 - Non-compliance history
 - Data anomalies
 - Volume thresholds
- Automatic prioritization of:
 - Inspections
 - Enforcement actions
- Enable efficient allocation of enforcement resources

d) Compliance Validation and Checks

The system shall automatically validate compliance by checking:

- Licensing status
- Levy payment status
- Import/export compliance
- Repackaging compliance
- Warehouse and stock movement

e) Violation Detection and Alerts

The Service provider shall configure rules to detect:

- Unauthorized import/export activities
- Under-reporting or non-declaration of sales
- Illegal repackaging (especially raw sugar misuse)
- Stock discrepancies across warehouse and traceability data
- Expired licences or non-compliance with regulatory conditions

System shall:

- Automatically generate alerts
- Flag non-compliant entities

f) Enforcement Action Management

The system shall support management of enforcement actions including:

- Issuance of:
 - Warning notices
 - Compliance directives
 - Penalty notices
- Recording enforcement decisions:
 - Suspension of licences
 - Revocation of licences
 - Fines and penalties

h) Integration with Traceability and Repackaging Controls

The module shall integrate with:

- Traceability Module → monitor supply chain compliance
- Repackaging Module → detect illegal repackaging
- Repackaging Code Module → verify coded products

Ensure enforcement is supported by data

i) Integration with External Systems

The system shall integrate with:

- KRA ICMS → import/export validation
- Kentrade → permit compliance
- WRC → warehouse stock validation
- KEBS (where applicable) → standards compliance

Enable cross-agency enforcement coordination

j) Automated Notification and Escalation

The system shall:

- Notify stakeholders of:
 - Non-compliance
 - Required corrective actions
- Trigger escalation where:
 - Compliance deadlines are not met

k) Penalty and Fine Management

The system shall:

- Automatically calculate penalties where applicable
- Support:
 - Issuance of invoices
 - Tracking of payment
- Integrate with payment systems

l) Licence Suspension and Revocation Controls

The system shall:

- Support automated suspension where:
 - Critical non-compliance is detected
- Track:
 - Suspension duration
 - Reinstatement conditions

m) Audit and Evidence Management

The system shall:

- Maintain detailed audit trails of:
 - Compliance checks

- Enforcement actions
- Store evidence including:
 - Documents
 - Photos
 - Inspection reports

n) Reporting and Analytics

The system shall generate:

- Compliance status reports
- Violation and enforcement reports
- Inspection activity reports
- Sector compliance trends
- High-risk entity reports

o) Dashboard and Monitoring

The system shall provide dashboards showing:

- Compliance levels across the industry
- Active enforcement cases
- Inspection coverage
- Violations by category

5.8.3 Process Automation Requirements

The Service provider shall ensure:

- Automation of:
 - Compliance checks
 - Inspection scheduling
 - Violation detection
 - Enforcement actions
- Rule-based triggers for enforcement
- SLA tracking for:
 - Inspection timelines
 - Case resolution

5.8.4 Data Management and Traceability Integration

The system shall:

- Maintain traceability of compliance status across:
 - Supply chain
 - Financial obligations
- Link enforcement actions to:
 - Traceability data
 - Repackaging records
 - Warehouse data

5.8.5 Deliverables

The Service provider shall deliver:

- Fully configured Compliance & Enforcement Module
- Inspection and case management system
- Integration with core modules
- Automated rule engine
- Dashboards and reports
- Documentation and training

5.9 SUGARSTAT System

5.9.1 Overview

The Kenyan sugar industry is a cornerstone of the rural economy, sustaining thousands of livelihoods and contributing significantly to national food security and industrial development. However, effective regulatory oversight remains constrained by limited real-time visibility into factory operations.

Currently, the Kenya Sugar Board (KSB) lacks a centralized, automated mechanism to continuously determine:

- Which factories are actively milling at any given time
- Which factories have halted operations and the reasons for stoppage
- The expected duration and impact of such stoppages

This lack of real-time operational intelligence hampers:

- Production forecasting
- Cane supply planning
- Stakeholder coordination
- Market stabilization
- Regulatory and policy decision-making

To address this critical gap, the Service provider shall design and implement a Sugar Industry Operational Status and Tracking System (SUGARSTAT) within SIMIS.

SUGARSTAT shall provide a real-time, data-driven operational intelligence platform, enabling KSB and stakeholders to access live, accurate, and actionable insights on factory operations across the entire sugar industry.

5.9.2 Objectives of SUGARSTAT

The SUGARSTAT system shall:

- Provide real-time monitoring of sugar factory operations
- Enhance visibility and transparency across the industry
- Enable early warning and proactive intervention mechanisms
- Support data-driven policy formulation and decision-making
- Facilitate industry performance benchmarking and reporting
- Strengthen coordination between:
 - KSB
 - Millers
 - Farmers
 - Government agencies

5.9.3 Functional Scope

a) Real-Time Factory Status Monitoring

The Service provider shall implement functionality to:

- Track real-time operational status of all registered sugar mills, including:
 - Active (operational)
 - Idle
 - Under maintenance
 - Shutdown
- Provide system inputs through:
 - Factory self-reporting
 - Automated system integrations (where available)
 - Regulatory verification updates

Ensures continuous operational visibility

b) Factory Operational Reporting

The system shall capture detailed operational parameters, including:

- Daily milling status
- Crushing capacity utilization
- Production outputs (sugar, molasses, by-products)
- Cane intake volumes
- Operational efficiency metrics

Supporting production monitoring and planning

c) Stoppage and Downtime Management

The system shall:

- Record reasons for factory stoppage, including:
 - Mechanical breakdown
 - Cane supply shortages
 - Maintenance schedules
 - Regulatory or compliance issues
- Capture:
 - Timestamp of stoppage
 - Estimated downtime duration
 - Actual resumption of operations

Enables root-cause analysis and response planning

d) Alerts and Early Warning System

The Service provider shall implement an automated alert system to notify KSB and relevant stakeholders when:

- A factory ceases operations unexpectedly
- Production falls below predefined thresholds
- Prolonged downtime occurs
- Industry-wide production trends indicate supply risks

Enables proactive intervention and coordination

e) Integration with Core SIMIS Modules

SUGARSTAT shall integrate seamlessly with:

- Registration & Licensing Module → validate active mills
- Imports & Exports Module → correlate production with imports
- SDL Module → validate production vs levy declarations
- Traceability Module → link factory output to supply chain
- GIS Module → map factory status geographically
- Compliance & Enforcement Module → trigger inspections on anomalies

Provide a unified operational intelligence ecosystem

f) GIS-Based Visualization

The system shall provide a geospatial dashboard displaying:

- Location of all factories
- Real-time factory status indicators
- Regional production trends
- Cane supply zones

Enhances spatial decision-making and monitoring

g) Industry Dashboard and Analytics

The Service provider shall develop dashboards displaying:

- Industry-wide operational status
- Total active vs inactive factories
- Regional production performance
- Production trends over time
- Capacity utilization rates
- Support policy and planning functions

h) Historical Data and Trend Analysis

The system shall:

- Maintain historical records of:
 - Factory operations
 - Downtime events
 - Production volumes
- Enable:
 - Trend analysis
 - Seasonal forecasting
 - Historical performance comparisons

Support long-term planning and research

i) Performance Benchmarking and Ranking

The system shall:

- Compare factories based on:
 - Operational efficiency
 - Downtime frequency
 - Production output
- Generate benchmarking reports

j) Stakeholder Access and Visibility

The system shall provide controlled access for:

- KSB regulatory staff
- Authorized factory operators
- Policy makers

with role-based visibility of:

- Operational data
- Performance metrics

k) Automated Reporting

The system shall generate:

- Daily operational reports
- Weekly and monthly industry summaries
- Exception and anomaly reports
- Enable structured reporting for decision-making

5.9.4 Process Automation Requirements

The Service provider shall:

- Automate data capture and validation workflows
- Configure rules for:
 - Status updates
 - Threshold-based alerts
- Integrate automated data feeds where possible

5.9.5 Data Management and Integrity

The system shall ensure:

- Accurate and timely capture of operational data
- Data validation rules for reported metrics
- Secure storage and audit trails
- Ensure reliability of operational intelligence

5.9.6 Security and Access Control

The system shall enforce:

- Role-based access controls
- Secure submission of factory data
- Protection of sensitive operational information

5.9.7 Deliverables

The Service provider shall deliver:

- Fully functional SUGARSTAT system
- Real-time monitoring dashboards
- Alert and notification system
- GIS visualization tools
- Reporting and analytics module
- User manuals and training

5.9.8 Stakeholder Collaboration Portal

- Industry-wide collaboration and data sharing

5.10 Bulk SMS & Notifications Module

The Service provider shall design, implement, and integrate a **Bulk SMS and Multi-Channel Notification System** within SIMIS to support real-time communication, alerts, and stakeholder engagement across all system modules.

The system shall enable the Kenya Sugar Board (KSB) to **broadcast, automate, and track critical communications** to stakeholders including farmers, millers, traders, regulators, and other industry actors.

The SMS system shall be integrated into SIMIS as a **core cross-cutting service supporting all modules such as Licensing, Imports & Exports, SDL, SDF Loans/Grants, Compliance, Traceability, and SUGARSTAT.**

5.10.1 Objectives of the Module

The Bulk SMS and Notification System shall:

- Automate communication and alerts to stakeholders
- Enhance compliance through timely notifications
- Support enforcement and regulatory actions
- Improve transparency and service delivery
- Enable real-time dissemination of sector updates
- Enable uninterrupted delivery to DND numbers.

5.10.2 Functional Scope

a) Notification and Messaging Services

The system shall support:

- Bulk SMS broadcasting to stakeholders
- Targeted and customized messaging (per stakeholder category)
- Trigger-based automated messaging from SIMIS workflows

Messages shall be triggered by events such as:

- Application submission and approval
- Licence expiry and renewals
- Levy payment reminders
- Inspection scheduling
- Compliance violations
- SUGARSTAT alerts (factory stoppages, production changes)

b) Alphanumeric Sender Identification

The system shall:

- Support branded sender IDs (e.g., “KSB”)
- Ensure stakeholders can easily identify official communication

c) Web-Based SMS Portal Integration

The Service provider shall provide:

- A web-based portal integrated with SIMIS
- User authentication and role-based access

The portal shall enable:

- SMS campaign management
- Message scheduling
- Contact group management
- Manual broadcast capability

d) Contact Management System

The system shall:

- Support:
 - Individual contacts
 - Bulk upload via CSV
 - Contact grouping
- Integrate with SIMIS database to auto-sync:
 - Registered stakeholders
 - Licensed entities
 - Compliance categories

e) Multi-Network SMS Delivery Capability

The system shall:

- Deliver messages across **all mobile network operators in Kenya**
- Ensure high delivery success rates

f) Delivery Reporting and Analytics

The system shall provide:

- Real-time SMS delivery reports
- Message status tracking (sent, delivered, failed)
- Exportable reports (CSV/PDF)

g) Automation and Workflow Integration

The Service provider shall integrate SMS functionalities into SIMIS workflows, including:

- Licensing module → approval notifications
- Imports/Exports → permit alerts
- SDL module → payment reminders
- SDF Loans/Grants → disbursement updates
- Compliance module → enforcement notices
- SUGARSTAT → operational alerts

The Service provider shall ensure system-driven communication across all processes

h) Multi-User and Role-Based Access Control

The system shall:

- Allow different user accounts
- Assign permissions based on:
 - Role
 - Directorate
 - Function

i) SMS Account and Credit Management

The system shall:

- Display:
 - Available SMS balance
- Allow:
 - Monitoring of usage
 - Planning for top-ups

5.10.3 Integration Scope

The SMS system shall integrate with:

- Registration & Licensing Module
- Imports & Exports Module
- SDL Module
- SDF Loans & Grants Module
- Compliance & Enforcement Module
- Traceability Module
- SUGARSTAT Module
- Stakeholder Portal
- GIS
- ERP
- Payment Gateway

5.10.4 Infrastructure and Availability Requirements

The Service provider shall ensure that:

- The SMS system operates on a **highly available infrastructure**
- Redundancy is provided at:
 - Network level
 - Application level
 - Data level
- System uptime is guaranteed through:
 - Backup systems
 - Failover mechanisms

5.10.5 Security Requirements

The system shall:

- Ensure secure data transmission (HTTPS)
- Provide:
 - Access control
 - Encryption of data
- Restrict unauthorized access to messaging systems

5.10.6 Capacity Building and Support

The Service provider shall:

- Provide training for KSB users
- Deliver user manuals and documentation
- Provide:
 - Ongoing support
 - SLA-based issue resolution
 - Escalation procedures

5.10.7 Deliverables

The Service provider shall deliver:

- Fully integrated Bulk SMS System
- SMS portal and APIs
- Integration with SIMIS modules
- Reporting dashboards
- Training and documentation
- Support and maintenance plan

6.0 Provision of Integrated GIS and Remote Sensing Solutions for Sugar Industry Planning, Monitoring and Development

The Kenyan sugar sub-sector encounters major challenges, such as low cane productivity averaging 60-65 tonnes per hectare against a potential of over 100 tonnes per hectare and inefficient supply chain management

that causes cane losses of up to 15%. Additionally, there is a lack of real-time farm-level data for evidence-based decision-making, poor farmer record-keeping, and limited traceability from farm to market.

To address these challenges, KSB seeks to implement an Integrated Sugarcane Farm Management and Supply Chain Information System that leverages modern technologies, including Geographic Information Systems (GIS), Remote Sensing (RS), Artificial Intelligence, mobile technology, and blockchain-style traceability, to digitize and optimize the entire sugarcane value chain. The system should be designed to handle data-intensive operations, particularly given the scale of 300,000 ha and continuous updates from field and aerial sources.

The system is expected to achieve the following objectives:

6.1 Objectives:

- Establish a centralized spatial registry of all sugarcane farmers and farms with accurate boundary delineation
- Develop and operationalize an AI-based sugarcane yield prediction system, trained and validated against ground-truth data from farms and mills, and deployable at the national scale
- Deploy machine learning models for yield prediction, crop health monitoring and anomaly detection using satellite imagery, drone (UAS) imagery, and ground-truth data from farms and mills.
- Integrate with core SIMIS modules to enable real-time, location-based insights
- Enable Near Real-Time monitoring of cane production and supply through high-resolution satellite and drone imagery
- Enable real-time business intelligence and predictive analytics
- Enhance regulatory monitoring and enforcement through spatial analytics
- Support value-chain traceability for both imported and domestically produced sugar

6.2 GIS and Remote Sensing Core Component and System Architecture

The successful bidder(s) shall supply, deliver, install, configure, test, commission, and provide warranty support for the GIS platform as detailed below

6.2.1 Overall Scope

The successful bidder(s) shall supply, deliver, install, configure, test, commission, and provide warranty support for the platform as detailed in the phase specifications in Section 3. The scope includes:

- i. Software licensing (perpetual or subscription as specified per phase)
- ii. System installation and configuration on KSB-designated infrastructure (on-premise)
- iii. Data migration from existing KSB systems and partner databases
- iv. Integration with third-party systems (mills, M-Pesa, Africa's Talking, satellite providers, ERP)
- v. Drone-based data acquisition and processing across the sugar belt as required for system data needs
- vi. User Acceptance Testing (UAT) at the end of each phase
- vii. User training for all designated roles, with structured knowledge transfer to KSB technical staff in GIS, remote sensing, UAS operations and ML model maintenance
- viii. Documentation (technical manuals, user guides, API documentation, model cards)
- ix. Warranty and maintenance support for a minimum of twelve (12) months post-commissioning of each phase
- x. Source code handover in the KSB's gitlab account

6.2.2 GIS Scope of Work: Phase 1:

6.2.2.1 Foundation, Stakeholder Engagement, Capacity Building & Universal Common Platform

Description

Phase 1 establishes the foundation for the initiative. It comprises four (4) parallel workstreams:

- stakeholder engagement and baseline assessment,
- (ii) capacity building of KSB technical staff in GIS, remote sensing and UAS (drone) operations,
- (iii) pilot drone and Satellite mapping, data processing and first-generation yield prediction modelling, and
- (iv) deployment of the universal common technical platform hosting, database, security, identity management, audit and the ML microservice scaffold on which phase 2 will be built.

6.2.2.2: Stakeholder Engagement & Baseline Assessment

The bidder shall, in close consultation with KSB, undertake the following stakeholder engagement and baseline assessment activities:

- i. Conduct an introductory meeting with KSB-selected staff members to discuss project requirements, expected outcomes, the scope of staff involvement, the historical context of cane farming in Kenya, the prevailing operational and agronomic challenges, the current cane census methodology, the type and form of data currently held by KSB, the modes of data storage in use, and any pre-existing information systems
- ii. Carry out sensitisation workshops with selected sugar mills regarding the KSB initiative on the use of GIS, remote sensing and machine learning for cane yield prediction, securing mill-level buy-in for subsequent data sharing and ground-truthing
- iii. Produce a baseline assessment report documenting current data holdings, system gaps, integration touch-points and recommended data-quality remediation actions
- iv. Agree with KSB the pilot zones, candidate farms and target mills for the initial drone-mapping campaign in this Phase

6.2.2.3 Pilot Drone and Satellite Mapping, Data Processing & First-Generation Yield Prediction Model

The bidder shall, within Phase 1, deliver the following remote-sensing, data-processing and modelling activities:

- i. Carry out pilot satellite and drone (UAS) mapping of selected sugarcane farms in the agreed catchment areas
- ii. Process the acquired drone imagery into orthomosaics, digital surface models and vegetation index layers (including NDVI, EVI, GCVI, NDWI and SAVI) and digitize the satellite imagery for accurate field boundary delineation
- iii. Develop a first-generation cane yield prediction model learning algorithm, trained on the pilot drone-imagery features
- iv. Compare the model's predicted yields against the conventional cane census figures from the participating farms and the actual tonnage delivered by the corresponding mills, and produce an accuracy/error report
- v. Fine-tune the yield prediction model against the actual mill-receipt ground truth, demonstrating a measurable improvement over the initial untuned baseline
- vi. Begin systematic incorporation of additional explanatory variables including soil parameters and weather/climate data into the feature engineering pipeline, in preparation for expanded modelling in Phase 2
- vii. Establish a continuous drone-mapping and model-retraining workflow, with all model versions registered, tracked and accessible from the production ML microservice
- viii. Deliver all imagery, processed layers, training datasets, trained model artefacts, model cards and documentation as KSB property

6.2.2.4 Census GIS Data Migration

The Service provider will be expected to undertake the services for the onboarding, transformation, and integration of existing cane census datasets into the KSB Enterprise GIS platform (1TB of existing data).

The assignment shall ensure that all census data covering area under cane, crop cycles, varieties, yield metrics, cane age, supply projections, and constraints is structured, geo-referenced, and made usable for spatial analysis and decision-support systems.

6.2.2.5 Scope of GIS Data Onboarding Activities

Data Inventory and Assessment

Activity	Detailed Requirements	Expected Output
Data Audit	Identify all available census datasets (tables, reports, spreadsheets)	Data inventory report
Data Structure Review	Assess formats (tabular, text, semi-structured)	Data structure mapping
Data Gap Analysis	Identify missing spatial or attribute data	Gap analysis report
Data Quality Assessment	Evaluate completeness, consistency, and accuracy	Data quality report

Data Model Design and Standardization

Activity	Detailed Requirements	Expected Output
Geodatabase Schema Design	Define schema for: farms, growers, crop cycles, varieties, yields	Enterprise GIS schema
Entity Relationships	Establish relationships (Farmer → Farm → Crop → Mill)	Data model diagram
Standardization of Codes	Define standards for: crop cycles (PC, R1, R2, R3+), varieties, age classes	Data dictionary
Metadata Development	Document all datasets and attributes	Metadata records

Data Digitization and Structuring

Activity	Detailed Requirements	Expected Output
Data Extraction	Extract tabular data from census reports	Structured datasets
Data Cleaning	Remove duplicates, inconsistencies and resolve errors	Clean datasets
Data Normalization	Convert data into structured relational format	Organized tables
Data Transformation	Convert raw data into GIS-compatible formats (CSV, GeoJSON)	GIS-ready datasets

Spatial Data Development (Geo-referencing)

Activity	Detailed Requirements	Expected Output
Administrative Boundary Mapping	Digitize counties, sub-counties, wards	GIS boundary layers
Farm-Level Mapping	Create polygons or approximate spatial representation	Farm layer
Mill Catchment Delineation	Map mill zones and supply areas	Catchment maps
Spatial Join of Census Data	Link tabular census data to spatial layers	Integrated GIS layers

Thematic Layer Creation

Based on census data categories:

Layer Type	Content	Purpose
Area Under Cane	Hectares by county, zone, factory	Production monitoring
Crop Cycle Layers	PC, R1, R2, R3+ distribution	Supply analysis
Variety Distribution	CO 421, CO 945, CO 617 etc.	Risk and diversification

Cane Age Layers	Age classes (months)	Harvest planning
Yield Layers	Tc/Ha per zone	Productivity analysis
Grower Density	Number of farmers per area	Policy and support
Supply vs Demand	Surplus/deficit per mill	Decision support

Data Integration into Enterprise GIS

Activity	Detailed Requirements	Expected Output
Database Loading	Upload datasets to PostgreSQL/PostGIS	Centralized GIS database
Data Linking	Integrate census datasets with farmer registry	Unified dataset
API Integration	Enable access to data via APIs	Data services layer
Version Control Setup	Enable dataset updates and tracking	Managed datasets

Data Quality Control and Validation

Activity	Detailed Requirements	Expected Output
Validation Rules	Check consistency (e.g., crop cycle ratios, yield ranges)	Validation framework
Spatial Validation	Verify location accuracy and overlaps	Clean spatial layers
Cross-Verification	Compare census data across sources	Verified datasets
Field Validation (Sample)	Ground-truth key attributes	Validation report

Spatial Analytics Configuration

Activity	Detailed Requirements	Expected Output
Derived Indicators	Compute productivity indices, yield averages	Analytical fields
Ratio Analysis	PC:R1:R2:R3+ ratio assessment	Crop balance indicators
Supply/Demand Calculations	Compute cane availability vs mill demand	Decision layers
Hotspot Mapping	Identify deficits, over-mature cane, low productivity zones	Risk layers

Dashboard Integration and Visualization

Activity	Detailed Requirements	Expected Output
Dashboard Design	Create visual dashboards from GIS data	Interactive dashboards
KPI Development	Define key indicators (yield, area, supply)	KPI framework
Data Feeds	Establish automated updates into dashboards	Real-time dashboards
Reporting Templates	Develop standard reporting outputs	Reports

Automation and Data Pipelines

Activity	Detailed Requirements	Expected Output
ETL Pipeline Development	Automate extraction, transformation, loading	Automation workflows
Scheduled Updates	Define periodic updates for datasets	Update schedules
Script Development	Python/R scripts for transformations	Reusable scripts
Data Synchronization	Sync with SIMIS system	Integrated systems

Documentation and Knowledge Transfer

Activity	Detailed Requirements	Expected Output
Technical Documentation	Document workflows and architecture	System manuals
Data Documentation	Data dictionary and schemas	Data guides

Training	Train KSB staff on data management	Training reports
Handover	Provide full system and data handover	Completion report

DELIVERABLES

The Service provider shall deliver:

- Data inventory and audit report
- Enterprise GIS data model
- Clean and structured census datasets
- Fully geo-referenced GIS layers
- Integrated database in PostGIS
- Analytical layers (yield, crop cycles, supply-demand)
- Operational dashboards
- Automation workflows
- Documentation and training materials

EXPECTED OUTCOME

Upon completion, KSB shall have:

- A fully digitized and spatially-enabled cane census database
- Real-time visibility of:
 - cane distribution
 - productivity
 - supply-demand dynamics
- A foundation for:
 - zoning enforcement
 - predictive analytics
 - decision support

6.2.2.6 Universal Common Technical Platform (used by all subsequent phases)

- Hosting environment provisioning (on-premise), including network, storage and compute baselines
- Database with GIS extension, single source of truth for farmers, farms, contracts, supply chain events, payments and geospatial data
- Application server with session management, CORS, structured logging and global error handling
- Task queue infrastructure (shared by all later modules for async jobs)
- Orchestration of all services; one command brings the whole stack online
- SSL/TLS certificate provisioning and HTTPS enforcement; HSTS headers; SSL Labs grade A or above
- Automated daily database backups with hourly incremental backups, point-in-time recovery and off-site replication (RPO < 1 hour, RTO < 4 hours)
- CI/CD pipeline with automated testing, build, deploy and rollback capability
- Application performance monitoring, centralized logging and uptime alerting dashboard
- Identity and access management: user registration, login, bcrypt password hashing, role-based access control (10+ roles, 20+ resource types)
- Two-factor authentication (TOTP) and SMS-based OTP authentication for farmer portal access
- Account lockout policy (5 failed attempts, 15-minute cooldown), email-based password reset
- Security middleware: CSRF protection, XSS sanitization, security headers (Helmet), rate limiting; OWASP Top 10 baseline scan clean
- Immutable audit log capturing user, action, resource, timestamp and IP address; Kenya Data Protection Act, 2019 compliance baseline
- Admin panel for user CRUD, role assignment and account status management

- Base ML microservice scaffold deployed and health-checked, ready to host the first-generation Random Forest yield model and all subsequent ML models
- Project workspace, design system, English/Swahili localisation framework, and OpenAPI/Swagger documentation skeleton

6.2.2.7 Enterprise GIS Server Infrastructure (Quantity: 1)

The server infrastructure will support:

- Centralized GIS data storage and processing
- Hosting enterprise applications and dashboards
- Processing large geospatial datasets (imagery, shapefiles, raster layers)
- Supporting multi-user access across departments

Configuration Approach

The Service provider shall deploy a **high-performance GIS server environment** with the following characteristics:

Compute Capacity

A dual-processor architecture (Intel Xeon or AMD EPYC) is required to:

- Support simultaneous GIS operations from multiple users
- Enable parallel processing of raster datasets (e.g., satellite imagery, drone data)
- Support future AI/ML workloads

Memory (RAM)

256GB RAM (expandable to 1TB) shall be provisioned to:

- Handle large geospatial datasets in memory
- Enable fast spatial queries
- Support enterprise geodatabase performance

Storage Architecture

The storage subsystem shall be tiered to support different workloads:

Primary SSD Storage

- NVMe SSD (4TB)
- Hosts:
 - operating system
 - GIS software
 - application services

High-Performance RAID Storage

- RAID-10 array (24TB)
- Used for:
 - raster datasets (imagery, NDVI layers)
 - vector datasets (farm boundaries, zoning maps)

Acceleration

A high-performance GPU (NVIDIA A6000 or RTX 5000) will be included to support:

- Drone imagery processing
- Remote sensing analysis
- AI-based yield prediction (Phase 2/3 readiness)

Networking

Dual 10 GbE network interfaces will enable:

- High-speed data transfer from field and drone systems
- Rapid access to imagery datasets
- Multi-user system access without congestion

Virtualization and Containerization

The system shall support virtualization using:

- VMware / Proxmox / Kubernetes

This enables:

- Isolation of system components (GIS server, database, dashboards)
- Scalability and modular deployment of services
- Future integration of AI and analytics modules

Database Environment

The Service provider shall deploy:

- PostgreSQL with PostGIS extension

This will serve as:

- Central spatial database
- Repository for farmer registry
- Storage for census and field data

Backup and Resilience

A multi-layer backup strategy shall be implemented:

- Local SAN backups
- External backup drives
- Cloud synchronization

This ensures:

- Data recovery
- Disaster resilience

6.2.2.8 UAS- Unmanned Aerial System and Remote Sensing Environment (Quantity: 1)

UAS acquisition will support:

- High-resolution mapping of sugarcane farms
- Yield estimation
- Crop health analysis

6.2.2.9 Equipment Setup: DJI Mavic 3 Multispectral (3M)

The platform shall include:

Core Capabilities

- Multispectral imaging
- High-resolution RGB imagery

- GPS/RTK-enabled positioning

DJI ENTERPRISE MAVIC 3M SPECS

Category	Feature	Specification
Multispectral Camera	Sensors	4 x 5 MP (Green, Red, Red Edge, Near-Infrared)
	Wavelengths	G: 560±16 nm, R: 650±16 nm, RE: 730±16 nm, NIR: 860±26 nm
RGB Camera	Sensor	20 MP, 4/3 CMOS
	Shutter	Mechanical (prevents rolling shutter distortion)
Flight Performance	Max Flight Time	43 minutes
	Max Flight Speed	15 m/s (Mapping), 21 m/s (Sport Mode)
	Mapping Efficiency	Up to 2 square kilometers per flight
Positioning & Precision	RTK Support	Integrated RTK Module (Centimeter-level accuracy)
	Sunlight Sensor	Built-in (for spectral irradiance compensation)
Transmission	System	DJI O3 Enterprise (15 km max range)
	Live View	1080p/30fps
Safety	Obstacle Sensing	Omnidirectional (360°) Binocular Vision
	Terrain Follow	Supported (via downward sensors)
Physical Specs	Takeoff Weight	951 g
	Storage	microSD (U3/V30 recommended for high-speed mapping)

6.3.3.0 Supporting Accessories

The Service provider shall provide:

RTK Base Station (Quantity: 2)

- D-RTK 2 station for high-precision positioning

Operational Enhancements

- Multiple batteries (minimum 6) for full-day field coverage
- Charging hub for rapid battery turnover
- Spare propellers to ensure continuity

Calibration and Accuracy

- Radiometric calibration panel for accurate vegetation indices
- GNSS-enabled correction for spatial accuracy

Data Storage

- High-speed 1TB microSD cards
- Secure field data transfer mechanisms

Field Power Solutions

- Vehicle-based AC charging converters

6.3.3.1 Drone Processing Environment

Drone data shall be processed using:

- DJI Terra or Pix4D software

Outputs include:

- Orthomosaics
- Digital elevation models

- Vegetation indices

6.3.3.2 GIS Workstations and Field Operations Environment

GIS Analyst Workstation (Quantity: 1)

High-performance workstations shall be deployed for:

- Spatial data processing
- remote sensing analysis
- map production

Specifications

- Multi-core CPUs (Ryzen 9 / Intel i9)
- ≥64GB RAM
- SSD storage (primary + processing cache)
- High-performance GPU (RTX 4070/4080)

Display Environment

- Dual 4K monitors for:
 - multi-layer map analysis
 - imagery interpretation

6.3.3.3 Field Officer Equipment

Field teams shall be equipped with:

Mobile Devices

- **Rugged tablets (Quantity: 1) : Specifications**
 - GPS-enabled
 - Offline data collection capability
- Getac X600 Rugged laptop specifications

Feature	Specification
Model	CHCNAV LT800H – Survey-Grade RTK Tablet
Quantity	5 units
Precision (RTK)	2 cm horizontal accuracy when connected to RTK network or base station
GNSS Support	1408 channels; GPS, GLONASS, Galileo, BeiDou (incl. B3), QZSS
Ruggedness	IP67 (dustproof, waterproof up to 1m); 1.5m drop-proof onto concrete
Display	8.1" High-Resolution (1920×1200), 600 nits sunlight-readable, Gorilla Glass 3
OS/Performance	Android 12.0 with GMS; Octa-core 2.0 GHz CPU, 6GB RAM, 128GB storage
Battery	9000mAh; lasts 8–12 hours continuous field data collection
Connectivity	4G Dual SIM, Bluetooth 5.1, WiFi, external Helix antenna port
Software	Optimized for LandStar 8; compatible with Android GIS apps (QGIS, ArcGIS FM)

Rugged Laptops (Quantity: 1)

- Sunlight-readable screens
- Suitable for field validation

Feature	specification
Durability	MIL-STD-810H and IP66 (can withstand powerful water jets/heavy rain).
Display	15.6" Full HD, 1,000 nits LumiBond display.
Graphics	Optional NVIDIA RTX A500 (critical for 3D reconstruction).
Storage	Up to 3 removable SSDs (up to 6TB total)
RAM	Up to 128GB.

GNSS Receivers (Quantity: 2)

- Sub-meter accuracy for:
 - farm boundary mapping
 - zoning enforcement

Handheld GNSS receiver with the following specifications

Feature	Trimble TDC6	Geometer Y55G	CHCNAV LT800H
Form Factor	Smartphone (Slim & Ergonomic)	Smartphone (Ruggedized)	Handheld Tablet (8.1")
GNSS Accuracy	Sub-meter (Scalable to CM with external receiver)	1–3 cm (Built-in RTK)	1–2 cm (Full RTK)
Channels/Bands	L1/L2/L5 (Multi-constellation)	L1/L2/L5 (1408 Channels)	L1/L2/L5 (1408 Channels)
Display Brightness	500–600 nits (Sunlight readable)	500+ nits	600 nits (Anti-glare)
Operating System	Android 14 (Upgradeable)	Android 11+	Android 12.0 (GMS Certified)
Processor	Qualcomm Snapdragon 2.7 GHz	Octa-core 2.2 GHz	Octa-core 2.0 GHz
RAM / Storage	6GB / 64GB (expandable)	4GB / 64GB	8GB / 256GB
Battery Life	9 hours (Hot-swappable)	10–12 hours	8–10 hours
IP Rating	IP67 (Water & Dustproof)	IP68 (Highest rating)	IP67
Special Feature	Native integration with ArcGIS & Trimble Access	Built-in area & yield calc for farmers	High-gain Helix Antenna included

6.3.3.4 Peripheral Equipment

- High-resolution plotters (A1/A2)
- UPS backup systems
- 3D navigation tools (for advanced GIS work)

SCOPE OF ASSIGNMENT (PHASE TWO)

6.3.3.5 Integrating Geographic Information Systems (GIS) capabilities into the Sugar Industry Management Information System (SIMIS).

The Service provider will be required to enhance regulatory oversight, traceability, and operational intelligence across the sugar industry by integrating **Geographic Information Systems (GIS)** capabilities into the Sugar Industry Management Information System (SIMIS).

GIS will serve as a **cross-cutting capability** that enables:

- Spatial data capture and visualization
- End-to-end traceability across the sugar value chain
- Risk-based compliance monitoring
- Real-time operational intelligence
- Data-driven decision-making and planning

Objective of the Assignment

The objective is to implement a **GIS-enabled digital platform** that will:

- Provide geospatial visibility across all sugar industry actors and processes
- Enhance regulatory monitoring and enforcement through spatial analytics
- Support value-chain traceability for both imported and domestically produced sugar
- Integrate with core SIMIS modules to enable real-time, location-based insights

6.3.3.5.1 Registration & Licensing Module

Scope

The Service provider shall implement GIS functionality to support location-based registration and licensing of stakeholders.

Requirements

- Capture GPS coordinates for:
 - Sugar mills
 - Farms and grower locations
 - Warehouses
 - Repackaging facilities
- Map stakeholder distribution
- Define **cane catchment areas**

- Validate licensing against location compliance rules

Expected Outcomes

- Accurate mapping of all industry participants
- Provide ready platform for Improved zoning and supply chain regulation

6.3.3.5.2 Imports & Exports Module

Scope

The Service provider shall implement GIS to monitor trade flows and track import/export routes.

Requirements

- Map:
 - Entry and exit points (ports, border posts, inland depots)
 - Trade corridors and shipping routes
- Visualize:
 - Import/export volumes by region and time
- Integrate with:
 - KRA ICMS
 - Kentrade

Expected Outcomes

- Visibility of trade flows
- Identification of illegal entry points and likely smuggling routes

6.3.3.5.3 Data Management and Traceability Module

Scope

The Service provider shall integrate GIS into the traceability framework.

Requirements

- Map supply chain from:
 - Import → warehouse → factory → distribution
- Track consignment movement geographically
- Visualize:
 - Product flow routes
 - Stock concentration areas
- Enable geospatial traceability of sugar products

Expected Outcomes

- Full spatial traceability of sugar movement
- Detection of diversion routes

6.3.3.5.4 Repackaging & Traceability Module

Scope

The Service provider shall apply GIS to regulate and monitor repackaging operations.

Requirements

- Map:
 - Repackaging facilities
 - Distribution channels
- Track movement of repackaged sugar to:
 - Wholesale markets
 - Retail outlets

Expected Outcomes

- Identification of illegal repackaging zones
- Monitoring of product distribution patterns

6.3.3.5.5 Raw Sugar Traceability and Control

Scope

The Service provider shall implement GIS-based controls to prevent misuse of raw sugar.

Requirements

- Map movement of raw sugar:
 - From entry → warehouse → factory
- Define controlled movement zones
- Flag movements outside approved processing routes

Expected Outcomes

- Prevention of raw sugar diversion into retail markets

6.3.3.5.6 Sugar Development Levy (SDL) Module

Scope

GIS shall support spatial analysis of levy compliance.

Requirements

- Map:
 - Revenue collection by region
 - Levy compliance trends
 - Levy collection by capacity
- Identify:
 - High-risk or low-compliance zones

Expected Outcomes

- Improved revenue assurance
- Targeted enforcement

6.3.3.5.7 SDF Loans Module

Scope

GIS shall track loan-funded projects.

Requirements

- Map:
 - Location of loan-funded farms and projects
- Track utilization geographically
- Link funding to physical project sites

Expected Outcomes

- Verification of funded project existence
- Improved monitoring of fund utilization

6.3.3.5.8 SDF Grants Module

Scope

GIS shall support visualization of grant-funded activities.

Requirements

- Map:
 - Infrastructure projects
 - Community initiatives
- Assess geographic distribution of grants

Expected Outcomes

- Visibility of project impact
- Equitable resource allocation

6.3.3.5.9 Compliance & Enforcement Module

Scope

GIS shall support risk-based compliance and enforcement.

Requirements

- Map:
 - High-risk zones
 - Inspection coverage
- Geotag:
 - Inspection reports
 - Enforcement actions

Expected Outcomes

- Optimized inspection planning
- Improved enforcement efficiency

6.3.3.6.0 Stakeholder Portal & Sector Dashboard

Scope

GIS shall provide visualization tools for stakeholders.

Requirements

- Display:
 - Factory status by region
 - Market trends
 - Supply chain data
- Enable interactive maps for users

Expected Outcomes

- Improved stakeholder awareness
- Transparent industry reporting

6.3.3.6.1 SUGARSTAT Module

Scope

GIS shall be central to real-time operational tracking.

Requirements

- Map all sugar mills with real-time status:
 - Active
 - Inactive
 - Maintenance
- Show:
 - Regional production levels
 - Operational trends

Expected Outcomes

- National-level operational visibility
- Early warning system for production risks

6.3.3.6.2 Warehouse Receipt System (WRC Integration)

Scope

GIS shall track storage and stock movement.

Requirements

- Map:
 - All registered warehouses
- Track:
 - Stock levels and concentration
- Monitor:
 - Movement between warehouses and factories

Expected Outcomes

- Detection of hoarding and stock anomalies

The Service provider shall design a scalable and secure GIS architecture including:

a) Core Components

- ArcGIS Enterprise (or equivalent)
 - GIS Server (processing & analytics)
 - Portal (user interface, dashboards)
 - Data Store (spatial database)
 - Web adaptor (integration layer)

b) Deployment Options

- On-premises / Hybrid / Cloud architecture
- High availability and backup setup

c) Integration Layer

- APIs and middleware to integrate with:
 - Licensing system
 - Compliance systems
 - Sugar Industry ERP systems
 - Partner Government Agencies Systems

d) Geographic Coverage

- 750,000+ acres of sugarcane plantations/farms.
- Distribution across 5 sugar-growing regions in Kenya.

7. 0 Phase II: Farmer Registration, GIS Farm Mapping, Smart Contracting, Machine Learning & Predictive Analytics and acquisition of satellite imagery

Description

Phase 2 builds the operational core of the system on top of the Phase 1 foundation. It digitizes the farmer relationship; registration, contracts, complaints, self-service and captures every farm boundary in a national GIS, and layers in agronomic intelligence (crop health, weather, recommendations). All farm boundaries collected during Phase 1 drone and satellite mapping are imported as the seed dataset, and satellite and drone mapping is expanded to capture entire sugar industry for continuous monitoring

Description

Phase 2 builds the operational core of the system on top of the Phase 1 foundation. It digitises the farmer relationship; registration, contracts, complaints, self-service and captures every farm boundary in a national GIS, and layers in agronomic intelligence (crop health, weather, recommendations). All farm boundaries collected during Phase 1 drone operations are imported as the seed dataset, and drone mapping is expanded to additional sugar-belt zones during this Phase.

7.1.1 Scope :Farmer Registration, GIS Farm Mapping & Crop Health Intelligence

- Farmer registry: demographics, ID/passport, phone, location, next-of-kin, photo; supports 400,000+ records with duplicate detection by ID number
- Farmer search and listing with filters and CSV/Excel export
- Contract management: configurable templates, payment terms, tonnage targets, crop variety; digital signature; PDF generation; tamper-evident storage
- Contract lifecycle: Draft → Pending Approval → Active → Completed/Terminated; status notifications
- Complaint management: submission, categorisation, assignment, SLA tracking, resolution
- Farmer self-service portal: mobile-friendly profile, contracts, payments and farm data; OTP login
- USSD access on Safaricom and Airtel for feature-phone farmers
- Interactive web map with multi-basemap (satellite, terrain, street) support
- Polygon drawing and editing for farm boundaries with sub-1m accuracy
- Automatic area calculation in hectares with $\pm 2\%$ accuracy vs GPS survey
- Overlap detection between farm boundaries with warning and conflict-resolution workflow
- Bulk import of all farm boundaries collected during the Phase 1 drone-mapping campaigns, plus continued mapping of additional sugar-belt zones during this Phase
- WFS integration for bidirectional sync with national geospatial platform
- Mobile mapping interface with on-device GPS tracking; sub-meter accuracy in open-field conditions
- GNSS/CORS integration to support survey-grade equipment and the National CORS network
- Data export in GeoJSON, Shapefile and KML formats
- Crop Health dashboard with vigour, density, colour, disease and pest scores (1–5 scale) and colour-coded alerts
- Weather integration with hourly current conditions and 7-day forecast
- Weather alerts for drought, frost, heatwave and storm conditions (in-app + SMS)
- Context-aware recommendation engine for irrigation, pest control, fertilisation and harvesting
- Seasonal forecasting per region/zone with confidence intervals
- Crop cycle tracking (plant crop / 1st ratoon / 2nd ratoon)
- Digital farm record book covering planting, fertiliser, pest observations, labour and costs

7.1.2 Scope: Scope: Machine Learning & Predictive Analytics

Phase 2 elevates the system from a record-keeping platform into a predictive, transactional system. The Predictive yield model deployed in Phase 1 is matured into a national-scale, multi-variable predictive engine; the entire harvest-to-mill supply chain is digitised with blockchain-style traceability; and farmer payments are automated through M-Pesa with input-credit deductions.

- i. Per-farm and county-scale yield prediction (tonnes/ha) — target: $R^2 > 0.90$, RMSE < 5 tonnes/ha on validation dataset
- ii. Satellite imagery integration for vegetation indices: NDVI, EVI, NDWI, SAVI, NDMI extracted for any farm boundary within 60 seconds
- iii. Drone imagery module: orthomosaic and vegetation index processing for UAS data within 10 minutes per field
- iv. Automated feature extraction pipeline (spectral, temporal, spatial features) feeding the model
- v. Anomaly detection (Z-score, IQR) on NDVI, growth rate and yield with suggested causes
- vi. Time-series trend analysis: seasonal/trend/residual decomposition with ≥ 2 -season forecast horizon
- vii. Model retraining pipeline with version control; full retrain completes within 30 minutes
- viii. Model performance dashboard: RMSE, R^2 , MAE, NSE, D-Index, feature importance, training date, active version
- ix. ML pipeline UI to trigger training, view history and select active model version

- x. Integration of crop-growth-model parameters as engineered features

7.1.3 Phase 2 Acceptance Criteria

- i. $\geq 350,000$ farmers digitally registered by end of Phase 2
- ii. All Phase 1 drone-mapped farm boundaries imported and visualised on the production map
- iii. Crop health dashboard live for at least three (3) pilot zones
- iv. Weather and forecast services operational with $> 70\%$ accuracy on 3-day predictions in target regions
- v. USSD farmer service tested end-to-end on Safaricom and Airtel
- vi. Yield prediction model meets $R^2 > 0.80$ and $RMSE < 5$ tonnes/ha on the validation dataset, with documented improvement over the Phase 1 baseline
- vii. End-to-end traceability demonstrated for at least one full pilot batch from farm gate to mill payment
- viii. Live M-Pesa B2C disbursement of farmer payments in production
- ix. Anomaly detection and trend analysis dashboards live for KSB analysts

7.1.4 Unmanned Aerial System and Remote Sensing Environment (Quantity: 1)

UAS acquisition will support:

- High-resolution mapping of sugarcane farms
- Yield estimation
- Crop health analysis

Fixed Wing

FEATURE	SPECIFICATION
Flight Time	Up to 59 minutes
Max Coverage	400 ha (approx. 1,000 acres) at 120m altitude
Max Speed	16 m/s (36 mph)
Agriculture Sensor	MicaSense RedEdge-P (Multispectral + Pan-sharpened RGB)
Accuracy	Down to 1 cm (0.4 in) horizontal with built-in Post-Processed Kinematic (PPK)
Wind Resistance	Up to 12 m/s (27 mph) in cruise

Rugged tablets (Quantity: 10) : Specifications

- GPS-enabled
- Offline data collection capability
- Getac X600 Rugged laptop specifications

Feature	Specification
Model	CHCNAV LT800H – Survey-Grade RTK Tablet
Quantity	5 units
Precision (RTK)	2 cm horizontal accuracy when connected to RTK network or base station
GNSS Support	1408 channels; GPS, GLONASS, Galileo, BeiDou (incl. B3), QZSS
Ruggedness	IP67 (dustproof, waterproof up to 1m); 1.5m drop-proof onto concrete
Display	8.1" High-Resolution (1920×1200), 600 nits sunlight-readable, Gorilla Glass 3
OS/Performance	Android 12.0 with GMS; Octa-core 2.0 GHz CPU, 6GB RAM, 128GB storage
Battery	9000mAh; lasts 8–12 hours continuous field data collection
Connectivity	4G Dual SIM, Bluetooth 5.1, WiFi, external Helix antenna port
Software	Optimized for LandStar 8; compatible with Android GIS apps (QGIS, ArcGIS FM)

GNSS Receivers (Quantity: 5)

- Sub-meter accuracy for:
 - farm boundary mapping
 - zoning enforcement

Handheld GNSS receiver with the following specifications

Feature	Trimble TDC6	Geometer Y55G	CHCNAV LT800H
Form Factor	Smartphone (Slim & Ergonomic)	Smartphone (Ruggedized)	Handheld Tablet (8.1")
GNSS Accuracy	Sub-meter (Scalable to CM with external receiver)	1–3 cm (Built-in RTK)	1–2 cm (Full RTK)
Channels/Bands	L1/L2/L5 (Multi-constellation)	L1/L2/L5 (1408 Channels)	L1/L2/L5 (1408 Channels)
Display Brightness	500–600 nits (Sunlight readable)	500+ nits	600 nits (Anti-glare)
Operating System	Android 14 (Upgradeable)	Android 11+	Android 12.0 (GMS Certified)
Processor	Qualcomm Snapdragon 2.7 GHz	Octa-core 2.2 GHz	Octa-core 2.0 GHz
RAM / Storage	6GB / 64GB (expandable)	4GB / 64GB	8GB / 256GB
Battery Life	9 hours (Hot-swappable)	10–12 hours	8–10 hours
IP Rating	IP67 (Water & Dustproof)	IP68 (Highest rating)	IP67
Special Feature	Native integration with ArcGIS & Trimble Access	Built-in area & yield calc for farmers	High-gain Helix Antenna included

8.0 Acquisition and Digitization Satellite Imagery for Near Real Time monitoring of Industry activities

Description

During the contract period, the Service provider will continuously supply the Board with high resolution satellite imagery of <50 cm over an estimated surface of 3,000KM² covering the entire gazetted sugarcane catchment areas as defined under the Sugar Act, 2024. The imagery will be used to perform real time monitoring of cane production and update smart contracts

8.1 Geographical Scope

The services shall cover approximately 3,000 square kilometres, focusing on the sugarcane growing areas as provided in the Sugar Act, 2024:

- i. Southern Catchment
- ii. Central Catchment
- iii. Upper Western Catchment
- iv. Lower Western Catchment
- v. Coastal Catchment

8.2 Area of Interest (AOI)

The Areas of Interest shall include designated sugarcane-growing counties as identified by KSB through submission of shapefiles or geospatial coordinates. Specific spatial extents shall be defined in individual Work Orders issued under the Framework Agreement. The Service Provider shall ensure that all data acquisition and digitization activities are confined strictly to the approved AOIs.

8.3 Technical Specifications for Satellite Imagery

8.3.1 Spatial Resolution

The imagery provided shall have a spatial resolution of 50 centimetres (pan-sharpened) or better, ensuring sufficient detail for accurate field boundary delineation.

8.3.2 Spectral Bands

The imagery shall include multispectral bands suitable for vegetation analysis, including at a minimum:

- i. Blue band
- ii. Green band
- iii. Red band
- iv. Near-Infrared (NIR) band.

8.3.3 Temporal Requirements

The imagery shall be acquired within a timeframe that ensures optimal conditions for sugarcane mapping, preferably during the growing season with minimal cloud cover. Archive imagery may be considered where it meets the quality and temporal requirements.

8.3.4 Accuracy Standards

The imagery shall be orthorectified to meet positional accuracy standards consistent with 1:10,000 scale mapping or better.

8.4 Digitization Services

8.4.1 Field Boundary Delineation

The service provider shall digitize all discernible sugarcane field boundaries within the AOI, ensuring:

- i. Complete coverage of all sugarcane plantations
- ii. Accurate delineation following visible field edges
- iii. Attribution of each field with unique identifiers
- iv. Topological consistency (no gaps or overlaps).

8.4.2 Plantation Infrastructure Mapping

In addition to field boundaries, the following infrastructure features shall be digitized where visible:

- i. Access roads and cane transport routes
- ii. Drainage canals and irrigation infrastructure
- iii. Factory and mill locations
- iv. Weighbridge stations
- v. Industrywide Agroecological zoning

8.4.3 Data Attribution

Each digitized feature shall be attributed with relevant metadata, including:

- i. Unique field identifier
- ii. Estimated area (hectares)
- iii. County, Sub County and Ward
- iv. Any ancillary data provided by KSB.

8.4.4 Quality Assurance

The digitization process shall include rigorous quality control to ensure:

- i. Positional accuracy within acceptable tolerances
- ii. Completeness of coverage
- iii. Correct attribution

Compliance with KSB's data standards

9.0 Traceability Design for Sugar Value Chain

The Service provider shall design, develop, integrate, and operationalize a **comprehensive, end-to-end Sugar Sector Traceability System (SSTS)** that provides **real-time visibility, regulatory control, and traceability across the entire sugar value chain**, including:

- Sugarcane production and harvesting
- Cane transport logistics
- Milling and processing
- Packaging and repackaging
- Importation and distribution

The system must be implemented as a **scalable, interoperable digital ecosystem** connecting all actors and systems, consistent with national traceability architecture approaches that integrate regulatory, logistics, and information-sharing platforms across agricultural value chains.

9.1. End-to-End Traceability Model (Farm-to-Market)

The Sugar Sector Traceability System (SSTS) shall implement closed-loop traceability, ensuring that every sugar unit or batch can be traced:

Backward: Retail → Distributor → Repacker → Miller → Cane Source

Forward: Cane → Harvest → Transport → Milling → Packaging → Distribution

This aligns with the full supply-chain traceability model where all actors, processes, inputs and outputs are captured across the value chain.

9.2. Cane Production & Farm-Level Traceability

9.2.1 Farmer and Farm Registration

Each cane farmer must be registered in the system with:

- National ID / KRA PIN
- Farm geo-location (GPS coordinates)
- Farm size and cane variety
- Linked mill (outgrower zone)
- Farmer and farm registration with geo-referenced farms and unique identifiers.

System Output

- Unique Farmer ID
- Unique Farm ID / Plot ID

9.2.2 Crop Lifecycle Tracking

For each planting cycle, system captures:

- Planting date and variety
- Input usage (fertilizers, chemicals)
- Expected maturity date
- Yield estimates
- Adopt input application tracking (chemicals, fertilizers, dates) to ensure quality and compliance

9.3. Harvesting Traceability

9.3.1 Harvest Event Registration

When cane is harvested:

- Harvest date and time
- Farm and plot reference
- Harvester (farmer / contractor)
- Quantity harvested (tonnage)

Unique Identifier Generated

Harvest Batch Code (HBC)

This code becomes the first traceability anchor for all downstream processes.

9.3.2 Field Validation Controls

System must validate:

- Harvest matches expected maturity timeline
- Yield within expected production range
- Farm is licensed/registered

9.4 Milling & Production Traceability

9.4.1 Intake and Batch Aggregation

At mill:

- Cane is aggregated into Processing Batch
- Maintain link:

Cane Batch (HBC) → Mill Batch (MB)

9.4.2 Processing Records

For each mill batch:

- Crushing date
- Sugar output (tonnage)
- By-products (molasses, bagasse)
- Recovery rates

9.4.3 Finished Product Identification

Each output batch assigned:

Production Batch Number (PBN)

Linked back to:

- Cane source(s)
- Transport records

9.4.4 Packaging and Primary Distribution

At mill packaging stage:

- Packaging type (bulk / branded)
- Quantity packaged

- Packaging date

QR Code Generated

Each bag/unit contains:

- Production batch
- Mill ID
- Date
- Compliance status

Aligns with QR traceability from source to market.

9.5. Repackaging Traceability

Repackaging is a high-risk area and must be tightly regulated.

9.5.1 Repackager Registration

All repackagers must:

- Be licensed in SIMIS
- Have approved facilities

9.5.2 Repackaging Event Capture

For each activity:

- Source batch (PBN or imported sugar batch)
- Quantity received
- Blending (if any)
- Output packaging details

9.5.3 New Batch Creation

System generates:

Repackaged Batch Code (RBC)

Maintains parent-child linkage:

Imported/Local Batch → Repackaged Batch → Retail Units

9.5.4 Repackaging Controls

System shall:

- Block repackaging for unlicensed entities
- Flag:
 - Mixing of different origins
 - Quantity discrepancies
- Maintain full audit trail
- Mirrors traceability requirement of tracking product consolidation, transfers and reprocessing.

9.6. Imports Traceability with KRA Integration

9.6.1 Integration with KRA Systems

The system must integrate with:

- iCMS / Customs systems
- KRA PIN database

Key Functions

- Verify importer identity (PIN)
- Retrieve import declaration data
- Validate duty-paid status

9.6.2 Import Batch Registration

Upon entry:

- Capture:
 - Bill of Entry number
 - Importer
 - Country of origin
 - Quantity
 - Shipment details

System Generates

Import Batch Code (IBC)

9.6.3 Port to Warehouse Tracking

Track movement:

- Port → bonded warehouse → market
- Capture transporter and storage data

9.6.4 Integration Control Logic

System enforces:

- No distribution before KRA clearance
- Quantity reconciliation with customs data
- Tax compliance validation

9.6.5 Repackaging of Imports

When imported sugar is repackaged:

- Link:
 - Import Batch (IBC) → Repack Batch (RBC)

9.7 Wholesale, Retail and Market Distribution

9.7.1 Distributor Module

Capture:

- Purchase transactions
- Batch numbers handled
- Warehouse movements

9.7.2 Retail Tracking

For retailers:

- Batch-level stock
- Stock traceability

9.7.3 Consumer Verification

Consumers can:

- Scan QR code
- Verify:
 - Origin (local/imported)
 - Mill/repackager
 - Compliance status

9.8 Compliance & Enforcement Layer

9.8.1 Automated Compliance Checks

The system should automatically:

- Block transactions by unlicensed actors (via SIMIS)
- Detect:
 - Illegal repackaging
 - Unregistered imports
 - Supply chain breaks

9.8.2 Alerts & Enforcement Tools

- Real-time alerts:
 - Suspended licenses
 - Non-compliant batches
- Ability to:
 - Quarantine products
 - Suspend operators

9.9. Data Flow Summary

Farmer → Harvest Batch → Transport → Mill Intake

→ Production Batch → Packaging

→ (Distributor / Repackager / Import)

→ Retail → Consumer

10. Key Control Points (Regulatory Focus)

KSB must monitor:

1. Farm registration & cane origin
2. Mill intake reconciliation
3. Repackaging operations
4. Import clearance (via KRA)
5. Market distribution

10.1 Critical System Features to Support This Model

- Unique ID generation at each stage
- QR-based traceability
- API integration (SIMIS, KRA, WHRC)
- Mobile data capture (offline + online)

- Real-time dashboards for KSB
- Full audit trail and logs

11. Detailed Service provider Responsibilities and Technical Expectations

11.1 Overall Technical Mandate

The Service provider shall design, develop, integrate, and operationalize a **comprehensive, end-to-end Sugar Sector Traceability System (SSTS)** that provides **real-time visibility, regulatory control, and traceability across the entire sugar value chain**, including:

- Sugarcane production and harvesting
- Cane transport logistics
- Milling and processing
- Packaging and repackaging
- Importation and distribution

The system must be implemented as a **scalable, interoperable digital ecosystem** connecting all actors and systems, consistent with national traceability architecture approaches that integrate regulatory, logistics, and information-sharing platforms across agricultural value chains.doc

11.2 Functional Development Expectations

The Service provider is expected to translate the traceability framework into **fully operational digital workflows**, ensuring that each stage of the sugar value chain is digitized, monitored and enforceable.

A. Farm-Level and Harvest Traceability Solutions

The Service provider shall:

- Develop **digital farmer and farm registration modules**, including:
 - Geo-location capture (GPS-enabled)
 - Unique farmer and farm identifiers
- Deploy **mobile-based field data capture tools** for:
 - Crop planting records
 - Input application tracking
 - Harvest event recording

The mobile solution must support:

- **Offline data capture and synchronization** in rural areas
- Real-time validation rules (e.g., yield thresholds, maturity periods)

C. Milling and Production Traceability Systems

The Service provider shall design and deploy:

- **Mill intake and batch aggregation modules**
 - Linking cane batches to mill batches
- **Production recording systems** capturing:
 - Processing dates
 - Output volumes
 - Recovery rates

The system must:

- Generate **Production Batch Numbers (PBN)**
- Maintain **traceability linkages from farm → mill → product**

D. Packaging and QR-Based Traceability Technology

The Service provider shall provide:

- **Automated product identification systems**, including:
 - QR code generation
 - Label printing integration (Bluetooth printers, industrial printers)
- QR codes must encode:
 - Source information
 - Batch details
 - Regulatory compliance status
- Use of QR-based traceability is critical to enable **trace-back from market to source and vice versa.doc**

E. Repackaging Monitoring and Control Systems

The Service provider shall develop a **high-control repackaging module** that:

- Registers all repackaging facilities (linked to SIMIS licensing)
- Tracks:
 - Source batches (local or imported)

- Blending processes
- Output quantities

System must provide:

- **Parent-child batch traceability**
- Real-time validation rules to:
 - Prevent repackaging by unlicensed players
 - Detect inconsistencies in volumes

F. Import Traceability with KRA Integration

The Service provider shall implement **API integration with KRA systems**, supporting:

- Importer identity validation (via KRA PIN)
- Retrieval of:
 - Bill of Entry
 - Customs declarations
 - Duty payment status

System must:

- Generate **Import Batch Codes (IBC)**
- Track movement:
 - Port → warehouse → repackaging → distribution

The Service provider shall design:

- API-based architecture for real-time data exchange
- Secure authentication protocols for government system integration Integration through APIs and JSON-based data exchange is a core
- requirement for interoperability with government platforms

G. Distribution and Market Traceability Modules

The Service provider shall deliver:

- Warehouse and inventory management systems
- Distribution tracking modules:
 - Batch movement
 - Sales traceability (optional)
- Retail-level traceability:
 - Batch tracking
 - Consumer verification access

H. Regulatory Compliance and Enforcement Engine

The Service provider shall design and embed a **rule-based compliance engine** that:

- Enforces licensing conditions (via SIMIS)
- Generates real-time alerts for:
 - Non-compliant actors
 - Suspended licenses
 - Unauthorized operations
- Provides KSB with:
 - Enforcement dashboards
 - Audit trails
 - Investigation tools

14.3 Required Technology Stack and Capabilities

The Service provider is expected to propose and implement a **modern, scalable, and secure digital architecture**, incorporating the following technologies:

1. System Architecture

- **Modular microservices architecture**
- RESTful API-based integration layer
- Cloud or hybrid hosting environment

2. Application Layers

- a) Web-Based Platform
 - Built using:
 - Java / .NET / Node.js frameworks
 - Responsive, browser-accessible system
- b) Mobile Applications
 - Android (mandatory), iOS (optional)

- Features:
 - Offline-first architecture
 - GPS capture
 - QR scanning

3. Data and Integration Technologies

- API integration (REST / JSON)
- Middleware for:
 - SIMIS integration
 - KRA integration
- Database systems:
 - Relational (PostgreSQL/MySQL)
 - Optional NoSQL for scalability

4. Traceability Technologies

- QR code / barcode generation
- Blockchain (optional but encouraged for high-integrity traceability)
- Batch tracking systems

6. Security and Data Governance

The Service provider shall implement:

- Role-based access controls
- Data encryption (at rest and in transit)
- Full audit logging
- Compliance with national data protection laws

7. Analytics and Reporting Tools

- Business intelligence dashboards
- Real-time analytics
- Predictive analytics (optional future enhancement)

14.4 Implementation and Delivery Expectations

The Service provider shall:

- Adopt a **phased, modular implementation approach**
- Deliver a **Minimum Viable Product (MVP)** for pilot
- Scale incrementally across the country

14.5 Capacity Building and Knowledge Transfer

The Service provider shall:

- Train KSB technical teams
- Provide system documentation
- Build local capacity for:
 - System administration
 - Data management
 - Ongoing system enhancements

14.6 Innovation and Value Addition

The Service provider is encouraged to propose:

- AI/ML tools for anomaly detection
- Blockchain-based traceability
- SMS/USSD interfaces for smallholder inclusion
- Consumer-facing transparency tools
- Innovation should support long-term sustainability and sector-wide adoption

The Service provider is expected to deliver:

- A **fully operational, regulator-driven digital ecosystem**
- A system that connects:
 - Farms → Transport → Mills → Imports → Repackaging → Market
- A platform integrated with:
 - **SIMIS (licensing & Levy management)**
 - **KRA (imports and tax compliance)**
- A solution that is:
 - Practical at field level
 - Enforceable at regulatory level
 - Scalable nationally

10.0 Mobile Applications

The Service provider shall design, develop, deploy, and integrate **mobile applications** as part of the SIMIS platform to support **field operations, inspections, data capture, monitoring, and stakeholder engagement**.

The mobile applications shall:

- Enable real-time and offline field data capture
- Support compliance, inspection, and enforcement operations
- Provide seamless integration with SIMIS core modules
- Improve efficiency, accuracy, and transparency of field processes

The solution shall include:

- Android (mandatory) and optionally iOS mobile applications
- Role-based access for KSB inspectors, compliance officers, and field staff

10.1 Objectives of the Mobile Applications

The mobile application shall:

- Digitize all field-based regulatory and operational activities
- Enable real-time data collection and reporting
- Improve inspection coverage and turnaround time
- Support GIS-enabled tracking and monitoring
- Enhance enforcement through digital evidence capture
- Integrate field data with centralized SIMIS systems

10.2 Core Functional Scope

a) User Authentication and Access Control

The mobile application shall:

- Provide secure login using:
 - Username/password
 - Multi-factor authentication (where applicable)
- Support role-based access for:
 - Inspectors
 - Compliance officers
 - Supervisors

b) Offline Functionality (Critical Requirement)

The application shall:

- Support **offline data capture** in remote areas
- Synchronize data automatically when connectivity is restored

c) Real-Time Data Synchronization

The system shall:

- Sync field data with SIMIS in real time (where network is available)
- Support:
 - Transaction validation
 - Data consistency checks

d) Integration with SIMIS Core Modules

The mobile application shall integrate with:

- Registration & Licensing Module
- Imports & Exports Module
- Traceability & Repackaging Module
- SDL and SDF modules
- Compliance & Enforcement Module
- GIS Module
- SUGARSTAT module

10.3 Field Inspection Activities

a) Inspection Planning and Assignment

The mobile application shall:

- Receive inspection assignments from SIMIS
- Display:
 - Assigned inspection tasks
 - Locations and schedules
- Allow inspectors to:
 - Accept/decline assignments

b) Digital Inspection Forms

The system shall:

- Provide **configurable digital inspection forms** for:

Inspection Type	Examples
Factory inspection	Operational compliance, production monitoring
Warehouse inspection	Stock verification, WRC compliance
Repackaging inspection	Facility compliance, labelling verification
Import/export inspection	Consignment verification
Farm inspections	Grower validation, crop assessment

c) Geo-Tagged Inspection Data (GIS Integration)

The application shall:

- Capture **GPS coordinates automatically**
- Geotag:
 - Inspection location
 - Evidence (photos, documents)

Provides proof of location and enhances transparency

d) Photo and Document Capture

The application shall enable:

- Capture of:
 - Photos
 - Videos
 - Documents
- Attach these to inspection reports

e) Real-Time Compliance Validation

During inspections, the system shall:

- Validate:
 - Licence status
 - SDL compliance
 - Repackaging authorization
 - Traceability compliance

f) Inspection Reporting

The application shall:

- Generate structured inspection reports
- Allow submission:
 - In real-time
 - Offline (to sync later)

g) Non-Compliance and Violation Reporting

The system shall enable inspectors to:

- Record violations such as:
 - Illegal repackaging
 - Expired licence
 - Unregistered facility
- Categorize violations
- Trigger enforcement workflows

h) Enforcement Actions

The application shall allow inspectors to:

- Issue:
 - Warning notices
 - Compliance directives
- Recommend actions:
 - Suspension
 - Penalties

i) Integration with Traceability System

The application shall allow inspectors to:

- Scan QR/barcode codes on sugar products

- Verify:
 - Product origin
 - Repackaging codes
 - Compliance status

j) Integration with SUGARSTAT

The mobile application shall:

- Capture factory operational status updates
- Report:
 - Active/inactive mills
 - Downtime reasons

k) Workflow and Escalation

The system shall:

- Automatically escalate:
 - High-risk violations
 - Critical findings
 - Notify supervisors for action
- Additional Functional Features

a) Notifications and Alerts

The mobile application shall:

- Receive alerts for:
 - New assignments
 - Compliance issues
- Send alerts to:
 - Supervisors
 - Stakeholders

b) Dashboard for Field Officers

The application shall display:

- Assigned inspections
- Completed tasks
- Pending activities
- Performance metrics

c) Activity Tracking

The system shall:

- Track field officer activities and movements
- Maintain logs of:
 - Inspections conducted
 - Reports submitted

d) Multi-Device Support

The application shall:

- Support smartphones and tablets
- Be optimized for:
 - Android devices (mandatory)

10.5 Data Management and Security

The system shall:

- Encrypt data stored on the device
- Ensure secure data transmission
- Support remote device wipe (for lost devices)

10.6 Deliverables

The Service provider shall deliver:

- Fully functional mobile application
- Configured inspection workflows
- Integration with SIMIS modules
- GIS-enabled capabilities
- Documentation and user manuals
- Training for field officers

10.7 Expected Outcomes

The mobile application shall:

- Digitize field inspections and compliance activities
- Improve efficiency and speed of inspections
- Enable real-time data reporting
- Strengthen regulatory enforcement
- Enhance traceability verification
- Improve monitoring of sugar industry operations

11. AI & BI ARCHITECTURE REQUIREMENTS

11.1 Architecture Components

The solution shall include:

a) Data Layer

- Enterprise Data Warehouse (PostgreSQL/PostGIS + extension layer)
- Data Lake (for unstructured datasets – GIS, drone, logs)
- Real-time streaming data ingestion

b) Integration Layer

- API-driven data ingestion from all modules
- ETL/ELT pipelines (Airflow or equivalent)

c) AI Engine Layer

- Machine Learning pipeline (Python-based)
- Model deployment environment
- Real-time inference engine

d) BI Layer

- Dashboard tools (Power BI / Superset / equivalent)
- Embedded analytics for SIMIS modules

e) Visualization Layer

- GIS dashboards (maps + analytics)
- Operational dashboards
- Executive dashboards

11.2 MODULE-SPECIFIC AI & BI REQUIREMENTS

The Service provider must implement AI + BI capabilities across ALL modules, as follows:

11.2.1 Registration & Licensing Module

BI Capabilities:

- Dashboard: licenses issued, expired, rejected
- SLA performance analytics
- Geographic distribution of stakeholders

AI Capabilities:

- Fraud detection in applications
- Predictive compliance scoring of applicants
- Auto-flag suspicious patterns

11.2.2 Imports & Exports Module

BI:

- Real-time import/export volumes
- Trade trends by country, commodity, and period
- Permit approval timelines

AI:

- Detection of:
 - over-importation
 - under-declaration
 - abnormal trade patterns
- Forecasting national sugar demand vs imports
- Risk scoring of consignments

11.2.3 Traceability & Repackaging Module

BI:

- End-to-end supply chain visualization
- Product flow analytics
- Stock and distribution dashboards

AI:

- Anomaly detection in movement (diversion, fraud)
- Pattern recognition for illegal repackaging
- Supply chain risk prediction

11.2.4 SDL (Levy Module)

BI:

- Revenue dashboards (by region, entity, product)
- Compliance dashboards
- Levy trends and projections

AI:

- Identify:
 - under-reporting
 - false declarations
- Predict levy revenue
- Detect levy avoidance behavior

11.2.5 SDF Loans Module

BI:

- Loan portfolio dashboard
- Repayment & default tracking

AI:

- Credit scoring models
- Default prediction models
- Loan risk classification

11.2.6 SDF Grants Module

BI:

- Grant allocation and utilization dashboards
- Regional impact reporting

AI:

- Impact prediction models
- Misuse detection (variance analysis)

11.2.7 Compliance & Enforcement Module

BI:

- Compliance heatmaps
- Inspection coverage dashboards

AI:

- Risk-based inspection engine
- Predictive enforcement targeting
- Automated anomaly detection

11.2.8 GIS Module

BI:

- Spatial dashboards (maps + KPIs)
- Production and supply visualization

AI:

- Crop yield prediction models
- Crop health (remote sensing analytics)
- Geo-spatial anomaly detection

11.2.9 SUGARSTAT Module

BI:

- Real-time factory dashboards
- Production trends and performance

AI:

- Predict factory shutdown risks
- Forecast production outputs
- Detect abnormal performance

11.3 Stakeholder Portal & Sector Dashboard

BI:

- Personalized dashboards for:
 - millers

- traders
- farmers
- Industry-wide insights

AI:

- Recommendation engines
- Market price prediction
- Demand-supply analytics

11.4 CORE AI CAPABILITIES REQUIRED

The Service provider shall implement:

- Predictive analytics (forecasting, trends)
- Machine learning models:
 - classification
 - regression
 - anomaly detection
- AI-driven alerts and recommendations

11.5 BUSINESS INTELLIGENCE REQUIREMENTS

The BI solution shall:

- Provide:
 - Real-time dashboards
 - Drill-down analytics
 - Self-service reporting
- Support:
 - Role-based dashboards
 - Mobile access
- Enable:
 - Export to PDF, Excel
 - Scheduled reporting

11.6 DATA MANAGEMENT REQUIREMENTS

The Service provider shall ensure:

- Data governance framework
- Master data management
- Data quality checks
- Metadata management
- Data lineage tracking

11.7 INTEGRATION REQUIREMENTS

The AI/BI platform shall integrate with:

- All SIMIS modules
- KRA systems (iTax, ICMS, Payment Gateway)
- Kentrade, WRC, ERP
- GIS platform
- ERP / financial systems

11.8 DELIVERABLES

The Service provider shall deliver:

1. AI/BI architecture design
2. Data warehouse and pipelines
3. AI models deployed and documented
4. BI dashboards (all modules)
5. Integration interfaces
6. User training and manuals
7. Testing & validation reports

11.9 VALUE ADDITION

Service providers are encouraged to include:

- Advanced AI (deep learning, NLP)
- Blockchain traceability analytics
- AI-driven regulatory automation
- Mobile BI dashboards

11.1.1 INTEGRATION REQUIREMENTS

SIMIS shall integrate with:

- KRA (iTax, TIMS, Payment Gateway)
- eCitizen
- PesaFlow
- KEBS
- County Governments
- SMS platforms

11.1.2 DELIVERABLES

The Service provider shall deliver:

- System design and architecture
- Configured SIMIS modules
- Data migration reports
- Integration reports
- UAT reports
- Training and manuals
- Go-live and stabilization reports

The Service provider will be required to implement centralized Administration and User Management Platform to ensure:

- Secure system access
- Proper governance of users and permissions
- Regulatory compliance (Data Protection Act)
- Full auditability and traceability of all actions

The Service provider shall design and implement a comprehensive Administration & Security Framework that:

11.1.2 Core Objectives

- Provide a centralized Administration Panel
- Implement Role-Based Access Control (RBAC)
- Enable secure authentication and authorization
- Ensure data protection and compliance
- Provide full audit trails and monitoring

11.1.3 SCOPE OF WORK

The Service provider shall:

- Design and deploy a centralized Administrator Console
- Implement enterprise-grade identity and access management (IAM)
- Integrate with KRA PIN validation systems
- Implement multi-layer security architecture
- Provide audit, monitoring, and reporting tools

12. ADMINISTRATOR PANEL REQUIREMENTS

12.1 Overview

The Service provider shall deliver a centralized web-based Administrator Panel that provides full system control.

12.2 Core Functional Requirements

a) User Administration

- Create, edit, suspend, and delete users
- Bulk user onboarding
- User grouping and categorization
- Account activation/deactivation controls

b) Role and Permission Management

- Create and manage roles
- Assign granular permissions per module
- Permission inheritance and hierarchy
- Dynamic role assignment

c) System Configuration

- Configure workflows and approval hierarchies
- Policy configuration (password, session timeouts)
- Notification configurations
- API access control

d) Dashboard & Monitoring

- Real-time system usage dashboard
- Active sessions monitoring
- Failed login attempts tracking
- Security alerts dashboard

e) Audit and Logs Management

- View system logs
- Filter logs by:
 - user
 - action
 - date
 - module
- Export logs for compliance

13. USER MANAGEMENT REQUIREMENTS

13.1 Role-Based Access Control (RBAC)

The system shall implement fine-grained RBAC as follows:

a) Features

- Role hierarchy (Admin → Supervisor → User)
- Module-level access control
- Field-level access control (sensitive data masking)
- Attribute-based access (optional enhancement)

b) Minimum Role Categories

- ICT Administrator
- System Administrator
- Compliance Officer
- Finance Officer
- Inspector
- External Stakeholder (Importer, Miller, Farmer)
- Auditor

c) Access Control Matrix

The system must allow:

- Read / Write / Approve / Reject permissions
- Conditional access (based on status, geography, role)

13.2 User Lifecycle Management

- User registration
- Verification (ID/KRA PIN)
- Approval workflows
- Periodic access review
- Automatic deactivation (inactive users)

14. AUTHENTICATION AND SECURITY REQUIREMENTS

14.1 Authentication Mechanisms

The system shall support:

a) Multi-Factor Authentication (MFA)

- OTP via SMS/email
- Authenticator apps (TOTP)
- Risk-based authentication

b) Single Sign-On (SSO)

- Integration with government identity systems (where applicable)
- OAuth2 / OpenID Connect standards

c) Password Policies

- Minimum complexity rules
- Expiry policies
- Password history enforcement

- Account lockout after failed attempts

14.2 Session Management

- Session timeout configuration
- Concurrent session control
- Device/session tracking
- Forced logout capability

14.3 API Security

- Token-based authentication (JWT/OAuth2)
- API rate limiting
- Secure API gateway

15. DATA PROTECTION REQUIREMENTS

15.1 Compliance

The system shall comply with:

- Kenya Data Protection Act, 2019
- The bidder will develop online consent forms
- Data privacy and security best practices

15.2 Data Security Features

a) Encryption

- Data at rest: AES-256
- Data in transit: TLS 1.2+

b) Data Classification

- Public / Internal / Confidential / Sensitive
- Different access controls per category

c) Data Masking

- Mask sensitive fields:
 - ID numbers
 - financial data
 - personal information

d) Data Retention Policy

- Configurable retention periods
- Archiving mechanisms
- Secure data deletion

15.3 Privacy Controls

- User consent management
- Data access logging
- Right-to-access (user data retrieval)
- Data anonymization for analytics

16. AUDIT TRACKING AND LOGGING

16.1 Audit Log Requirements

The system shall maintain logs for:

- Login/logout events
- Data creation/modification
- Approval/rejection actions
- System configuration changes

16.2 Log Features

- Tamper-proof logging
- Time-stamped events
- User attribution
- Geo-location tagging (optional)

16.3 Monitoring and Alerts

- Real-time anomaly detection
- Alerts on:
 - suspicious logins
 - privilege escalation
 - abnormal activity

17. SECURITY ARCHITECTURE REQUIREMENTS

17.1 Infrastructure Security

- Network segmentation
- Firewalls and intrusion detection systems
- DDoS protection

17.2 Application Security

- Protection against:
 - OWASP vulnerabilities
- Input validation and sanitization
- Secure coding practices

17.3 Vulnerability Management

- Regular vulnerability scans
- Penetration testing
- Patch management framework

17.4. REPORTING AND ANALYTICS

The system shall provide:

- User activity reports
- Security incident reports
- Access control reports
- Compliance audit reports

17.5 DELIVERABLES

The Service provider shall deliver:

1. Fully functional Administrator Panel
2. User Management & RBAC engine
3. Authentication system (MFA & SSO)
4. KRA integration module
5. Security architecture and controls
6. Audit and logging system
7. Documentation and manual
8. Implementing systems aligned to ISO 27001
9. Training for KSB staff

18: REPORTING AND ANALYTICS DASHBOARD

The Service provider shall implement a real-time monitoring, analytics, predictive insights, GIS visualization, and stakeholder transparency, classifying dashboards by function, hierarchy, and user group

The multi-layered, role-based dashboard ecosystem should align with:

- Regulatory oversight
- Operational management
- Financial control
- BI/AI-driven analytics
- Sector intelligence

18.1. EXECUTIVE & STRATEGIC DASHBOARDS (Top-Level Decision-Making)

The dashboard should provide Board, CEO, and senior management with high-level insights and policy intelligence

Key Dashboards:

18.1.1 Industry Performance Dashboard

- Total sugar production (real-time via SUGARSTAT)
- Import vs local production
- Demand vs supply balance
- Industry growth trends

18.1.2 Policy & Planning Dashboard

- Regional productivity trends
- Pricing trends
- Import dependency levels
- Policy impact simulations (AI-driven)

18.1.3 National Sugar Balance Dashboard

- National stock levels
- Warehouse quantities
- Consumption vs production forecasts

18.1.4 Risk & Early Warning Dashboard

- Factory shutdown alerts
- Supply shortages
- Market volatility

18.2 REGULATORY & COMPLIANCE DASHBOARDS

Purpose: regulation, compliance monitoring, and enforcement

18.2.1 Licensing & Registration Dashboard

- Licensed vs unlicensed entities
- Expired licenses
- Processing timelines (SLA compliance)

18.2.2 Compliance Monitoring Dashboard

- Compliance status by entity
- Sector compliance index
- Non-compliance trends

18.2.3 Enforcement Dashboard

- Active enforcement actions
- Inspections conducted
- Violations by type

18.2.4 Risk-Based Monitoring Dashboard (AI-driven)

- High-risk entities
- Fraud alerts
- Suspicious behavior tracking

18.3. TRADE & MARKET INTELLIGENCE DASHBOARDS

Purpose: Manage imports, exports, and market monitoring

18.3.1 Imports Dashboard

- Volume of imports by country
- Permit approvals
- Real-time import tracking

18.3.2 Exports Dashboard

- Export volumes and destinations
- Export permits issued

18.3.3 Trade Compliance Dashboard

- ICMS vs SIMIS reconciliation
- Permit misuse detection
- Over-importation flags

18.3.4 Market Intelligence Dashboard

- Price trends (local vs international)
- Demand forecasting
- Supply trends

• **Driven by:** Imports & Exports Modules and AI
Users: Trade regulators, policy teams

18.4. FINANCIAL & REVENUE DASHBOARDS

Purpose :Track levy collection, fund management, and financial performance

18.4.1 SDL Revenue Dashboard

- Total levy collected (daily/monthly/yearly)
- Revenue by sector (imports vs domestic)
- Outstanding payments

18.4.2 Compliance Revenue Dashboard

- Levy compliance rate
- Defaulters list
- Penalty trends

18.4.3 SDF Loans Dashboard

- Loan disbursement
- Loan recovery rates
- Non-performing loans

18.4.4 SDF Grants Dashboard

- Grant allocation by region
- Utilization tracking

- Impact indicators

18.5. OPERATIONS & SUPPLY CHAIN DASHBOARDS

Purpose: Track sugar movement, traceability, and operational efficiency

18.5.1 Supply Chain Dashboard (Farm → Market)

- Cane → mill → warehouse → market flow
- Product movement tracking

18.5.2 Warehouse & Stock Dashboard

- Stock levels by warehouse
- Stock movement trends
- Stock discrepancies

18.5.3 Repackaging & Traceability Dashboard

- Repackaging activities
- Source tracking
- Code verification statistics

18.5.4 Consignment Monitoring Dashboard

- Shipment status
- Delays

18.6. GEOSPATIAL & AGRICULTURAL INTELLIGENCE DASHBOARDS

Purpose: Provide location-based intelligence and agricultural analytics

18.6.1 GIS Industry Map Dashboard

- Locations of mills, farms, warehouses
- Industry distribution map

18.6.2 Cane Production Dashboard

- Area under cane
- Yield trends
- Crop cycles

18.6.3 Yield & Productivity Dashboard (AI-driven)

- Yield prediction
- Productivity by region
- Crop health indices

18.6.4 Risk & Hotspot Dashboard

- Illegal supply routes
- Smuggling zones
- Low productivity zones

18.7. STAKEHOLDER & SERVICE DELIVERY DASHBOARDS

Purpose: Enhance transparency and stakeholder engagement

18.7.1 Stakeholder Portal Dashboard

- User-specific dashboards (farmer, importer, miller)
- Applications and approvals
- Compliance status

18.7.2 Service Delivery Dashboard

- Application processing times
- Approval rates
- SLA compliance

18.7.3 Communication & Alerts Dashboard

- Notifications sent
- Response rates
- Stakeholder engagement metrics

18.7.4 Industry News & Sector Intelligence Dashboard

- Market insights
- Industry announcements
- Policy updates

18.8. SYSTEM ADMINISTRATION & SECURITY DASHBOARDS

Purpose: Monitor system usage, security, and performance

18.8.1 User Management Dashboard

- Active users
- Role distribution

- Access logs

18.8.2 Security Dashboard

- Login attempts
- Security incidents
- Threat detection

18.8.3 System Performance Dashboard

- System uptime
- Response times
- Server health

18.8.4 Audit & Compliance Dashboard

- Audit logs
- Data access logs
- System changes

19.0 ENTERPRISE GIS PLATFORM IMPLEMENTATION

The Service provider shall design, supply, configure, and integrate an **Enterprise Geographic Information System (GIS)** platform based on the **ESRI ArcGIS technology stack** to support the **Sugar Industry Management Information System (SIMIS)**.

19.1 The GIS platform shall provide:

- Spatial data management and visualization
- End-to-end traceability across the sugar value chain
- Real-time operational intelligence (SUGARSTAT)
- Risk-based compliance monitoring and enforcement
- Decision support through analytics and modelling

The solution shall be based on:

- ArcGIS Online (Cloud GIS Platform)
- ArcGIS Pro Advanced (Desktop GIS)
- Mobile GIS (Field Applications)
- Enterprise GIS integration with SIMIS

19.2 ArcGIS Online Professional Plus – Core Platform (1 License)

19.2.1 Purpose in SIMIS

ArcGIS Online Professional Plus shall serve as the **central GIS platform** to:

- Host and manage spatial data
- Publish maps, dashboards, and analytics outputs
- Support GIS-enabled SIMIS modules, including:
 - Traceability
 - Compliance & Enforcement
 - SUGARSTAT
 - Imports & Exports

19.3 Core Components

19.3.1 ArcGIS Pro Advanced

The Service provider shall deploy ArcGIS Pro Advanced to support:

- Advanced spatial data analysis
- Integration of GIS workflows with SIMIS modules
- Visualization of sugar industry assets and operations

Key SIMIS Applications

- Mapping of:
 - Sugar factories
 - Cane farms
 - Warehouses and repackaging facilities
- Supply chain traceability:

- Import → Warehouse → Factory → Retail
- Spatial compliance monitoring
- Production and supply chain analytics

19.3.2 ArcGIS Extensions (Customized for SIMIS)

The Service provider shall implement the following ESRI extensions:

(a) ArcGIS 3D Analyst

- 3D modelling of:
 - Sugar factories
 - Industrial facilities
- Terrain and infrastructure visualization

Use Case:

Factory monitoring, planning, and asset visualization

(b) ArcGIS Data Reviewer

- Automated spatial data validation
- Detection of errors in datasets

Use Case:

- Validation of farm registration and facility locations
- Verification of inspection and compliance data

(c) ArcGIS Geostatistical Analyst

- Spatial modelling and predictive analytics

Use Case:

- Cane supply forecasting
- Production trend analysis
- Regional performance projections

(d) ArcGIS Image Analyst

- Processing of satellite and aerial imagery

Use Case:

- Crop health monitoring
- Estimation of cane acreage
- Detection of pests and diseases

(e) ArcGIS Network Analyst

- Route optimization and network analysis

Use Case:

- Inspection route planning
- Logistics and transport of sugar

(f) ArcGIS Publisher

- Publishing GIS outputs

Use Case:

- Stakeholder portals
- Management dashboards

(g) ArcGIS Spatial Analyst

- Advanced spatial analysis tools

Use Case:

- Site suitability analysis for mills and warehouses
- Flood risk assessment
- Terrain and environmental analysis

(h) ArcGIS Workflow Manager

- Workflow automation

Use Case:

- Inspection processes
- Compliance workflows
- Data collection and reporting

19.4 ArcGIS Online Creator Licenses – Seven (10) Users

19.4.1 Purpose

These licenses shall enable KSB directorates to:

- Create and manage spatial datasets
- Develop GIS dashboards and maps
- Publish GIS content independently

19.4.2 SIMIS Alignment

Each Directorate shall:

- Develop GIS dashboards relevant to its functions
- Analyse sector data spatially
- Integrate GIS insights into decision-making

Examples:

- Compliance Directorate: Heat maps of violations
- Finance Directorate: SDL revenue mapping

19.5 ArcGIS Online Mobile Worker Licenses – Seven (10) Users

19.5.1 Purpose

To support **field inspections, monitoring, and data collection activities** using mobile devices.

19.5.2 Functional Scope

The mobile GIS solution shall:

- Enable field officers to:
 - Capture GPS coordinates
 - Collect inspection data
 - Upload real-time updates
- Support:
 - Online and offline data capture
- Integrate with:
 - SIMIS Mobile Applications Module (Section 5.11)

19.5.3 Key Use Cases

- Field inspections (factories, warehouses, repackaging facilities)
- Geo-tagging compliance violations
- Real-time updates to SUGARSTAT
- Traceability verification through field scanning

19.6 ArcGIS Online Viewer Licenses – Seven (10) Users

19.6.1 Purpose

To provide controlled, read-only access to GIS data for:

- KSB staff
- Management and decision-makers

19.6.2 Capabilities

- View maps, dashboards, and reports
- Monitor operations without editing data

19.7 GIS Platform Requirements

19.7.1 Cloud and Enterprise Readiness

- ArcGIS Online shall serve as the primary platform
- The system must support extension to ArcGIS Enterprise (Hybrid or On-Premise)

19.7.2 Data Management

The system shall provide:

- Centralized geospatial database
- Integration with PostgreSQL/PostGIS
- Scalable storage for spatial datasets

19.7.3 GIS Dashboards

The system shall support:

- Web-based dashboards
- Real-time spatial visualization
- Interactive analytics

19.7.4 APIs and Integration

The system shall:

- Provide REST APIs for SIMIS integration
- Enable real-time data exchange across modules

19.8 Security Requirements

The GIS platform shall:

- Enforce role-based access control
- Secure access to spatial data
- Encrypt spatial data transmissions

19.9 Training and Capacity Building

The Service provider shall:

- Train KSB staff on:
 - GIS tools and applications
 - Spatial data analysis
 - Dashboard creation and interpretation

19.10 Deliverables

The Service provider shall deliver:

- Configured ArcGIS Online platform
- Deployment of ArcGIS Pro Advanced
- Implementation of GIS extensions
- Integration with SIMIS modules
- Mobile GIS configuration
- GIS dashboards and analytics tools
- User manuals, documentation, and training

19.11 GeoAI

The Service provider shall design, implement, and integrate an Enterprise Geographic Information System (GIS) enhanced with GeoAI (Geospatial Artificial Intelligence) based on the ArcGIS platform to support SIMIS.

The solution shall combine:

- GIS (spatial data and mapping)
- AI/ML (predictive and automated analytics)
- Real-time data integration

19.11.1 Overview of GeoAI in SIMIS

The Service provider shall implement GeoAI capabilities within the ArcGIS platform to enable:

- Predictive analytics
- Automated anomaly detection
- Spatial pattern recognition
- Intelligent decision support

20.0 TRAINING & CAPACITY BUILDING

20.1 Overview

The Service provider shall design and deliver a **comprehensive training and certification program** to ensure:

- Effective adoption of SIMIS
- Capacity building for KSB staff and stakeholders
- Development of advanced technical expertise in:
 - ICT
 - GIS
 - GeoAI
 - AI/BI
 - System administration

The program shall include:

- End-user training
- Stakeholder training
- Technical training
- Certification-level training with formal examinations and accreditation

20.2 Training Categories and Certification Requirements

20.2.1 Category A: End-User Training (Phase One Priority)

Target

- KSB officers :50 users TOT's (Fund officers, Licensing, Compliance, Finance)

Assessment

- Practical system walkthroughs conducted in a test environment

20.2.2 Category B: 500 Stakeholder Training (Non-Certified)

Target

- Farmers
- Importers/exporters
- Repackagers

20.2.3 Category C: Field Inspection Training

Target

- Inspectors
- Field officers

Assessment

- Practical field test including:
 - GPS and mobile inspection tasks
- Scenario-based compliance testing

20.2.4 Category D: ICT Technical Training

Target Users

- System Administrators (5 users)

a) System Administration

Training Areas:

- Linux System Administration (LPIC-1 / Red Hat RHCSA)
- Kubernetes Administrator (CKA)
- VMware / Virtualization Certification

b) Cybersecurity Certification

Training Areas:

- CompTIA Security+ (2 users)

- ISO 27001 Lead Implementer (3 users)
- c) Database Administration Certification**

Training Areas:

- PostgreSQL Associate Certification (2 users)
- Responsibilities of the Service provider**

The Service provider shall:

- Provide:
 - Official training materials
- Facilitate:
 - Exam registration with accredited certification bodies

20.2.5 GIS & Remote Sensing Certification

Target Users

- GIS Analysts
- ICT Staff
- Planning Teams

Certification Tracks (ESRI-Aligned)

- ArcGIS Online Administration (5 users)
- GIS Fundamentals Certification (5 users)

Remote Sensing Training & Certification

- Remote Sensing Analyst Certificate (5 users)
- Drone/UAS Operations Certification (5 users)
- Practical training to be conducted at the manufacturer’s site where applicable

20.2.6 Category E: GeoAI & Data Science Certification

Target Users

- Data Scientists
- ICT Staff
- GIS Analysts

Training & Certification

- Python Data Science Certification (5 users)
- Machine Learning Certification (5 users)
- GeoAI Certification (custom / ESRI / Python-based) (5 users)

20.2.7 Category F: AI & Business Intelligence Certification

Target Users

- ICT Analysts
- Finance Teams
- Policy & Planning Teams

Training & Certification Areas

- Power BI Certification (5 users)
- Data Analytics Certification (5 users)
- Business Intelligence Certification (5 users)

20.2.8 Category G: Agricultural Blockchain Certification Requirements

Training Area	Users
Blockchain Fundamentals	5
Agricultural Blockchain (ABLCO Chain or Equivalent)	5
Smart Contracts & Traceability Systems	5

20.3 Certification Delivery Requirements

The Service provider shall:

a) Provide Training

- Physical (in-person) training sessions
- Virtual/online training options
- Hands-on labs and practical exercises

b) Facilitate Certification Exams

- Register participants for certification exams
- Provide exam vouchers
- Coordinate exam schedules with accredited certification bodies

20.4 Reporting Requirements

The Service provider shall provide:

- Training completion reports
- Certification results and pass rates
- Skills gap analysis
- Recommendations for continuous training and capacity development

SIMIS PRICE SCHEDULE

Name of tenderer.....

Tender No.:

Stamp and date:

SUMMARY OF PRICE SCHEDULE

Phase	DESCRIPTION	AMOUNT
PHASE ONE	A) CONSOLIDATED LIST OF REQUIREMENTS	
	B) GIS	
PHASE TWO	C) CONSOLIDATED LIST OF REQUIREMENTS	
-	D) SATELLITE IMAGERY & DIGITIZATION	
-	TOTAL AMOUNT BEFORE TAX AND LEVY	
-	VAT 16%	
-	PPRA CAPACITY BUILDING LEVY (0.03%)	
-	TOTAL TENDER AMOUNT <i>(To be Transferred to the form of tender)</i>	

.

PRICE SCHEDULE

NB: All unit prices should be exclusive of VAT

PHASE ONE A. CONSOLIDATED LIST OF REQUIREMENTS

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
1.	Software Requirements Specifications (SRS)	Requirements gathering, documentation, project charter, inception report and sign-off	1		
2.	SIMIS Software License	SIMIS codebase perpetual license and 1-year post-upgrade SLA support	1		
3.	Registration & Licensing Module	Stakeholder registration, licensing workflows, system design and documentation	1		
4.	Imports & Exports Module	Permit system, ICMS & Kentrade integration, WRC integration, consignment tracking	1		
5.	Repackaging Module	SSTS, QR/barcode generation, repackaging control, raw sugar enforcement	1		
6.	Sugar Development Levy (SDL) Module	Levy computation, billing, payment integration, reconciliation dashboards	1		
7.	SDF Loans Module	Loan lifecycle management, appraisal, disbursement and recovery system	1		
8.	SDF Grants Module	Grant application, approval, monitoring and evaluation workflows	1		
9.	Compliance & Enforcement Module	Inspection system, risk-based enforcement engine and workflows	1		
10.	SUGARSTAT Module	Real-time factory monitoring, production analytics dashboards and alerts	1		
11.	Mobile Applications	Inspection mobile app, offline sync, GPS capture, QR scanning and field data capture	1		
12.	SMS &	Bulk messaging system,	1		

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
	Notification System	automated alerts, multi-channel notification services			
13.	SAN Storage	100TB scalable enterprise storage with redundancy and tiered architecture	1		
14.	Servers (Application & DB Clusters)	Application, web, database and replication servers (clustered deployment)	6		
15.	Firewall	Next Generation Firewall (NGFW) appliance with 3-year licensing	1		
16.	Backup & Recovery	Backup, replication, disaster recovery (Veeam or equivalent)	1		
17.	Network Infrastructure	Network design, cabling, switching and configuration	1		
18.	Power & Cooling	UPS (minimum 6000VA) supply, installation and power management systems	1		
19.	End-User Training (TOT)	Training of trainers for KSB operational staff	50		
20.	End-User Operational Training	Training for licensing, compliance, finance and operational users	50 Users		
TOTAL AMOUNT (to be transferred to the Summary Form)					

B. PHASE ONE: GIS

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
1.	Stakeholder Engagement & Capacity Building	Stakeholder engagement, consultations, and workshops with mills	1		
2.	Stakeholder Engagement & Capacity Building	Baseline assessment (data audit, system analysis, gap analysis, reporting)	1		
3.	Stakeholder Engagement & Capacity Building	Pilot zone planning (farms, mills, mapping zones)	1		
4.	Stakeholder Engagement & Capacity Building	Capacity building (GIS, remote sensing, drone/UAS training)	1		
5.	Drone, Satellite Mapping &	Drone mapping and satellite imagery acquisition for pilot areas	1		

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
	Remote Sensing				
6.	Drone, Satellite Mapping & Remote Sensing	Processing imagery (orthomosaics, DSMs, NDVI, EVI, SAVI, NDWI, GCVI)	1		
7.	Drone, Satellite Mapping & Remote Sensing	Digitization of farm boundaries and spatial features	1		
8.	Yield Prediction & GeoAI Modelling	Development of first-generation yield prediction model	1		
9.	Yield Prediction & GeoAI Modelling	Model validation, calibration, and performance assessment	1		
10.	Yield Prediction & GeoAI Modelling	Feature engineering (soil, climate, crop data integration)	1		
11.	Yield Prediction & GeoAI Modelling	ML pipeline development and model retraining workflow	1		
12.	GIS Data Migration & Engineering	Migration and onboarding of 1TB census data into GIS platform	1		
13.	GIS Data Migration & Engineering	Data cleaning, transformation, normalization	1		
14.	GIS Data Migration & Engineering	Data model design (schema, relationships, metadata)	1		
15.	GIS Data Migration & Engineering	Integration with PostGIS database and APIs	1		
16.	Spatial Data Development & Thematic Mapping	Mapping of boundaries (administrative, farms, mill catchments)	1		
17.	Spatial Data Development & Thematic Mapping	Development of thematic layers (yield, crop cycles, varieties, supply-demand)	1		
18.	Spatial Data Development & Thematic Mapping	Spatial data integration and joins	1		
19.	Data Quality, Validation &	Data validation, spatial verification, cross-	1		

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
	Analytics	checking			
20.	Data Quality, Validation & Analytics	Field validation and ground-truthing	1		
21.	Data Quality, Validation & Analytics	Spatial analytics (productivity, ratios, hotspot mapping)	1		
22.	Enterprise GIS Server Infrastructure	High-performance GIS server (CPU, RAM, GPU, storage, virtualization, database, backup)	1		
23.	UAS & Remote Sensing System	Drone platform (DJI Mavic 3 Multispectral) + commissioning	1		
24.	RTK & GNSS Equipment	RTK base stations and GNSS mapping systems	2		
25.	Drone Accessories & Field Kits	Batteries, calibration tools, storage, field kits	1 Lot		
26.	Drone Processing Environment	DJI Terra / Pix4D software and configuration	1		
27.	GIS Workstation Environment	High-performance workstation with GPU + dual monitors	1		
28.	Field Data Collection Equipment	Tablets, RTK handheld devices, rugged laptop	1 Lot		
29.	Peripheral GIS Equipment	Plotter, UPS, and GIS tools	1 Lot		
TOTAL AMOUNT (to be transferred to the Summary Form)					

PHASE TWO

C. CONSOLIDATED LIST OF REQUIREMENTS

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
1.	Farmer/Farm Registration & Management System	Development of farmer registry platform (400,000+ farmers, profiles, IDs, geo-linking)	1		
2.	-	Farmer search, listing, filtering and export capabilities	1		
3.	-	Digital farm record book (inputs, labour, crop cycles, history tracking)	1		
4.	Contracting & Workflow Automation	Smart contract management system (templates, lifecycle, digital signatures, PDF generation)	1		
5.	-	Complaint management and SLA workflows	1		
6.	Stakeholder Access & Digital Channels	Farmer self-service portal (mobile-ready, OTP authentication, payments)	1		
7.	-	USSD integration (Safaricom & Airtel lifecycle access)	1		
8.	GIS Farm Mapping & Spatial Platform	National farm mapping system (boundary capture, polygon editing, overlap detection)	1		
9.	-	Farm mapping accuracy tools (sub-meter GPS validation)	1		
10.	-	Integration with national geospatial platforms (WFS, GNSS/CORS)	1		
11.	-	Mobile GIS mapping tools (GPS-enabled field capture)	1		
12.	-	Bulk import and expansion of mapped farm boundaries	1		
13.	-	Data export services (GeoJSON, KML, Shapefiles)	1		
14.	Crop Health & Agronomic Intelligence	Crop health analytics dashboard (vigor, density, disease scoring)	1		
15.	-	Weather integration (real-time + forecasts APIs)	1		
16.	-	Weather alert system (SMS + system alerts)	1		
17.	-	Agronomic recommendation engine (irrigation, pest, fertilizer advice)	1		

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
18.	-	Seasonal forecasting and crop cycle tracking	1		
19.	Machine Learning & Predictive Analytics Platform	National yield prediction model (multi-variable ML)	1		
20.	-	Satellite imagery integration (NDVI, EVI, NDWI, SAVI, NDMI)	1		
21.	-	Drone imagery analytics platform	1		
22.	-	Automated feature extraction pipeline	1		
23.	-	Anomaly detection engine (NDVI, growth rate, yield variance)	1		
24.	-	Time-series analytics and forecasting	1		
25.	-	Model retraining pipeline with version control	1		
26.	-	Model performance monitoring dashboards (RMSE, R ² etc.)	1		
27.	-	ML pipeline interface (training UI, model management)	1		
28.	Satellite & Remote Monitoring Expansion	Satellite coverage expansion to full sugar belt	1		
29.	-	Continuous drone + satellite monitoring workflows	1		
30.	Analytics, Dashboards & Decision Support	Advanced analytics dashboards (production, yield, performance)	1		
31.	-	Risk and anomaly dashboards for regulators	1		
32.	-	Decision support dashboards (supply-demand, forecasting)	1		
33.	System Integration & Interoperability	Integration with SIMIS core modules (traceability, licensing, SDL, compliance)	1		
34.	-	Integration with external systems (GIS, APIs, mobile platforms)	1		
35.	Testing, Validation & Acceptance	System testing, UAT validation, KPI compliance checks	1		
36.	GIS Integration with SIMIS	GIS-enabled cross-cutting integration across all modules	1		
37.	Documentation & Knowledge Transfer	Documentation, manuals, knowledge transfer and handover	1		

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
38.	Technical Training & Certification	ICT certification (Linux, Kubernetes, DB, Security)	1		
39.	-	GIS & Remote Sensing certification (ArcGIS, drone mapping)	1		
40.	-	GeoAI & Data Science certification (ML, Python, GeoAI)	1		
41.	-	AI & BI certification (Power BI, analytics)	1		
42.	-	Blockchain (ABLCO Chain) certification (traceability, smart contracts)	1		
TOTAL AMOUNT (to be transferred to the Summary Form)					

D. SATELLITE IMAGERY & DIGITIZATION

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
1.	Satellite Imagery Acquisition Services	High-resolution satellite imagery (<50cm) covering ~3,000 km ² across all sugar belts (multi-temporal acquisition)	1		
2.	-	Imagery acquisition planning and AOI definition using KSB geospatial inputs	1		
3.	-	Multi-temporal imagery acquisition (cloud-free, seasonal capture)	1		
4.	Satellite Processing & Quality Assurance	Orthorectification and spatial correction (1:10,000 accuracy standard)	1		
5.	-	Multispectral processing (RGB + NIR for vegetation indices)	1		
6.	-	Imagery validation, QA and compliance checks	1		
7.	Field Boundary Digitization (GIS Mapping)	National-scale digitization of all sugarcane farm boundaries	1		
8.	-	Topology validation (no overlaps/gaps, precise delineation)	1		
9.	-	Unique identifiers assignment and spatial tagging	1		
10.	Plantation Infrastructure Mapping	Mapping of roads, canals, irrigation systems, mills, weighbridges and zoning	1		
11.	Data Attribution & Metadata Development	Spatial data attribution (area, admin levels, identifiers)	1		
12.	-	Metadata development and GIS database integration	1		
13.	Spatial Integration & Validation	Integration of datasets into Enterprise GIS (PostGIS/ArcGIS)	1		
14.	-	Linking GIS datasets to SIMIS modules (traceability + analytics)	1		
15.	-	QA validation, cross-checking and compliance audit processes	1		
16.	Reporting & Deliverables	Preparation of GIS datasets, maps, structured outputs and reports	1		
17.	END-TO-END TRACEABILITY SYSTEM (SSTS)	Full farm-to-market traceability platform (cane → harvest → transport → mill → packaging → distribution)	1		

Sr. No	Component	Sub Activity / Description / Specification	Quantity	UNIT PRICE (kshs)	Estimated Cost (KES)
18.	Farm-Level Traceability & Crop Lifecycle	Farmer/farm registration, crop tracking, input usage, mobile data capture	1		
19.	Harvest Traceability System	Harvest event capture, batch code generation (HBC), validation controls	1		
20.	Milling & Production Traceability	Mill intake, batch aggregation (HBC → MB → PBN), processing records	1		
21.	Packaging & QR Traceability System	QR code generation, label integration, trace-back functionality	1		
22.	Repackaging Monitoring & Control	Repackager registration, RBC generation, audit trail and compliance rules	1		
23.	Imports Traceability & KRA Integration	Integration with KRA (iCMS, PIN, customs), IBC generation and validation	1		
24.	Distribution & Market Traceability	Distributor, warehouse, retail tracking and consumer QR verification system	1		
25.	Compliance & Enforcement Engine	Rule-based compliance system, alerts, anomaly detection, enforcement tools	1		
26.	Mobile Traceability & Inspection App	Mobile system (GPS capture, QR scanning, offline + online sync, inspections)	1		
27.	AI & Predictive Analytics for Traceability	AI models for anomaly detection, risk scoring, supply chain prediction	1		
28.	BI & Traceability Dashboards	Real-time dashboards (compliance, trade, supply chain, GIS visualization)	1		
29.	Traceability Data & Integration Platform	API integration layer, ETL pipelines, data warehouse, system interoperability	1		
30.	Administration, Security & Audit Framework	RBAC, IAM, MFA, encryption, audit logging, data protection compliance	1		
31.	System Architecture & Core Platform	Microservices architecture, hosting, database, scalability framework	1		
32.	Testing, Deployment & Validation	UAT testing, system validation, traceability compliance testing	1		
33.	Documentation & Knowledge Transfer	System documentation, manuals, knowledge transfer and handover	1		
TOTAL AMOUNT (to be transferred to the Summary Form)					

PART III – CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VI - GENERAL CONDITIONS OF CONTRACT

A. General

Provisions Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- a) The Adjudicator is the person appointed jointly by the Procuring Entity and the Service Provider to resolve disputes in the first instance, as provided for in Sub-Clause 8.2 hereunder.
- b) "Activity Schedule" is the priced and completed list of items of Services to be performed by the Service Provider forming part of his Tender;
- c) "Completion Date" means the date of completion of the Services by the Service Provider as certified by the Procuring Entity
- d) "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract (GCC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- e) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;
- f) "Day works" means varied work inputs subject to payment on a time basis for the Service Provider's employees and equipment, in addition to payments for associated materials and administration.
- g) "Procuring Entity" means the Procuring Entity or party who employs the Service Provider
- h) "Foreign Currency" means any currency other than the currency of Kenya;
- i) "GCC" means these General Conditions of Contract;
- j) "Government" means the Government of Kenya;
- k) "Local Currency" means Kenya shilling;
- l) "Member," in case the Service Provider consist of a joint venture of more than one entity, means any of these entities; "Members" means all these entities, and "Member in Charge" means the entity specified in the SC to act on their behalf in exercising all the Service Provider' rights and obligations towards the Procuring Entity under this Contract;
- m) "Party" means the Procuring Entity or the Service Provider, as the case maybe, and "Parties" means both of them;
- n) "Personnel" means persons hired by the Service Provider or by any Subcontractor as employees and assigned to the performance of the Services or any part thereof;
- o) "Service Provider" is a person or corporate body whose Tender to provide the Services has been accepted by the Procuring Entity;
- p) "Service Provider's Tender" means the completed Tendering Document submitted by the Service Provider to the Procuring Entity
- q) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented;
- r) "Specifications" means the specifications of the service included in the Tendering Document submitted by the Service Provider to the Procuring Entity
- s) "Services" means the work to be performed by the Service Provider pursuant to this Contract, as described in Appendix A; and in the Specifications and Schedule of Activities included in the Service Provider's Tender.
- t) "Subcontractor" means any entity to which the Service Provider subcontracts any part of the Services in accordance with the provisions of Sub-Clauses 3.5 and 4;
- u) "Public Procurement Regulatory Authority (PPRA)" shall mean the Government Agency responsible for oversight of public procurement.
- v) "Project Manager" shall the person appointed by the Procuring Entity to act as the Project Manager for the purposes of the Contract and named in the Particular Conditions of Contract, or other person appointed from time to time by the Procuring Entity and notified to the Contractor.

w) “Notice of Dissatisfaction” means the notice given by either Party to the other indicating its dissatisfaction and intention to commence arbitration.

1.2 Applicable Law

The Contract shall be interpreted in accordance with the laws of Kenya.

1.3 Language

This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.4 Notices

Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, hand delivery, or email to such Party at the address **specified in the SCC**.

1.5 Location

The Services shall be performed at such locations as are specified in Appendix A, in the specifications and, where the location of a particular task is not so specified, at such locations, whether in Kenya or elsewhere, as the Procuring Entity may approve.

1.6 Authorized Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Procuring Entity or the Service Provider may be taken or executed by the officials **specified in the SCC**.

1.7 Inspection and Audit by the PPRA

Pursuant to paragraph 2.2 e. of Attachment 1 to the General Conditions, the Service Provider shall permit and shall cause its sub contract or sub-Service providers to permit, PPRA and/or persons appointed by PPRA to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by PPRA. The Service Provider's and its Subcontractors' and sub-Service providers' attention is drawn to Sub-Clause 3.10 which provides, inter alia, that acts intended to materially impede the exercise of PPRA's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to PPRA's prevailing sanctions procedures).

1.8 Taxes and Duties

The Service Provider, Subcontractors, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

2 Commencement, Completion, Modification, and Termination of Contract

2.1 Effectiveness of Contract

This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as maybe **stated in the SCC**.

2.2 Commencement of Services

2.2.1 Program

Before commencement of the Services, the Service Provider shall submit to the Procuring Entity for approval a Program showing the general methods, arrangements order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

2.2.2 Starting Date

The Service Provider shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be **specified in the SCC**.

2.3 Intended Completion Date

Unless terminated earlier pursuant to Sub-Clause 2.6, the Service Provider shall complete the activities by the Intended Completion Date, as is **specified in the SCC**. If the Service Provider does not complete the activities by the Intended Completion Date, it shall be liable to pay liquidated damage as per Sub-Clause 3.8. In this case, the Completion Date will be the date of completion of all activities.

2.4 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties.

2.4.1 Value Engineering

The Service Provider may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- a) The proposed change(s), and a description of the difference to the existing contract requirements;
- b) A full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs, if applicable) the Procuring Entity may incur in implementing the value engineering proposal; and
- c) A description of any effect(s) of the change on performance/functionality.

The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

- a) accelerates the delivery period; or
- b) reduces the Contract Price or the lifecycle costs to the Procuring Entity; or
- c) improves the quality, efficiency, safety or sustainability of the services; or
- d) yields any other benefits to the Procuring Entity, without compromising the necessary functions of the Facilities.

If the value engineering proposal is approved by the Procuring Entity and results in:

- a) a reduction of the Contract Price; the amount to be paid to the Service Provider shall be the percentage specified in the **SCC** of the reduction in the Contract Price; or
- b) an increase in the Contract Price; but results in a reduction in lifecycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Service Provider shall be the full increase in the Contract Price.

2.5 Force Majeure

2.5.1 Definition

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

2.5.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

2.5.3 Extension of Time

Any period with in which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.5.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6 Termination

2.6.1 By the Procuring Entity

The Procuring Entity may terminate this Contract, by not less than thirty(30) days' written notice of termination to the Service Provider, to be given after the occurrence of any of the events specified in paragraphs(a)through (d) of this Sub-Clause 2.6.1:

- a) If the Service Provider does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as the Procuring Entity may have subsequently approved in writing;
- b) if the Service Provider become insolvent or bankrupt;
- c) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- d) if the Service Provider, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph2.2a. of Attachment1 to the GCC, in competing for or in executing the Contract

2.6.2 By the Service Provider

The Service Provider may terminate this Contract, by not less than thirty (30) days' written notice to the Procuring Entity, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and

(b) of this Sub-Clause 2.6.2:

- a) If the Procuring Entity fails to pay any monies due to the Service Provider pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Service Provider that such payment is overdue; or
- b) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days.

2.6.3 Payment up on Termination

Upon termination of this Contract pursuant to Sub-Clauses 2.6.1 or 2.6.2, the Procuring Entity shall make the following payments to the Service Provider:

- a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- b) except in the case of termination pursuant to paragraphs (a), (b), (d) of Sub-Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel.

3 Obligations of the Service Provider

3.1 General

The Service Provider shall perform the Services in accordance with the Specifications and the Activity Schedule, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and

employ appropriate advanced technology and safe methods. The Service Provider shall always act, in respect of any matter relating to this Contractor to the Services, as faithful adviser to the Procuring Entity, and shall at all times support and safeguard the Procuring Entity's legitimate interests in any dealings with Subcontractors or third parties.

3.2 Conflict of Interests

3.2.1 Service Provider Not to Benefit from Commissions and Discounts.

The remuneration of the Service Provider pursuant to Clause 6 shall constitute the Service Provider's sole remuneration in connection with this Contractor to the Services, and the Service Provider shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contractor to the Services or in the discharge of their obligations under the Contract, and the Service Provider shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

3.2.2 Service Provider and Affiliates Not to be Otherwise Interested in Project

The Service Provider agree that, during the term of this Contract and after its termination, the Service Provider and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

3.2.3 Prohibition of Conflicting Activities

Neither the Service Provider nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

- a) During the term of this Contract, any business or professional activities in Kenya which would conflict with the activities assigned to them under this Contract;
- b) during the term of this Contract, neither the Service Provider nor their Subcontractors shall hire public employees' inactive duty or on any type of leave, to perform any activity under this Contract;
- c) After the termination of this Contract, such other activities as may be **specified in the SCC**.

3.3 Confidentiality

The Service Provider, its Subcontractors, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Procuring Entity's business or operations without the prior written consent of the Procuring Entity.

- 3.4 **The Service Provider** (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Procuring Entity, insurance against the risks, and for the coverage, as shall be **specified in the SCC**; and (b) at the Procuring Entity's request, shall provide evidence to the Procuring Entity showing that such insurance has been taken out and maintained and that the current premiums have been paid.

3.5 Service Provider's Actions Requiring Procuring Entity's Prior Approval

The Service Provider shall obtain the Procuring Entity's prior approval in writing before taking any of the following actions:

- a) Entering into a subcontract for the performance of any part of the Services,
- b) appointing such members of the Personnel not listed by name in Appendix C ("Key Personnel and Subcontractors"),
- c) changing the Program of activities; and
- d) Any other action that may be **specified in the SCC**.

3.6 Reporting Obligations

The Service Provider shall submit to the Procuring Entity the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

3.7 Documents Prepared by the Service Provider to Be the Property of the Procuring Entity

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Service Provider in accordance with Sub-Clause 3.6 shall become and remain the property of the Procuring Entity, and the Service Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Procuring Entity, together with a detailed inventory thereof. The Service Provider may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be **specified in the SCC**.

3.8 Liquidated Damages

3.8.1 Payments of Liquidated Damages

The Service Provider shall pay liquidated damages to the Procuring Entity at the rate per day **stated in the SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the SCC**. The Procuring Entity may deduct liquidated damages from payments due to the Service Provider. Payment of liquidated damages shall not affect the Service Provider's liabilities.

3.8.2 Correction for Over-payment

If the Intended Completion Date is extended after liquidated damages have been paid, the Procuring Entity shall correct any overpayment of liquidated damages by the Service Provider by adjusting the next payment certificate. The Service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Sub-Clause 6.5.

3.8.3 Lack of performance penalty

If the Service Provider has not corrected a Defect within the time specified in the Procuring Entity's notice, a penalty for Lack of performance will be paid by the Service Provider. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as described in Sub-Clause 7.2 and **specified in the SCC**.

3.9 Performance Security

The Service Provider shall provide the Performance Security to the Procuring Entity no later than the date specified in the Form of acceptance. The Performance Security shall be issued in an amount and form and by a bank or surety acceptable to the Procuring Entity, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The performance Security shall be valid until a date 28 day from the Completion Date of the Contract in case of a bank guarantee, and until one year from the Completion Date of the Contract in the case of a Performance Bond.

3.10 Fraud and Corruption

The Procuring Entity requires compliance with the Government's Anti-Corruption laws and its prevailing sanctions. The Procuring Entity requires the Service Provider to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the tendering process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

3.11 Sustainable Procurement

The Service Provider shall conform to the sustainable procurement contractual provisions, if and as specified in the SCC.

4 Service Provider's Personnel

4.1 Description of Personnel

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Service Provider's Key Personnel are described in Appendix C. The Key Personnel and Subcontractors listed by title as well as by name in Appendix C are hereby approved by the Procuring Entity.

4.2 Removal and/or Replacement of Personnel

- a) Except as the Procuring Entity may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Service Provider, it becomes necessary to replace any of the Key Personnel, the Service Provider shall provide as a replacement a person of equivalent or better qualifications.
- b) If the Procuring Entity finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Service Provider shall, at the Procuring Entity's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Procuring Entity.
- c) The Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5 Obligations of the Procuring Entity

5.1 Assistance and Exemptions

The Procuring Entity shall use its best efforts to ensure that the Government shall provide the Service Provider such assistance and exemptions as **specified in the SCC**.

5.2 Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Sub-Clauses 6.2(a) or (b), as the case may be.

5.3 Services and Facilities

The Procuring Entity shall make available to the Service Provider the Services and Facilities listed under Appendix F.

6 Payments to the Service Provider

6.1 Lump-Sum Remuneration

The Service Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Service Provider in carrying out the Services described in Appendix A. Except as provided in Sub-Clause 5.2, the Contract Price may only be increased above the amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 6.2 and 6.3.

6.2 Contract Price

- a) The price payable is **set forth in the SCC**.
- b) Price may be payable in foreign currency, if so allowed in this document.

6.3 Payment for Additional Services, and Performance Incentive Compensation

- 6.3.1 For the purpose of determining the remuneration due for additional Services as may be agreed under Sub-Clause 6.2, a breakdown of the lump-sum price is provided in Appendices D and E.

6.3.2 **If the SCC so specify**, the service provider shall be paid performance incentive compensation asset out in the Performance Incentive Compensation appendix.

6.3.3 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (*which would be the tender price*), payment valuation certificates and variation orders on omissions and additions valued based on rates in the schedule of rates in the Tender, will be adjusted by a **plus or minus** percentage. The percentage already worked out during tender evaluation is worked out as follows: $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$.

6.4 Terms and Conditions of Payment

Payments will be made to the Service Provider according to the payment schedule **stated in the SCC**. **Unless otherwise stated in the SCC**, the advance payment (Advance for Mobilization, Materials and Supplies) shall be made against the provision by the Service Provider of a bank guarantee for the same amount, and shall be valid for the period **stated in the SCC**. Any other payment shall be made after the conditions **listed in the SCC** for such payment have been met, and the Service Provider have submitted an invoice to the Procuring Entity specifying the amount due.

6.5 Interest on Delayed Payments

If the Procuring Entity has delayed payments beyond thirty (30) days after the due date stated in the **SCC**, interest shall be paid to the Service Provider foreach day of delay at the rate stated in **the SCC**.

6.6 Price Adjustment

6.6.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment fact or to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c L_{mc} / L_{oc} + C_c I_{mc} / I_{oc}$$

Where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency “c”.

A_c , B_c and C_c are coefficients specified in the **SCC**, representing: A_c the non-adjustable portion; B_c the adjustable portion relative to labor costs and C_c the adjustable portion for other inputs, of the Contract Price payable in that specific currency “c”; and

L_{mc} is the index prevailing at the first day of the month of the corresponding invoiced ate and L_{oc} is the index prevailing 28 days before Tender opening for labor; both in the specific currency “c”.

I_{mc} is the index prevailing at the first day of the month of the corresponding invoice date and I_{oc} is the index prevailing 28 days before Tender opening for other inputs payable; both in the specific currency “c”.

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor Z_o/Z_n will be applied to the respective component factor of p_n for the formula of the relevant currency. Z_o is the number of units of Kenya Shillings of the index, equivalent to one unit of the currency payment on the date of the base index, and Z_n is the corresponding number of such currency units on the date of the current index.

6.6.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account to fall changes in cost due to fluctuations in costs.

6.7 Day works

6.7.1 If applicable, the Day work rates in the Service Provider's Tender shall be used for small additional amounts of Services only when the Procuring Entity has given written instructions in advance for additional services to be paid in that way.

6.7.2 All work to be paid for as Day works shall be recorded by the Service Provider on forms approved by the Procuring Entity. Each completed form shall be verified and signed by the Procuring Entity representative as indicated in Sub-Clause 1.6 within two days of the Services being performed.

6.7.3 The Service Provider shall be paid for Day works subject to obtaining signed Day works forms as indicated in Sub-Clause 6.7.2

7 Quality Control

7.1 Identifying Defects

The principle and modalities of Inspection of the Services by the Procuring Entity shall be as **indicated in the SCC**. The Procuring Entity shall check the Service Provider's performance and notify him of any Defects that are found. Such checking shall not affect the Service Provider's responsibilities. The Procuring Entity may instruct the Service Provider to search for a Defect and to uncover and test any service that the Procuring Entity considers may have a Defect. Defect Liability Period is as **defined in the SCC**.

Correction of Defects, and Lack of Performance Penalty

- a) The Procuring Entity shall give notice to the Service Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.
- b) Every time notice a Defect is given, the Service Provider shall correct the notified Defect within the length of time specified by the Procuring Entity's notice.
- c) If the Service Provider has not corrected a Defect within the time specified in the Procuring Entity's notice, the Procuring Entity will assess the cost of having the Defect corrected, the Service Provider will pay this amount and a Penalty for Lack of Performance calculated as described in Sub-Clause 3.8.

8 Settlement of Disputes

8.1 Contractor's Claims

8.1.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

8.1.2 If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clauses shall apply.

8.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all relevant to such event or circumstance.

8.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager may, after receiving any notice under this Sub-Clause, monitor the record-keeping and /or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

8.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and /or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

8.1.5.1 This fully detailed claim shall be considered as interim;

- a) The Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and /or amount claimed, and such further particulars as the Project Manager may reasonably require; and

- b) The Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.
- 8.1.6 Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.
 - 8.1.7 Within the above defined period of 42 days, the Project Manager shall proceed in accordance with Sub-Clause 3.5[Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
 - 8.1.8 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
 - 8.1.9 If the Project Manager does not respond within the time framed in this Clause, either Party may consider that the claim is rejected by the Project Manager and any of the Parties may refer to Arbitration in accordance with Sub-Clause 8.2 [Matters that may be referred to arbitration].
 - 8.1.10 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contract or fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

8.2 Matters that may be referred to arbitration

- 8.2.1 Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Services or abandonment of the Services or termination of the Contract by either party:
 - a) The appointment of a replacement Project Manager upon the said person ceasing to act.
 - b) Whether or not the issue of an instruction by the Project Manager is empowered by these Conditions
 - c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
 - e) Any dispute arising in respect of war risks or war damage.
 - f) All other matters shall only be referred to arbitration after the completion or alleged completion of the Services or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

8.3 Amicable Settlement

- 8.3.1 Where a Notice of Dissatisfaction has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a Notice of Dissatisfaction in accordance with Sub-Clause 8.1 above should move to commence arbitration after the fifty-sixth day from the day on which a Notice of Dissatisfaction was given, even if no attempt at an amicable settlement has been made.

8.4 Arbitration

- 8.4.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 8.3 shall be finally settled by arbitration. Arbitration shall be conducted in accordance with the Arbitration Laws of Kenya.
- 8.4.2 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.

- 8.4.3 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 8.4.4 Arbitration may be commenced prior to or after completion of the services. The obligations of the Parties, and the Project Manager shall not be altered by reason of any arbitration being conducted during the progress of the services.
- 8.4.5 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

8.5 Arbitration with proceedings

- 8.5.1 In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;
- a) Law Society of Kenya or
 - b) Chartered Institute of Arbitrators (Kenya Branch)
- 8.5.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.
- 8.5.3 The arbitration maybe on the construction of this Contractor on any matter or thing of what so ever nature arising there under or in connection there with, including any matter or thing left by this Contract to the discretion of the Project Manager, or the withholding by the Project Manager of any certificate to which the Contractor may claim to been titled to or the measurement and valuation referred to in clause 23.0 of these conditions, or the rights and liabilities of the parties subsequent to the termination of Contract.
- 8.5.4 Provided that no arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.
- 8.5.5 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.
- 8.5.6 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 8.5.7 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision requirement or notice had been given.
- 8.5.8 The award of such Arbitrator shall be final and binding upon the parties.

8.6 Failure to Comply with Arbitrator's Decision

- 8.6.1 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

9.1 The Adjudicator

- 9.1.1 Should the Adjudicator resign or die, or should the Procuring Entity and the Service Provider agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be jointly appointed by the Procuring Entity and the Service Provider. In case of disagreement between the Procuring Entity and the Service Provider, within 30days, the Adjudicator shall be designated by the Appointing Authority **designated in the SCC** at the request of either party, within 14 days of receipt of such

request.

- 9.2 The Adjudicator shall be paid by the hour at the rate **specified in the TDS and SCC**, together with reimbursable expenses of the type's **specified in the SCC**, and the cost shall be divided equally between the Procuring Entity and the Service Provider, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.

B. SPECIAL CONDITIONS OF CONTRACT

SECTION VII - SPECIAL CONDITIONS OF CONTRACT

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(a)	The Adjudicator is <u> TO BE DETERMINED UPON CONTRACT INITIATION </u>
1.1(v)	Project Manager is <u> CHIEF EXECUTIVE OFFICER </u>
1.1(d)	The contract name is <u> UPGRADE AND MAINTENANCE OF SUGAR INDUSTRY INFORMATION MANAGEMENT SYSTEM (SIMIS) </u> .
1.1(g)	The Procuring Entity is <u> KENYA SUGAR BOARD </u>
1.1(l)	The Member in Charge is <u> NA </u>
1.1(o)	The Service Provider is <u> NA </u>
1.4	The addresses are: Procuring Entity: KENYA SUGAR BOARD (KSB) Service Provider: TO BE FILLED UPON CONTRACT SIGNING ____ Attention: NA _____ Email address NA _____
1.6	The Authorized Representatives are: THE CHIEF EXECUTIVE OFFICER For the Procuring Entity: KENYA SUGAR BOARD _____ For the Service Provider: NA _____
2.1	The date on which this Contract shall come into effect is <u> TO BE DETERMINED </u> .
2.2.2	The Starting Date for the commencement of Services is <u> 2026 </u> .
2.3	The Intended Completion Date is <u> 2029 </u> .
2.4.1	If the value engineering proposal is approved by the Procuring Entity the amount to be paid to the Service Provider shall be <u> 50 </u> % (insert appropriate percentage. The percentage is normally up to 50%) of the reduction in the Contract Price.
3.2.3	Activities prohibited after termination of this Contract are: <u> SHARING ANY CONTRACTUAL INFORMATION DURING OR AFTER CONTRACT EXECUTION TO UNAUTHORIZED (NON PARTIES TO THE CONTRACT) </u> _____ _____
3.4	The risks and coverage by insurance shall be: (i) Third Party motor vehicle (ii) Third Party liability (iii) Procuring Entity’s liability and workers’ compensation (iv) Professional liability (v) Loss or damage to equipment and property
3.5(d)	The other actions are <u> NA </u> _____.]
3.7	Restrictions on the use of documents prepared by the Service Provider are: <u> NA </u> _____
3.8.1	The liquidated damages rate is <u> 1 </u> % _____ per day

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	The maximum amount of liquidated damages for the whole contract is _____1%_____ percent of the final Contract Price.
3.8.3	The percentage _____5%_____ to be used for the calculation of Lack of performance Penalty(ies)
5.1	The assistance and exemptions provided to the Service Provider are: _____NA_____
6.2(a)	The amount in Kenya Shillings _____NA_____.
6.3.2	The performance incentive paid to the Service Provider shall be: _____1%_____ _____
6.4	<p>Payments shall be made according to the following schedule:</p> <ul style="list-style-type: none"> • Advance for Mobilization, Materials and Supplies: ___10%_ percent of the Contract Price shall be paid on the commencement date against the submission of a bank guarantee for the same. • Progress payments in accordance with the milestones established as follows, subject to certification by the Procuring Entity, that the Services have been rendered satisfactorily, pursuant to the performance indicators: PAYMENT MILESTONES (PER YEAR) <ol style="list-style-type: none"> 1. 55% In the First year 2. 25% in the Second year 3. 20% in the Third Year <p>Should the certification not be provided, or refused in writing by the Procuring Entity within one month of the date of the milestone, or of the date of receipt of the corresponding invoice, the certification will be deemed to have been provided, and the progress payment will be released at such date.</p> • The amortization of the Advance mentioned above shall commence when the progress payments have reached 25% of the contract price and be completed when the progress payments have reached 75%. • The bank guarantee for the advance payment shall be released when the advance payment has been fully amortized.
6.5	<p>Payment shall be made within _____30_____ days of receipt of the invoice and the relevant documents specified in Sub-Clause 6.4, and within _____60_____ days in the case of the final payment.</p> <p>The interest rate is _____none_____.</p>
6.6.1	<p>Price adjustment is _____15%_____ in accordance with Sub-Clause 6.6.</p> <p>The coefficients for adjustment of prices are _____NA_____:</p> <p>(a) For local currency:</p> <p>A_L is _____NA_____</p> <p>B_L is _____NA_____</p> <p>C_L is _____NA_____</p> <p>L_{mc} and L_{oc} are the index for Labor from _____NA_____</p> <p>I_{mc} and I_{oc} are the index for _____NA_____ from _____NA_____</p> <p>(b) For foreign currency</p>

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>A_F is <u>NA</u></p> <p>B_F is <u>NA</u></p> <p>C_F is <u>NA</u></p> <p>L_{mc} and L_{oc} are the index for Labor from <u>NA</u></p> <p>I_{mc} and I_{oc} are the index for <u>NA</u> from <u>NA</u></p>
7.1	<p>The principle and modalities of inspection of the Services by the Procuring Entity are as follows: _____</p> <p><i>Monthly Progress Reports – to be done by the Procuring Entity appointed CIT and the Contractor’s representatives</i></p> <p>The Defects Liability Period is <u>30 days</u>.</p>
9.1	The designated Appointing Authority for a new Adjudicator is <u>NA</u>
9.2	<p>The Adjudicator is <u>NA</u>. Who will be paid a rate of <u>NA</u> per hour of work? The following reimbursable expenses are recognized: <u>NA</u></p>

NOTES:

- **Payment shall be within 30 days after submission of relevant documents to the Procuring entity**
- **The Contract period shall be Three (3) years Renewable upon satisfaction of services delivered**

C. APPENDICES

Appendix A - Description of the Services

Give detailed descriptions of the Services to be provided, dates for completion of various tasks, place of performance for different tasks, specific tasks to be approved by Procuring Entity, etc.

Appendix B - Schedule of Payments and Reporting Requirements

List all milestones for payments and list the format, frequency, and contents of reports or products to be delivered; persons to receive them; dates of submission; etc. If no reports are to be submitted, state here "Not applicable."

Appendix C - Breakdown of Contract Price

List here the elements of cost used to arrive at the breakdown of the lump-sum price:

- 1. Rates for Equipment Usage or Rental or for Personnel (Key Personnel and other Personnel).*
- 2. Reimbursable expenditures.*

This appendix will exclusively be used for determining remuneration for additional Services.

Appendix D - Services and Facilities Provided by the Procuring Entity

D. FORMS

SECTION VIII -CONTRACT FORMS

FORM NO. 1 - PERFORMANCE SECURITY – (Unconditional Demand Bank Guarantee)

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

PERFORMANCE GUARANTEE No.: _____

Guarantor:..... *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (herein after called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Applicant, we as Guarantor, hereby irrevocably under take to pay the Beneficiary any sum or sums not exceeding in total an amount of _____(),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the....Day of....., 2...², and any demand for payment under it must be received by us at this office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.” _____

[Name of Authorized Official, signature(s) and seals/stamps]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

FORM No. 2 - PERFORMANCE SECURITY OPTION 2 – (Performance Bond)

[Note: Procuring Entities are advised to use Performance Security–Unconditional Demand Bank Guarantee instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Procuring*

Entity] **Date:** _____ *[Insert date of issue]*

PERFORMANCE BOND No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. By this Bond _____ as Principal (hereinafter called “the Contractor”) and _____] as Surety (herein after called “the Surety”), are held and firmly bound unto _____] as Obligee (herein after called “the Procuring Entity”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the _____ day of _____, 20_____, for _____ in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are herein after referred to as the Contract.
3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:
 - 1) Complete the Contract in accordance with its terms and conditions; or
 - 2) Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable here under, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
 - 3) pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named herein or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.
6. In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day _____ of _____ 20_____.

SIGNED ON _____ on behalf
of by _____ in the capacity
of In the presence of

SIGNED ON _____ on behalf
of By _____ in the capacity
of In the presence of

FORM NO. 3 - ADVANCE PAYMENT SECURITY [Demand Bank Guarantee]

[Guarantor letter head or SWIFT identifier code] [Guarantor letter head or SWIFT identifier code]

Beneficiary: _____ *[Insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: _____ *[Insert guarantee reference*

number] **Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (herein after called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ () is to be made against an advance payment guarantee.
3. At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ ()' upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
 - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
 - b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Applicant on its account number _____ at
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the day of , 2,² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months] [one year]*, in response to the Beneficiary' s written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

.....
[Name of Authorized Official, signature(s) and seals/stamps]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

Tender Reference No.: _____ [insert identification
no] Name of the Tender Title/Description: _____ [insert name of the
assignment] to: _____ [insert complete name of Procuring Entity]

In response to the requirement in your notification of award dated _____ [insert date of notification of award] to furnish additional information on beneficial ownership: _____ [select one option as applicable and delete the options that are not applicable]

I) We here by provide the following beneficial ownership information.

Details of beneficial ownership

	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
1.	Full Name		Directly----- ----- % of shares	Directly.....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No---- 2. Is this right held directly or indirectly?: Direct..... Indirect.....	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No-- -- 2. Is this influence or control exercised directly or indirectly? Direct..... Indirect..... ...
	National identity card number or Passport number					
	Personal Identification Number (where applicable)		Indirectly---- ----- % of shares	Indirectly----- % of voting rights		
	Nationality					
	Date of birth [dd/mm/yyyy]					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
Occupation or profession						
2.	Full Name		Directly----- ----- % of shares	Directly.....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No---- 2. Is this right held directly or indirectly?: Direct.....	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No-- -- 2. Is this influence or control
	National identity card number or Passport number					
	Personal Identification Number (where applicable)		Indirectly---- ----- % of shares	Indirectly----- % of voting rights		
	Nationality(ies)					
	Date of birth [dd/mm/yyyy]					
	Postal address					

	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
	Residential address				exercised directly or indirectly?
	Telephone number				Indirect.....	Direct.....
	Email address			
	Occupation or profession					Indirect.....
						...
3.						
e.t						
.c						

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020. (Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
- (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
- (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
- (d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer: *[insert complete name of the Tenderer] _____

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: ** [insert complete name of person duly authorized to sign the Tender]

Designation of the person signing the Tender: [insert complete title of the person signing the Tender]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date this [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp