



**MINISTRY OF DEFENCE THROUGH THE PROJECT DIRECTOR OF ITS GREENAI
PROJECT MANAGEMENT UNIT (“PROCURING AGENCY”)**

**REQUEST FOR PROPOSAL
NASTP-GREENAI-AGRIVERSE-/07/2026**

**FOR
SERVICE LEVEL AGREEMENT (SLA)
FOR OPERATIONS, MAINTENANCE, BUG FIXES AND SUPPORT OF THE
AGRIVERSE DIGITAL AGRICULTURE APPLICATION SUITE**

**AS A COMPONENT OF PSDP APPROVED PROJECT TITLED “DEVELOPMENT
OF ICT AND ARTIFICIAL INTELLIGENCE (AI) BASED PRECISION
AGRICULTURE SYSTEMS UTILIZING DUAL-USE AEROSPACE
TECHNOLOGIES - GREEN-AI”**

Issue Date: 24 April, 2026

1. The procuring agency invites sealed bids from firms, companies, software houses registered with Income Tax and Sales Tax Department for provisioning of software development and associated support services for AgriVerse® digital agriculture application suite.
2. A complete set of bidding documents, containing detailed terms and conditions are available for the interested bidders at Project GreenAI NASTP, Alpha-19, Old Airport Road, Rawalpindi. Price of bidding documents is Rs.1000/- (if required). Bidding documents may also be downloaded from PPRA’s website. Bids prepared in accordance with instructions in the bidding document must reach at the following address on or before **12 May, 2026 at 11:00 am**. Bids will be opened on same day **12 May, 2026 at 11:30 am**. in presence of bidders or their authorized representatives. The advertisement along with bidding document is also available on PPRA web address www.ppra.org.pk

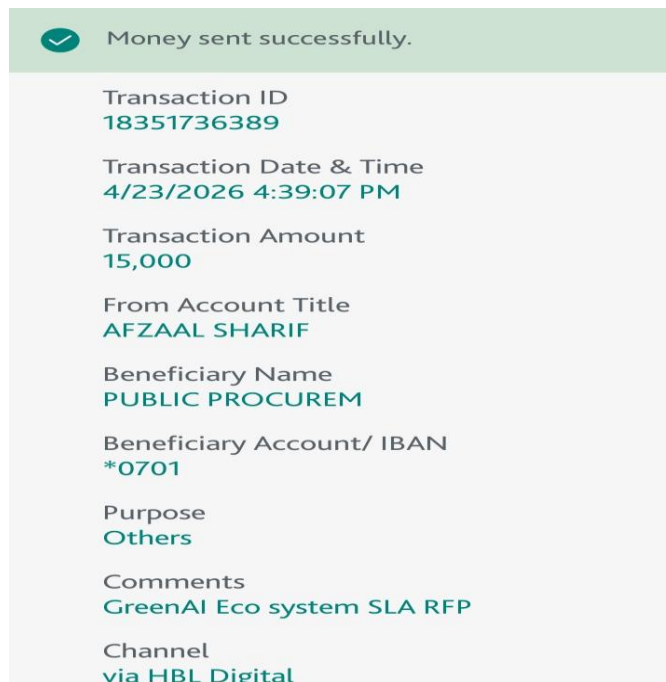
Project Director (GreenAI)
NASTP, Alpha 19,
Old Airport Road, Rawalpindi
pd@greenai.org.pk

Date: - 24 April, 2026

PLEASE READ CAREFULLY

- Participating bidders are required to submit their bids according to instructions mentioned in bidding documents. These bids should meet the requirements/criteria illustrated in bidding documents along with fulfilment of other terms and conditions of tenders.
- According to Rule 31 of Public Procurement Rules, 2004 (“PPR 2004”), no bidder is allowed to alter or modify his bids after the bids have been opened. Moreover, as per Rule 36 (b)(vi) of PPR 2004, no amendment in the technical proposal is permitted during technical evaluation. Therefore, in the light of prevailing govt. procedures, requests for amendments in quotations and clarifications leading to change of substance of bid after opening of bids cannot be accepted and bids not conforming to tender requirements are liable to be rejected.
- Participating bidders are therefore requested to read the bidding documents thoroughly and submit their quotes accordingly without any condition in conformance to all tender requirements including down payment, bid validity, provisioning of original quotation from foreign principal, bank guarantee confirmation etc., for consideration of bid. Bid found non-conforming to tender requirements is liable to be rejected on tender opening date.

Participating firms are requested to provide particulars of their reps on Cell No 0324-4447655/0324-4411999 at least 01 day prior to a tender opening date.



DISCLAIMER

All information set out in this SLA Contract RFP is intended to provide prospective bidders with a consolidated statement of requirements for the proposed AGRIVERSE digital agriculture application suite and GreenAI Eco system. The document is drafted as a procurement and contracting basis and is to be read together with any bid reference particulars, schedules, and annexures issued by the Procuring Agency.

This document is neither an award of contract nor a commitment to award. The Procuring Agency reserves the right to amend the scope, seek clarifications, cancel the procurement process, reject any or all proposals, or proceed in whole or in part, without thereby incurring any liability to any bidder.

The successful bidder shall be required to provide the services on a managed SLA basis, including transition-in, operations, maintenance, monitoring, minor bug fixes, testing of fixes, documentation upkeep, training continuity, handover of updated service records, and ongoing support in accordance with the terms set out herein.

INDEX LIST OF CLAUSES AND ANNEXURES GENERAL PARTICULARS

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23.	Withdrawal of Offer
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ANNEX “A”	:	SRS-01
ANNEX “B”	:	Evaluation Criteria
ANNEX “C”	:	Financial Proposal
ANNEX “D”	:	Undertaking
ANNEX “E”	:	Affidavit
ANNEX “F”	:	Non-disclosure agreement (NDA)
ANNEX “G”	:	Certificate for Correctness
ANNEX “H”	:	Scope Consolidation Matrix
ANNEX “J”	:	SLA Service Outputs and Acceptance Matrix
ANNEX “K”	:	SLA Schedule
ANNEX “L”	:	Bidder Information and Letter of Proposal
ANNEX “M”	:	Milestone Acceptance Certificate

BIDDING PROCESS INSTRUCTIONS

1. **Bid Reference No. NASTP-GREENAI-AGRIVERSE-/07/2026**
2. **Procurement Agency.** Ministry of Defense through the Project Director of its Green-AI Project Management Unit.
3. **Invitation of Bid.** PMU GREENAI invites sealed bids for **SERVICE LEVEL AGREEMENT (SLA) for Operations, Maintenance, Bug Fixes and Support of the AGRIVERSE Digital Agriculture Application Suite & GreenAI Eco system**
4. **Last Date & Time of Submission of Bid:** 12 May, 2026 at 1100hrs
5. **Bid Opening Date & Time:** 12 May, 2026 at 1130hrs
6. **Bid Opening Address.** Project Management Unit (PMU), Project GreenAI, NASTP, Alpha 19, Old Airport Road, Rawalpindi. Tel: 0324-4447655/03244411999
Email: sm_scm@greenai.org.pk
7. **General Instructions to Bidders**
 - (a) The bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the procuring agency, or any other costs incurred in connection with or relating to its Proposal.
 - (b) The procuring agency reserves the right to reject any or all of the bids submitted in response to this RFP document at any stage without assigning any reasons whatsoever. The procuring agency also reserves the right to withhold or withdraw the process at any stage with intimation to all who have submitted their proposals in response to this RFP.
 - (c) Any time prior to the deadline for submission of bids, the procuring agency may change/ modify/ amend any or all of the provisions of this RFP document without assigning any reason. All addenda/ corrigenda shall form part of the RFP documents and shall be notified in writing to all prospective bidders and will be binding on them. The prospective bidders should acknowledge receipt of any such addendum/ amendment in the RFP document(s).
 - (d) The Bidder may modify or withdraw its Bid after the Bid submission but prior to deadline for submission of the Bids, provided that written notice of the modification or withdrawal is received by procuring agency.
 - (e) No Bid may be modified subsequent to the deadline for submission of the Bids.
 - (f) No Bid may be withdrawn in the interval between the deadline for submission of Bids and the expiry of the period of Bid validity specified by the Bidder on the Bid Form. Withdrawal of a Bid during this interval may result in forfeiture/encashment of the Bid Security.
8. **Procurement Procedure:** The procuring agency is adopting a 'single stage two envelope' bid procedure as specified in Rule 36(b) of PPR 2004.
9. **Language of Bid:** The Bid prepared by the bidder and all correspondence and documents relating to the Bid exchanged between the Bidder and procuring agency and/ or any representative of procuring agency, shall be written in English language. Any supporting printed literature furnished by the Bidder written in another language should be accompanied by an English translation of its pertinent pages in which case, for purposes of interpretation of the Bid, the English translation shall govern.

10. Submission of Proposals

(i) Proposals are to be submitted as hard copy via post or by-hand sealed as under.

(ii) The Bid shall comprise a single package containing two (02) separate envelopes. Each envelope shall contain separately the technical proposal and the financial proposal.

(iii) **Technical Proposal:** Technical proposal is to be submitted in **duplicate** in a separate sealed envelope and clearly marked “**Technical Proposal without prices**” Tender number and date of opening. The Technical Proposal Envelope shall contain: -

- Technical Proposal as per System Requirement Specifications **Annexure ‘A’**

- Bidding Forms & **Annexure ‘D’ to Annexure ‘F’** (Duly filled & signed by authorized signatory)

- Bid Security in a separate sealed envelope clearly marked **Bid Security**, Tender Number.

- Soft copy of Technical Proposal in the form of USB in a separate sealed envelope clearly marked “**Soft Copy of Technical Proposal**”, Tender Number.

(iv) **Financial Proposal:** It shall contain Financial Proposal Form **Annexure ‘C’** filled and dully signed in a separate sealed envelope clearly marked on the face “**Financial Proposal with Prices**”, tender number. The financial proposal shall be submitted as a fixed-price turnkey bid and shall clearly state all amounts, taxes, duties, and commercial assumptions. No conditional or partial offer shall be entertained unless expressly permitted by the Procuring Agency.

(v) Both the “**Envelopes**” of Technical and Financial proposals should be enclosed in one cover, properly sealed, and bear the address of procuring agency with tender number and opening date.

(vi) Failure to provide any of the required information specified in the RFP document with the ‘Technical Proposal’ (Envelope 1), and in the prescribed format (where applicable), may lead to disqualification of the Bid and the affected Bidder’s ‘Financial Proposal’ (Envelope 2) will be returned unopened.

(vii) The procuring agency reserves the right to verify the letters, documents or information provided by any bidder from issuing parties and may (together with its advisers) visit and hold meetings with them which shall be facilitated by the bidder. Furthermore, failure to provide the Financial Proposal in the form required under this RFP document may also result in disqualification of the Bid.

11. Evaluation Process

- (a) The procuring agency intends to exercise the most advantageous bid in conformance with PPR 2004.
- (b) The Bid shall comprise a single package containing two (02) separate envelopes. Each envelope shall contain separately the technical proposal and the financial proposal.
- (c) The envelopes shall be marked clearly as “TECHNICAL PROPOSAL” and “FINANCIAL PROPOSAL” in bold and legible letters to avoid confusion.
- (d) Initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened.
- (e) The envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the procuring agency without being opened.
- (f) Procuring agency shall evaluate the technical proposal in the manner prescribed herein, without reference to the price and reject any proposal which does not conform to the specified requirements.
- (g) During the technical evaluation no amendments in the technical proposal shall be permitted.
- (h) Technical Qualification evaluation shall be based on the criteria given in **Annexure ‘B’ Evaluation Criteria**, regarding Bidder’s Technical Experience, Product Capabilities, Design Process and Solution Presentation, etc. as demonstrated in the qualification documents submitted by the Bidder.
- (i) The Bidders securing **at least seventy percent (70%)** overall marks and minimum passing marks in each category (i.e., Network Infrastructure & Hardware Availability, Network Architecture & Technical Capability, Services Provisioning & Management, Solution Design & Integration Approach, Deployment & Operational Readiness, and Functional Proof-of-Concept Demonstration), in addition to the fulfilment of mandatory requirements, shall be considered qualified, and assigned a technical score **St**.
- (j) Financial bids of only the technically qualified bidders shall be opened and assigned a financial score **Sf** evaluated by procurement committee as per the formula described in **Annexure “B”**.
- (k) Work will be awarded to the bidder offering most advantageous bid evaluated as the highest ranked bid based on cost and quality as described in **Annexure “B”**.
- (l) Prior to the expiration of the period of bid validity, procuring agency will notify the successful bidder in writing of its intent to award the contract. The contract will be executed subject to satisfactory discussion of the terms and conditions of the contract. The discussion shall be in accordance with PPR 2004 provisions of Pakistan. The form of contract is attached as **Annexure ‘G’**.
- (m) Upon the successful bidder’s furnishing of performance guarantee pursuant to this RFP, procuring agency will promptly notify each unsuccessful Bidder and will discharge their respective bid security(s). The technical and financial proposals of both successful and unsuccessful bidders will be retained by the procuring agency.
- (n) The bid sum as submitted and read out during financial bid 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 except that if the Bid is

substantially responsive, the procuring agency shall handle only the undermentioned errors on the following basis:

(i) Bidders shall be notified of any correctable error detected in their bid during the notification of award.

(ii) Any arithmetic errors in the submitted bid arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be rectified on the following basis:

- If there is a discrepancy between words and figures, the lowest amount, either in words or figures, shall be considered.

- If there is discrepancy between the unit price and the total price which is obtained by multiplying the unit price and quantity, or between sub-total and the total price, the unit or sub-total price shall prevail, and the total price shall be corrected.

- In case of discrepancy between sub-total price obtained by adding various prices in the schedule and the sub-total price indicated for that particular schedule, the sub-total obtained by addition of various arithmetically corrected prices would be considered for evaluation.

- In case of any discrepancy in the applicable rates or calculation of applicable taxes discussed, agreed and added to the contract amount in separate lines, as needed, corrections in item and subtotal prices may be allowed as per applicable Govt. rates / rules.

- The procuring agency shall be entitled to award the contract to the most advantageous bidder after applying permissible arithmetic / tax corrections in the bid proposal sheets. If the bidder does not accept the correction of the errors as above, his bid will be rejected.

12. **Bidder's Eligibility:** The Firms, companies, distributors / suppliers registered with Income Tax and Sales Tax Department for **SERVICE LEVEL AGREEMENT (SLA) for Operations, Maintenance, Bug Fixes and Support of the AGRIVERSE Digital Agriculture Application Suite & GreenAI Eco system**

13. **Bid Security**

(a) Bid security will be equal to **Rupees 200,000/-** and will be in the shape of pay order / demand draft in favor of Project Director Green-AI, Alpha-19, Old Airport Road, NASTP Rawalpindi. Bid security shall be attached with the technical proposal otherwise proposal will not be accepted.

(b) Bids without required Bid security will be rejected without any right of appeal.

(c) The bid security shall be forfeited in case of occurrence of any one of the following:

(i) If a bidder withdraws its bid during the period of bid validity specified in this RFP document; or

(ii) In the case of successful bidder, if it fails:

- To furnish performance guarantee in accordance with the RFP document; and
- To sign the contract.

(d) Bid security of unsuccessful bidders will be returned upon the award of contract to successful bidder, and after furnishing of the performance guarantee.

14. **Performance Guarantee**

(a) Performance Guarantee (PG) equal to **10%** of total contract amount will be submitted before signing of contract. PG will be kept against SLA/support and will only be released after completion of the contractual timeline (3 years) as per the contract.

(b) The Performance Guarantee shall be as Bank Guarantee Form (attached with draft contract) or CDR from any Scheduled Bank in Pakistan in favor of Project Director Green-AI, Alpha-19, Old Airport Road, NASTP Rawalpindi.

(c) In case of cancellation of contract due to default of the supplier, the performance guarantee shall be forfeited in favor of procuring agency.

(d) The bidder should quote its rates clearly in Pak Rupees in the Financial Proposal in both figures and words as per format attached at **Annex 'C'**.

(e) The rates for each UAV platform offered shall be quoted on separate lines.

(f) The Bid shall remain valid for **ninety (90) calendar days** from technical bid opening date and further it may be requested to be extended by procuring agency.

(g) A bid valid for a shorter period shall be rejected by procuring agency as non-responsive.

(h) Price and all other terms and conditions shall be fixed and firm throughout Bid validity period.

(i) No currency exchange rate will be applicable and bids with a condition of currency exchange rate applicability will be rejected without any right of appeal.

(j) Bid(s) shall be inclusive of all applicable taxes, duties, charges, levies, etc.

15. **Payment Procedure**

(i) Payments shall be subject to the completion of milestones. For each milestone, an acceptance criterion will be defined that will correlate with deliverables and must be accomplished successfully by the bidder. The payments will be released upon submission of error-free invoices.

(ii) No milestone payment shall be withheld on account of routine SLA obligations once the relevant milestone has been duly accepted, unless the contract expressly provides otherwise.

(iii) Acceptance criteria for each milestone will be finalized at the time of official signing of contract and will be made part of the contract document. All payments will be subject to acceptance of milestones which will be evaluated in accordance with the acceptance criteria proposed by the Purchaser.

(iv) The supplier is to present a Sales Tax invoice (where applicable) / numbered bill upon completion of each milestone for disbursement of

the amount agreed upon for the completed milestone as per the final contract.

- (v) All taxes applicable on the amount of bill will be deducted at source.
- (vi) Crossed cheques of applicable amount (in the favour of the respective bidder) will be issued from Project Director (**GreenAI**).
- (vii) Bank charges incidental to the withdrawal of payment shall be borne by the Supplier.
- (viii) Up to 20 % of total contractual value will be paid as Mob Advance upon provisioning of BG / CDR of the same amount as Mobilization Advance from scheduled bank of Pakistan in prescribed form (**Annex VII**)
- (ix) Remaining 80% advance payment shall be made to the Supplier upon provisioning of invoice for establishment of 24/7 Service Center & Consultancy services company for the provisioning of 24/7 support and consultancy services right at the onset as outlined in **Annexure A** to support entire GreenAI ecosystem from the date of initiation till completion of SLA tenure of 03 years.

17. **Delivery / Completion Period**

(a) The bidder shall start providing services immediately after the signing of contract or within such period as may be specified in the final contract. The SLA support period shall terminate upon issuance of the Completion Certificate. Where delay in transition-in or service performance is caused by actions or omissions attributable to the Procuring Agency, the bidder may seek a reasonable extension of time supported by written justification.

18. **Litigation:** In case of any dispute only Court of Jurisdiction at Islamabad Pakistan will have the Jurisdiction to decide the matter.

19. **Force Majeure**

(a) "Force Majeure" means an exceptional event or circumstance, which is beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.

(b) The developing agency / firm / vendor shall, within fifteen (15) days of its commencement, notify the Procuring Agency of any such event, act or circumstance which is relied upon by the Supplier for its inability to comply with its obligation. The Purchaser shall have the right to conduct investigations to satisfy itself about the genuineness of the "Force Majeure" event, act or circumstance. Non-availability of raw material for the manufacture of the Goods or export permit for the export of the Goods from the country of its origin shall not constitute "Force Majeure."

(c) If by reason of "Force Majeure" the Goods are not delivered by the due date, then the Delivery Period may be extended appropriately for the purpose, provided the said Goods shall be ready to be delivered within one (1) month of the stipulated delivery date. If the said Goods are not ready to be delivered after the lapse of one (1) month as aforementioned, then the Purchaser shall have the right to cancel the Contract by informing the Supplier of the cancellation in

writing. This, however, will not apply to consignments of Goods already accepted and delivered according to the terms of the Contract. The Supplier shall not be entitled to any compensation whatsoever as a result of this cancellation.

20. **Arbitration:** All matters of dispute or difference, except regarding rejection of stores / Services by the inspector and or cancellation of the contract by the Purchaser arising out of this contract between the parties hereto, shall be settled by mutual agreement, failing which they shall refer for Arbitration to Project Director Green AI who will be the sole arbitrator of the disputed matter and two representatives, one to be nominated by each party, will assist PD Green AI for decision. The award/decision of PD Green AI (The Sole Arbitrator) will be final and binding on all parties such as Supplier, Purchaser and related party (if any).
21. **Risk Purchase:** In the event of failure on the part of the developing agency to comply with the contractual obligations, the contract is liable to be cancelled at his risk and expense of Successful bidder.
22. **Withdrawal of Offer:** If the bidder withdraws its bid or backs out from providing items won by the bidder within validity period at any stage of contract finalization, procuring agency may place such bidder under embargo for a period of twelve months, which may extend up to eighteen months and forfeiture of Bid Security or Performance Guarantee, as applicable.
23. **Disqualifications:** Proposals will be liable to be rejected if any deviation is found from the instructions as laid down in the bid document i.e.
 - (i) Technical bid is submitted without the required bid security.
 - (ii) Proposals are found conditional or incomplete in any respect.
 - (iii) Multiple rates are quoted against one item.
 - (iv) Bids are received after specified date and time.
 - (v) Mandatory requirements of Evaluation Criteria are not fulfilled.
 - (vi) Mandatory Technical Requirements of UAS are not properly adhered to.
 - (vii) Bidder is not the principal manufacturer of proposed & baseline platforms.
 - (viii) Any inferior product/specifications than the specifications provided in SRS-01 document.
24. **Termination of Contract:** If at any time during the pendency of the Contract, the Purchaser decides to terminate the Contract for any reason whatsoever (other than for reason of failure to Deliver the Goods), it shall have the right to do so by giving the Supplier a notice to that effect. In that event, the Purchaser will accept delivery, at the itemized price and terms, of such of the Goods then in the actual possession of the Purchaser.
 - (a) In the case of remainder of the undelivered Goods, the Purchaser may select either:
 - (i) To have any part thereof completed and take the delivery thereof at the itemized prices, or
 - (ii) To cancel the residue and pay to the Supplier for the Goods or components thereof in the actual possession of Supplier at the prices to

be determined by the Purchaser in which case Goods in the possession of Supplier shall be delivered by the Supplier.

(b) No payment shall, however, be made for any Goods not yet in the actual possession of Supplier on the date notice of termination is received

25. **Authority to Sign Documents:** Proposal must be accompanied by Letter of Authorization to sign the Tender on behalf of the Bidder. Bidder must prove that the person who signs this Tender is fully authorized to bind his establishment / company.

26. **Grievances Redressal Committee**

(a) After submission of bid and prior to award of the contract, any bidder feeling aggrieved by any act of procuring agency may lodge a written complaint concerning his grievances to GRC constituted under Rule 48 of PPRA within 07 days of announcement of the technical evaluation report and 05 days after issuance of final evaluation report.

(b) GRC will immediately initiate the investigative action and decide the complaint within ten days of its receipt. The decision of GRC shall be intimated to the complainant / aggrieved bidder. The decision of the GRC shall be binding upon all the parties.

27. **Bidding Clarifications**

(a) In case any clarification is required regarding RFP, bidder may contact on following address till one week prior to the deadline for submission of tenders.

Technical Clarification: 03130588026

Bidding Procedure: 0324-4411999 / 0324-4447655

(b) A prospective bidder requiring any clarification of the RFP documents which is essential to enable the prospective bidder to submit its Bid, may notify the procuring agency in writing through on email address of the Project Director GreenAI mentioned below.

(c) The procuring agency may reach out to the prospective bidders for additional information or clarification during the submission, evaluation, and discussion periods.

28. **Rights Reserved:** Procuring Agency reserves the right to accept or reject any proposal and to annul the procurement process and reject all proposals at any time prior to contract award as per rule 33 of PPR 2004 without there by incurring any liability to the affected Bidder.

Project Director (GreenAI)
NASTP, Alpha 19,
Old Airport Road, Rawalpindi
pd@greenai.org.pk

Date: - 24 April, 2026

SRS-01

**SYSTEM REQUIREMENT SPECIFICATION
FOR
SERVICE LEVEL AGREEMENT (SLA) FOR OPERATIONS, MAINTENANCE,
MINOR BUG FIXES AND SUPPORT OF THE AGRIVERSE DIGITAL
AGRICULTURE APPLICATION SUITE & GREENAI ECO SYSTEM
AS A COMPONENT OF PSDP APPROVED PROJECT TITLED "DEVELOPMENT
OF ICT AND ARTIFICIAL INTELLIGENCE (AI) BASED PRECISION
AGRICULTURE SYSTEMS UTILIZING DUAL-USE AEROSPACE
TECHNOLOGIES - GREEN-AI"**

1. **Project Description**

The **AGRIVERSE Digital Agriculture Application Suite** is a sophisticated, multi-platform ecosystem designed to modernize precision farming through the integration of high-performance computing, artificial intelligence, and secure data architectures. Operating as a cloud-native platform, the project merges advanced **AI-enabled mobile diagnostics**—featuring both online and edge-based offline disease detection—with a **blockchain-backed "Track and Trace" system** to ensure immutable supply chain transparency. The suite facilitates critical field operations through offline-first mobility tools for GPS boundary mapping and crop monitoring, all while leveraging **HPC-backed infrastructure** to manage complex, data-intensive workloads. Under this RFP, the project transitions into a comprehensive **Managed Services and SLA phase**, requiring a technology partner to undertake end-to-end responsibility for the ecosystem's stability and growth. This involves a rigorous service transition to establish operational baselines, followed by the management of a **Disaster Recovery (DR) site** to ensure business continuity against potential outages. The selected partner will maintain an interoperable **API framework** for external data exchange with entities like Smart Farms and Green Cabins, providing continuous technical assurance, minor bug fixes, and performance optimization. Ultimately, the project aims to deliver a resilient, scalable, and well-governed digital infrastructure that supports the long-term sustainability of precision agriculture.

2. **Scope of Project**

The AGRIVERSE project is a sophisticated, cloud-native digital precision agriculture ecosystem designed to consolidate multiple high-tech workstreams under a unified, 36-month managed Service Level Agreement (SLA). At its core, the scope involves the operation and optimization of a High-Performance Computing (HPC) backed infrastructure that supports intensive data pipelines, middleware, and multi-node CPU/GPU execution for scalable performance. This backend powers an intelligent mobile ecosystem consisting of a bilingual crop disease detection application utilizing both online APIs and offline Edge AI inference, as well as an offline-first field agent tool for GPS mapping and GIS-based crop boundary tracking. The platform's integrity is maintained through a blockchain-enabled "Track and Trace" system for supply chain transparency, integrated with a GIS web dashboard for administrative oversight and plot registration.

To ensure long-term sustainability and resilience, the project encompasses the establishment of a dedicated Disaster Recovery (DR) site with robust failover and

replication protocols, alongside a secure API framework for interoperability with external entities like Smart Farms and Green Cabins. Beyond pure technical maintenance, the scope demands a structured governance model including rigorous testing, documentation upkeep, and knowledge transfer to the Procuring Agency. The service is governed by strict performance targets, requiring a support organization capable of acknowledging issues within one business day and resolving critical system outages within a four-hour window. This integrated approach effectively transitions the platform from a development phase into a steady-state operation focused on high availability, security, and continuous minor enhancements.

Overall, the requirements of software licensing agreement may be consolidated as follows:

- (i) HPC Consultancy and Platform Integration Services
- (ii) Crop Disease Detection Mobile Application
- (iii) Agriverse Field Agent / Farmer Mobile Application
- (iv) Blockchain Enabled GIS-Integrated Agriculture Track and Trace System
- (v) Disaster Recovery (DR) Site, Backup and Recovery Services
- (vi) External Entity API Integration and Information Exchange Services within GreenAI Eco System

3. Overview of the Requirements

3.1 Functional Requirement:

This section lists the functional requirements of a SERVICE LEVEL AGREEMENT (SLA) for Operations, Maintenance, Bug Fixes and Support of the AGRIVERSE Digital Agriculture Application Suite:

Sr No	Category	Feature	Description
1.	Farmer Mobile App	Authentication & Profile	Support authentication, remembered sessions, and profile/settings management.
2.		Localization	Support bilingual operation in English and Urdu.
3.		User Workflows	Maintain workflows for map-based field viewing, camera/gallery image capture, result history, and access to disease detection outputs.
4.		Online Inference	Connect with backend APIs for online disease inference, reliable storage of results, and presentation of pesticide recommendations.
5.		Offline Inference (Edge AI)	Provide offline disease detection using embedded on-device edge models, including classification/object detection pipelines and local storage.
6.		Data Synchronization	Queue offline detection results and synchronize with the backend once internet connectivity is restored.
7.	Field Agent App	Offline Data Capture	Capture farm, field, crop, boundary, location, and farmer information directly on the device

			without requiring continuous internet connectivity.
8.		GIS & Mapping	Enable GPS tracking, field boundary mapping, crop photo capture, and map-based field operations.
9.		Local Data Management	Maintain local data models, CRUD functionality, search/filter features, farm statistics, crop distribution insights, and area/distance calculations.
10.		Local Device Security	Maintain device permissions and local security controls related to location, camera, and storage access.
11.	Blockchain Track & Trace	Traceability Backbone	Operate the blockchain backbone including ledger write services, smart contract logic, QR generation/linkage, and audit logging.
12.		Access & Data Control	Maintain role-based access control and data protection for immutable and traceable recording of crop, batch, and supply chain events.
13.		GIS Web Dashboard	Provide a dashboard for plot registration, lifecycle monitoring, intervention logging, traceability review, reporting, and administrative control.
14.		Mobile Verification	Enable farmer and consumer mobile application capabilities for activity logging, QR-based verification, and role-specific access to traceability data.
15.		Activity Logging	Maintain configurable forms, post-harvest activity logging, and basic consumer feedback functions.
16.	External Interfaces	API Framework	Maintain an API framework enabling secure information exchange with approved external entities (e.g., Smart Farms, Green Cabins).
17.		API Standards	Maintain schemas, authentication/authorization controls, versioning, error-handling conventions, and message validation rules.
18.		Data Flow Operations	Operate middleware connectors, queues, webhooks, and transformation logic needed for synchronization, retries, and smooth data flow.
19.	HPC Infrastructure	Service Transition	Prepare a service transition roadmap for software components operating with the HPC and cloud infrastructure, including compute, memory, storage, and I/O alignment.
20.		Architecture Optimization	Assess architecture and identify operational optimization requirements for multi-node, multi-core, CPU/GPU-aware execution and scalable orchestration.

21.		Operational Baselines	Define configuration baselines, architecture interfaces, bottleneck mitigation actions, and environment readiness requirements.
22		Cloud Environment Ops	Operate and maintain components on the HPC-backed cloud environment, including container/service health checks, runtime validation, and restart coordination.
23	HPC Infrastructure	Interoperability	Review and refine middleware, APIs, service interfaces, and inter-application data exchanges among cloud-native modules and blockchain components.
24		Data Pipelines	Maintain high-throughput data pipelines, integration checkpoints, and orchestration workflows necessary for service continuity.
25		Technical Assurance	Undertake periodic performance benchmarking, architecture conformance checks, health verification, and operational assurance for the overall solution.
26		Service Transition	Prepare a service transition roadmap for software components operating with the HPC and cloud infrastructure, including compute, memory, storage, and I/O alignment.

3.2 Non-Functional Requirements:

This section lists down the non-functional requirement

Sr No	Category	Module / Workstream	Description
1.	Performance & Scalability	HPC Infrastructure	Architecture must support multi-node, multi-core, CPU/GPU-aware execution and scalable orchestration.
2.		HPC Infrastructure	Maintain high-throughput data pipelines, integration checkpoints, and orchestration workflows.
3.		Field Agent App	Ensure efficient on-device storage utilization, offline map caching, and predictable local data handling.
4.		Field Agent App	Maintain a technical foundation for forward scalability, including SQLite migration, indexing, and compression.
5.	Security & Access Control	Blockchain Track & Trace	Maintain role-based access control and data protection controls for immutable and traceable recording.

6.		Field Agent App	Maintain device permissions and local security controls related to location, camera, and storage access.
7.		External Interfaces	Maintain authentication and authorization controls, ensuring inbound and outbound exchanges remain secure and auditable.
8.	Reliability & Availability	Disaster Recovery (DR)	Establish a DR site environment with backup, restore, snapshot, and replication mechanisms required to preserve application data.
9.	Reliability & Availability	Disaster Recovery (DR)	Conduct periodic restore verification, failover and failback drills, and health monitoring necessary for service continuity.
11.		Cross-Cutting	Ensure service continuity controls and ensure that SLA coverage spans all in-scope modules and interfaces.
12.		Mobile Apps	Ensure offline behavior reliability, local storage integrity, and seamless synchronization once connectivity is restored.
13.	Compatibility	Farmer Mobile App	Operate as a cross-platform mobile application for iOS and Android, ensuring device compatibility.
14.	Compatibility	External Interfaces	Maintain API standards, versioning approaches, and message validation rules for interoperable data exchange.
15.	Maintainability & Testing	System-Wide	Perform regression, smoke, integration, and service validation testing whenever patches or fixes are introduced.
16.		System-Wide	Prepare controlled patch releases, minor bug fixes, and approved model-update rollouts without disruption to field users.
17.		Cross-Cutting	Maintain common documentation, testing artifacts, runbooks, patch records, configuration baselines, and operational manuals.

PREPARATION OF PROPOSAL

1. Format of the Technical Offer is as follows:
 - (a) All Forms and applicable Annexures completed & signed with no information missing.
 - (b) Company Profile - Provide a thorough description of the Bidder's business, expertise, developed products/services, mission and how this proposal is compatible with the Bidder's overall business objectives.
 - (c) Design Plans
 - (i) A full description of the proposed networking solution against requirements outlined in SRS-01 along with appropriate justification for selection of specific platform configurations.
 - (ii) Include specifications and data for meeting all the technical requirements in SRS-01, along with any other relevant information.
 - (iii) Visual content in the form of network connectivity diagram of the projected solution showing devices, media, links, etc. This may include but are not limited to CAD diagram.
2. A description of the Bidder's design process as well as a basic description of intended pathways to deployment, maintenance, and operator training.
3. **Supporting Material**
 - (a) Supporting material may include CAD diagram, Product descriptions and/or brochures as per requirements of the Evaluation Criteria.
 - (b) All soft copies (that cannot be printed) shall be submitted on a USB drive as part of the technical proposal.
 - (c) A list of all media/soft items submitted on the USB drive shall be attached in print form with the Technical Proposal.
4. **Timeline**
 - (a) Estimated time required to complete each stage of the project.
 - (b) Stages may include design, prototyping, manufacturing, and any other milestones.
 - (c) Estimated total time to complete the project from the design to the presentation of a viable product for purchase.
5. **Human & Technical Resources**
 - (a) A description of the relevant experience of key team members in Form A-2.
 - (b) A description of the relevant technical resources in Form 3 of prequalification RFP.
 - (c) The purpose of this section is to show that the Bidder has enough expertise to complete the project.
6. **Additional information:** Bidders may include any additional information or documentation they deem necessary.

7. The Technical Proposal Envelope shall contain the following:
 - (a) **Form A-12 Letter of Proposal** dully filled and signed by authorized signatory
 - (b) **Form A-1** Bidder's General Data Information Form
 - (c) **Form A-2** Professional Profiles for Key Resources
 - (d) **Form A-3** Technical Resource Record
 - (e) **Annexure D** to **Annexure G** dully filled & signed by authorized signatory.
 - (f) Bid Security in the form described in Bidding Process Instructions.
 - (g) Letter of Authorization to sign the contract on behalf of the Bidder.
 - (h) All Digital media on a USB drive with list of contents attached in hard copy.
8. The Bidder will submit its Financial Proposal in the form as provided in **Annexure – C**. The Financial Proposal Envelope shall consist of one (1) original copy and two (2) hard copies. The original and two (2) hard copies of the Financial Proposal are required to have the signature of a duly authorized person of the Bidder with the Bidder's seal/ stamp.
9. Any Bid received by the procuring agency after the Deadline for Submission of Bids shall be rejected and returned unopened to the Bidder. Delays in the mail/courier, delays of person in transit, or delivery of a Bid to the wrong office shall not be accepted as an excuse for failure to deliver a Bid at the proper place and time. It shall be the Bidder's responsibility to determine the way timely delivery of its Bid will be accomplished either in person, by messenger or by mail/ courier.

(LETTER OF PROPOSAL)

[On Letterhead paper of the Bidder including full postal address, telephone no., fax no., e-mail address etc.]

Dated _____

Project Director, GreenAI NASTP
Alpha 19.
Old Airport Road, Rawalpindi
Email: pd@greenai.org.pk

Dear Sir,

1. Reference is made to the tender Enquiry No. _____.
2. Attached to this letter are documents listed below defining:
 - (a) The principal place of business.
 - (b) Duly filled-in all Proposal Forms along with required supporting documents and all other documents required to be submitted along with proposal.
3. We agree to abide by this Bid for a period of 90 days after the date fixed for technical proposal opening, or as extended, as per instructions given in RFP and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
4. We have submitted the Bid Security for an amount provided for in the RFP which is part of our Bid, issued in accordance with the provisions of the RFP, along with our technical proposal.
5. If our Bid is accepted, we will submit the Performance Guarantee for the required sum on the form as provided for in the RFP issued in accordance with the provisions of the RFP.
6. The procuring agency reserves the right to annul the procurement process. Further, procuring agency may reject all bids or proposal at any time prior to award of contract without incurring any liability to the affected bidders or any obligation to inform the affected bidders of the justification for procuring agency' action.
7. The procuring agency and its authorized representatives may contact the following persons for further information, if needed: -

Contact 1	Tel:
Contact 2	Tel:

8. This Proposal is made with the full understanding that:
 - (a) Bids will be subject to verification of all information submitted for Request for Proposal at the time of bidding.
 - (b) The procuring agency reserves the right to amend the scope and value of any Contract under this project.
9. The undersigned declare that the statements made, and the information provided in the duly completed Proposal are complete, true, and correct in every detail.

Stamp & Signatures

(In capacity of)

Duly authorized to sign bid for and on behalf of

WITNESS:

Signature

Address _____

BIDDER INFORMATION

Company Name	
Company Owner	
Company Registration	
Company Registration Date	
Company Address	
Workshop Address (if applicable)	
Phone Number	
Email Address	
Company Website (URL)	

Focal Person Details:

Full Name	
Position/Title	
City	
Phone Number	
Email Address	
Other Contact Info	

 (Name)

(Designation)

PROFESSIONAL PROFILES FOR KEY RESOURCES**a) Resource Person Information**

Name of Firm	
Name of Resource Person	
Proposed Position	
Highest Qualification	
Years of Experience	
Area(s) of Expertise	
PEC no: (applicable to engineers)	

2. Education:

[Summarize college/university and other specialized education of staff member, giving names of institutions, dates attended, and degrees obtained.]

Name of Institution	Degree Title	Year of passing

3. Key Skills:

[Give an outline of staff member's technical, soft, and hard skills that are pertinent to tasks assigned on this project. Use up to one page].

4. Professional Experience:

[Summarize professional experience in reverse chronological order]

Organization	Year	Position	Project / Assignment	Description of tasks performed by resource person

5. Certifications / Workshops and Short courses

[Enlist the certifications obtained, workshops and short courses attended that are pertinent to tasks assigned on this project]

6. Details of Tasks Assigned on this Project

7. Certificate

I, the undersigned, certify that to the best of my knowledge and belief, these biodatas correctly describe myself, my qualifications, and my experience.

Signature of Staff Member

Authorized official of firm

***Note:** Provide the details of all currently hired work force involve in this project including engineers, technicians as well.

TECHNICAL RESOURCES RECORD

Name of Bidder: _____

S. No.	Equipment / Resource	Role / Use	Owned / Outsourced

(Name)

(Designation)

EVALUATION CRITERIA

The evaluation committee appointed by the Project Director GreenAI project shall carry out its evaluation, applying the evaluation criteria and point system specified hereunder:

1. Mandatory Requirements

All mandatory requirements / documents have already been received and accepted by the procuring agency during pre-qualification phase. However, the bidder is to fill all the forms and meet other proposal preparation requirements as given in **Annexure 'A'**. Procuring Agency reserves the right to disqualify a bidder in case if desired documents / forms or data is found incomplete / missing.

2. Detailed Requirements

(a) Only the pre-qualified firms will be considered for detailed evaluation of technical bids. The detailed evaluation shall be carried out based on the criteria for the different categories and minimum passing marks prescribed hereunder:

S No	Category	Indicative Weigh	Maximum Marks	Passing Marks
1.	Development portfolio (application development / products delivered)	25%	25	70%
2.	Maintenance portfolio (HPC & DCF, software troubleshooting & lifecycle support)	25%	25	
3.	Software framework integration (AI / ML models, GIS, mobile apps, web-based services, etc)	20%	20	
4.	Experience of team members (qualifications, certifications, domain expertise)	10%	10	
5.	Experience of cloud orchestration services	10%	10	
6.	Implementation & Delivery Approach (methodology, timelines, risk management)	10%	15	
Total			100	

***Minimum passing criteria in each category is 70%.**

(b) Technical bid of firms scoring less than seventy percent (70%) overall marks or failing to obtain minimum passing marks against any of the abovementioned category shall be rejected and their financial bids will be returned unopened. Each responsive technical bid shall be attributed a technical score (**S_t**).

(c) The evaluation committee shall determine whether the financial bids are complete and without computational errors. The lowest financial bid (F_m) shall be given a financial score (**S_f**) of 100 points. The financial scores of the bids shall be computed as follows:

$$S_f = 100 * \frac{F_m}{F} \quad (F = \text{amount of specific financial bid})$$

(d) Bids, in the quality cum cost-based selection (QCBS) shall finally be ranked according to their combined technical (S_t) and financial (S_f) scores using

the weights (T= **50%** is the weight given to the technical bid, **P=50%** is the weight given to the financial bid, T+P=100):

$$S = St * T\% + Sf * P\%$$

(e) Work will be awarded to the firm offering most advantageous bid evaluated as the highest ranked bid based on cost and quality.

FINANCIAL PROPOSAL FORM

1. TENDER INQUIRY No: **NASTP-GREENAI-AGRIVERSE-/07/2026**
2. Time and Date of opening: **12 May, 2026 at 1130hrs**

i. SOFTWARE LICENSING AGREEMENT

(1)	(2)	(3)	(4)	(5)	(6)	(7)
S No	Item / Component	Description / Specifications	Cost in Fig	Sales Tax in Fig	Total Price in Fig	Total Price in Words
1	Development charges (application development)					
	Maintenance services (software troubleshooting & lifecycle support)					
	Software framework integration (AI / ML models, GIS, mobile apps, web-based services, etc)					
	Software and network security services					
	Cloud orchestration / re-orchestration, HPC infrastructure optimization services					

Grand Total _____ **Rs.**
In Words _____

(Name)

(Designation)

UNDERTAKING
(Fill in and Return)

To

Project Director (Green AI)
Project Management Unit
NASTP A-19, Rawalpindi

Dear Sir,

I/We hereby submit our bid to supply "**SERVICE LEVEL AGREEMENT (SLA)** for Operations, Maintenance, Bug Fixes and Support of the **AGRIVERSE Digital Agriculture Application Suite & GreenAI Eco system**" detailed in the SRS as you may specify in the contract at the prices given in Annex "C" and further agree that this bid will remain valid up to 90 days from the date of bid opening and will not be withdrawn or altered in terms of rates quoted and the condition stated therein on or before this date.

I/We understood the instructions to Tenders and condition of contract as laid down in tender document and thoroughly examine specification / drawing and / or patterns quoted in the Schedule to Tender and am/are fully aware to the nature of the goods required and my/our offer is to supply goods strictly in accordance with the requirements.

Witness's Signature:

Name:

N.I.C No.

Address:

Date:

Signature of Bidder:

Name:

N.I.C No.

Capacity in which Signing:

Address:

Date:

Tel: Telex/Fax

FORMAT OF AFFIDAVIT / UNDERTAKING

Bidder must submit following undertaking (on stamp paper of Rs.100), failing which the bid may be rejected at the discretion of procuring agency:

- (a) I, Mr. S/o..... holding CNIC# from M/s Having Its business office at, do hereby solemnly affirm and declare as under;

- (b) That M/s is not engaged, under investigation or offences or no proceedings are pending before FBR, Customs, NAB, any Judicial form, FIA or any other Govt. authority with respect to fraud, terror financing, money laundering etc.

- (c) We also confirm that our firm has not been blacklisted by any National/International organization or forum and is entitled to carry out its business activities to the standard business ethics.

- (d) That the Partner(s) / Officers of M/s..... have not been subject to financial crime. Nor they every compounded with their creditors in any capacity.

- (e) The above statement is true to the best of my knowledge and belief and nothing has been concealed or is false.

Note: In case any bidder is found in the list of “Blacklisted Firms-Pakistan” or related links at <https://www.ppra.org.pk/> then its bid shall be rejected

Name: _____

Signature: _____

Stamp: _____

**NON-DISCLOSURE AGREEMENT (NDA) OF
CONFIDENTIAL INFORMATION**

Except as required to further the relationship between the procuring agency and M/s _____ or as expressly authorized in writing on behalf of procuring agency, M/s _____, its shareholders/partners, directors, advisors, officers, and employees shall not disclose, provide or share directly or indirectly by any mean (verbal, writing, social media), any Confidential Information (partial or complete) during the period of his/her relationship with the procuring agency or any time after the termination of such relationship.

Signed

Signed

Bidder

Bidder

Dated:

Dated:

**CERTIFICATE FOR CORRECTNESS OF DATA
/ DOCUMENTS / INFORMATION**

(Date:.....)

It is certified that the data/ documents/ information submitted in our Proposal is absolutely correct to best of our knowledge and we accept full responsibility for its accuracy.

We understand that any false or incorrect data/ documents/ information may result in disqualification of our bid at any stage of procurement process.

Signature of Authorized Representative: _____

Name/Designation of Authorized Representative: _____

Designation of Authorized Representative: _____

Scope Consolidation Matrix

This annexure records the consolidation of the attached source documents into three broader service areas per source, and maps the same to the master scope clauses.

Broader Area 1	Broader Area 2	Broader Area 3
HPC service transition, architecture familiarization, and operational baseline.	Operations continuity for orchestration, middleware, APIs, and data pipelines.	Technical assurance, service reporting, manuals, and knowledge continuity.
Cross-platform farmer workflows, map view, camera capture, and multilingual app maintenance.	Online/offline inference support, edge AI continuity, notifications, and backend maintenance.	Testing of fixes, release support, maintainability, and supportability.
Offline farm, field, crop, and GPS mapping workflow maintenance.	Local data model, search, analytics, and export operations support.	Security, permissions, storage optimization, and future supportability.
Blockchain, QR, audit, middleware, and security backbone operations.	GIS dashboard plus farmer and consumer service continuity.	Testing of fixes, documentation upkeep, and ongoing SLA support.
DR site establishment, replication baseline, and continuity readiness.	Backup, recovery, failover, and failback operations support.	DR assurance, recovery documentation, and periodic readiness review.
External API framework, standards, and interface catalog.	Information exchange operations and monitoring for approved external entities.	Integration assurance, documentation, and controlled change support.

SLA Service Outputs and Acceptance Matrix

Service Output	Owner	Acceptance Basis	Remarks
Transition-in and baseline pack	Bidder	Approved service baseline, interfaces, access plan, and support organization.	Required before steady-state SLA.
Managed application suite service continuity	Bidder	Successful service transition and stable support across all workstreams.	Shall include all in-scope workstreams.
Testing and incident management package	Bidder	Submission of test evidence for fixes and closure of critical incidents.	Monthly and quarterly evidence mandatory.
Documentation and knowledge continuity pack	Bidder	Acceptance of updated manuals, runbooks, records, and continuity sessions.	Service readiness required.
SLA startup / review package	Bidder	Support contacts, issue logging mechanism, reporting calendar, and service schedule accepted.	Commences on SLA start date.

Master SLA Schedule

The following schedule states the baseline SLA obligations to be incorporated in the final contract unless enhanced by the successful bidder.

Item	Baseline Requirement
Support Window	Monday–Friday, 09:00–17:00 PKT, excluding public holidays.
Acknowledgement	Within 1 business day for all logged issues.
Critical Response	Within 4 business hours.
High Response	Within 8 business hours.
Medium Response	Within 24 business hours.
Monthly Review	Health and performance review report.
Bug Fixes / Minor Enhancements	Up to 10 person-days per quarter within original scope.

Bidder Information and Letter of Proposal

Required Item	Bidder Response / Attachment
Legal name, registration, tax status, and principal office	_____
Consortium details, if applicable	_____
Summary of relevant projects	_____
Key personnel and certifications	_____
Technical approach and architecture note	_____
SLA and support organization details	_____
Signed letter of proposal	_____

Milestone Acceptance Certificate

It is certified that the bidder has successfully completed and provided the contractual SLA service outputs / services as per _____ of the Master SLA Contract RFP / Contract for the AGRIVERSE Digital Agriculture Application Suite & GreenAI Eco system.

The service outputs / services referenced below have been reviewed in accordance with the applicable acceptance criteria, tested where applicable, and found satisfactory and complete in all material respects.

Field	Details
Reference Milestone / Scope Item	_____
Date of Review	_____
Accepted By	_____
Remarks	_____

Signature & Stamp of Issuing Authority: _____

Name: _____

Designation: _____

Date: _____