

Terms of Reference

Proposal & Scope of Work: Development of a PGPL Farmer Field School (FFS) Monitoring & Tracking Application

1 Introduction and Project Background

Heifer International, through its subsidiary Passing Gifts Private Limited (Passing Gifts), is implementing the Bihar Sustainable Livelihood Development (BSLD) project. As part of this initiative, a range of climate-smart agriculture (CSA) practices are being promoted—such as regenerative agriculture, drought-tolerant crop varieties, improved fodder production, and integrated pest and soil fertility management.

Despite consistent on-ground efforts, the adoption of CSA practices among Farmers (also referred as project participants / participants) remains moderate. However, a positive upward trend is emerging, with growing interest in diversified cropping systems, improved planting techniques, and increased use of natural inputs.

In 2024, the BSLD project piloted a Women Farmer Field School (FFS) approach to provide hands-on CSA training to women smallholder farmers. Early results are promising as women farmers have shown greater interest in cost-effective, locally led practices that reduce chemical inputs, enhance the nutritional value of grains and vegetables, and extend shelf life. Farmers have also expressed aspirations beyond farming techniques, including desires to stabilize income, grow healthier food, and improve household nutrition.

Building on these outcomes, the project has developed an enhanced bundled service model centered around the FFS and anchored in community-based support systems. This model aims to transition women farmers from conventional methods to regenerative and sustainable agriculture, leveraging the FFS as a scalable, proven pathway.

The one-year pilot also revealed key challenges—particularly around data collection, information storage, and real-time monitoring. To address these challenges and drive digital transformation, Passing Gifts invites proposals from qualified and experienced digital or software service providers to design, develop, deploy, and maintain a robust digital application.

This platform will serve as a central tool for the PGPL project team, FFS lead farmers, Farmers, and other relevant stakeholders to track progress, support data-driven decision-making, and enhance overall project transparency.

Over time, the application is expected to enable visual insights, provide real-time progress updates, and strengthen the FFS ecosystem by delivering actionable information to both farmers and stakeholders.

2 Project Goal & Objectives

2.1 Goal

To design, develop, and implement a secure, user-friendly, and integrated digital platform, comprising both mobile and desktop applications, that empowers 125+ Farmer Field Schools (FFSs) under the BSLD project. The platform will facilitate data collection, monitoring, and real-time visualization of insights, thereby enabling data-driven decision-making and improving overall program effectiveness.

2.2 Objectives

- Develop a mobile and web-based application to Monitor Farmer Field School (FFS) activities such as training, farmer progress for enabling real-time reporting for Heifer/Passing Gifts staff and stakeholders.
- Digitize the registration and profiling of FFS members for establishing the network of farmers at village, cluster and state level, along with systematically track meetings, attendance and resources distributed to farmers.
- Manage data related to Lead Farmers, demonstration plots, and control plots (as per field conditions).
- Enable efficient and verifiable tracking of farmer adoption of specific climate-smart and regenerative agriculture practices taught through the FFS.
- Generate reliable reports to support Development Impact Bond (DIB) outcome verification and compliance requirements.
- Provide real-time data access to Heifer and Passing Gifts teams for ongoing program monitoring and management via web based dashboard.

2.3 Problem Statement

The current manual, paper-based record-keeping system often causes confusion for Community Facilitators (CFs) and is prone to errors in spelling, data entry, and calculations. This compromises data accuracy, consistency, and the reliability of reporting.

Key challenges include:

- Data inconsistencies

- Delayed decision-making
- Limited real-time visibility
- Inefficient tracking of plots, resource distribution, and training outcomes

A dedicated digital application is needed to ensure standardized, real-time, and transparent data management, improving overall data quality and stakeholder access.

3 Proposed Solution

To overcome current challenges in tracking FFS activities, member engagement, practice adoption, and plot-level data, the project proposes a comprehensive digital platform—a mobile application paired with a web-based dashboard.

This scalable, secure, and unified system will enable real-time data collection and monitoring for the existing 125 FFSs and any future additions under the BSLD project.

The platform will feature role-based access for Community Facilitators (CFs), Lead Farmers (LFs), PGPL staff, and other stakeholders, with offline functionality to ensure usability in low-connectivity areas.

3.1 Key Highlights of the Solution:

- **Integrated Mobile and Web Platform:** One unified system accessible via mobile app (Android-based) and desktop/web for all key users.
- **Role-Based Access:** Custom interfaces and permissions for CF-FFS, LF-FFS, PGPL staff and other stakeholders.
- **Real-Time Monitoring Dashboard:** Central dashboard for PGPL (other stakeholders) to track key indicators, trends, and progress across all FFS regions.
- **Offline Functionality:** Core field functions will work offline with data sync upon connectivity.
- **Modular & Scalable Architecture:** Designed to allow future expansion, integration with external APIs, and easy onboarding of new FFS or modules.
- **Hosting:** Data Security & Hosting: Data to be encrypted and securely hosted and the server hosted should be compliant with the DPDP Act 2023 with GPS-enabled tracking and access control.

4 Key Features of the solution

No.	Component	Feature
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No.	Component	Feature
1	FFS Member & Membership Management	FFS Member registration and profiling
		Linking to FFS group
		Role assignment and activity status visualization
2	FFS Sessions	Schedule FFS meeting, Trainings and Other activities
		Record details, Topics covered, resources distributed
		Capturing GPS, Photos and other critical details
3	Lead Farmer & Plot Mgmt.	Demo plot mgmt. (Linking plot to LF/FFS group, Record pot details, plot specific activity tracking and record keeping)
		Control plot mgmt. (Linking plot to LF/FFS group, Record pot details, plot specific activity tracking and record keeping)
4	Climate-Smart/Regenerative Practice Adoption Tracking:	Practice based linking at different levels (farmer / LF/ FFS groups/ plots) and target setting
		Track adoption (practice based at various levels) Date of adoption, intensity of adoption etc.
		Evidence gathering (timestamped photos with GPS)
		Verification by supervising role.
7	Dashboards & Reporting	Real-time dashboards for CF-FFS and PGPL staff
		Predefined reports (farmer enrollment, LF-activity progress, CSA Adoption)
		Geo and time filters; export to Excel/CSV
8	Monitoring & Indicators	Visual display of key indicators (Trainings, Plot details, LF and farmer progress, Practice adoption)
		Drill-down capabilities by FFS, LF, region, and time
9	Offline Capability & GPS Integration	Field data entry without internet and sync when connected to internet
		GPS tagging for evidence and accountability
10	Access Control & Security	Role-based access (RBAC)
		Two-Factor Authentication for key roles
		End-to-end encryption (AES) and secure cloud hosting and storage
	Multilingual support	Interface in English and Hindi and possibility of addition of other languages in future.
11	Maintenance and Support	Focal point from agency for issue resolution
		Admin and field user manuals
		Routine app updates, logs, and server maintenance

Additional details, are mentioned in the [General Requirements](#) and [Technical Requirements](#)

5 Users and User Roles

The digital platform is built to support the key roles of the FFS system,

- **Community Facilitator (CF):** Primary data entry user. Registers farmers, records meeting details, tracks practice adoption, manages plot data, uploads evidence (photos, GPS).
- **Program Coordinator/FFS Manager:** Oversees multiple FFS groups, monitors data entry progress and quality, reviews data, generates reports, accesses dashboards.
- **PGPL Staff and other Stakeholders:** Accesses specific data points and reports for monitoring, evaluation, and DIB outcome verification. May have read-only access with specific reporting capabilities.
- **System Administrator (Key personnel from PGPL):** Manages user accounts, configure lists (e.g., practices, crops, locations), system settings and other administrative features of app and dashboard.

Module / Feature	Community Facilitator	FFS Manager	PGPL / Stakeholders
FFS Membership & Mgmt.	Add, View, Edit (assigned farmers)	Full CRUD	View only
FFS Sessions	Add, Edit (assigned farmers)	Full CRUD	View only
Lead farmer & Plot Mgmt.	Add, Edit (assigned farmers)	Full CRUD	View only
CSA Practice Adoption	Add, Edit (assigned farmers)	Full CRUD	View summary, Provide Evaluation, feedback
Dashboard & Reporting	-	View insights, Download	View summarized insights, download

- CRUD = Create, Read, Update, Delete
- Permissions are based on role-based access and relevance of the module to the user group.

6 Ownership, Hosting, and Customization Rights

PGPL shall retain exclusive rights to all data, configurations, trademarks, branding elements, administrative credentials, and other digital assets associated with the white-labelled application deployed under this engagement. If the selected agency proposes a proprietary or existing platform, provision of source code is not required; however, the agency must customize, brand, and configure the application as per PGPL's requirements, and deploy it within a separate virtual server environment. PGPL will maintain full administrative access and control over the deployed instance. The agency is expected to implement all feature modifications and customizations specified in this ToR and ensure the system architecture is modular, allowing for future enhancements without disrupting core functionality.

In addition, the selected agency will be responsible for the ongoing maintenance, technical support, and version updates of the application for a period of two (2) years from the date of final deployment. This includes resolving bugs, ensuring compatibility with updated operating systems and devices, performing regular security updates, and supporting minor feature enhancements as required by PGPL during the maintenance period.

7 Staged Deployment Approach

The deployment of the application will follow a **phased approach**, allowing for progressive development, testing, and refinement based on real-world user feedback.

7.1 Phase 1:

A set of basic and high-priority modules (approximately 3–4) will be developed and shared with actual field users for testing. These initial modules will undergo user testing at the field level, with feedback collected from all key user roles. Based on this input, the UI/UX will be refined to ensure it aligns with users' familiarity and ease of use. Tailoring the interface to the users' context is expected to significantly enhance adoption and overall success of the application.

7.2 Phase 2:

Building on the insights from Phase 1, a second set of advanced modules will be developed. These modules will also be prioritized based on operational needs and will follow the same UI/UX standards established earlier to maintain consistency. They will be integrated with the Phase 1 modules, ensuring a smooth and logical flow for users across different functions of the app.

7.3 Phase 3:

This phase will include optional or modules that may not be immediately essential but offer added value for decision-making and data-driven insights. These modules will be considered based on available resources, time, and field demands, and may also be identified as opportunities for future development or version upgrades.

8 Environments:

Throughout all stages, the application will initially be hosted on a testing server for review and feedback. Once testing is complete and approved, it will be migrated to the production environment. The selected agency will also be responsible for publishing the mobile application on the Google Play Store, ensuring compliance with all applicable requirements and maintaining future updates as needed.

9 Timeline

Deliverable	Due Date
Deadline for submission of proposals	20-Oct-25
Onboarding agency – including review of approach methodology	11-Nov-25
Submission of detailed implementation plan by agency	20-Nov-25
Feedback and Approval on UI/UX	18-Dec-25
Development of core modules of APP	19-Mar-26
Testing of Developed modules (all user roles)	09-Mar-26
Deployment and Migration to production environment and listing on App Store	10-Apr-26
Development of Training Manual	26-Apr-26
Go-Live	16-Apr-26
Bug fixes and Improvements - Round 2	22-Apr-26
User training to Role based Users (In person)	08-May-26
Maintenance and Contingency	16-Apr-28

10 Submission Guidelines

All interested agencies will submit their or organization's profile with the following information:

Technical Proposal (not to exceed 15 pages)

a. General information (not to exceed 2 pages):

- Organization overview

- Capacity statement
- Website

b. Technical Approach (not to exceed 12 pages):

- Applicants are requested to submit a detailed technical approach outlining their understanding of the project objectives and user needs. Vendors should also highlight how their solution addresses the diverse user roles, offline functionality, and multilingual requirements outlined in the Scope of Work.
- The technical proposal must clearly describe the development methodology, system architecture, and technology stack to be used. Vendors must also explain how their solution will ensure scalability, modularity. The vendor should describe how indicators will be configured and displayed for different user types, and how report generation will be automated.
- Sustainability plan along with the current support from other institutions, organizations, Long term plan or future plan for the application and platform (at an organizational level)
- In case of an already existing platform, Total App Downloads, Total Registered Users, Classified by User Roles, Daily Active Users (DAU) and Monthly Active Users (MAU) (use the template provided below) also play an important role in evaluation.

c. Financial Proposal (in INR)

- Itemized budget (also provide component wise breakdown Ref: 16.3 Monitoring and Maintenance)
- Narrative explanations of line items
- It is important to include information about the various line items involved for a better understanding and context for the non-technical team members.

d. Annexes

- Documents in favor of the previous similar tasks.
- Organization's/Firm's Certificate, GST registration (if applicable), MSME Certificate (if applicable)
- A summary of previous assignments undertaken within the last 3 years.

Interested agency legally eligible to implement this assignment in the country are requested to submit a proposal. Please include the name of the person in your organization who will be involved in negotiating the contract as well as your telephone and email contact information.

Submissions must be in English and typed single-spaced using Times New Roman font size 12, with a complete set of appendices/attachments as applicable. All pages must be numbered and include the SOW reference number on the cover page, and the name of the organization at the bottom of each page.

The successful consulting agency will be required to produce the following documents before entering into Independent Contractor Agreement (ICA) with PGPL:

- Certificate of Incorporation or Business Registration Certificate.
- Audited financial statements for the last 3 years.
- Directors' / Partners' personal guarantee.
- Trade reference and clientele list including their respective contacts.
- PAN
- GST (if applicable)
- MSME certificate (if applicable)
- Memorandum of Association in case of NGO

The proposal (duly signed) should comprise technical and financial proposals separately. Only the soft copy of the proposals will be accepted through email with the mentioning subject line; RFP/PGPL/FY'26/BSLD/FFS followed by the "*Bidder's Name*" to procurement-in@heifer.org latest by October 20, 2025, 5 pm. Proposals received after the submission deadline will not be considered. Agency are responsible for ensuring their proposals are submitted according to the instructions stated herein.

PGPL retains the right to terminate this RFP or modify the requirements upon notification to the agencies.

e. Checklist and Table

General Details		Response
	<i>Name of the Mobile application</i>	
	<i>URL of the application</i>	
	<i>No. of downloads</i>	
	<i>No. of registered users</i>	
	<i>No. of Monthly Active Users</i>	
	<i>No. of Daily Active Users</i>	
	Name of the web Platform	
	<i>URL of the demo platform</i>	
	<i>User roles (list them all with CRUD permissions.)</i>	
Feature Details	Respond Yes/ No on the feature availability in mobile/ web platform	Response
	FFS Membership & Mgmt.	
	FFS Sessions	
	Lead Farmer and Plot Mgmt.	

	Practice adoption	
	Dashboard and Reporting	

11 Selection Criteria

Submitted proposals must clearly demonstrate alignment with the SOW outlined above with appropriate level of detail. Proposals will be evaluated according to the following criteria:

Evaluation Criteria	Weight (%)	What is Evaluated
Technical Approach & Methodology	30%	Clarity, feasibility, and contextual relevance of the proposed approach and architecture. Training approach and technical support.
Relevant Experience and Past Work (MAU, DAU)	20%	Prior experience in developing similar platforms (agriculture, FPOs, MIS apps, etc.), particularly in rural or development contexts. Deployment experience with farmers, FPCs and other stakeholders.
Team Composition & Technical Expertise	15%	Qualifications and experience of proposed team members, including developers, UI/UX experts, and QA professionals.
Timeline & Work Plan	15%	Realism and clarity of the proposed implementation timeline and deliverables.
Cost Proposal / Value for Money	15%	Overall cost-effectiveness of the proposal in relation to proposed outputs.
Financial/ Funding Model and Sustainability	5%	Current and future funding/ finance plans for ensuring sustainability of the platform and system.

The selection committee will evaluate the technical proposal based upon the criteria listed above, and the financial proposal will be assessed for its cost-effectiveness in the budget.

12 VALIDITY OF PROPOSALS

Proposals submitted shall remain open for acceptance for ten (10) days from the last date specified for receipt of the proposal. This includes, but is not limited to, pricing, terms and conditions, and service levels. If your organization is selected, all information in this document and the negotiation process are contractually binding.

13 LIMITATIONS

This call does not represent a commitment to award a contract, to pay any costs incurred in the preparation of a response to this RFP, or to procure or to contract for services or supplies. PGPL reserves the right to fund any or none of the applications submitted and reserves the right to accept or reject in its entirety and absolute discretion any proposal received.

14 INTELLECTUAL PROPERTY

Section 1. Ownership Generally. Subject to Section 2 below, any intellectual property (including but not limited to copyrights, trademarks, service marks, and patents), intellectual property rights, deliverables, manuals, works, ideas, discoveries, inventions, products, writings, photographs, videos, drawings, lists, data, strategies, materials, processes, procedures, systems, programs, devices, operations, or information developed in whole or in part by or on behalf of Contractor or its employees or agents in connection with the Services and/or Goods (collectively, the “Work Product”) shall be the exclusive property of PGPL. Upon request, Contractor shall sign all documents and take all actions necessary to confirm or perfect PGPL’s exclusive ownership of the Work Product.

Section 2. Prior-Owned Intellectual Property. Any intellectual property owned by a Party prior to the Effective Date (“Prior-Owned IP”) shall remain that Party’s sole and exclusive property. With regard to any of Contractor’s Prior-Owned IP included in the Work Product, Contractor shall retain ownership, and hereby grants PGPL a permanent, non-exclusive, royalty-free, worldwide, irrevocable right and license to use, copy, reproduce, publicly display, edit, revise, perform, and distribute said intellectual property, in any format or any medium, as part of the Work Product.

Section 3. Work Made for Hire. To the extent copyright laws apply to the Work Product, the Parties agree that (a) PGPL specially ordered or commissioned the Work Product, (b) the Work Product is a “work made for hire” under India copyright laws, and (c) PGPL shall be deemed the author thereof and shall own all right, title, and interest therein. To the extent such rights, in whole or in part, do not vest in PGPL as a “work made for hire”, Contractor hereby irrevocably grants, assigns, and transfers to PGPL, exclusively and in perpetuity, all of Contractor’s rights of any kind or nature, now known or hereafter devised, in, to, and in connection with the Work Product, and PGPL shall solely and exclusively own any and all rights therein, and in the elements thereof, including but not limited to any and all allied, ancillary, subsidiary, incidental, and adaptation rights. Contractor hereby waives all rights known as “moral rights”, and any similar rights, which Contractor may have in connection with the Work Product. The description

of Services and/or Goods provided in this Agreement shall in no way limit the way PGPL may use the Work Product.

15 APPLICABLE REGULATIONS

Agency must be legally registered to operate within India and comply with local applicable legislation, including but not limited to labor law, financial requirements, taxes, etc.

Proposals should be submitted in the aforementioned format only.

Send to: procurement-in@heifer.org

Deadline of Submission: **Oct 20, 2025, 05:00 PM IST**

Send your proposal as per the format prescribed. The subject of email shall be the RFP Number i.e., RFP/PGPL/ FY'26/BSLD/FFS followed by the "*Bidder's Name*".

Note - Telephonic and Face to Face enquiries will not be solicited and may lead to disqualification.

Annexure 1 – Requirements for the solution

16 General Requirements

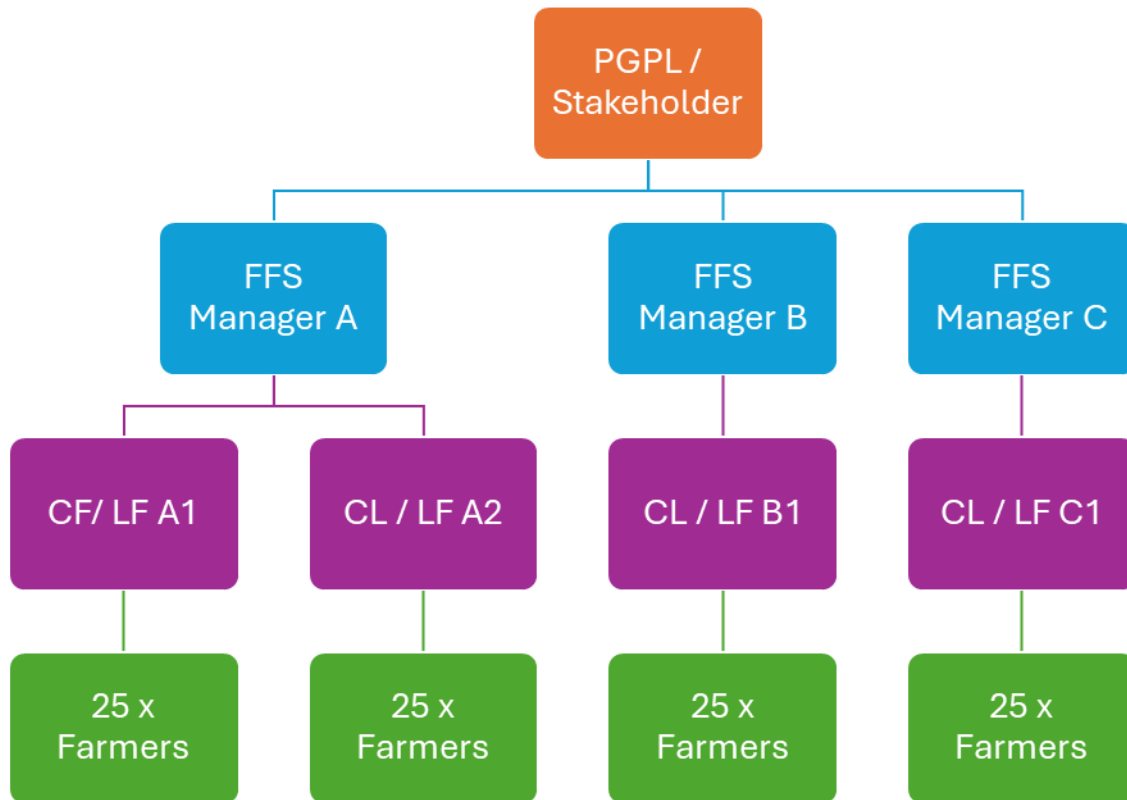
16.1 Scope of application

The proposed application will provide a digital platform integrating key components to monitor the progress and processes of FFS activities at the field level in real-time.

The application will consist of two interconnected parts:

1. **Mobile Application** – Primarily used by CFs and FFS Managers. CFs will use the app for data collection, FFS session tracking and management, and updating farmer profiles or farm activities. The mobile app will function in both online and offline modes to ensure usability in remote or low-connectivity areas.
2. **Desktop/Web Interface** – Designed for FFS Managers, PGPL staff, and other relevant stakeholders (including funders and prospective partners). It will provide access to field school data, participant information, demographic summaries, and plot-related data (control and demo plots), and will allow validation and approval of field information. This interface will support strategic decision-making, compliance tracking, and overall operational management.

At the supervisory level, PGPL Project Officers will have access to data and dashboards across the FFSs they support.



- CL = Community Leader
- FFS Manager = Farmer Field School Manager
- LF = Lead Farmer

16.1.1 User Experience:

The software should be highly user-friendly, ensuring ease of use and adoption by all relevant stakeholders, including PGPL staff and FFS personnel (FFS Managers, CFs, LFs). Its design should accommodate varying levels of digital literacy and enable smooth navigation across devices.

The application must support core functions such as farmer registration, GPS capture for plots, training and session tracking, and reminders based on predefined conditions.

All data collected through the platform should be transparent and accessible to stakeholders according to their defined roles and access levels. While promoting evidence-based decision-making and accountability, the system must also incorporate strict safeguards to protect personally identifiable information (PII) and ensure compliance with data privacy standards.

16.1.2 Application with Reminders and Alerts:

The application should be Android-based and compatible with all the latest versions of Android, across mobile and tablet devices with varying screen sizes.

- For CFs/LFs – the app should provide reminders and alerts for all components such as planned sessions, visits, meetings, and upcoming plot visits.
- For FFS Managers – alerts should include those received by CFs and LFs, and additionally notify if any farmer is not adopting the learnings, if there are missed visits by CFs/LFs, or if member attendance is missing in sessions.

Other relevant scenarios will be identified through brainstorming sessions and learnings from the testing phase.

16.1.3 Real Time Monitoring (RTM):

The application shall be used for real-time monitoring through both figures and graphical representations for each indicator. A finalized list of indicators for the dashboard will be provided after brainstorming sessions and learnings from the testing phase. All high-risk items will be marked in red, and instant system alerts will be sent to the CF/LF, FFS Manager, and PGPL's Program Officers.

16.1.4 Data Protection:

The application must strictly adhere to applicable data protection laws and best practices, ensuring the privacy, security, and lawful handling of personal data collected from farmers, staff, and stakeholders. In alignment with the principles of the General Data Protection Regulation (GDPR) and India's Digital Personal Data Protection (DPDP) Act, 2023, the system must enforce safeguards such as:

- Purpose limitation – Data shall be collected only for specific, legitimate functions within the FPC operations and project scope.
- Data minimization – Only essential data must be collected and stored.
- Access control – Role-based access must be implemented to prevent unauthorized access to sensitive data.
- Informed consent – Where applicable, users should be made aware of the purpose of data collection and their rights regarding access, correction, and withdrawal.
- Right to erasure and correction – The system should enable correction of errors or deletion of data upon authorized requests.

- Audit trails and activity logs – The system must maintain logs of data access and edits, especially for users with elevated privileges.

To ensure compliance with India's data localization requirements under the DPDP Act, all application data—including backups and archives—must be stored and hosted on servers located within India. The selected agency must use secure, encrypted infrastructure and provide detailed documentation on server architecture, security protocols, and data encryption (both at rest and in transit). PGPL reserves the right to audit the data hosting setup to ensure compliance with these requirements.

16.1.5 Data migration:

The proposed application should provide a mechanism to transfer current data in digital readable formats (xlsx, csv) to the new application without any hindrances.

The agency should ensure that there should be no need for the collection of fresh data regarding this. It should also have the possibility of bulk upload and (re)allocation of work areas among the team members.

Vernacular Language Support/Local Language: Ensure the app supports various local languages (popular languages throughout india) in addition to English, to facilitate ease of use for users who are not fluent in English.

For advocacy and monitoring at divisional, district and state level English will be used and for the field staff data collections, local language will be used.

16.1.6 Edit Options:

The agency should ensure that edit options are available in the application, with access determined by the component and the user's level within the organizational structure. For instance, if a CF/LF enters incorrect information in their profile or service request, their assigned FFS Manager should be able to make the necessary corrections. Similarly, if FFS details, sessions, or practices are entered incorrectly, only the PGPL Project Officer or System Administrator should have permission to edit that information.

16.1.7 GPS tracking

The application must be capable of collecting GPS coordinates at the time of every data entry, particularly by CF/LF and FFS Managers. While there is no immediate requirement to display this data on a map, the location information will be stored securely for future use. As GPS-based features are planned in upcoming phases, it is essential that the GPS data be accessible to FFS

Manager, PGPL staff, allowing them to manually verify the origin of data entries if needed. The agency should ensure that the system architecture allows easy integration of future mapping modules without disrupting the existing database. GPS-tagged data must be included in standard reports and made exportable in Excel format.

16.1.8 MIS and Reports:

The agency should implement an automated system on the web interface to generate timely and accurate MIS reports. These reports, based on operational data and performance indicators, will support regular progress tracking by supervisory staff. Report frequencies will include daily, weekly, monthly, quarterly, half-yearly, and annual formats.

16.2 Training Field and Supervisory Staff/User Training and Support:

Provide comprehensive training (In person) and support to the field team (virtual) to ensure they can use the app effectively and securely.

- The agency shall train the field and supervisory staff (FPC staff, PGPL Staff) on the usage, functionality of the app and shall clear all the doubts of the field staff regarding this. This training will be in person and a representative from the development organization shall have to facilitate the training. The BSLD will organize the training
- The agency shall allocate a focal person so that all the malfunctions of the application or the corrections shall be addressed by him/her in consultation with the PGPL team.
- The agency shall develop a basic training module / training deck, that provides understanding of functionality, operation and navigation of various modules and features of the app
- The agency shall issue a user manual for the software developed, which covers all essential information for understanding, and operate the application smoothly.
- Further details on the support model and response time will be defined prior to signing an agreement between the agency and PGPL.
- Similarly, details on training and documentation requirements will be defined prior to signing an agreement between the agency and PGPL.

16.3 Monitoring and Maintenance

The agency shall monitor the functionality of the app and shall maintain the server at its end but inform the specifications and server maintenance timings we be informed in advance

Plan for regular updates and maintenance to address security vulnerabilities, bugs, and performance improvements. The maintenance period will be **24 Months from the date of Go-Live**

Please describe in the financial quotation for the following components

- Component 1: dev, test, training, deployment
- Component 2: hosting and platform operations
- Component 3: monitoring and support

16.4 Indicator tracking

The app should be able to store and track the following data for each indicator:

- The name of the indicator
- The current value of the indicator
- The target value of the indicator (applicable in a few scenarios)
- The date and time the indicator was last updated
- The app should be able to generate reports that show the historical data for each indicator.
- The app should be able to export the data (as per a specific template) into a CSV file.
- The app should be accessible to users on both desktop and mobile devices.
- The app should be able to send notifications to users when there are changes to their specific data like order updates, shareholding updates, aggregate updates, goat sale updates etc..

Here are some additional technical requirements that may be necessary, depending on the specific needs of the project:

17 Technical Requirements

17.1 Mandatory Requirements

- **Compact and Efficient Design:** Optimize the app's design and code to ensure it runs smoothly on low-powered and low-performing devices
- **Role-Based Access Control (RBAC):** Implement RBAC to control user access based on their roles and responsibilities. Field team members should only have access to relevant data and functionalities according to their roles.

- **Vernacular Language Support:** Employ Google's Transliteration API and Translation API to enable vernacular language support in the app, allowing users to interact in their native languages.
- **Programming Language:** ease of use, readability, and extensive library support is ideal for rapid development and data processing
- **Offline Capability:** The app must function without a continuous internet connection since remote villages may have limited access to high-speed internet. Users should be able to input data, access information, and perform essential tasks without an internet connection.
- **Offline Data Validation:** Incorporate offline data validation mechanisms to ensure data quality even when there is no internet connection.
- **Data Sync and Backup:** Design the app to sync data securely when an internet connection is available, and regularly back up data to prevent loss in case of device damage or failure.
- **Data Validation and Error Handling:** Implement robust data validation to ensure accurate input and proper error handling to guide users in case of any discrepancies.
- **Compliance and Security Measures:** Employ industry-standard data security practices, such as SSL/TLS for secure communication, server hardening, and regular security audits.
- **Data Encryption:** All data stored in the app, including photographs, personal information, and other sensitive data, must be encrypted both in transit and at rest. This ensures that even if the device is compromised, the data remains secure.
Note: Implement strong encryption techniques like AES (Advanced Encryption Standard) to secure data both during transit and at rest.
- **User Activity Logs:** Maintain detailed logs of user activities within the app to track actions performed by individual users and ensure accountability. This is mandatory for users with FPC level data edit access. The level of log detail will be discussed before signing an agreement to balance value, readability and hosting space costs.

17.2 Optional requirements:

- **Two-Factor Authentication (2FA):** Implement 2FA for added security, requiring users (Specially CEO and users with FPO level data edit access) to enter a temporary one-time password (TOTP).
- **Version Control:** From the developers end, please maintain for version control, enabling collaborative development, code management, and easy rollbacks.

- **GPS Tracking:** Utilize the device's built-in GPS capabilities to capture the location of data entries accurately
- **Device Performance Optimization:** Utilize performance optimization techniques like wherever applicable to ensure smooth performance on low-powered devices.

18 Performance Indicators

The application will track a comprehensive set of performance indicators covering key operational aspects of the FFSs. These indicators will be prominently displayed on the web-based dashboard to provide real-time insights for FFS Manager, PGPL staff and other interested stakeholders.

Selected indicators will also be accessible via the mobile application, tailored to the user's role and permissions. This will support data-driven decision-making at all levels—from FFS Manager to central program oversight. A list of indicators will be provided by the PGPL team for development of dashboard, The list may be expanded or refined during development based on the evolving needs and functionalities of the platform.