

GOVERNMENT OF MAHARASHTRA
Grant Implementation Unit (GIU),
Japan Fund for Poverty Reduction (JFPR) funded
“Small Farmers’ Access to Market in Maharashtra”
Maharashtra State Agriculture Marketing Board (MSAMB)
PUNE – 411 037

**Request for Expression of Interest (EoI) for Consulting Firm for
‘Design, Development, Implementation & Training of a Web Based Data
Management Portal and Android based data input tool’**

1. To facilitate and further strengthen linkages with farmers and producers and ensure inclusion of farmers with small scale /small land holdings a grant of \$3 million equivalent under the Japan Fund for Poverty Reduction (JFPR) *9147-IND: Improving Small Farmers’ Access to Market in Bihar and Maharashtra*, is being provided by ADB. For the implementation of JFPR, the State Executing Agency (EA) the Department of Cooperation, Marketing and Textiles (DCMT) has established a Grant Implementation Unit (GIU) in the Implementing Agency (IA) of AIDIP, which is the Maharashtra State Agricultural Marketing Board (MSAMB). Establishment of GIU is useful to ensure better synergy and cohesion of activities between JFPR and AIDIP. GIU is responsible for the day-to-day activities of JFPR in coordination with AIDIP and the supervision of the IA.
2. MSAMB intends to utilize part of the proceeds for engaging consulting firms for design, development, implementation and training of a Web based Data Management Portal and Android based data input tool for demand aggregation and collective selling of farm produce of Farmer Producer Companies (FPCs) in the state.

For the above purpose, the Project Director, JFPR invites applications from reputed national Consultancy Firms/organization to submit their ‘Expression of Interest’ online through ADB’s Consultant Management System (CMS).

3. The selection of firms/organization for the assignment will be based on the criteria given below.
 - a) 5 years’ experience in IT Project Management, MIS / portal design, development, implementation and training is preferred.
 - b) Preference will be given to firms having experience in design and development of MIS / portal for Agribusiness preferably for FPCs.

- c) Preference will be given to firms having experience in supervision of IT projects in agribusiness sector.
- d) Adequate IT infrastructure setup for execution of projects.
- e) Preference will be given to firms having working experience in Maharashtra.
- f) Should be able to commit qualified and experienced personnel for the duration of the project.

EOIs will be evaluated based on the aforesaid criteria. Consultant will be recruited through Consultant Qualification Selection (CQS) method in accordance with the "Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers".

4. Interested organisations are requested to review the ToR uploaded on www.msamb.com and https://uxdmz06.adb.org/OA_HTML/adb/xxcrs/jsp/ADBCsrnFwd.jsp?sel=135440 make themselves familiar with the scope of work before submitting their EOIs.

5. The 'Expression of Interest' in full along with supporting documents should be submitted online through CMS on ADB's website on or before 21st June 2017.

6. Any questions requesting clarification on any aspect of the TOR should be submitted in writing to the project Director identified below not later than 10 days prior to the deadline for EOI submission. All responses provided will be uploaded on www.msamb.com.

The Project Director (JPFR)
Project Management Unit,
Maharashtra State Agricultural Marketing Board (MSAMB),
Plot No. F/E/78, Ground Floor, LDB Training Centre, Market yard, Gultekadi, Pune-
411037, Maharashtra
Phone: 0-20-2426 0574 / 75
Email : projectadb@msamb.com

Terms of Reference for the appointment of consulting firm for ‘Design, Development, Implementation & Training of a Web Based Data Management Portal and Android based data input tool’ for demand aggregation and collective selling of farm produce of Farmer Producer Companies (FPCs) in the state

A. Background

1. ADB has approved a multitranche financing facility (the MFF) for up to \$170 million OCR funds for the Government of India to implement the “Agribusiness Infrastructure Development Investment Program (MFF 0045-IND)” in Maharashtra and Bihar.
2. In the first phase, two Integrated Value Chains (IVCs) were to be established as a pilot project in; Nashik Region and Aurangabad-Amravati Region under the MFF. These IVCs were structured in Hub and Spokes model, with 1 hub and 14 spokes connecting fresh fruits and vegetables growing clusters.
3. To facilitate and further strengthen linkages with farmers and producers and ensure inclusion of farmers with small scale /small land holdings a grant of \$3 million equivalent under the Japan Fund for Poverty Reduction (JFPR) 9147-IND: Improving Small Farmers’ Access to Market in Bihar and Maharashtra, is being provided by ADB. For the implementation of JFPR, the State Executing Agency (EA), the Department of Cooperation, Marketing and Textiles (DCMT) has established a Grant Implementation Unit (GIU) in the Implementing Agency (IA) which is the Maharashtra State Agricultural Marketing Board (MSAMB). Establishment of GIU is useful to ensure better synergy and cohesion of activities between JFPR and AIDIP. GIU is responsible for the day-to-day activities of JFPR in coordination with AIDIP and the supervision of the IA.
4. **Following are the four main components of this grant:**
 - **Component A:** Assistance towards formation of Farmer Groups and Producer Companies.
 - **Component B:** Assistance for improving the farmer’s capacity to meet market requirements for achieving higher returns for their produce. A broad range of capacity development skills is envisaged which includes business management skills, technical skills, and organizational management skills.
 - **Component C:** Facilitation of Farmer-Buyer Linkages for the small-scale farmers.

- **Component D:** This component supports the project management, monitoring and evaluation activities to ensure successful implementation of the project's goals and objectives.

B. Expected Impact and Outcome

5. The impact of the overall investment program (AIDIP and JFPR) will be higher value of horticulture products captured by the stakeholders of the IVCs leading to increased income to farmers thereby improving their quality of life.
6. The impact from the interventions of the JFPR Project is expected to increase income of small-scale farmers through access to alternative higher-return markets. The outcome will be the enhanced integration of small-scale fresh fruit and vegetable (FF&V) farmers, into the horticulture value chains.
7. The outputs of the Project for Maharashtra include (i) identification and selection of at least 1400 lead farmers (representing farmer groups) for training in value chains. Trainees will be selected from the estimated 20,000 small-scale farmers that will be targeted as beneficiaries for the farmer IVC awareness programs; (ii) support for strengthening the best-performing farmer groups into at least 3 producer companies and assist the process for forming other producer companies from remaining farmer groups as required; (iii) the farmer groups and at least 3 producer companies are trained in business, technical, and organizational management skills; and (iv) farmer groups and producer companies establish long-term mutually beneficial agreements with buyers.

C. Status of JFPR 9147-IND (Maharashtra)

8. 1,404 Producer Groups are formed with 22417 number of farmers registered as members.
9. Completed trainings on Institutional Building, Collective Marketing and Crop Management for lead farmers conducted at spoke level.
10. Eighteen Farmer Producer Companies(FPCs) are registered under JFPR.
11. FPCs are linked with various distance markets and weekly markets organized at metro cities like Mumbai and Pune. With the financial assistance for primary processing infrastructures from JFPR project FPCs are erecting small infrastructure at FPC level. Channelization of produce through this infrastructure with the help of revolving fund can effectively connect FPCs to various markets.

D. Objective of the Assignment:

12. It is proposed to develop & implement an elaborate, state of the art, web based data management portal for Grant Management Unit (GIU), using which demand aggregation and collective selling of farm produce of all the FPCs in the State could be achieved.

13. The consulting firm will undertake the following specific activities:

- i. Study, Design, Development, implementation and training of web based data management portal and an android based data input tool to collect farmer member's information related to personal details, crops, area, input demand i.e. seeds, fertilizers, pesticides, farm implements etc., produce availability schedule, grade wise produce available for sell.
- ii. Implement / host the web based portal at MSAMB data center.
- iii. Training needs assessment and training to concerned users for handling & managing the web based data management portal.
- iv. Handholding of 1000 FPCs for installation of data input tool, data entry and frequently updating of information.
- v. Provide support to GIU and FPCs for smooth operations and effective utilization of web based data management portal and data input tool.

E. Duration of Assignment: 7 calendar months from the contract award. In case of requirement of additional services for maintenance, improvement or modifications in software, the services of the consulting firm may be required, for which separate contract will be negotiated after 4 months. Award of additional work to the same consulting firm shall depend on performance of the service as judged through time to time review by GIU.

F. The Task /Scope of Work:

14. The consulting firm will undertake the following specific activities of Project:

- Study the activities of FPCs in regards to aggregation of input demand and sell of output products, Knowledge Management and prepare a Functional Requirement Study document for design, development and implementation of interactive web based data management portal.
- The consulting firm shall design the web based data management portal and an android based data input tool, submit plan / story board and develop the product in continuous interaction with the project team, taking into consideration the following aspects:

- Incorporating Web standards, uniform guidelines, and content management strategies in the design.
 - Development of model templates for all the required reports, including Scheduled reports, On-demand reports, Key performance indicator report etc.
 - Development of data management portal evaluation mechanism, for the Project Management, based on the objective parameters and the user feedback, for smooth operations and effective utilization of the data management portal.
 - The consulting firm will make design level consultations with the FPCs to seamlessly integrate their activities.
- Appropriate web strategy, which will allow access of information to all stakeholders, ensure transparency in terms of availability, distribution and utilization of resources, enable access to data and information to target beneficiaries / users. This will include functionality such as authentication, authorization, security, and messaging.
 - Common search feature to retrieve information.
 - Browser compatibility for web portal and also available Android based application (e.g. Internet Explorer ver 7 and above, Mozilla Firefox, Netscape Navigator, Opera, Google Chrome, Mobile browsers etc).
 - Implementation of the interactive web based data management portal.
 - Assess the training requirements, training needs and provide training to all the users for handling & managing the data input tool and the portal.
 - Provide support to the web based software for smooth operations and effective utilization including operational manuals, training manuals etc.

G. Schedule for completion of task by the consulting firm

15. The schedule of tasks is as follows:

Sr. No.	Activities	Time Line	Cumulative
1	Design the software based on Functional Requirement, Study and Review	30 days	30 days
2	Develop and implement the web based data management portal and android based data input tool	60 days	90 days

3	Provide training to all the users	30 days	120 days
4	Hand holding support for data entry, preparation of FPCs' profile and updation.	90 days	210 days

H. Conditions:

16. The following conditions shall be applicable to the contract of consulting firm:
- i. The GIU-JFPR shall have full copyrights on the developed software for use, redistribution, modification and sharing. The source code of the products / applications developed shall be made available to the project team in both hard and soft copy format with the copyrights.
 - ii. The consulting firm shall submit detailed operational manuals for the products and services developed by them. These operational manuals shall be submitted at the time of supply and installation. The consulting firm shall make available all such material, viz. manuals, case studies, and other learning resources, in electronic form. As per the requirement, the manuals shall be developed in regional language.
 - iii. The consulting firm shall depute the personnel with adequate experience and competence to design, development and deployment of software.
 - iv. The consulting firm shall preferably use mutually agreed upon open source / proprietary software for developing the various applications needed.
 - v. Wherever the commercial software's are used for development, the consulting firm shall use them at its own cost, no extra cost would be payable.
 - vi. Where the software licenses are required for the design, development, implementation and deployment of data management software and data entry tool, the consulting firm shall provide legal advice to the GIU.
 - vii. The consulting firm shall improve / refine their products / applications based on feedback from the users, in consultation with the Project Director / Project Team during the project period.

I. Desired Qualification of the consulting firm:

17. consulting firm shall employ resources as per the need for implementation of web based software. Following are the illustrative qualifications for the firm.

- i) 5 years' experience in IT Project Management, MIS / portal design, development, implementation and training is preferred.
- ii) Preference will be given to firms having experience in design and development of MIS / portal for Agribusiness preferably for FPCs.
- iii) Preference will be given to firms having experience in supervision of IT projects in agribusiness sector.
- iv) Adequate IT infrastructure setup for execution of projects.
- v) Preference will be given to firms having working experience in Maharashtra.
- vi) Experience of working with government, multilateral funding agencies will be preferred.
- vii) Working experience in Maharashtra will be preferred.
- viii) Consulting firm should have a team of following key professional staff to plan & execute project, having the following qualifications:

Sr. No.	Consultant profile	Man Months	Qualification
1	Project Manager (Team Leader)	5	ME/ MCS/MCA or equivalent Post-Graduation qualification.
2	System Analyst	2	MCS/MCA/MCM or equivalent Post-Graduation qualification.
3	Quality Assurance Leader	3	MCS/MCA/MCM or equivalent Post-Graduation qualification.
4	Developer (2 nos.)	10	MCS/MCA/MCM or equivalent Post-Graduation qualification.
5	Domain Expert-Agri	2	Master Degree in Agriculture or equivalent Post-Graduation in Agriculture qualification.
6	Data Entry Facilitators	10	Any graduation

18. Project Manager should have:
 - (i) documented experience in setting up and managing web based IT projects in large government / semi-government / private establishments;
 - (ii) 10 years' experience in supervising teams (consisting of IT professionals) working in design, development, and implementation of web portals for large institutions is preferred;
 - (iii) experience in design and development of web based software for agribusiness sector; and
 - (iv) experience in working on multilateral funding projects.
19. System Analyst:
 - a. 5 years' experience in designing, developing and implementing web based projects in large government / semi-government / private establishments using latest IT tools is preferred;
 - b. 3 years of experience in implementation of web portals, MIS for large institutions under externally aided projects will be an advantage.
20. Quality Assurance Leader:
 - c. preferably with 3 years' experience in large government / semi-government / private establishments using latest IT tools;
 - d. experience in designing and developing quality assurance procedures and processes, test plans, and test scripts; and
 - e. 5 years' experience in quality assurance and testing techniques will be an advantage.
21. Developers:
 - f. preferably with 3 years' experience in large government / semi-government / private establishments; and
 - g. 5 years' experience in software development / programming will be an advantage.
22. Domain Expert – Agri:
 - h. preferably with 5 years' experience in large government / semi-government/private establishments; and
 - i. 5 years' experience in Agriculture development of integrated MIS systems for project implementation will be an advantage.

J. Scope of Work for each expert

23. **Project Manager:** The **Project** Manager will work on design the software based on Functional Requirement Study and Review. Design and final solution should adhere to accessibility and compliance requirements (as defined by the project team) Project Initiation and Planning, Project Plan review and Sign-off, Requirement Analysis - Prepare SRS, SRS acceptance and Sign-off.
24. **Senior System Analyst:** Review business processes and documentation, Overseeing implementation of the system including data migration. Analyzes the operations of systems and procedures and evaluates effectiveness. Develops flow charts, undertake time and motion studies, examines space allocations and inspects working environments. Ensure accurate inputting of data received from various sources and partners into database. Perform data analysis by producing graphs, charts etc. Maintain and further develop the structure or format of the database. Working closely with developers and end users to ensure technical compatibility and user satisfaction.
25. **Domain Expert- Agri:** Liaison with financial institutions, insurance companies, spot exchange, and pass on useful information to the farmer, farmer groups and agri-entrepreneurs. Acquire and disseminate market related information / intelligence to farmers, farmer groups and agri-entrepreneurs on a continuous basis. Disseminate the post-harvest and value addition activities to be undertaken to the farmers, farmer groups.
26. **Developer:** Design & development of Web Application database. Developer to develop and maintain a web interface for the database in consultation with the Project Manager Develop and maintain documentation database/design documentation and operating manual on how to use the database for the project, Maintain and further develop the structure or format of the database as required, incorporating ideas and amendments from the project. Role-Based Access Control (RBAC) to authorize system resources allocation to users based on roles.
27. **Quality Assurance Leader:** The QA Analyst will develop test plans, test cases and test scripts for projects, among other assigned duties. Support integration of Quality Assurance (QA) and Quality Improvement (QI) initiatives within the Agency and develop and maintain expertise to undertake projects.

28. **Data Entry Facilitators:** Assistance data entry operation in to the Web database portal. Conduct TNA and provide training to all the users. Troubleshooting at both application level and user level, assist Local PC / FPO in operation of the database portal, Fixation of bugs, incorporation of minor changes, etc.

K. Client's Input and Counterpart Personnel

29. Services, facilities and property to be made available to the Consultant by the Client:

- i) Office space in GIU-JFPR for interaction and coordination.
- ii) Access to servers in MSAMB for hosting the portal.

30. Professional and support counterpart personnel to be assigned by the Client to the Consultant's team:

- i) Monitoring and Evaluation Expert, GIU-JFPR
- ii) Asstt. Project Officer, GIU-JFPR

L. Information to Facilitate Proposal Preparation

- (i) List of FPCs registered in Maharashtra.
- (ii) JFPR related documents and details.
- (iii) Access to the records / web sites of partnering entities, as required.
- (iv) Interaction with the stakeholders to obtain the feedback and incorporate needed changes in the subsequent programs and applications being developed by them.

M. Deliverables:

31. The overall deliverables include (i) a Functional Requirements Review Document, (ii) Final Design of software, (iii) Model Reporting Templates, (iv) Functional Web Based data management portal, (v) Functional Android based data input tool (vi) Completion of Documentation / Licenses / Manuals, (vii) Hands on user training, (viii) the Implementation Report, (ix) Help Desk Support (x) the User Satisfaction Survey. The details of the deliverables are as follows:

Sr. No.	Activities	Deliverables
1	Study and Review of existing system	<ul style="list-style-type: none"> • The project requirements in terms of data flow, its source, use and sequence of data storage, data volume, its frequency of updating, current volume and expected growth rate. • Identification of the best options for the existing facilities available in terms of Software and Networking. • Identifying user interface requirements as well as logical database requirements.
2	Design the software based on Study and Review	<ul style="list-style-type: none"> • Design related to the data flow, its source, use and sequence of data storage, data volume, its frequency of updating, off-the shelf software and also requisite hardware, users and their roles. • Develop standard and specialized queries (e.g. progress by component, search facility like location wise, FPC wise, crop wise etc.) • Develop standard and specialized Reports for activity, institution, month, year, etc. on the monitoring knowledge base and appropriately processing data entered and generate reports, including appropriate graphics, maps, and schematics, through user-friendly interfaces that allow for easy customization and expandability. • Develop reporting tools to allow for generation of standard profile, monitoring reports from various perspectives (formats developed in consultation with the GIU) at any time. • Incorporate data testing to ensure high level of data integrity. • The system shall include an effective help and online tutorial built-in to enable ease of use. • Backup and archival system. • Design of the Software security service.
3	Develop and implement	<ul style="list-style-type: none"> • Host the web-based software and test the access by the GIU and other line agencies.

Sr. No.	Activities	Deliverables
	the web based interactive software	<ul style="list-style-type: none"> • Test cases developed in consultation with the Project Team. • Piloting the implementation of the Web based interactive software in selected locations including testing with actual data. • Full-scale roll-out of the web based software after incorporating the lessons learnt in the pilot testing. • Relevant user manuals (in English and Marathi) • The complete source code, documents with the complete copyright of the JFPR on the documents and products shall be delivered, along with the copyright to JFPR in use, reuse and modification of the products developed by the consulting firm without any restrictions.
4	Facilitation of Data entry and updating	<ul style="list-style-type: none"> • Data entry and frequently updating data to new systems to ensure all project period data is fully available.
5	Conduct TNA and provide training to all the users	<ul style="list-style-type: none"> • TNA Study undertaken and TNA Report developed in consultation of the Project Team. • Training Programme designed based on the TNA. • Directing specific change management to the users for success of the initiative.
6	Help Desk Support	<ul style="list-style-type: none"> • During the contract period, post operationalization of the software, the consulting firm will provide “help-desk” support, as required, to assist the implementing units. • Help Desk services will include telephonic and email support, documentation of the FAQs, feedback system for assessing usage of the Software. • The consulting firm will also provide timely feedback to the user on any problems that arise during the execution of the tasks detailed above.
7	User Satisfaction Survey	<ul style="list-style-type: none"> • The consulting firm will also conduct the User Satisfaction Survey, which shall be designed in consultation with the Project Director, and report the

Sr. No.	Activities	Deliverables
		findings. The consulting firm shall undertake to improve the software (in all respects) taking in to consideration the findings of the User Satisfaction Survey.

N. Reporting Arrangement

32. The reporting arrangements shall comprise of:

- i) The consulting firm shall develop a detail plan for the review of the work to be completed by the consulting firm, in consultation and approval of the Project Director.
- ii) The progress will be reviewed by a Committee of three members headed by the Project Director, JFPR.
- iii) Progress reports required from the consulting firm.
 - The consulting firm, with his key officials, shall meet the project team for review of the progress once in a week, regarding the implementation tasks in Segment 1.
 - There shall be monthly reporting about design, development of software to GIU team.
- iv) Procedure for review of the final draft report
 - The final draft report submitted by the consulting firm will be reviewed by the review committee headed by the Project Director, JFPR. The consulting firm will make presentation to the review team.
