

**Govt. of Jharkhand**  
**Rural Development Department**  
**Jharkhand State Livelihood Promotion Society**  
2nd Floor, JSAMB Building, Itki Road, Hehal, Ranchi - 834005, Jharkhand  
Phone No. 0651-2951915/2951916  
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No: JSLPS/956

Date: 13.09.2021

Proc. Ref. No. : IN-JSLPS-243280-CS-QCBS

**REQUEST FOR EXPRESSION OF INTEREST FOR CONSULTANCY SERVICES FOR  
“CAPACITY BUILDING OF COMMUNITY CADRES UNDER HVA COMPONENT” OF  
JOHAR PROJECT**

Jharkhand State Livelihood Promotion Society invites “Expression of Interest” from the eligible registered consultancy agencies to submit their interest for providing consulting services for “**Capacity Building of Community Cadres under HVA Component**” of JOHAR Project.

Interested agencies may submit their "Expression of Interest" in a sealed envelope clearly superscripted as Expression of Interest for “**Consultancy services for Capacity Building of Community Cadres under HVA Component**” latest by **15.30 hours on 08<sup>th</sup> October’2021**. Interested agencies may obtain further information and procedures for submitting “Expression of Interest” by downloading the REOI document from *Procurement* → *Services* section of the official website of JSLPS i.e. [www.jslps.org](http://www.jslps.org).

Sd/-  
**Chief Executive Officer**  
**JSLPS**

**Govt. of Jharkhand**  
**Rural Development Department**  
**Jharkhand State Livelihood Promotion Society**  
2nd Floor, JSAMB Building, Itki Road, Hehal, Ranchi - 834005, Jharkhand  
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Proc. Ref. No. : IN-JSLPS-243280-CS-QCBS

Loan No. : 8757-IN

**REQUEST FOR EXPRESSION OF INTEREST FOR CONSULTANCY SERVICES FOR  
“CAPACITY BUILDING OF COMMUNITY CADRES UNDER HVA COMPONENT” OF JOHAR  
PROJECT**

**(CONSULTING SERVICES – FIRM SELECTION)**

**Assignment Title:** Hiring of Consultancy Services for Capacity Building of Community Cadres under HVA Component of JOHAR Project.

The project titled **Jharkhand Opportunities for Harnessing Rural Growth (JOHAR)** implementing through Jharkhand State Livelihood Promotion Society functioning under Rural Development Department, Govt. of Jharkhand financing from the World Bank toward the cost of implementation of the Project and intends to apply part of the proceeds for consulting services.

The consulting services (“the Services”) include hiring of Technical Support Agency (TSA) for Capacity Building of Community Cadre under HVA Component of JOHAR Project for a period of *eighteen months* subject to extension of further period based on the performance of the TSA and requirement of JSLPS. The details activities are mentioned in the draft Terms of Reference (*Annexure – B*).

Jharkhand State Livelihood Promotion Society (JSLPS), now invites eligible consulting firms (“Consultants”) to indicate their interest for providing the services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the services.

The short-listing criteria are as follows.

- a) The agency should have an independent legal existence, registered under the applicable Act. [Submit proof of Registration Certificate, Articles and Memorandum of Association].
- b) The agency should have prior experience & expertise in the field of Agriculture in large scale in Government Sectors or any other externally aided projects.
- c) The agency should have minimum 3 years of experience in the field of agriculture or similar assignments.
- d) The Agency should have an annual average turnover of minimum Rs. 11.00 crore or more during last three financial years and preferably a positive net worth. Out of the total turnover, at least Rs. 5.50 crore should be from Agricultural assignments only [Relevant documents viz, audited financial statements and a certificate from Chartered Accountant in support of satisfying the criteria should be submitted].
- e) Experience of at least two similar natures of assignments including experience in AI based pest & disease advisories in horticultural crops undertaken in areas specific to the proposed

assignment. Experience in government sector/externally aided projects/livelihood sector may be preferred.

- f) The agency should have a well-qualified and sufficiently experienced faculty, in house or should be in a position to commit about their own network/association.

Interested firms may submit their application expressing interest in the prescribed Performa annexed herewith [Annexure-A] in sealed envelope with each page of the application signed by an authorised signatory, including the pages comprising the annexure.

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* (January 2011 revised July 2014) ("Consultant Guidelines"), setting forth the World Bank's policy on conflict of interest. In addition, please refer to the following specific information on conflict of interest related to this assignment: conflict between consulting activities and procurement of goods, works or non-consulting services; conflict among consulting assignments; and relationship with Borrower's staff.

Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications. The submission should clearly indicate the type of association whether a JV or sub consultancy

A Consultant will be selected in accordance with the Quality & Cost Based Selection (QCBS) method set out in the Consultant Guidelines.

Expressions of interest (in prescribed format) must be delivered in a written form only to the address below by person or through postal/courier services latest by **15.30 hours of 08th October'2021** by super-scribing/marketing the envelope as **"Request for Expression of Interest for Capacity Building of HVA Cadre under JOHAR"** at the following address. Please note that EOIs shall be accepted by the aforesaid methods only within the stipulated period of submission.

**Address:**

The Chief Executive Officer,  
Jharkhand State Livelihoods Promotion Society  
2nd Floor, JSAMB Building, Itki Road,  
Hehal, Ranchi - 834005, Jharkhand  
Phone No. 0651-2951915/2951916  
Email – joharjharkhandproc@gmail.com

Sd/-  
**Chief Executive Officer**  
**JSLPS**

## Annexure-A

**Attachment 1: Format for Submission of Information to JSLPS, Ranchi to provide consultancy services for undertaking Capacity Building of Cadres under HVA Component of JOHAR Project.**

### Submission Requirements

<b>A - Consultant's Company Profile [Maximum 2 Pages]</b>																									
1.	Organizational	<p><i>Provide a brief description of the background and organization of your firm/entity.</i></p> <p><i>The brief description should include:</i></p> <ul style="list-style-type: none"> <li>• <i>Ownership details</i></li> <li>• <i>Date and place of incorporation of the firm,</i></li> <li>• <i>Objectives of the firm,</i></li> <li>• <i>Availability of appropriate skills among staff.</i></li> </ul>																							
2.	Financial: (Minimum average annual Turnover of at least Rs. 11.00 Crore during last three financial years required.	<p><i>Provide the turnover of the on the basis of the audited accounts of the previous three financial years in Indian Rupees.</i></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 33%; text-align: center; padding: 2px;">2017-18</td> <td style="width: 33%; text-align: center; padding: 2px;">2018-19</td> <td style="width: 33%; text-align: center; padding: 2px;">2019-20</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </table>				2017-18	2018-19	2019-20																	
2017-18	2018-19	2019-20																							
<b>B - Consultant's Experience [Maximum 15-20 pages]</b>																									
1.	<p>As described under shortlisting criteria (c), experience of working in Government or any other externally funded agencies in India.</p> <p><b>At least 3 years' experience required.</b></p> <p><b><u>Please provide details of up to 10 such assignments (you may add more rows).</u></b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 15%;">Name of Project</th> <th style="width: 25%;">Services provided</th> <th style="width: 15%;">Client and Country</th> <th style="width: 15%;">Duration of Assignment</th> <th style="width: 30%;">Value of Contract (in INR)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>					Name of Project	Services provided	Client and Country	Duration of Assignment	Value of Contract (in INR)															
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2.	<p>Experience in area described under shortlisting criteria (e) in India.</p> <p><b>At least 2 projects' experience required.</b></p> <p><b><u>Please provide details of up to 10 such assignments (you may add more rows).</u></b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 20%;">Name of the Client (Gov/Externally Aided Project)</th> <th style="width: 20%;">Nature of the assignment (Agricultural or similar assignments)</th> <th style="width: 20%;">Location and coverage (entire state, country, etc.)</th> <th style="width: 15%;">Duration of Assignment (In month)</th> <th style="width: 25%;">Value of Contract (Rs. In Lakh)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>					Name of the Client (Gov/Externally Aided Project)	Nature of the assignment (Agricultural or similar assignments)	Location and coverage (entire state, country, etc.)	Duration of Assignment (In month)	Value of Contract (Rs. In Lakh)															
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Please enclosed copy of the contract as evidence																									

3.	Two Experts to be proposed with experience Development Sector or Externally Aided Project in the areas of Agriculture or similar nature of works at-least for a period of 3 years. Detailed CVs are not required at REOI stage, which will be submitted if the agency qualify for RfP stage.  Among other information, the brief CVs should include the following information in the following format:			
	Name of the proposed Expert			
	Designation			
	Experience of 3 years in Development Sectors or any externally aided projects			
	Name of Project	Design and implementation of Agricultural Projects or similar type of works experience.	Client and State	Duration of Assignments (In month)

If the Consultant has formed a consortium, all the above details of each member of the consortium and the name of the lead partner, shall be provided.

**Annexure –A (1)**

**Declaration**

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**To whom so ever it may be concern**

I/We hereby solemnly take oath that I/We am/are authorized signatory in the firms/ Agency/ Institute/ Company and hereby declare that "Our firms/ Agency/ Institute/ Company do not face any sanction or any pending disciplinary action from any authority against our firms/ Agency/ Institute/ Company or partners." Further, it is also certified that our firm has not been blacklisted/debarred by any government or any other donor/partner organization in past.

In case of any further changes which effect of this declaration at a later date; we would inform the JSLPS accordingly.

Authorized Signatory  
(with seal)

**DRAFT TERMS OF REFERENCE (TOR) FOR HIRING OF CONSULTING SERVICES FOR CAPACITY BUILDING OF COMMUNITY CADRES UNDER HVA COMPONENT OF JOHAR PROJECT.**

**1) Background:**

Jharkhand State Livelihood Promotion Society (hereafter JSLPS) is implementing Jharkhand Opportunities for Harnessing Rural Growth Project (hereinafter JOHAR project) in 68 blocks within 17 districts of the Jharkhand state. The primary project beneficiaries are the rural households, the majority of whom are women SHG members, including from SC, ST, smallholder and landless households in selected blocks of rural Jharkhand. Project interventions focus on implementing the sub-sectors of High Value Agriculture (HVA), livestock (small ruminants), NTFP and Fisheries for creating an income impact on the targeted households.

HVA is being implemented across 13 districts of Jharkhand covering 43 blocks and reaching out to more than 1,50,800 House Holds through 2760 Producer Groups (hereafter PGs).

**2) Need for TSA for training of community cadres under HVA:**

HVA domain objective is to promote sustainable production through productivity enhancement and building climate resilience into production systems through creating improved skills and capacities of rural poor. The HVA component, which caters around 75% of the JOHAR target, envisages increasing production of the PG member through **right** choice of crops in **right** agro-climatic conditions based on **right** PoP (Package of Practices) for Jharkhand state. In order to ensure consistent price of produce and also to create marketable surplus, at least 1 ton/ day at each PG level, a system of collective farming in a synchronized manner is being promoted through JOHAR.

The whole implementation system of HVA domain is through the pool of community cadres, who interact on day-to-day basis with PG members. Currently, there are two types of cadres who are supporting the HVA implementation.

**Aajivika Krishak Mitra (AKM)** – Each PG has been tagged with an AKM who provides hand holding support to PGs. AKM is responsible for initiating and motivating PG member to join High Value Agriculture and thereby in to crop planning based on JOHAR norms. Thereafter, AKM will help the PG members to adopt a series of activities that lead to substantial increase in their income.

**Senior AKM** – A senior AKM has been placed over 7 PGs, in turn 7 AKMs. The Senior AKM is a livelihood expert who apart from providing technical guidance to AKM also supports in all activities of marketing starting from input to output along with market related information to the PG members through the FPCs.

In order to have an efficient framework for upscaling the HVA outreach under JOHAR project, capacity of these above mentioned community based cadres of AKM and Sr. AKM needs to be further enhanced and improved. These community cadres working in HVA forms an important as well as the last mile link with the targeted beneficiaries. These community cadres are entrusted with the responsibility of disseminating HVA principles and scientific PoP amongst the targeted community. Hence, it is important that the community cadres have the requisite skills & knowledge to upscale HVA in the targeted areas of JOHAR. The recent study done by M&E team of JOHAR has clearly spelt out the need for building the capacities of community cadres in core agriculture sector in a phased manner to ensure that PGs are able to perform as per the requirement of the project.

Moreover, JOHAR block level staffs (BPOs & FTCs) are engaged in multi-domain activity hence it becomes difficult to explicitly focus on timely implementation of HVA sub-component. Thus, it is very much important and required that a systematic and concerted effort is being taken up by

enhancing the capacities of cadres so that they can perform timely and seasonal activities on their own. *HVA domain will reach out to 80% of the PGs and 75% of the HH in the JOHAR project.*

**In addition**, the JOHAR aspires to certify each cadres involved in HVA work through the Agriculture Sector Skill Council working under MSDE, GoI and therefore it is becomes mandatory that a rigorous training for cadres of HVA blocks are being taken up.

Moreover, it is well known fact that majority of the activities in agriculture is time bound, it is important that the farmers are provided with timely information to maximize gains. Secondly, Agriculture has a very close relationship with weather, thus it is very much required that the farmers are being equipped with forecast related to weather, pest incidence, temperature fluctuations etc so that necessary precautions can be taken up at field level. Therefore, periodic weather forecast will be shared in-house by JSLPS. However, current proposal intends for adoption of timely pest and disease control measures to help farmers reduce losses through an automated response model.

Hence, it is important that an agency, relevant for Jharkhand state is hired for systematic and timely training of Community cadres on different subcomponents of HVA along with implementation of automated response system for pest and disease attack.

### **3) Objective of the Assignment:**

The project objective is to promote sustainable production system through productivity enhancement, building resilience into production systems and creating improved skills and capacities of rural poor engaged in farm based livelihoods by delivering them with timely synchronized information which results in improvement in their incomes.

**The explicit objectives of the TOR are: -**

- a) Develop the knowledge and skill capacity of HVA community cadres on HVA concept, Crop Planning, crop based scientific PoP, Setting up of demonstration plots and Farmer Field School (FFS) for HVA targeted area
- b) Establishing 440 Agro-entrepreneur in JOHAR targeted area.
- c) Establishing automated system for timely response of pest and disease attack along with market linkage facilitation

**The components of the assignment will therefore be detailed as follows;**

- a) **Training on HVA Concepts-** The aim of this component is to provide information, knowledge and skills such that 3100 HVA community cadres are fully equipped with the concepts of **Collective and synchronized farming practices**. The training expenses will be borne by TSA and will enable cadres to motivate PG members to do collective farming resulting in substantial unit cost reduction at individual HH level. Moreover, training on crop planning and synchronized farming practices will help cadres to promote batch wise farming at PG level, which in turn will not only help them to reach 1 ton production per day but also in turn help them to avoid glut situation in the market.
- b) **Training on Crop Production Technologies**– This component will equip the 3100 cadres with knowledge and skill sets for promoting and cultivating relevant three selected crops in that block. The training expenses will be borne by TSA, which will enable these cadres to disseminate relevant training to all the PG members. Adoption of scientific PoP with same set of inputs will help PGs to target markets and fetch better prices of the produce. The TSA will primarily organize these trainings at block level with a mix of both theoretical and on-field trainings. Post this training, certification for Master Trainer will be done. It is envisaged that these training will lead to development of at least 5 Master Trainers across block, duly certified by MSDE, Govt of India (ASCI certification), who can take forward these trainings.



- c) **Setting up demonstration plot and farmers field school**- In order to demonstrate the benefits of adoption of scientific PoP, field level demonstration plots have to be established in each cropping season. The TSA will provide the handholding institutional and technical support in establishing at least 2 demonstration plots in each season in every HVA PGs. The cost towards establishing these demonstration plots will be borne by JOHAR. Further, each demonstration plots will act as site for the farmer's field school for promoting the cross-learning events. The establishment of demonstration plots and farmers field school will follow the Standard Operating Procedure (SOP) developed under JOHAR.
- d) **Post the training of HVA concepts and crop production technologies**, certification for HVA community cadres will be done. It is envisaged that these training and certification will lead to development of at least 5 Master Trainers across each JOHAR's block, duly certified by MSDE, Govt of India (ASCI certification), who can take forward these trainings independently after the assignment.
- e) **Training of Entrepreneur** - – The component will help in selection and development of 440 Agri Entrepreneur (hereinafter AE) who by virtue of its business will provide all the necessary input and information to the individual HHs. An AE as envisaged in JOHAR project is positioned as a service agent for Agriculture. Each Agri-Entrepreneur will deal with 350-400 farmers covering 6-7 villages. FPCs through AEs will offer input farm advisory, facilitates credit, insurance solutions and assured linkages to markets for the farmer. AEs on behalf of FPC will provide end-to-end agriculture services required by the farmer at their doorstep, farmers exhibit loyalty and continue to engage and attain services from AE. The market led services of AEs will be integrated with the Farmer Producer Company. While increasing incomes of the farmers through one step at a time, the objective is to be able to become a one-stop solution for all the Agriculture needs of the farmers in those 6-7 villages.
- f) **Automated pest-disease identification and remedial system along with market linkage facilitation** – The component will develop and operate an automated system through which timely advice can be sent to the household in case of any pest and disease attack. The TSA need to provide a smartphone “pest and disease app” to raise queries on behalf of farmers in the event of a pest or disease attack in the local language and will be integrated with the existing HVA app. In the current phase, the piloting of automated pest and disease identification and remedial system will be done only in the districts of Ranchi and Ramgarh and on successful implementation by the TSA and if required by JSLPS management may be extended to all the 13 HVA districts.
- In addition to the above, the TSA will also integrate their services to the existing HVA app to conglomerate the data: -
- (i) Input demand and Output consolidation at Sr AKM level for market facilitation
  - (ii) Output forecast model based on Crop Monitoring data being filled by AKM. TSA may provide additional feature in to existing app of AKM to provide realistic advance estimate of production
  - (iii) Data for Plot to be used for advance estimate needs to geo-tagged and the app should provide most convenient and economical path for vehicle movement

#### **4) Scope of the Assignment:**

The current TOR envisages training community cadres in to HVA concepts followed by basic crop PoP training and thereby leading to establishment of Agri Entrepreneurs. The assignment shall

cover all the community cadres spread over 43 blocks and 13 district of HVA domain under JOHAR. The training will be conducted at block level in a batch of 30-40 community cadres covering all the 43 HVA blocks.

**The details of the scope of work are given below:**

**a) ToT of Trainer/ AEM**

The ToT for the trainer/ Agri-Enterprise Mentor (AEM) will be organized to train these staff on the JOHAR HVA concept and the PoP being promoted by JOHAR. The training on HVA concepts (Non-Technical Part) and Technical aspect of HVA, viz the crop PoP and management practices will be organized by JOHAR. The AEMs should have necessary business and enterprise management concepts so that s/he is able to handhold and mentor the AEs.

**b) Capacity Building of Community Cadres**

The TSA will train the community cadres across all the 43 HVA blocks. The training module will include both the class room and handholding practical training in the field. The TSA shall conduct pre and post assessment for each training and submit the report along with monthly report. The content of the training must be aligned with the content of the Qualification Pack (QP) titled 'Agricultural Extension Service Provider' (approved by MSDE, GoI) and will include;

- a) JOHAR HVA concept of Collective and Synchronized Farming – 1-ton model
- b) Participatory Planning with farmers on HVA based on 0.3 acre land model
- c) Training on Technical aspect of HVA i.e. Package of Practices; Nursery Establishment and Management; Planting to Harvest activity and management; Soil testing; IWM; INM; IPM
- d) Handholding support to cadre for the entire crop cycle in different cropping seasons
- e) Develop understanding of HVA Cadres on different major weather forecasting parameters and its interpretation in respect to POP
- f) Establishing demonstration plots and organizing FFS
- g) Training on "Pest and Disease Smartphone app"
- h) Support with literature and communication materials in both printed & digital form

**c) Identification and Selection of Entrepreneurs:**

The TSA shall conduct a well defined transparent process for selection of Entrepreneurs. The Entrepreneurs will be selected from the pool of Community cadres, who has successfully completed first level of training on HVA concept and crop production technologies. The selection process may comprise of both written and oral tests. Following factors may be considered in the selection of Agri-Entrepreneurs:

- a) Should belong to the same locality as the place of enterprise operations
- b) Self-farming
- c) Minimum education as 12th standard pass.
- d) Previous training in Agriculture, Agri-Diploma, is preferred.
- e) Self-motivated with strong ethics
- f) Risk-taking capabilities

**d) Capacity Building of Entrepreneurs:**

The TSA will train 440 Entrepreneurs, duly certified by a relevant agency like NIRD&PR etc. that comprises of a practical and a theoretical approach to learning. The focus needs to be

given to local agronomy practices along with modules specific to progressive agriculture practices and fundamentals of business enterprises. An apprenticeship model or attachment of a new AE with an experienced AE may be carried out for facilitating on the job experience. On an average the training should be a judicious mix of class room training; exposure visits and on-the job training with existing AEs. The TSA shall use digital platform to extend its outreach to the beneficiary HHs and should integrate its platform with the existing app of JSLPS.

The cost of this training will be borne by the TSA and an indicative list towards content of the training includes: -

<b>Sl. No.</b>	<b>Topics</b>
<b>1</b>	Basics of Agriculture- Agronomy practices, Soil Health Management
<b>2</b>	Management of Seedling Production Units
<b>3</b>	Seed Production
<b>4</b>	Establishment of Backward & Forward Linkages
<b>5</b>	Sorting and Grading; Logistic Management
<b>6</b>	Farm Economics - Agri Finance& Crop Insurance
<b>7</b>	Act governing purchase of Agri-inputs in India
<b>8</b>	Enterprise and business management

**e) Handholding and Mentoring of Entrepreneurs:**

The TSA shall provide handholding and mentoring support to all entrepreneurs for at least a period of 12 months so that these entrepreneurs become self reliant and sufficient. The training and hand holding support of the Agri-Entrepreneurs should be aligned with FPC activities. The TSA shall arrange for a refresher training every 6 months. In terms of hand holding support, the TSA shall help the AEs in extending FPC services to each and every HHs and should primarily focus on imparting Farmer Training; Demand generation of Agri-Inputs; Credit facilitation; Crop production data and market intelligence; Market linkages; Crop Advisory and Extension Services; Crop Insurance; Seedling Raising; Farm machineries; Irrigation Linkages and Services.

**f) Automated pest-disease identification and remedial system along with market linkage facilitation –**

A smartphone “pest and disease app” will be provided by the TSA for AKMs to raise queries on behalf of farmers in the event of a pest or disease attack in the local language.

The AKM or user should be able to enter crop and farm details, and photos and description of the attack on the plant and send to the back-end.

This should be continuously be reviewed by back-end agri-experts through an software platform and provide a remedial action (which is aligned to the project’s POP as far as possible) on the treatment, the quantity and method of application and list of local brand names that are available from local retailers, adhering and conforming to World Bank environmental safeguard norms.

Turnaround time is within 24hours. Response should be sent through the AKM's app. Follow up calls by the agri-expert to help the farmer and AKM implement the recommendation may be

done. In sum, the app and the platform should require the users to record action (query raised, solution received) and results of the recommendation (action taken and if the problem was solved and extent of damage). The service will be considered a success if all problems are solved with minimal crop loss.

Further in the case of pests and diseases that can spread easily, on receipt of a query from one farmer, app based warning should be sent to other farmers in the village or geographical area that are prone to a similar attack.

The crops for which pest/disease attacks queries are required are expected to be tomato, brinjal, okra, chilli, cauliflower, cabbage, bitter gourd, sponge gourd, French beans, etc. but will vary across the project and over time will also cover paddy and maize which are commonly grown. New crops may be added to the list as per the need of the project.

The TSA should be able to demonstrate the ability to tackle these. Post six months of manual remedial advisory, the TSA should automate the identification of selected pest/disease and remedial action advisory using prediction models, based on image recognition/ pre-defined algorithms needs to be put in place which do not require an expert's involvement. However, the accuracy of such automation should be demonstrated to the project. TSA will have access to farmer data, through an API based query build up system on to JSLPS database.

MIS reports should be made available to the project staff on the status of open queries raised and further action taken and such a database shall be maintained.

In addition to the above, the TSA will provide following feature in to the existing HVA app to facilitate the data generation, conglomeration and thereafter decision making: -

- (i) ***Input and Output consolidation at Sr AKM level for market facilitation*** – The app should consolidate the input demand of AKM falling under particular Sr AKM to enable timely input supply, cost reduction through collective purchase and facilitate adherence to POP.
- (ii) ***Output forecast model based on Crop Monitoring data being filled by AKM*** - TSA may provide additional feature in to existing app of AKM to provide realistic advance estimate of production. A logical algorithm based on data facts and images of crop vegetative growth may be drawn for an output model.
- (iii) ***Data for Plot to be used for advance estimate needs to geo-tagged and the app should provide most convenient and economical path for vehicle movement*** - Supporting the above based output with geo-tagged plot, the app should deliver economical path for vehicle for collecting output for facilitate logistics, linkages with buyers and so on.

(g) **Back-end experts**

The TSA need to contract agriculture experts to answer farmer raised questions. It is expected that there will be a higher demand on these agri-experts during pest and disease attack periods. Hence these experts may be engaged as and when needed to rationalize their costs, rather than retaining a dedicated team continuously.

#### (h) IT integration requirements

The TSA must deliver the “pest and disease” smart phone app features. However it is to be added as menu features into the existing Swalekha app to avoid giving the AKM multiple apps. Hence the TSA must provide software developers to work cooperatively with the in-house IT team to add this app functionality into the existing Swalekha app.

Moreover data privacy laws prevent JSLPS from releasing farmer database to the TSA. Hence queries to the Swalekha database must be made by the app before sending out SMS to farmers and for the back-end agri-expert to view farmer details to resolve pest/disease attack query. Hence the integrated app should communicate to the TSAs back-end systems. Swalekha will provide Application Programming Interfaces to make these remote calls and sending SMSs. The cost of sending SMS will be borne by JSLPS.

#### (i) USER INTERFACES AND REPORTING REQUIREMENTS

1. The TSA should conduct a requirements gathering session to create the reports for system users.
2. Client devices will be PCs, laptops and smartphones.
3. The AKM app should be designed for poor or no internet availability, in the local language, simple and icon based with minimal data entry and easy to use. The app should be lightweight to permit usage from internet bandwidth in remote areas through smart phones
4. SMS and voice messages (if required) to farmers should be sent in their local languages in a manner designed to maximize receipt and adoption.
5. Online reports for project staff to monitor progress, view the advisories being sent to farmers & the status of open queries raised by farmers and to view the adoption of these services.
6. All past advisories and data entered should be retrievable to enable the project to do accuracy assessments and for historical analysis

#### (j) Training and support

The TSA is responsible for training all the end-users successfully until they are capable of correctly using the system (mobile app and browser interfaces) on their own, which are the AKM and project staff. Training of the users in using the system is a crucial activity that the TSA should not under-invest in. It does not stop with simply training the users but by taking responsibility for correct usage of the software by users. It is expected that the TSA’s field staff will provide ongoing support in the first two seasons of a new geography to support AKM and to get feedback from the farmer and AKMs to improve the quality of service. After the first two seasons the AKM is expected to have sufficient proficiency with the service and the services stabilized hence needing fewer field staff to be deployed by the TSA.

#### (k) OUTREACH AND LOCATIONS

Season	Kharif 2022	Rabi 2022	Zaid 2023
Nos of district	2	2	2
No. of blocks	8	8	8
No. of app users AKMs	350	350	350
No. of app and web users (Project Staff)	50	50	50
Total no. of targeted farmers in the service villages	30000	20000	12000

## 5) Key Deliverables:

Sl. No.	Component	Deliverables	Timeline	Overall payment in % of total contract value
1.	Submission of training material	a) Training material and training module on per crop POP b) Training material and training module on AE training material	Within one month from signing of contract	10%
2.	Training on HVA concepts for community cadres	3100 Community cadres trained on HVA concepts leading to participatory crop planning of PGs under HVA	Within three months from signing of contract	10%
3.	Software installation	Software for pest and disease app to be installed on server or host on GOI recognized and approved cloud infrastructure abiding standard data policy and at least 400 user mobile and 50 project staff	Within six months from signing of contract	5%
4.	Training on Crop Production Technologies	a) 3100 Community cadres trained on PoP of HVA crops b) 5 Master Trainers per block identified and duly certified by ASCI	Within six months from signing of contract	10%
5.	Training on pest and disease app	a) At least 400 Cadres of Ranchi and Ramgarh district and 50 project staff trained on Pest and Disease App.	Within six months from signing of contract	5%
6.	Setting up of demonstration plots and Farmer field school	a) At least 2 demonstration plots per PG b) FFS is operational in each season c) At least 10 queries per AKM raised and solution provided per season through app	After completion of Each cropping season during the contract period	10%
7.	Training on Entrepreneurship	a) 440 Agri-Entrepreneurs trained on diverse enterprises as per the scope of work b) 440 Agri-Entrepreneurs duly certified by NIRD&PR. (Certification will help AEs to get fertilizer license)	Within 9 months from signing of contract	10%
8.	Handholding and Mentoring of Entrepreneurs	a) At least 10 diverse viable enterprises identified for each block and aligned with FPC b) Each block should have a complete value-chain established for extending AE services starting from input to output c) 440 Agri-Entrepreneurs on diverse enterprises established and functional	at the end of 18 months	40%

## 6) Experts required for the Assignment:

Sl. No.	Positions	Qualifications & Experience	Job Responsibility	Persons Month
<b>Key Expert</b>				
1.	Project Lead – 1 (Based at Ranchi)	Master's degree in Agriculture or RD with at least 10 years of experience in working in Jharkhand in Agri extension services	a) Coordinate with HVA state team for development of training materials b) Coordinate with district team in finalizing training schedule in consultation with HVA team at State	18
2.	Cluster Manager – 2 (Based at Regional Level)	At least 5 years of experience in rural Sector with at least 3 years of experience of working in Jharkhand in Agriculture and Allied Sector	Coordinate between AEM and State HVA team for timely implementation of training at block level and providing hand holding support.	36
3.	IT specialist - 2	Post graduate degree with 10 years of experience in relevant software technologies, domain expertise, database expert and deployment experience in similar projects.	One of the IT experts will be engaged in developing the mobile version of the app while the other one will be engaged in developing the web version of the app.	12
4.	Image Recognition Expert – 1	Post graduate degree with 10 years of experience in relevant software technologies, and image recognition and matching experience in similar Agriculture based projects.	The concerned will be responsible for creating and managing database of different pest and diseases and symptoms related to agriculture field crops	6
<b>Non-Key Expert</b>				
5.	Agri Entrepreneur Mentor -20 (District wise location provided in Annexure I)	M. Sc (Ag) or B.Sc (Ag) with at least 2-3 year of experience with experience of working in Agriculture and Allied Sector	a) Conduct training of HVA Cadres on JOHAR HVA Concept b) Conduct training of HVA Cadres on Crop PoP c) Conduct field visit to access crop field status and provide necessary support d) Selection of AEs. e) Train and support AKMs in using app in raising and closing alerts, interpreting messages with special focus to Ranchi and Ramgarh district	360
6.	Backend Agriculture Expert/ Training Coordinator – 4	B.Sc (Ag) or ABM (regular course from reputed college) with at least 5-6 year of experience with experience of working in Agriculture enterprises and Allied Sector	Conduct training of AEs on Agriculture scenario and Enterprise development. Lead preparing the advisories, for answering farmer' queries and for supporting the implementation team with domain expertise	72

**7) Data services and facilities to be provided:**

- a) The list of AKMs and Sr. AKMs across 13 HVA districts
- b) Facilities for organizing training programs at block levels
- c) JOHAR will provide all POP developed under HVA
- d) JOHAR will facilitate TSA to work with HVA team and KMC team, JSLPS in developing the training modules, if required.
- e) All campaigning/education materials in effective forms either printed or digital will be prepared by TSA and reproduced by JOHAR.

**8) Reporting arrangements:**

- a) Inception Report - within one month of the MOU
- b) Monthly report – Within first week of the following month
- c) Training Evaluation reports for HVA community cadres
- d) Training evaluation reports for AE trainings
- e) Quarterly report on query raised and solution advised
- f) MIS based report on software installation
- g) Quarterly report on comparative analysis of report accuracy – Manual advisory vs automated response.
- h) 5 Case studies/ learning notes each quarter.
- i) Final Report – Within one month of the contract closure date

**9) Duration of the assignment:**

The total duration of the assignment will be 18 months. However, on basis the requirement of JSLPS and performance of the TSA, the contract may be extended.

**10) Monitoring and reporting arrangements:**

The deliverables will be monitored by a review committee constituted by JSLPS. Reviews shall be carried out on quarterly basis; however, frequency of review meetings can be changed as per the need.

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**Block wise responsibility of Trainer/ AEM**

<b>TRAINER/AEM</b>	<b>BLOCKS</b>		
1	Dhalbumgarh	Ghatshila	Gudabanda
2	Patamda		
3	Potka	Musabani	
4	Gumla	Sisai	Raidih
5	Basia	Palkot	
6	Churchu	Mandu	
7	Gola	Petarwar	
8	Patratu	Kanke	
9	Mandar	Chanho	
10	Kuru	Bhandra	
11	Khunti	Karra	Murhu
12	Chandankyari	Jaridih	
13	Chandil	Nimdih	
14	Kersai	Simdega	Kurdeg
15	Hat Gamharia	Manjhgaon	
16	Kukru	Ichagarh	
17	Pirtand		
18	Purbi Tundi	Tundi	
19	Angara	Bero	
20	Jhinkpani	Tonto	Chaibasa