

Government of Himachal Pradesh, India
Through
Society for Improvement of Forest Ecosystems Management
& Livelihoods in Himachal Pradesh

Invites

Proposals

For

Pilot Project on Hydro Cultural Fodder Production

Under

JICA Assisted

Project for Improvement of Himachal Pradesh Forest Ecosystems
Management & Livelihoods (PIHPFEM&L)

Himachal Pradesh Forest Department (HPFD),
Government of Himachal Pradesh

June 26, 2020

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**Himachal Pradesh Forest Department (HPFD),
Government of Himachal Pradesh
Through
Society for Improvement of Forest Ecosystems Management & Livelihoods in
Himachal Pradesh
for the JICA assisted
Project for Improvement of Himachal Pradesh Forest Ecosystems Management &
Livelihoods, Potters Hill, Shimla, Himachal Pradesh**

Ref. No. JICA/General/Vol. 9

Dated: June 26, 2020

**{Notice for Invitation of Proposal for Pilot Project on Hydro Cultural Fodder
Production}**

Society for Improvement of Forest Ecosystems Management & Livelihoods in Himachal Pradesh for JICA assisted **PIHPFEM&L** solicits proposals (Technical & Financial) from competent Firms/Organizations/Research Institute, specializing in installation & implementation of Hydro Cultural Fodder Production unit/projects and related assignment. Duration of this outsource work is 12 months.

Eligible organizations/research institute may submit their Bid Proposal, with supporting documents in the prescribed formats only. The Bid Proposals should be sent by registered post/courier service, along with Demand Draft of Rs 5000/- as tender/bidding document fee (non refundable) and Rs. 26000/- (Rupees Twenty Six thousand only) in the form of FDR of any nationalized Bank, as Bid Security (refundable), payable to CPD cum CEO of Society for Improvement of Forest Ecosystems Management & Livelihoods in Himachal Pradesh, Potters' Hill, Summer Hill, Shimla-5, Himachal Pradesh payable at Shimla, in a sealed cover, so as to reach this office on or before 4.00 pm on July 14, 2020. Proposals received in formats other than the Prescribed Formats will not be entertained.

The scope of the Services, and other relevant details including prescribed formats, which are required for submission of the proposals are available on the website: www.hpforest.nic.in.


Chief Project Director
PIHPFEM&L (JICA)
0177 2830217

Date: June 26, 2020

Instructions to Bidder

I. General Instructions

- The organization (bidder) shall bear all costs associated with the preparation and submission of its proposal and PIHPFEM&L will in no case be responsible or liable for these costs, whether the proposal is finally accepted or not.
- Proposal validity shall be for 120 days.
- The organization (bidder) should submit their Bid Proposal, with supporting documents in the prescribed formats only. The Bid Proposals should be sent by registered post/courier service, along with Demand Draft of Rs 5000/- as tender/bidding document fee (non refundable) and Rs. 26000/- (Rupees twenty six thousand only) in the form of FDR of any nationalized Bank, as Bid Security (refundable), payable to CPD cum CEO of Society for Improvement of Forest Ecosystems Management & Livelihoods in Himachal Pradesh, Potters' Hill, Summer Hill, Shimla-5, Himachal Pradesh payable at Shimla.
- Proposal is to be submitted in a sealed envelope. The documents are to be arranged systematically into Section A (Technical Proposal) and Section B (Financial Proposal). Section A (Technical Proposal), and Section B (Financial Proposal) are to be kept in separate sealed envelopes, which further should be kept inside an outer envelope and sealed as per instructions and formats provided for the purpose. **The envelope containing Financial Proposal should be clearly marked, "Financial Proposal; Do not Open with Technical Proposal"**.
- All the three envelopes must show the name of the participating firm, address and should be **superscribed as "Proposal for Pilot Project on Hydro Cultural Fodder Production under Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (PIHPFEM&L)"**.
- The Technical Proposals should not include any information related to financial proposal. Such proposals would be summarily rejected. All the inputs, which are part of the Technical Proposal, should be included in arriving at the total Project cost in financial proposal. If not, it will be presumed to have been included.
- After evaluation of Technical proposals, unsuccessful firms would be intimated and their financial proposals would be returned unopened. Successful bidders would be intimated about date and time of opening of their financial proposals. Their attendance during opening of the financial proposals would be *voluntarily*.

- The Bid Security of unsuccessful bidders will be returned within 28 days after opening of financial Proposal.
- The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security
- Complete offers/bids are to be addressed to **Chief Project Director Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (PIHPFEM&L) Cum CEO Society for Improvement of Forest Ecosystems Management & Livelihoods in Himachal Pradesh**, Near Tagore boys Hostel, Potters Hill, Summer Hill, Shimla, H.P. Pin 171005
- Offers duly filled and accompanying all supporting documents, should reach the above address by Registered Post/ Courier/by Hand by **4 PM on or before July 14, 2020, after which no Proposals would be accepted.**
- Incomplete, illegible and unsealed Proposals will be summarily rejected. Telegraphic Proposals will not be accepted and no correspondence will be made in this regard.
- All offers should be made in English. Conditional offers, and offers qualified by such vague and indefinite expression such as “Subject to immediate acceptance”, “Subject to prior sale” etc. will not be considered.
- Participating firms shall carefully examine the Proposal documents and the technical specification and fully inform themselves as to all the conditions and matters, which may in any way, affect the work or the cost thereof.
- Submitted forms, with overwritten or erased or illegible rate or rates not shown in figures and words in English, will be liable for rejection. In case of discrepancy between words and figures noted against each items of the tender and between unit rates and the total amount, amount quoted in words shall be considered and the decision of the evaluating authority in this regard will be final and binding. Clerical and arithmetical mistakes may result in rejection of the proposal.
- Chief Project Director, PIHPFEM&L reserves the right to accept or reject any proposal/all the proposals, without assigning any reason thereof.

II. Particular Instructions:

- The VFDSs/wards in Himachal Pradesh are situated in tough hilly/ mountainous terrain. Bidders are requested to get them acquainted with general topography/ terrain conditions of the project area, meticulously go through the scope/ deliverables and correctly assess the project requirements while submitting their offer.
- The bidding firm will have to specify the methods of data collection & generation of both primary and secondary nature. The firm would be required to submit, in detail, the methodology proposed to be adopted by the firm in carrying out the assignment, to meet the desired objectives.
- The firm/Research Institute well versed with installation & implementation of units/ projects on hydro cultural fodder production and having sufficient experience of carrying out such assignments in Himachal Pradesh would be preferred for the assignment.

The proposal must be submitted in two sections as per prescribed format mentioned below:

Section A: Technical Proposal

The Technical Proposal must include the following:

- a) Technical Proposal should be in 3 copies, one original and other 2 marked as copy.
- b) Technical Proposals should be page numbered with different sections clearly separated. Quality of proposal has been given separate marks.
- c) Each numbered page should be duly signed by the authorized signatory.
- d) Experience in installation & implementation of Hydro Cultural Fodder Production unit/projects and related research work with supporting documents (Certificate of Experience/work Order/research documents/completion certificate etc should be attached).
- e) About the organization/research institute as per format (**Tech I-A**), and Experience in Hydro Cultural Fodder Production - Installation & Implementation of unit/projects and related assignment) in India, as per format (**Tech I-B**), with supporting documents {Auditor turnover certificate/for research institute - research execution certificate /statement on annual income from Projects on Hydro Cultural Fodder Production and related services, work order/research documents/completion certificates etc should be attached}.
- f) CV of Key Resource Persons proposed for the assignment with their experiences in similar assignments/research projects. (**Tech II**)
- g) Proposed approach, methodology, work process, resource deployment, deliverables and timeline to fulfill the desired objective and scope of work within the specified time schedule (**Tech III**). Enclose supporting documents such as methodology, technical papers, etc. developed by the vendor for such projects.

Section B: Financial Proposal

- Prices shall be quoted entirely in Indian Rupees (INR) and must be arrived at after including all expenses, rates, and applicable taxes, including Goods and Service Tax (GST) which is also to be indicated separately as per prevailing rate.
- Financial Proposal to be submitted **in the Prescribed format (Fin I)**. The cost break-up/justification and all taxes and levies may be submitted on separate sheet on organization letter head.
- The Price and conditions of the offer should be valid for at least a period of 120 days from the date of opening. Proposals with validity of less than 120 days shall be rejected
- Each page of the Financial Proposal should be numbered clearly and duly signed by the authorized signatory.

Technical Proposal - Sample Forms

Form TECH-I: Organisation/Research Institute and Experience

A – Agency/Organization/Research Institute

[Provide here a brief (two pages) description of the organization and general experience of the organization and, if applicable, each joint venture member for this assignment.]

B – Organization/ Research Institute /Agency’s Experience

(Hydro Cultural Fodder Production - Installation & Implementation of units/projects and related assignments)

[Using the format below, provide information on each assignment for which your firm and each joint venture member for this assignment, was legally contracted either individually as a corporate entity or as a lead firm or one of members within a joint venture, for carrying out consulting services similar to the ones requested under this assignment.]

Assignment/Project name:	Approx. value of the contract (in INR):
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total No. of man-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in INR):
Start date (month/year): Completion date (month/year):	No. of professional man-months provided by the joint venture members or Sub-Organisations:
Name of joint venture member or Sub-Organisations, if any:	
Narrative description of Project:	
Description of actual services provided in the assignment:	

Firm’s Name: _____

Form TECH-II: Curriculum Vitae (CV) for Proposed Resource Person

1. General

Position Title and No.	[e.g., K-1, Researcher] [<i>Note: Only one candidate shall be nominated to each position.</i>]
Name of Key Resource Person	[<i>Insert full name</i>]
Name of the Firm proposing the Resource Person	
Date of Birth	[<i>day/month/year</i>]
Nationality	
Country of Citizenship/Residence	

2. Education: [*List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained*]

3. Experience (related to research work):

Period	Employing organization and your title/position. Contact information for references*	Country/State	Summary of activities performed relevant to the Assignment
[e.g., May 2010-present]	[e.g., Ministry of, advisor/Organisation to... For references: Tel...../e-mail.....; Mr. Hbbbb, deputy minister]		

4. Membership in Professional Associations and Publications:

5. Language Skills (indicate only languages in which you can work): _____

6. Adequacy for the Assignment:

7. Certification:

I, the undersigned, certify to the best of my knowledge and belief that:

- (i) this CV correctly describes my qualifications and my experience;
- (ii) I am committed to undertake the assignment within the validity of Proposal;

Date: _____

[Signature of Key Resource Person or authorized representative of the firm]¹ Day/Month/Year

Form TECH-III: Description of Approach, Methodology and Work Plan for Performing the Assignment

[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (about 50 pages, inclusive of charts and diagrams) divided into the following three chapters:

- a) *Technical Approach and Methodology,*
 - b) *Work Plan, and*
 - c) *Organization and Staffing,*
-
- a) *Technical Approach and Methodology. In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach. Staffing for training should also be explained, if so required in the TOR. Please do not repeat/copy the TOR in here.*

 - b) *Work Plan. In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule.*

 - c) *Organization and Staffing. In this chapter you should propose the structure and composition of your team.*

Financial Proposal - Sample Forms

Form FIN-1: Financial Proposal Submission Form

[Location, Date]

To: [Name and address of Client]

Dear Sirs:

We, the undersigned, offer to provide the services for [insert name of assignment] in accordance with your Invitation of Proposal dated [insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [insert amount(s) in words and figures¹].

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [in full and initials]: _____
Name and Title of Signatory: _____
Name of Firm: _____
Address: _____

1 Amounts must coincide with the ones indicated under Total. This amount is inclusive of the local indirect taxes, which shall be confirmed during negotiations, and included in the Contract price.

QCBS - Data Sheet

Sr. No.	
1	The Guidelines (Consultant guidelines) published in April 2012 by JICA can be referred.
2	Amount of the Loan Agreement: JPY ¥ 11,136,000,000 Signed date of the Loan Agreement: 29-03-2018 Name of Project: Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods
3	Name of the Client: Himachal Pradesh Forest Department (HPFD), through Society for Improvement of Forest Ecosystems Management and Livelihoods in HP
4	Name of the assignment: “Pilot Project on Hydro Cultural Fodder Production”
5	The Client’s representative is: Chief Project Director, Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods Cum Chief Executive Officer Society for Improvement of Forest Ecosystems Management and Livelihoods in HP Address: Chief Project Director Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (PIHPFEM&L) Cum CEO Society for Improvement of Forest Ecosystems Management & Livelihoods in Himachal Pradesh, Near Tagore boys Hostel, Potters Hill , Summer Hill, Shimla, H.P. Pin 171005 Telephone: 91-177-2830217, 2831217, 2832217 E-mail: cpdjica2018hpfd@gmail.com
6	The Client will provide Terms of Reference for the work to be outsourced
7	A list of debarred firms and individuals is available at the World Bank’s website: www.worldbank.org/debarr
8	Proposals shall be submitted in the following language: <u>English</u>
9	Proposals must remain valid 120 days after the submission deadline date.

10	The Financial Proposal should be in Lump sum including everything.																		
11	Clarifications on proposal documents may be requested on e-mail and telephone numbers given above within ten days from advertisement. However the final date of submission will not be extended under any circumstances.																		
12	The Client warrants that the Client shall pay the amount for the work done as per the schedule to be decided during contract negotiations “Information on the Organisation’s tax liabilities in the Client’s country can be found at http://dor.gov.in , www.incometaxindia.gov.in and www.cbec.gov.in .”																		
13	Number of copies of the Technical Proposal: One (1) original and two (2) copies																		
14	Time and date of the Proposal submission deadline: - Time: 16:00 (Indian Standard Time) - Date: July 14, 2020																		
15	Organisation/Research Institute must submit the original and all copies of the Technical Proposal, and the original Financial Proposal to the Client. Proposals must be submitted no later than date and time stated above.																		
16	Technical evaluation, based on past experiences and technical expertise, shall be carried out for eligible bidders by assigning Technical Scores as specified below: <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Technical Credential</th> <th>Max Score</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Experience in Hydro Cultural Fodder Production – Installation & Implementation of units/Projects and related assignments in India.</td> <td>30</td> </tr> <tr> <td>2</td> <td>Researcher & Field Assistant</td> <td>15</td> </tr> <tr> <td>3</td> <td>Proposed methodology</td> <td>20</td> </tr> <tr> <td>4</td> <td>Infrastructure/equipment availability</td> <td>25</td> </tr> <tr> <td>5</td> <td>Quality of Proposal</td> <td>10</td> </tr> </tbody> </table>	Sr. No.	Technical Credential	Max Score	1	Experience in Hydro Cultural Fodder Production – Installation & Implementation of units/Projects and related assignments in India.	30	2	Researcher & Field Assistant	15	3	Proposed methodology	20	4	Infrastructure/equipment availability	25	5	Quality of Proposal	10
Sr. No.	Technical Credential	Max Score																	
1	Experience in Hydro Cultural Fodder Production – Installation & Implementation of units/Projects and related assignments in India.	30																	
2	Researcher & Field Assistant	15																	
3	Proposed methodology	20																	
4	Infrastructure/equipment availability	25																	
5	Quality of Proposal	10																	

	Minimum marks for qualifying in Technical Evaluation would be 60 marks.
17	Expected date (month/year) for public opening of Financial Proposals: July 2020
18	The single currency for price conversion is: <u>Indian Rupee</u>
19	Quality-Cost Ratio: 80:20
20	Expected date and address for contract negotiations: August 2020 at the office of Chief Project Director Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (PIHPFEM&L) Cum CEO Society for Improvement of Forest Ecosystems Management & Livelihoods in Himachal Pradesh, Near Tagore Hostel, Potters Hill, Summer Hill, Shimla, H.P. Pin 171005 (INDIA)
21	Expected date for commencement of services August 2020 in Himachal Pradesh, India

Evaluation and Selection Criteria/Methodology

The Proposal evaluation will be a Quality and Cost based Selection, giving weightages as per following details: -

- Technical Proposal: 80%
- Financial Proposal: 20%

The Proposal shall be evaluated in a two-stage process.

Stage 1:

Technical evaluation, based on past experiences and technical expertise, shall be carried out for eligible bidders by assigning Technical Scores as specified below:

Sr. No.	Technical Credential	Max Score
1	Experience in Hydro Cultural Fodder Production – Installation & Implementation of units/Projects and related assignments in India	30
2	Researcher & Field Assistant	15
3	Proposed methodology	20
4	Infrastructure/equipment availability	25
5	Quality of Proposal	10

Minimum marks for qualifying in Technical Evaluation would be 60 marks.

Stage-2

Financial Proposals shall be evaluated only of those bidders who score at least 60 marks out of 100 in Technical Proposal evaluation. The lowest evaluated Financial Proposal will be given the maximum financial score of 100 points. The financial scores (F_n) of the other technically qualified Financial Proposals will be computed as per the formula given below:

$$F_n = 100 \times (F_{min} / F_b)$$

Where,

F_n = financial score for the bidder under consideration

F_b = price quoted by the bidder under consideration

F_{min} = minimum price quoted by any bidder

Bids will be ranked according to their combined technical (T_n) and financial (F_n) scores using the weights $W_T = 0.80$ (the weight given to technical proposal); $W_F = 0.20$ (the weight given to the financial proposal). The combined technical and financial score (S) for the bidder under consideration shall be computed as per the formula given below:

$$S = (0.8 \times T_n) + (0.2 \times F_n)$$

The bidder achieving the highest combined technical and financial score (S) shall be considered for award of the contract.

Terms of Reference (ToR)

1. Overview

In the project areas of PIHPFEM&L, livestock rearing has been a common livelihood activity. Apart from the nomadic and semi-nomadic communities, on an average 1-2 cattle/cows are kept at homestead for domestic consumption as well as for sales of surplus. On the other hand, many of the households are experiencing shortage of green fodder and degradation of grazing areas and thus they are bound to purchase the fodder to supplement the requirement. In some areas, non lactating animals can be set free. Shortage of fodder grasses also means added burden on women in many villages in search of fodder as they are the primary care takers of livestock at household level. On the other hand, fodder harvesting in the grass land where the vegetation is not given sufficient time for rejuvenation would also mean the exploitation of the resources and accelerates the cycle of degradation. Although it is becoming common for households to purchase the dry fodder from outside of the areas, that has financial implication on the household economy. Thus PIHPFEM&L attempts to explore alternatives sources of fodder.

2. PIHPFEM&L Description

Project Objective: To manage and enhance forest area ecosystem in the project area, by sustainable forest ecosystem management , Biodiversity Conservation, Livelihood Improvement Support and Strengthening Institutional Capacity thereby contributing to environmental conservation and sustainable socio economic development in the project area in the state of Himachal Pradesh.

The activities will be carried out in 400 Village Forest Development Societies (VFDS) sites and 60 Biodiversity Management Committees (BMC) sub-committees sites.

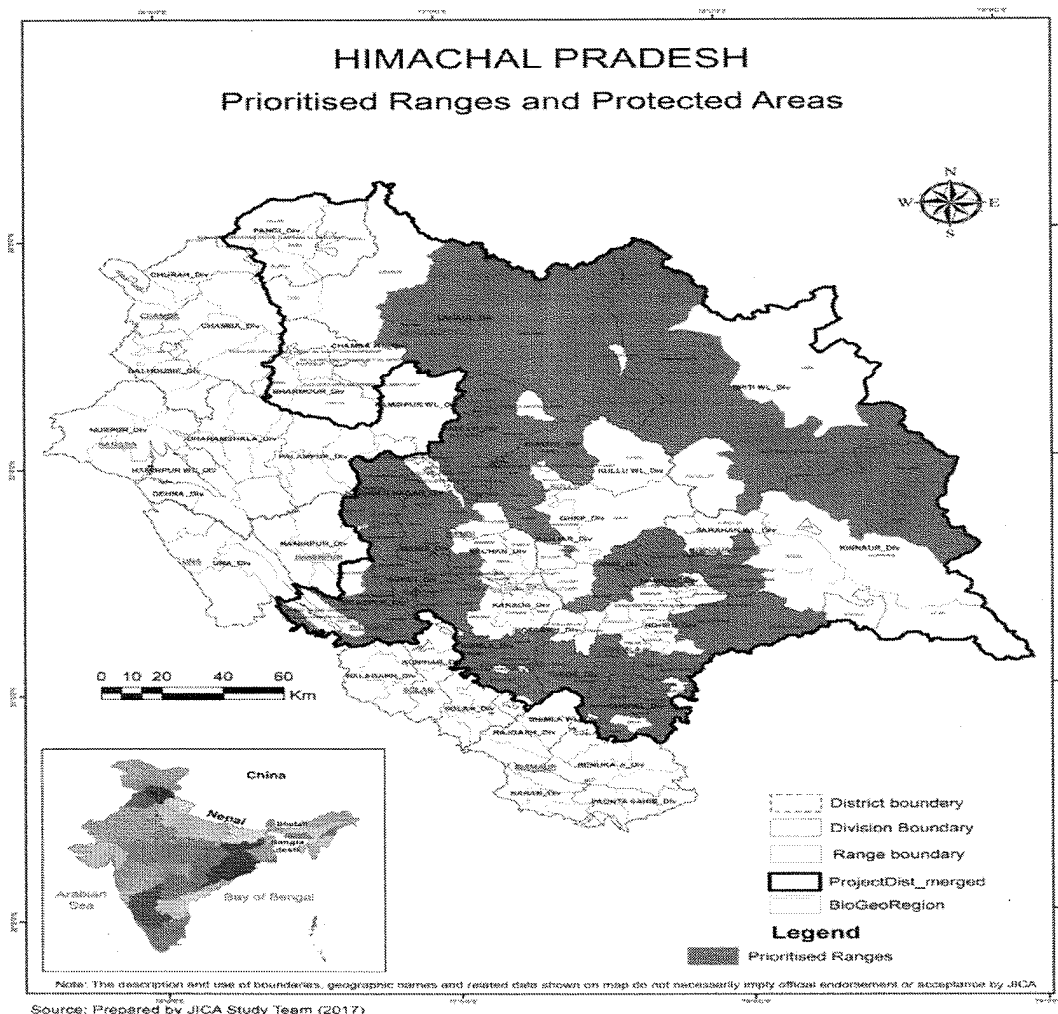
The project area includes Kinnaur, Shimla, Bilaspur, Mandi, Kullu and Lahaul&Spiti districts covering 61 Ranges of 18 Divisions falling in jurisdiction of 7 Forest Circles as below.

Table: Project Area

Division	Range	Division	Range
Bilaspur	Sadar, Ghumarwin Swarghat, Jhanduta	Lahaul	Pattan Keylong
Mandi	Drang, Kotli, Mandi, Kataula	Kinnaur	Katagaon, Nichar, Bhabanagar, Malling, Pooh
Nachan	Nachan	Shimla	Mashobra, Taradevi, Koti
Suket	Baldwara, Jhungi, Kangoo, Sarkaghat, Jaidevi, Suket	Theog	Balson, Theog, Kotkhai
Jogindernagar	Dharpur, Ladbharol, Jogindernagar, Urla, Kamlah	Rohru	Jubbal, Khashdhar, Saraswatinagar, DodraKwar
Kullu	Kullu, Patalikuhai, Manali, Naggat, Bhutti	Chopal	Bamta, Nerwa, Chopal, Sarain, Kanda, Throach
Parbati	Bhuntar, Jari, Hurla	Rampur	Sarahan

Banjar (Seraji)	Sainj, Tirthan	Kullu Wildlife	Sundernagar Wildlife Range (Bandli WLS)
Ani	Arsoo, Nither	Kullu Wildlife	-Manali Wildlife Range (Kias and Manali WLS) -Kullu Wildlife Range (Khokhan WLS)
		Spiti Wildlife	-Kaza Wildlife Range (excluding Chandertal WLS) -Tabo Wildlife Range

Map showing Forest Divisions and Ranges covered under JICA Assisted Project for Improvement of Himachal Pradesh forest ecosystems management and Livelihoods



3. Objectives of assignment

- Installation, operation and maintenance of Hydroponic Fodder Production Unit.
- To assess the feasibility of hydroponic fodder production in the project areas/selected site.
- To identify necessary technical improvements to be made to suit different geo-

ecological zones of the project areas

- To assess the economic viability of hydroponic fodder.
- To assess the changes in the fodder consumption, animal health and production of milk
- To design an extension programmes for hydroponic fodder production

4. Scope of work:

I. Infrastructure/ Unit Installation –

a) Technical specification of the Fodder Machine –

Sr. No	Item Particular	Specification
1	Output	Minimum 80 Kg/Day of Green Fodder Production
2	Operating Cycle	365 Days 24 Hours
3	Fodder Growing Chamber	Cooling system with automation/semi automation Pad cooling system
4	Galvanized Anti rust rack	For holding fodder trays
5	Biological Bacteria/Fungus control	Treatment for bacteria and fungi prevention
6	Chemical Bacteria/Fungus Control	Chemical treatment of water to prevent the bacteria growth in water
7	Trays	1. Germination Trays 2. Made of unbreakable, food grade plastic. 3. 8 days fodder growing cycle
8	Environment control system	(Temperature, humidity etc)Electronic
9	Water Handling Unit	1. Provision of stopping watering in any tray or any row of the rack system 2. Sprinklers to water each tray 3. Two water pumps
10	Air cooling unit	
11	Water recycling unit	
12	Artificial light	
13	Air circulation system	
14	Instruments/sensors	1. Ph tester 2. EC meter 3. Seed moisture tester

		4. Hygro meter 5. LUX meter
15	Pipes, valves, water pressure adjuster, end caps, jet foggers etc.	
16	PVC Water tank	500 – 1000 liter

b) Features of fodder machine –

- Automated controller with data display for all control parameters.
- Humidity control
- Aqua flow control
- Temperature control
- Water and air sterilization control
- Uniform air circulation through multiple circulatory fans
- Rack for holding trays

II. Operation & Maintenance –

- Proper working of the unit is required throughout the assignment period. It includes day to day handling of the unit.
- Maintenance/operation manual, service book
- Provide extra spare parts and maintenance service, as and when required with no extra cost, during assignment period.

III. Input material – Input material will be provided by the Firm for 1 year.

- a) Seeds (Maize, Bajra, Jowar/Chari)
- b) Nutrients(Macro &Micro), fungicide/pesticides chemicals etc
- c) Other material as per requirement

IV. Establish Protocols -

- a) Protocol for fodder production – Seed storage and preparation, Seed washing, Seed cleaning, Seed soaking, Seed germination, Loading seeds in trays and racking, Shifting of trays, Harvesting (also Machine specific solution, water and seed quantity)
- b) Protocol for water tank maintenance – water tank cleaning, water filter cleaning etc
- c) Protocol for equipment maintenance – tray cleaning, chamber cleaning etc
- d) Protocol for machine maintenance – machine cleaning etc
- e) Protocol for unit area maintenance

V. The contracted agency/PMU shall identify at least one pilot site/ward for assignment where the project interventions are implemented.

VI. As for the pilot project, the Service provider organisation shall bear the cost of installing the hydroponic fodder production unit in the pilot site. Necessary training

and technical guidance shall be carried out by the organisation for the community. The process of pilot project shall be documented so that the qualitative aspects shall also be captured. The changes in the fodder availability, expenditure, health of livestock, productivity & quality of Milk shall be monitored on a regular basis by the service provider organisation.

5. Duration of the Pilot Project

The duration for completing the assignment will be one year (12 months) after commencement of the assignment inclusive of preparation, site identification, field trial and report preparation.

6. Training/Assistance :

Necessary training and technical guidance, Onsite training, SOP guide.

7. Desirable Conditions for Resource Persons

Position	Desirable Conditions	Job Description	MM (Minimum)
Researcher. (01)	Minimum Bachelor degree in Forestry, Agriculture, Biotech or equivalent degree from reputed institution. (Preference will be given to University student of Himachal Pradesh pursuing Master degree/Phd/RF etc)	Overall guidance and responsibility for carrying out the Hydro Cultural Production work and related research work, Developing methodology, work plans, Reports/ presentations, and other outputs of desired quality as per the TOR time-schedule, and liaison with PMU. Supervise/ manage the project activities to ensure that the required procedures for the execution of the assignment are followed.	5
Field Assistant (01)	+2	Assist researcher in the execution of the assignment. Responsible for day to day handling, operation, maintenance of unit.	12

8. Deliverables

The selected agency/ resource organization is expected to submit following deliverables/ outputs to PMU as per the time schedule indicated in the following table.

- Inception Report
- Quarterly Report
- Feasibility /Technical Assessment Report
- Economic assessment
- Animal health and Productivity report
- Extension strategy and mechanism in case the technical feasibility is found out to be positive.
- Final detail research report.

Deliverables	Submission Deadline
Unit Installation and inception report	Within 3 weeks after starting of assignment
Quarterly Reports	Within a week after completion of the quarter.
Technical Assessment Report/ Feasibility	In the first week of 6th month after starting of assignment.
Economic assessment	In the first week of 8th month after starting of assignment.
Animal health and Productivity report	In the first week of 10th month after starting of assignment.
Extension strategy and mechanism.	In the first week of 11th Month or earlier as per PMU requirement.
Final detail research report.	In the third week of 12th month after starting of assignment.

Note:

- a. All the data gathered and analysis carried out will be handed over to the Chief Project Director, hard as well as soft copies (incl. EXCEL files)
- b. All reports and documents are required to be submitted to PMU in 3 hard copies and one electronic copy (MS Word, Excel files)

General Conditions of Contract

The General Conditions of Contract governing this Contract are the “General Conditions of Contract for Time-Based Contract, Annex I-II, Section 6” of the Standard Request for Proposals (version 1.1) published by JICA in October 2012. Those General Conditions of Contract are available on the JICA’s web site shown below

http://www.jica.go.jp/english/our_work/types_of_assistance/oda_loans/oda_op_info/guide/tender/index.html

A copy of these General Conditions is not attached to this document

Special Conditions of Contract

Serial no.	Conditions of Contract
1	The Guidelines (Consultant guidelines) published in JICA in April 2012 can be referred.
2	The Contract shall be executed in: English
3	<p>The addresses are:</p> <p>Client: Himachal Pradesh Forest Department (HPFD), through Society for Improvement of Forest Ecosystems Management and Livelihoods in HP</p> <p>Attention: <u>Chief Project Director, Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods</u> <u>Cum</u> <u>Chief Executive Officer Society for Improvement of Forest Ecosystems Management and Livelihoods in HP,</u> <u>Near Tagore Hostel, Potters' Hill, Summer Hill, Shimla-5, H.P.</u></p> <p>Ph. No.: +91-177-2830217, 2831217, 2832217 E-mail: cpdjica2018hpf@gmail.com</p> <p>Organisation/Service Provider: _____</p> <p>Attention: _____</p> <p>Facsimile: _____</p> <p>E-mail: _____</p>
4	<p>The Lead Member is [<i>insert name of member</i>]</p> <p><i>Note: If the Organisation/Service Provider consists of a Joint Venture the name of the entity inserted here. If the Organisation/Service Provider consists only of one entity, then only details of lead member be provided.</i></p>
5	<p>The Authorized Representatives are:</p> <p>For the Client: <u>Chief Project Director, Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods</u> <u>Cum</u> <u>Chief Executive Officer Society for Improvement of Forest Ecosystems Management and Livelihoods in HP</u></p> <p>For the Organisation/Service Provider: _____</p>
6	The time period of assignment shall be Twelve (12) months.
7	The ceiling on Organisations' liability shall be limited to the amount of this contract
8	The risks and the coverage like third party motor vehicle liability, professional liability insurance, employer's liability and workers' compensation insurance, Insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, and (ii) the Organisation's property used in the performance of the Services will be all Organisation/service providers' liability

9	The Client is entitled to use the documents prepared by the Organisation under this Contract for other projects, without prior written permission of the Organisation/service provider.
10	Any local indirect taxes chargeable in respect of this Contract for the Services provided by the Organisation/service provider are included in the ceiling amount of this Contract.
11	The Contract amount is lump sum and fixed.
12	The client would pay the fix contract amount as per schedule decided during contract negotiations. The Contract amount is lump sum and fixed.
13	The currency of payment shall be INR <i>Note: The currency (ies) shall be the same as in the Financial Proposal.</i>
14	Commitment Procedure and Reimbursement Procedure for Japanese ODA loans will be applied for the payment to the Organisation. Commitment Procedure and Reimbursement Procedure shall be used and managed in accordance with JICA's "Brochure on Commitment Procedure for Japanese ODA Loans", dated August 2012 and "Brochure on Reimbursement Procedure for Japanese ODA Loans", dated August 2012 respectively, as may be amended from time to time. The bank charges can be borne by the project, however will be finally negotiated at the time of contract negotiation.
15	The amount of the advance payment is: - 15% of the Contract amount in local currency. The advance payment securities shall be in the amounts and in the currencies of the advance payment. The advance payment will be set off by the Client in equal installments until the advance payment has been fully set off.
16	The Organization shall submit to the Client itemized invoices at time intervals to be decided in contract negotiations.
17	All the payments are subject to statutory deductions under the income tax act/GST & any other applicable law.
18	The accounts are: - for local currency: [<i>insert account</i>].
19	Applicable Law: Apart from the JICA General conditions of contract, the applicable guidelines/law on Contracts in Himachal Pradesh would be applicable
20	The credible cost estimate for this work is Rs. 9,00,000/- (Rupees Nine Lakh only) . The amount offered in the proposal, if exceeds by 20 % or is less than 20 % of the credible cost estimate will be rejected straight away.

