

Request for Proposal

(RFP)

RFP No. 02 / 2017-18 dated 10 August 2017

SELECTION OF FIRM FOR ESTABLISHMENT OF POLYHOUSES
under
UTTARAKHAND FOREST RESOURCE MANAGEMENT PROJECT

UTTARAKHAND FOREST RESOURCE MANAGEMENT PROJECT (UFRMP)

**Office of Chief Project Director
Uttarakhand Forest Resource Management Project
24, IT Park, Sahasradhara Road, Dehradun Pin:248001, Uttarakhand**

Request for Proposal (RFP) for selection of Firms/Companies for establishment of Poly-houses in Uttarakhand Forest Resource Management Project (UFRMP)

Uttarakhand Forest Resource Management Project (UFRMP), funded by Japan International Cooperation Agency (JICA), proposes to establish poly-houses for raising horticulture nurseries, especially that of walnut and other temperate fruit species under the Project.

The Project Management Unit (PMU), UFRMP now solicits techno-financial proposals, in prescribed formats only, as per RFP document, from reputed firms/Companies/having adequate experience of establishment and maintenance of “high-tech Poly-houses at different locations in Himalayan region.

Firms participating in the bid must have digital signature certificate (DSC), and must be registered at www.uktenders.gov.in. Only such firms are to submit their technical and financial proposal with supporting documents in the **prescribed formats only** to the Project Management Unit, (Office of the Chief Project Director, Uttarakhand Forest Resource Management Project, 24 IT Park, Sahasradhara Road, Dehradun-248001). Demand Draft of INR 25,000/- (Twenty-five thousand) only as processing fee (non-refundable) and Earnest Money Deposit (EMD) of **Rs. 2,00,000/- (Rupee two lakhs only)**, both in the name of Uttarakhand Forest Resource Management Society (UFRMS), payable at Dehradun is to be submitted along with technical proposed and scanned copies of the same are to be uploaded electronically on or before August 31, 2017 by 5:00 PM on e-tender portal. **RFPs received in formats other than the prescribed formats will not be entertained.**

The RFP including prescribed formats and other details may be seen on the website www.jicauttarakhand.org.

**Anup Malik
Chief Project Director
Uttarakhand Forest Resource Management Project, 24 IT Park, Sahasradhara Road,
Dehradun-248001.**

1. Objectives of the Assignment

Establishment of poly-houses, for production of grafted walnut plants, through grafting and other propagation techniques under poly-house conditions. The selected bidder Firm would be required to establish poly-house of the given specifications (Annexure 1 & 2).

2. Deliverables

Deliverables would, *inter alia*, include:

Establishment of 15 poly-houses including rain water harvesting system (Poly-house roof top gutters with down pipe, up to the elbow, to be attached with the rain water harvesting tank).

3. Time Schedule

The Firm shall be responsible for completion of the assignment, as above, as per the time schedule defined below, and shall complete all the deliverables in time. The broad *time-lines* are as follows:

- ❖ Establishment of poly-house in 90 days from the date of work order.

4. Instructions to the Bidders

The bidder requires adequate skill and experience in establishment of all kinds of poly-houses. The bidders are expected to be well versed and have adequate knowledge and experience in the sector. The bidders are required to deploy all necessary skill and human resources for the timely completion of the job.

The bidders are suggested to meticulously go through the context, objectives, scope and deliverables, and understand the functional requirements while preparing their technical proposals/bids. The bidders are required to prepare the detailed approach, methodology and work plan for execution of the work and submit the same along with the technical proposal in the formats provided.

- ❖ **RFP Document:** The RFP document can be downloaded from the official website www.jicauttarakhand.org. The Bidder is expected to examine all instructions, forms, terms & conditions, specifications given in the RFP. Failure to furnish all information as desired in this RFP document may result in rejection of the Proposal. Queries, if any, regarding RFP, may be referred to the mail address: cpdufrmp@gmail.com.
- ❖ Joint-venture/ Consortium proposals are not acceptable.
- ❖ The Bidder must submit the Technical Proposal and Financial Proposal for the complete scope of work as specified in **Section-4** of this RFP document; non-compliance in this regard shall lead to declaration of the Proposal as non-responsive and shall be summarily rejected. ***The proposal should be made using English Language only.*** Conditional proposals also shall not be acceptable.
- ❖ **Cost of Bidding:** The Bidder shall be responsible for all costs incurred in preparation and submission of their Proposals. UFRMP shall not be liable for the costs incurred by the firm in any way.
- ❖ **Tender Fee:** Bidder is required to submit a non-refundable fee of **INR 25,000/- (Twenty-five thousand only) as processing fee**, along with the technical proposal, in the form of a Bank Demand Draft drawn in favor of, **Uttarakhand Forest Resource Management Society, payable at Dehradun, Uttarakhand**, from any scheduled commercial bank, and payable at Dehradun, Uttarakhand. Proposals submitted without processing fee will be summarily rejected.
- ❖ **Bid Security:** The Technical Proposal document submitted by the bidder must be accompanied by an Earnest Money Deposit (EMD) of **Rs.2,00,000/- (Rupee two lakhs only)** in the form of a Bank Demand Draft drawn in favor of **Uttarakhand Forest Resource Management Society, payable at Dehradun, Uttarakhand** from any scheduled commercial bank and payable at Dehradun, Uttarakhand. Proposals without EMD will be summarily rejected. EMD is refundable.
- ❖ **Bid Validity:** The Proposal submitted, must be valid for a period of at least 180 days from the date of opening of the Technical Proposal.
- ❖ **Amendment of RFP Document:** Any time prior to the last date of submission of the Proposal, the Project, may for any reason, whether at its own initiative or in response

to any clarification requested by a prospective bidder, modify the RFP document. The same shall be notified on the official website mentioned.

❖ **Terms of Execution:**

- The selected bidder shall deliver all deliverables as per the timeline specified in Time Schedule of this RFP document.
- The selected bidder shall provide on-site support as and when required and as specified in Instruction to Bidders of this RFP document.
- The selected bidder shall provide necessary technical skills and human resources as specified and shall be responsible for operationalization and maintenance of the poly-houses constructed.

❖ **Submission of Bid**

The Technical Proposal should be kept in a sealed envelope and shall be marked as **“TECHNICAL PROPOSAL”** on the Top. The Financial Proposal should also be kept in a sealed envelope and shall be marked as **“FINANCIAL PROPOSAL, DO NOT OPEN WITH TECHNICAL PROPOSAL”** on the top. Both the sealed envelopes should be kept in an outer envelope which shall be marked as **“*Selection of Firm in Uttarakhand Forest Resource Management Project for establishment of Poly-houses*”**.

- The Technical proposal should not include any information related to the Financial Proposal. Technical proposals containing any indication of financial quote shall be summarily rejected. All the inputs which are part of the Technical Proposal, should be included in arriving at the cost of the project in the Financial Proposal.
- Proposals, complete in all respect shall be addressed to **Chief Project Director, Uttarakhand Forest Resource Management Project, 24, IT Park, Sahasradhara Road, Dehradun Pin: 248001**
- The Proposals should reach the above address by Registered Post/ Courier/ By Hand on or before August 31, 2017 by 5:00 PM, scanned copies of the same to be uploaded electronically on www.uktenders.gov.in , after which no proposals shall be accepted.

❖ **Submission of Technical Proposal**

The technical proposal of the bidder should contain the Processing Fee, EMD and all the information in duly filled-in Forms with necessary supporting documents as proof of their eligibility, capabilities and experiences as required for the assignment. List of Tech Forms is given below:

Tech 1: Covering letter

Tech 2: Letter of Authorization for signing & submission of bid

Tech 3: Organization details

Tech 4: Auditor certified Annual Turnover and Net-worth statement along with Copies of Audited balance sheet with original auditor certified turnover statement

Tech 5: Strength of Organization

Tech 6A: Past experience of the Bidder in execution of Projects related to poly-houses establishment. Details of important works/projects (in last 3years),with supporting work orders/agreements/ completion certificates/ or any other reasonable evidence to back their claim.

Tech 6B: Details as asked in 6A above (only top 5 projects executed during 7 years prior to last 3 years)

- The Technical Proposal document should be neatly page numbered and shall have the section separators. Each page of the Technical Proposal shall be seal stamped and signed by the Authorized Signatory. Quality of the Technical Proposal shall also be considered during technical evaluation and has been assigned separate marks. Evaluation will cover the quality of proposal and clarity in presenting the proposal before the Evaluation Committee.
- The Technical Proposal should be submitted in 5 copies (1 Original + 4 Copies)
- The Original Proposal should be clearly marked with "ORIGINAL" and the copies should be clearly marked with "COPY"
- The Earnest Money Deposit (EMD) and processing fee should be kept with the "ORIGINAL" technical proposal.
- The Technical Proposal documents shall be enclosed in a sealed envelope super scribed with "**TECHNICAL PROPOSAL**" on the top of the envelope

❖ **Submission of Financial Proposal**

- The Financial Proposal must be submitted as per the specified format **Fin-I**. Financial Proposal not submitted in the specified format, shall be summarily rejected.
- The Financial Proposal shall be valid for a period of at least 180 days from the date of actual opening of the technical Proposal.
- Each page of the Financial Proposal shall be seal stamped and signed by the Authorized Signatory.
- Submitted Forms with illegible, overwritten, erased, illegible rate or rates not shown in both figures and words shall be rejected. Financial Proposals with Clerical and/ or arithmetic errors shall be summarily rejected. In case of mismatch between the quoted value in Figures and Words, the value quoted in words shall be considered. Decision of the evaluating authority of the Project shall be final and binding.

❖ **General**

- In the present context, Firm would mean Pvt. Ltd. Company or Ltd. Company.
- Incomplete, illegible and unsealed proposals shall be summarily rejected. Telegraphic proposals shall not be accepted and no communication shall be entertained in this regard.
- **Chief Project Director, Uttarakhand Forest Resource Management Project** reserves the right to accept/ reject any/ all proposal(s) without showing any reason.
- **In case of any dispute, jurisdictional court would be Dehradun Court.**

5. Eligibility Criteria

Bidders are to meet the following eligibility criteria for evaluation of their bids. Bidders unable to meet the eligibility criteria shall not be considered for award of the work.

- a) Bidders are to submit organization's registration/ incorporation document.
- b) Bidder to submit RFP processing fee of INR 25,000/- (twenty-five thousand only) in shape of Demand Draft drawn in favour of **Uttarakhand Forest Resource Management Society, payable at Dehradun, Uttarakhand**, from any scheduled commercial bank, and payable at Dehradun, Uttarakhand. Proposals submitted without processing fee will be summarily rejected.
- c) Bidder to submit EMD for Rs.2,00,000/- (two-lakh only) in shape of Demand Draft drawn in favour of **Uttarakhand Forest Resource Management Society, payable at**

Dehradun, Uttarakhand, from any scheduled commercial bank, and payable at Dehradun, Uttarakhand. Proposals submitted without EMD will be summarily rejected.

- d) The bidder should be in the field of “Poly-house Establishment” for not less than 10 years, as on date of submission of the Proposal. Copy of the work orders/or any other reasonable proof related to Poly-house Construction, issued 10 years prior to the date of submission of bid is to be submitted as supporting documents, as per Technical Formats.
- e) Bidder must exhibit sufficient experience of executing projects related to Poly-house Construction, in last 10 years. Preference would also be given for experience of working in Uttarakhand. Copies of work orders for projects executed/agreements, along with completion certificates, or any other reasonable document, as supporting documents, to back their claims, to be submitted.
- f) Bidder should have minimum average annual turnover of INR 10 crore (ten crore) during the last 3 financial years from Poly-house Construction related projects only. Copies of audited balance sheet along with auditor certified turnover certificate, for financial years 2013-14, 2014-15 & 2015-16, to be submitted as supporting document. Information must corroborate with that provided with Tech (6A & 6B)
- g) Bidder to also submit a copy of the following:
 - 1. IT return for last 3 financial years;
 - 2. Provident Fund registration certificate;
 - 3. ESI registration certificate.
 - 4. Service Tax/GST registration.
- h) The Bidder should not be under a declaration of ineligibility for corrupt and fraudulent practices nor should have been blacklisted by any Government or Government undertaking organizations at the time of submission of the bid. To that effect, bidder to submit a self-declaration certificate, signed by the authorized signatory.

6. Opening of Bid

The Technical Proposal document shall be opened on the scheduled date and time as specified in the RFP document/ subsequent notifications, if any. The Technical Proposal shall be first scrutinized to verify the eligibility of the Bidder as per the Eligibility Criteria. Only those Technical Proposals, completely satisfying the Eligibility Criteria shall be

declared as responsive proposal and shall be considered for technical evaluation by the Evaluation Committee.

7. Evaluation of Selection Methodology

Quality and Cost Based Selection methodology shall be adopted for selection of the successful bidder. The process shall assign weightages to both Technical Proposal as well as Financial Proposal in the following manner:

- Technical Proposal: 70%
- Financial Proposal: 30%

The proposal shall be evaluated in a 2-stage process.

Stage-1: Technical Proposal Evaluation

Evaluation of the Technical Proposal shall be strictly based on the past experiences and technical expertise of the bidder in execution of assignments related to polyhouse establishment over last 05 years. The evaluation shall be carried out as per the Technical evaluation criteria specified below.

Technical Evaluation Criteria

Sl. No	Description	Max. Marks
1	Past experience of the Bidder in execution of projects related to poly-house establishment (top 5 works in previous 3 years)	40
2	Past experience of the Bidder in execution of projects related to poly-house establishment (top 5 projects in 7 years prior to last 3 years)	25
3	Strength of Organization to cater to the Task objectives including details of experience of key resource persons in poly-house establishment.	25
4	Overall Quality of Proposal and Presentation	10
	Total Marks	100

Bidder scoring minimum **60 marks out of 100** in the Technical evaluation process shall be declared as the Technically Qualified bidder. The Financial bids shall be opened only for the Technically Qualified bidders. The marks secured by the Technically Qualified bidder shall be considered as the **Technical Score (TS)**.

Stage-2: Financial Proposal Evaluation

Financial proposal of the Technically Qualified Bidders only shall be considered for evaluation. The technically qualified bidders shall be intimated the *venue, date and time* of opening of Financial Proposals through publication of notice on the website as well as through the email address provided by them for communications. Financial Proposals shall be opened in presence of the Bidders who may choose to be present during opening of the Financial Proposal.

The Financial Proposals shall also be scrutinized for their adherence to the specified format, company seal and signature of the authorized signatory. The Financial Proposals which are found to be incorrect, not signed and sealed, not in specified format shall be summarily rejected. Only those Financial Proposals found to be valid after scrutiny, shall be considered for further evaluation.

Financial Proposals should be as per solution/methodologies proposed in the Technical Proposal. Financial Proposals, which are found to be incoherent with the Technical Proposals will be summarily rejected

The Financial Proposal with the lowest financial quote shall be awarded 100 marks. The marks obtained by the bidders in the financial proposal evaluation shall be considered as Financial Score (Fs). The Financial Score (Fs) of the other Technically Qualified Financial Proposals shall be computed as per the following formula

$$Fs = 100 \times (Fmin / Fb)$$

Where,

Fs = Financial Score for the Financial Proposal under consideration

Fmin = minimum price quoted by any bidder in their Financial Proposals

Fb = price quoted by the bidder under consideration in his Financial Proposal

Quality and Cost Based Selection (Technical and Financial)

The Technical Score (Ts) and the Financial Score (Fs) secured by each bidder in their Financial Proposals shall be subjected to the Technical Weightage $Wt = 0.70$ (the weight given to the technical proposal); $Wf = 0.30$ (the weight given to the financial proposal). The combined technical and financial score (S) for the bidder shall be computed as per the following formula.

$$S = (Ts \times 0.7) + (Fs \times 0.3)$$

Proposal of the bidder securing the highest combined score (S) shall be declared as the successful bidder and shall be considered for award of the contract.

The unsuccessful bidders shall be duly intimated and their EMD will be returned after a period of one month from the date of issue of work order to the successful bidder.

8. Terms of Payment

Terms of payment will be settled with the successful bidder before commissioning of the assignment/work, at the time of signing of the contract

9. Cancellation of Order

If the selected Bidder fails to deliver the services in terms of quality and time, **Chief Project Director, Uttarakhand Forest Resource Management Project** reserves the right to cancel the contract and shall take appropriate steps against the default bidder as deemed fit by law.

10. Force Majeure

Notwithstanding the above provisions, the selected bidder shall not be liable for penalty or cancellation of order for default if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For the purpose of this clause, "Force Majeure" means an event beyond the control of the Bidder and not involving the Bidder's fault or negligence and not foreseeable. Such events may include but not restricted to, wars or revolutions, epidemics and natural calamity. In case a Force Majeure situation arises, the Bidder shall promptly notify the Project in writing of such condition and the cause thereof. Unless otherwise directed by the Project, the bidder shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternatives of performance not prevented by Force Majeure.

11. Disputes & Arbitrations

All disputes arising out of the contract shall be amicably settled by both parties. In the unfortunate event of any dispute or differences, breach and violation relating to the terms of this agreement, the said dispute or difference shall be referred to the sole arbitration of the Arbitrator appointed by Chief Project Director, UFRMP. The award of the arbitrator shall be final and binding on both the parties. The adjudication of arbitrator shall be governed by the provision of the Arbitration and Conciliation Act, 1996, or any statutory modification or re-

enactment thereof or any rules made thereof. All legal disputes are subject to the jurisdiction of courts in Dehradun.

12. Bid Response Formats

Tech I: Covering Letter

(To be submitted on Organisation's Letterhead only)

Date: _____

To

**Chief Project Director
Uttarakhand Forest Resource Management Project
24, IT Park, Sahasradhara Road, Dehradun Pin:248001**

Sub: RFP for selection of Firm/Company for establishment of Poly-house in Uttarakhand Forest Resource Management Project.

Ref: Your RFP no 02/17-18, datedAugust, 2017.

Dear Sir,

Having examined the Request for Proposal (RFP), the receipt of which is hereby duly acknowledged, we are pleased to submit our bid along with all supporting documents, requisite RFP processing fee, and EMD, for your evaluation.

We confirm that the information contained in this response or any part thereof, including its exhibits and other supporting documents & instruments delivered or to be delivered to the office of Chief Project Director, Uttarakhand Forest Resource Management Project is true, accurate, verifiable and complete. This response includes all the information necessary to ensure that the statements therein do not in whole or in part mislead the Project in its shortlisting process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading this shortlisting process, we are liable to be dismissed from the selection process or termination of the contract during the execution phase of the assignment, if awarded. We agree to unconditional acceptance of all the terms & conditions set out in the RFP document.

We further unconditionally accept all the Terms & Conditions mentioned in the above referenced RFP document. Deviations if any, from the Terms & Conditions mentioned in the above referenced RFP document, shall make our bid liable to be summarily rejected without any reference to us.

Contacts Information

Name	
Title	
Name of the Firm/Company	
Address of the Firm/Company	
Web-site	
Phone	
Mobile	
Fax	

It is hereby confirmed that I/We are entitled to act on behalf of the Firm/Company and are authorized to sign this document as well as such other documents, which may be required in this connection.

Dated this day of _____ Month, 2017

(Signature) in the capacity of

Name & address of the firm with seal stamp of the bidder

Witness signature

Witness name

Tech - 2

Letter of Authorisation

(to be submitted on Organisation's letter head)

Date: _____

To

**Chief Project Director,
Uttarakhand Forest Resource Management Project
24, IT Park, Sahasradhara Road, Dehradun Pin: 248001**

Sub: RFP for selection of Firm/Company for establishment of polyhouse in Uttarakhand Forest Resource Management Project..

Ref: Your RFP no. 02/2017-18, datedAugust 2017.

Dear Sir,

With reference to your RFP Notice No. 02/2017-18 datedAugust 2017, we hereby authorize Mr/Ms **<name>**, **<designation>** of our organization whose signature is attested below, as our authorized representative to sign the bid documents including all documents in support of our bid on our behalf.

We hereby agree to ratify the acts, deeds and things lawfully done by our aforesaid representative shall and shall always be deemed to have been done by us and accordingly binding on us

(Signature of Authorised Representative)

Yours Sincerely,

(Signature)

Name:

(Designation/ Head of the Organisation)

Tech 3:
Organisation Details (to be submitted on letter head)

Name of the Firm/Company	
Year of Establishment	
Address of Registered office	
Location of works (address)	
Telephone numbers	
Fax numbers	
Email address	
Web Site address	
Name of Head of Organisation	
Designation of Head of Organisation	
Head of Organisation's Mobile no.	
Head of Organisation's Email Id	
Name of the Contact Person	
Contact Person's designation	
Contact Person's Mobile no.	
Contact Person's Email Id	

Tech 4
Turnover & Net Worth statement
(to be submitted on letter head)

Sl.	Financial Year	Turnover from Poly-house establishment(in INR Lakhs)	Net Worth of the Firm (in INR lakhs)
1.	2013-2014		
2.	2014-2015=		
3.	2015-2016		

Note:

1. Auditor certified Turnover and net-worth Certificate in original to be attached
2. Copy of the Balance sheet and P/L statement to be attached

Tech 5

(Strength of Organisation to cater to the objectives of the Assignment including details of facilities with the Firm/Company including experience in Poly-house establishment).

Details of experiences, human resources and skill sets, infrastructure available with the organization pertinent to the assignment in 500 words.

NB: CVs of Key-resource persons to be attached.

Tech 6 A

Past experience of the Bidder in execution of Assignments in Poly-house establishment

Important projects; Works executed in last 3 years

Sl.	Work order/ Agreement/any other proof no. and date	Name of Client Organisation	Name of the Project	Value of Work (in Rs.)	Reference of supporting work order

NB: Copies of work order/ agreement/or any other reasonable proof indicating scope of work and value for each of the above- mentioned projects to be enclosed as attachments with attachment reference no indicated in the above form

Minimum three projects in three different cities in last 3 years should be included.

Tech 6 B

Past experience of the Bidder in execution of Assignments in Poly-house establishment

Important projects; Works executed during 7years, prior to last 3 years.

Sl.	Work order/ Agreement/any other proof no. and date	Name of Client Organisation	Name of the Project	Value of Work (in Rs.)	Reference of supporting work order

NB:Copies of work order/ agreement/or any other reasonable proof indicating scope of work and value for each of the above- mentioned projects to be enclosed as attachments with attachment reference no indicated in the above form

FIN 1:

Financial Proposal (to be submitted on letter head)

Date: _____

To

**Chief Project Director,
Uttarakhand Forest Resource Management Project
24, IT Park, Sahasradhara Road, Dehradun Pin:248001**

Sub: RFP for selection of Firm/Company for establishment of Poly-house in Uttarakhand Forest Resource Management Project.

Ref: Your RFP no. 02/2017-18 dated.....August 2017.

Dear Sir,

We the undersigned, offer to provide the services for establishment of Poly-house in accordance with your RFP number _____ dated _____. Our Financial Proposal, as given below, shall be binding upon us subject to the modifications, if any, as a result of contract negotiations, up to expiration of the validity period as mentioned in the RFP. It is also certified that the financial proposal is as per the methodologies suggested in the technical proposal.

We understand that you are not bound to accept any proposal that you receive.

We remain,

Yours Sincerely

Authorised Signature (in full and initials)

Name and Title of signatory:

Name of the Consultant (Company Name):

In the capacity of _____

Address _____

Financial Bid for Various Items Showing Cost Calculations

Cost of all 15 poly-houses be quoted and must be inclusive of all taxes including transportation cost, installation etc.

Number of Poly-houses	Total Cost (including all taxes)
15	

Please provide cost of poly-house as per given specifications with the RFP document at the given sites:

Sites: CITH Srinagar (J&K) (3 poly-houses)

CITH Mukteshwar, District Nainital, Uttarakhand (5 poly-houses)

Pahadpani (1 poly-house), District Nainital, Uttarakhand

Soni (2 poly-houses) (near Binsar Mahadev Temple), Ranikhet, District Almora, Uttarakhand

Moriyana (2 poly-houses) (on Suakholi- Uttarkashi Road), District Tehri, Uttarakhand

2 other sites, in Uttarakhand, will be intimated later, which would be comparable to other sites in Uttarakhand.

Green House

Length	: 20.0 m
Width	: 07.0 m
Ridge Height	: 04.5 m
Gutter Height	: 02.5 m

Design: Gable shape (Conical) (Should be ideal for hills)

Buffer Room: 2.0m x 2.0m with double door system size 2.0m x 1.0m each

S N	Description of Material/ Work	Qty
1.	Main Structure: Made of 2m thick ISI marked (1239), GI HS section, for vertical members, roof truss, horizontal runners etc., including cutting, bended in required shape, complete as per requirements, 47 x 47mm, 38 x 38 mm, ± 1mm Note: Interior support should space properly so that they can bear maximum load on roofs especially snow load.	Complete set
2.	Structure Glazing: with 8mm thick triple walled U.V. Stabilized Poly Carbonate sheet fixed with aluminium infra covering strip, thermal insulation by silicon sealant.	Complete set
3.	Roof screen: 50% shading net rolling system with manually operated gear.	Complete set
4.	Fogging System: To increase the humidity up-to 80% ± 5% by providing fogging Nozzles hanging type (2.0 x 2.0m), with fine discharge (28-30 lh) at 4bar pressure, with heavy duty pump, head unit, filter assembly etc. complete	One set
5.	Electric Fitting: Complete electrical wiring of green house with copper wire, MCB, main switch, light/ power points as per requirement	One set
6.	Cooling System: Evaporating with fan and cellulose coated cooling pad 100mm thick, aluminium frame with water distribution, water circulating channel with pump and other accessories, slow speed Axial fan belt driven with single/3 phase motor.	One set complete
7.	Lighting: Consisting of PAR lights (Photo Active Radiation) MH and HPSV light with fixture which enhance growth of plant	8Nos
8.	Control Panel: Real time Microprocessor based Programmable Control system with provision of sensing, regulating, of light, temperature, humidity and light in real time. Feather touch operation, Indicating Alarm for both safety devices and automatic power off on reaching limits Mounted in CRC powder coated panel	One set
9.	Vents: By providing 3 window on each side wall size 1.0m x 0.50m), vent area will be covered with SS mesh, fixed with aluminium beading	6 Nos.
10.	Earth work: excavation in trenches & foundation	One

11.	Foundation: Grouting of side poles (1' x 1' x 2.5' below earth surface in cement concrete 1:2:4 (1: cement, 4 coarse sand, 4 stone aggregate)	complete
12.	PCC: 1:5:10 in foundation	complete
13.	Curtain wall: Made of CC blocks/ Stone/FPS bricks in 1:6 CM, all side of the Green House 1.5' above GL with 1.0' below earth surface	complete
14.	Plaster: 12mm thick in 1:4 CM (1 cement, 4 fine sand)	complete
15.	Painting: Painting of walls with 2 or more coat of cement paint of approved colour/ shade	complete
16.	Plumbing work: For fogging & cooling system with necessary fitting GI / PVC, Polymer tank 2 x 1000 lit,	complete
17.	Flooring/ Pathway: Natural soil with 2' wide x 21 m long, central path made of 100mm thick PCC 1:8:16 and 50mm thick 1:2:4,	complete

