

TENDER DOCUMENT

DESIGN, CONSTRUCTION, **TESTING & COMMISSIONING** **OF GREEN HOUSE**

NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE
(Department of Biotechnology, Ministry of Science and Technology, Govt. of India)
C-127, Industrial Area, Phage 8, SAS Nagar, Mohali, Punjab
Phone:0172-2290300 Fax: 0172-4604888

TENDER NOTICE
Tender No. NABI/3(1)/11-12/Works

Sealed item rate Tenders (in two bid system) are invited on behalf of the Executive Director, NABI, Mohali for the below mentioned work, from firms having completed atleast three similar installations of each value not less than Rs.30 Lacs OR two similar installations of each value not less than Rs.50 Lacs OR one similar installation of each value not less than Rs.80 Lacs during the last three years preferably in central/State Govt/Central/State Autonomous Bodies, so as to reach this office as per schedule detailed below.

Name of work: Supply, Installation, Testing & Commissioning of Green House at NABI, Main Campus, Sector 81, Mohali, Punjab

Sl. No.	EMD (In Rs.)	Time for Completion	Last date & time for sale of Tender Documents	Date & time of submission / opening of tenders
1.	2.	3.	4.	5.
1.	Rs. 2,00,000/-	Four Months	13 th August 2011 upto 5.00 PM (IST)	16 th August 2011 at 2.30 PM (IST) / 16 th August 2011 at 3.30 PM (IST)

The tender documents can either be purchased from the office of the undersigned or downloaded from the website (www.nabi.res.in). The cost of tender documents is Rs. 1000 (one thousand only) which can be paid either in cash or through a demand draft in favour of National Agri-Food Biotechnology Institute.

Both the bids i.e. Technical & Price bids must be submitted on or before the above mentioned due date along with the appropriate EMD. The technical bid will be opened on the above date and time in the presence of the bidders, who wish to be present. **The financial bid of only those tenderers who are assessed as technically qualified will be opened with prior intimation to the tenderer.**

The Executive Director, NABI, reserves the right to accept or reject all or any of the bids without assigning any reasons thereof.

Administrative Officer

NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE
(Department of Biotechnology, Ministry of Science and Technology, Govt. of India)
C-127, Industrial Area, Phage 8, SAS Nagar, Mohali, Punjab
Phone:0172-2290300 Fax: 0172-4604888

TENDER NOTICE
Tender No. NABI/3(1)/11-12/Works

Sealed item rate Tenders (in two bid system) are invited on behalf of the Executive Director, NABI, Mohali for the below mentioned work, from firms having completed atleast three similar installations of each value not less than Rs.30 Lacs OR two similar installations of each value not less than Rs.50 Lacs OR one similar installation of each value not less than Rs.80 Lacs during the last three years preferably in central/State Govt/Central/State Autonomous Bodies, so as to reach this office as per schedule detailed below.

Name of work: Supply, Installation, Testing & Commissioning of Green House at NABI, Main Campus, Sector 81, Mohali, Punjab

Sl. No.	EMD (In Rs.)	Time for Completion	Last date & time for sale of Tender Documents	Date & time of submission / opening of tenders
1.	2.	3.	4.	5.
1.	Rs. 2,00,000/-	Four Months	13 th August 2011 upto 5.00 PM (IST)	16 th August 2011 at 2.30 PM (IST) / 16 th August 2011 at 3.30 PM (IST)

The contractor should have a solvency of the amount equal to 40% of the estimated cost of the work. The solvency certificate should have been issued by the scheduled bank after the date of the publication of the advertisement. The performance report of the contractor and certificate of having satisfactory completed the work, issued by Scientist-In-Charge shall be enclosed with the documents.

The tender documents can either be purchased from the office of the undersigned or downloaded from the website (www.nabi.res.in). The cost of tender documents is Rs. 1000 (one thousand only) which can be paid either in cash or through a demand draft in favour of National Agri-Food Biotechnology Institute.

Both the bids i.e. Technical & Price bids must be submitted on or before the above mentioned due date along with the appropriate EMD. The technical bid will be opened on the above date and time in the presence of the bidders, who wish to be present. **The financial bid of only those tenderers who are assessed as technically qualified will be opened with prior intimation to the tenderer.**

The Executive Director, NABI, reserves the right to accept or reject all or any of the bids without assigning any reasons thereof.

Administrative Officer

TENDER DOCUMENTS

Name of work: Designing, Construction, Testing & Commissioning of Green House at NABI, Sector 81 Campus, Mohali, Punjab, India

Owner: Executive Director, NABI, C-127, Industrial Area, Phase 8, SAS Nagar, Mohali, Punjab, India

Tender Issued to: _____

Security Deposit: - @ 5% of tendered value

Performance Guarantee:- @ 5% of tendered value

Earnest Money:- 2 Lacs

Completion Period:- Four months

**Place for submission/
Place opening of tender document:-** National Agri-Food Biotechnology Institute
C-127, Industrial Area, Phase 8, SAS Nagar, Mohali, Punjab-160071, India

Last date & time for sale of Tender Documents: 13th August 2011 at 05.00 PM (IST)

Date & Time of submission of Tender Documents: 16th August 2011 at 2.30 PM (IST)

Date & Time of opening of Technical Bid: 16th August 2011 at 3.30 PM (IST)

COST OF TENDER DOCUMENT: Rs. 1000.00 (Non-refundable)

**Administrative Officer
NABI, Mohali**

TENDER FORM

To

**The Executive Director
NABI, Mohali, Punjab, India**

Dear Sir,

I/We have read and examined the following Tender Documents relating to the **Designing, Construction, testing and commissioning of Glass House and at National Agri-Food Biotechnology Institute, C-127, Industrial Area, Phase VIII, Mohali.**

- General Conditions
- Instructions to bidders
- General Information
- Specific condition of contract
- Terms and Conditions of Contract Agreement
- Special Terms and conditions of Contract
- Technical specification and Bill of Quantities
- Price Bid

I/We hereby offer to execute the work complete in all respects specified in the underwritten Memorandum within the time specified therein at the rates specified in the bill of Quantities and in accordance, with the specifications, designs, drawings and instructions in writing referred to in the conditions of tender.

Tenderers Signature and Seal

GENERAL CONDITIONS

1. Sealed tenders are hereby invited from manufacturers/ authorized dealers for the **Designing, Construction, Testing and Commissioning of Green House at National Agri-Food Biotechnology Institute,**

The tender document consists of General Conditions, Instructions to bidders, General Information, Tender form, Terms and Conditions of Contract Agreement, Special Terms and conditions of Contract, Technical specification and Price Bid which can be had at a cost of Rs. 100000 each (Rs. one thousand only each) (Non refundable) in shape of Demand Draft or Bankers Cheque from the **Administrative Officer at NABI, C-127, Industrial Area, Phase VIII, Mohali.** Purchase of tender document is obligatory on the part of the tenderers & bid in no other form will be accepted. The tender document can also be downloaded from our website: www.nabi.res.in and the cost of tender document for Rs. 1000/- each should be submitted in the form of Demand Draft or Bankers Cheque in favor of National Agri-Food Biotechnology Institute payable at Mohali in separate envelope along with the Sealed Tender.
2. The tender documents shall be placed in sealed cover as mentioned in Procedure of Submission of tender and addressed to the The Executive Director, NABI, C-127, Industrial Area, Phase VIII, Mohali. The filled and sealed tender should be submitted in two separate envelopes containing technical & price bids to the Administrative Section of NABI, C-127, Industrial Area, Phase VIII, Mohali on or before 16th August upto 2.30 P.M. and shall be opened on the same day at 3:30 PM in the presence of tenderers or their authorized representative. Any envelope received after the said date and time shall not be entertained under any circumstances and no consideration what so-ever shall be given to anything that might be contained in any such envelope.
3. The time allowed for the Designing, Construction, Testing and commissioning of above equipments is 4 months to be reckoned from the 10th day after the date of written order to commence the work.
4. The tender shall be accompanied by earnest money of Rs. 2 Lacs. in the form of Demand Draft drawn in favour of the “National Agri-Food Biotechnology Institute” payable at Mohali. Any tender not accompanied by such earnest money will be rejected straight away.
5. The Tenderer will submit his tender in prescribed format after examining the tender documents, scope of work, specific conditions of contract, Instructions to bidders, General Information, Terms and Conditions of contract agreement, technical specification, Compliance statement, Price Bid, Price Schedule, special terms and conditions of contract, specific conditions of contract.
6. The offer shall remain valid for 90 days from the date of opening of Tender.
7. **The tenderer shall submit a list of the similar in nature Green House manufactured during the past three years along with complete details i.e names of person concerned, designation, telephone Nos., addresses of Institutes/Organizations, value of the works and copies of the completion certificates along with the application.**
8. The tenderer shall submit a copy of the latest Income tax clearance certificate / Sales tax clearance certificate along-with the copies of the audited balance sheets of the past three years.
9. If a tenderer whose tender is accepted fails to undertake the work as per terms of the contract within 10 days to be reckoned from the date of issue of award letter, the earnest Money deposited will be forfeited.
10. NABI does not bind itself to accept the lowest or any tender and reserves the right to reject any or all tenders without assigning any reason.
11. NABI will not pay any expense, whatsoever incurred by tenderer for the preparation and submission of tenders.
12. The notice inviting tender, will form part of the contract agreement to be executed by the successful tenderer with the NABI.
13. All the correspondence on the tender shall be addressed to the The Executive Director, NABI, C-127, Industrial Area, Phase VIII, Mohali and any communication addressed to anyone else shall not in any manner to be binding upon the NABI, Mohali.

Tenderers Signature with Seal

Administrative Officer

INSTRUCTIONS TO BIDDERS

1. GENERAL INSTRUCTIONS:

The items referred here-in shall cover the entire scope of the proposal which includes **design, construction, supply, testing and installation of the Green house** including the successful completion and the tests which the NABI desires testing and commissioning shall be carried out.

2. PROCEDURE FOR SUBMISSION OF TENDERS:

- a) The following procedure shall be adopted for submission and opening of tenders. The sealed envelope SUPERSCRIBED on top of envelope as **“Tender for: Designing, Construction, Testing and Commissioning of Green House National Agri-Food Biotechnology Institute, C-127, Industrial Area, Phase VIII, Mohali**

ENVELOPE NO.- 1 i.e. Technical bid

The sealed envelopes shall contain separately the Earnest money deposit and the cost of Tender document if downloaded from Website and Technical Bid will be opened first.

ENVELOPE NO.- 2 i.e. Price bid

This sealed envelopes shall contain only Financial bid of the tender as per the items /specifications given in Annexure-I. This envelope shall be opened only after the EMD contained in envelope No.1 is found in order and technically qualified as per the requirements of NABI. The date of opening of Price Bid shall be intimated to the technically qualified bidders in the later stage.

The sealed cover-containing envelope 1 & 2 shall be opened on the prescribed date and time in the presence of tenderers or their authorized representative.

- b) Quotation should be submitted directly by the original manufacturer by its sole authorized person.
- c) In case a bidder is not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the Manufacturing, maintenance, repair obligations etc. during the warranty and post-warranty period or ensure a mechanism at place for carrying out the manufacturing, maintenance, repair obligations etc. during the warranty and post-warranty period.
- d) The bidder shall bear all costs associated with the preparation and submission of its bid irrespective of the conduct or outcome of the bidding process.
- e) The bidder should not indulge in any corrupt, fraudulent, collusive, coercive practices during the entire process of procurement and execution of contract/order.
- f) Before the deadline for submission of the bid, NABI reserves the right to modify the bidding document and to extend or not to extend the date of submission. Such amendment/modification will be notified to bidders receiving the bidding document in writing or by cable/fax/ email and will also be hosted on NABI website.
- g) A bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice signed by the authorized signatory before the date of submission of the bid. Any re-submission or modification in the bid should be submitted before the date & time of submission of bid as originally conveyed in the invitation of bid.
- h) No bid may be withdrawn, substituted or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form or any extension thereof.
- i) First envelope marked “WITHDRAWAL” shall not be opened, but returned to the Bidder subject to submission of valid authorization to request the withdrawal. In case of substituted and modified bid, only the substituted bids and modified bids will be opened subject to production of authorization from the bidders.
- j) Each offer/quotation should be kept in separate envelope against each item of the tender notice.
- k) For items covered under Two-Bid -Tender System, quotation/offer should be submitted in two separate envelopes containing Technical and Price bid and these put in one envelope.

3. TENDERERS TO STUDY ENTIRE TENDER DOCUMENT CAREFULLY:

Submission of a tender by a tenderer implies that he has read all the stipulations contained in this tender document and has acquainted himself of the nature, scope and specifications of the items to be followed.

4. TENDERER TO SUBMIT THE ENTIRE TENDER DOCUMENT:

The tenderer shall submit all documents issued to him for the purpose of this tender after duly filling the same in all respects. Tenders which are found to be vague or incomplete shall be rejected summarily.

5. TENDER SHALL BE WRITTEN IN ENGLISH LANGUAGE:

Every tender shall be written in English language. All information such as documents and drawings supplied by the tenderer will also be in the English language only. Drawings and designs shall be dimensioned according to the metric system of measurements. Tenders shall be forwarded under cover or a letter type written on the tenderer's letter-head and duly signed by the tenderer. Signatures must be in long hand, executed in ink by a duly authorized principal of the tendering firm. No oral, telegraphic or telephonic tenders or subsequent modifications there-to shall be entertained; If a tender is submitted on behalf of the firm, then all the partners shall sign or may be signed by one in whose favor all the partners have given General Power Of Attorney. In case of tender submitted by a company, it shall be signed by one who has been authorized by the Board of Directors through a resolution. Copy of resolution and the authority letter in favor of the person signing must accompany the tender.

6. VALIDITY PERIOD OF OFFERS:

The rates quoted in the tender shall hold good for 90 days from the date of opening of the tender. The validity period shall be extendable with the mutual consent of both the parties. No tenderer can withdraw/or modify his tender or revoke the same within the said period of 90 days. If a tenderer on his own withdraws or revokes the tender or revises or alters or modifies the tender for any item or condition within a period of aforesaid 90 days his earnest money deposit shall stand forfeited.

7. TENDERER TO SIGN ALL PAGES:

The tenderer shall stamp and sign at the bottom right hand corner of every page of the tender documents in token of acceptance of tender conditions and for the purpose of identification.

8. ERASURES AND ALTERATIONS:

Tenders containing erasures and alterations of the tender documents are liable to be rejected unless these are authenticated by the person signing the Tender Documents.

9. TENDERER TO SATISFY HIMSELF OF SITE CONDITIONS:

Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tender regarding nature of the site conditions, the means of access of the site, the accommodation they may require and in general obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender in any manner. A tenderer shall be deemed to have full knowledge of the site, whether he inspects it or not and no compensation or otherwise of any charges incurred or to be incurred consequent on any misunderstanding or otherwise shall be admissible.

10. EARNEST MONEY:

The tender shall be accompanied by earnest money of Rs. 2 Lacs.in the form of Demand Draft only drawn in favor of The Executive Director, NABI payable at Mohali. Earnest money of the unsuccessful bidder(s) shall be refunded after expiry of the validity period of the tenders/allotment of works whichever is earlier.

11. TENDERER TO QUOTE BOTH IN FIGURES AND WORDS:

The bidder shall quote their rates for all the items both in figures as well as words given as per the attached Schedule of quantities at Annexure-I. The amount of each item shall be worked out and the requisite total given. Special care shall be taken to write percentage in figures and words, and the amount in figures only in such a way that interpolation is not possible. The total amount shall be written both in figures and in words.

12. TENDER LIABLE TO REJECTION:

Tenders which do not fulfill all or any of the conditions laid down in this notice, or contain conditions not covered and / or not contemplated by the Conditions of tender document and/or expressly prohibited therein or stipulate additional/alternative conditions shall be liable to be rejected and his earnest money will be forfeited.

Tenders shall also be liable for rejection on any of the following grounds:-

- i) Tenders submitted late
- ii) Tenders containing remarks uncalled for.
- iii) Conditional tenders
- iv) Tenders not submitted on prescribed Performa.
- v) Telegraphic tenders.
- vi) Tender submitted without EMD/Cost of Tender Documents

13. CORRESPONDENCE:

Tenderers must mention their postal address and telephone number(s) of the Chief Executive/authorized agent or attorney in the tender. The tender submitted by the tenderer will be rejected if he or his agent cannot be contacted on the last known address or on the intimated telephone number(s) after reasonable search in which event earnest money may be forfeited by the NABI.

14. NABI NOT TO ASSIGN ANY REASON FOR REJECTION OF TENDER:

Executive Director, NABI hold absolute discretion to accept or reject the lowest or any other tender without assigning any reason. No claim on this account shall be entertained.

15. AMENDMENT IN TENDER DOCUMENTS:

NABI reserves the right to revise or amend the Bid Documents upto the date prior to the date notified for opening of the tenders and also the right to postpone the date of submission and opening of tenders without assigning any reason, whatsoever.

NABI also reserves the right to change the quantities of the units while issuing the letter of award of work.

16. REFERENCE IN TENDER DOCUMENTS:

Executive Director, NABI, shall be referred as “Owner” in all the documents of Tender documents/contract agreement.

17. SCIENTIST INCHARGE

Where ever the word “Scientist Incharge” occurs it shall mean the authorized Scientist appointed by the NABI for the superintendence of the execution of related works.

18. INTEGRITY PACT:

In case of construction valuing more than Rs. 3 crore, it is mandatory for the supplier(s) to enter into an Integrity Pact with NABI as per the proforma enclosed as ‘**Annexure –J**’, failing which their bid will not be considered.

19. REASONABILITY OF PRICES :

- a) Please quote best minimum prices applicable for a premier Research Institution, **leaving no scope for any further negotiations on prices.**
- b) **The quoting party should give a certificate to the effect that** the quoted prices are the minimum and they have not quoted the same item on lesser rates than those being offered to NABI to any other customer nor they will do so till the validity of offer or execution of the purchase order, whichever is later.
- c) Copies of **at least last three manufacturing orders of the last 3 years** received from other customers along with details of such supply orders preferably in India for the same item/model **may be submitted with the offer** giving reasons of price difference of their supply order & those quoted to us, if any. (As per **Annexure –G**).
- d) The party must give details of identical or similar constructions, if any, done to any CSIR/DBT or other government organization during last three years along with the final price paid and Performance certificate from them.

18. The offers must contain the following documents :-

(A) **Techno-commercial offers must contain:**

- i. Certificate by bidder not doing business in India (as per clause 2c)
- ii. Technical literature/ leaflets and complete specifications of specified model(s) along with commercial terms and conditions.
- iii. Compliance statement of specifications as per **Annexure- ‘B’**

- iv. Bid Security/EMD as per **Annexure- 'E'**
- v. Integrity Pact- Only in case of bids of more than Rs. 3.00 Crore (as per **Annexure- K)**
- vi. Performance Statement Form (Details of last supply orders) as per **Annexure –'G'**.

(B) Price Bid offers must contain: (Only in case of two bid system)

- i. Bid price in format enclosed as **Annexure – 'A' / Annexure- 'E' / Annexure- 'F'** as applicable.
- ii. Certificate of price reasonability (as per clause 19)

Tenderers Signature with Seal

Administrative Officer

GENERAL INFORMATION

- | | | |
|----|---|--|
| 1. | Accepting Authority | Executive Director, NABI, Mohali. |
| 2. | Earnest Money | Rs.2, 000, 00 (Rs. Two Lacs only) to be furnished with the tender in the form of the demand draft in favor of “National Agri-Food Biotechnology Institute payable at Mohali. (No interest is payable on this deposit) |
| 3. | Security Deposit | A sum @ 10% of the gross amount of the bill shall be deducted from each R/Bill of contractor till the sum along with the sum already deposited as earnest money will amount to Security Deposit of 5% of the Tender value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the Tender value of the contract as performance security within 10 days from the date of issue of award letter. Performance Security may be deposited as Bank Guarantee of Scheduled Banks and State Bank of India. |
| 4. | Authority competent to grant extension of time | Executive Director, NABI. |
| 5. | Tools & Plants | To be arranged by Tenderer |
| 6. | Authority competent to reduce the Compensation amount | Executive Director, NABI. |
| 7. | Defect Liability/warranty period | 36 months from the date of acceptance of completion by the NABI. |
| 8. | Authority Competent to Appoint Arbitrator | Executive Director, NABI |
| 9. | Release of Security Deposit | The Performance Security shall be refunded to the Contractor on completion of the work and recording of completion certificate by the Scientist-In-charge. The balance shall be released after defect liability period. |

Tenderers Signature with Seal

Specific Conditions of Contract

Name of work: Designing, Construction, Testing & Commissioning of greenhouse at NABI, Sector 81 Campus, Mohali

1. **Scope of work:** The scope of work generally consist of providing of greenhouse as described in the description of work, schedule of construction and bill of quantities and specifications as described in the contract documents. The contractors shall carryout and complete the said work under the contract in every respect in accordance with this contract documents and under directions and to the entire satisfaction of the Scientist-In-Charge. If any item of the work to be executed is not covered under specification, the same shall be executed as per ISI standard / ISI code of practice as decided by the Scientist-In-Charge.

It is not the intent to specify completely herein all aspect of design and constructional features of greenhouse and details of work to be carried out, nevertheless, the construction and work shall confirm in all respect to high standard of engineering, design and workmanship and shall be capable of performing in continuous commercial operation in a manner acceptable to the Scientist-In-Charge, who will interpret the meaning of the specifications and drawings and shall have the right to reject or accept any work or material, which in his assessment is not complete to meet the requirements of the specifications and or applicable code, and standards mentioned elsewhere in the specifications.

2. **Sub-contracting:** The contractor may sub-contract part of the work with the permission of Scientist-In-Charge. However, overall responsibility of the contractor for compliance with the contract terms does not alter by Sub-contracting.
3. **Conformity with statutory Acts, Rules, Standards and Codes:** The construction and installation shall be carried out in conformity with DBT guidelines / rules. The installation shall also conform to requirements of Punjab Pollution Control Committee. Adherence of compliance shall be the sole responsibility of the contractor to the above and any or all such acts at Mohali and applicable to the said work.
4. **Safety codes and regulations:** The contractor shall at his own expenses arrange for the safety provisions as per statutory regulations wherever applicable.
5. **Related documents:** These technical specifications shall be read in conjunction with the general conditions of the contract as well as the schedule. In the event of any discrepancy between these specifications and inter connected contract documents, the technical requirements as per tender specifications shall prevail.
6. **(i) Power supply:**
 - a) Unless otherwise specified power supply shall be provided by the department free of charge at one point for installation at site. Termination switchgear shall be provided by the contractor. Further extension of power wiring and supply if required shall be done by the contractor.
 - b) For equipments, the power supply shall be made available by NABI at the main incomer unit. The termination of their feeder in the main incomer unit shall be the responsibility of the contractor and nothing extra will be paid. Dedicated Earthing bus 2 x 2 Nos. shall be provided with copper strip by NABI.**(ii) Water supply:** Water supply shall be provided free of charge for construction purposes.
7. **Information to be supplied by Contractor after award of work:** within a period of 2 weeks from the date of receipt of award letter, contractor shall provide his program bar chart for submission of preliminary drawings (designing), construction, testing, commissioning and handing over to the department. This should be co-related with the building completion program. The contractor shall be required to submit in triplicate the following drawings & information for approval of the department before commissioning the work:
 - 1) All general arrangement drawings
 - 2) Details of foundations for construction, load data, locations etc., of various assembled equipment as may be needed generally by other agencies for purpose of their work.
 - 3) Complete layout dimensions for every unit / group of units with dimensions required for erection purposes.
 - 4) Any other drawing / information not specifically mentioned above but deemed to be necessary for the job by the contractor.
 - 5) List of items to be carried out by the department in accordance with the tender accepted.

8. **Commencement of work and completion of drawings:** On award of work, the contractor shall within 2 weeks submit 3 sets of detailed working drawings, containing details of construction layout, piping routes & size, Electrical wiring, critical sectional details as required. Any alternatives proposed by the Scientist-In-Charge shall be incorporated and three fresh sets of drawings along with commented drawings shall be resubmitted by the contractor. After final approval 6 sets of approved working drawings (to scale) shall be submitted for the exclusive use of and retention by the Scientist-In-Charge.
9. **Operation and maintenance manuals:** Prior to completion of the work and handing over the greenhouse the contractor shall submit 3 set of following details:
 - i) Comprehensive operation instructions, preventive and routine maintenance schedules
 - ii) Manufacturer's construction catalogues and operating & maintenance instructions
 - iii) Electrical control diagrams, piping scheme diagrams
 - iv) List of recommended spare parts with spare part codes, specifications & source of procurements.
10. **Contractor to provide all for testing:** The contractor shall provide and pay for all necessary tools, instruments gadgets and testing equipment required for conducting various tests. Any defects in material and / or in workmanship detected during initial testing shall be rectified by the contractor at his own cost. Initial testing shall be carried out in the presence of Scientist-In-Charge or his representative to his entire satisfaction. The installation shall be commissioned after approval by Scientist-In-Charge.
11. **Virtual completion:** On satisfactory completion of initial testing and commissioning, the installation shall be put to continuous running test for a period of 2 days for the purpose of taking over. Any defect in material and/ or in workmanship detected in the course of testing shall be rectified by the contractor at his own cost to the entire satisfaction of the Scientist-In-Charge. The test shall be repeated after removal of defects. After successful completion of above tests, the greenhouse shall be taken over.
12. **Guarantee and defect liability period:** The equipment covered by this contract shall be guaranteed by the contractor against faulty material and workmanship for a period of **36 months** from the date of virtual completion and taking over the installation. Any part found defective shall be replaced free of all costs by the contractor. The contractor shall guarantee that all equipment shall work satisfactorily and that the performance and efficiency of the equipment shall not be less than the specified values. If performance of equipment during guarantee period is not found satisfactory, the guarantee period will be extended till satisfactory performance is established for further period of reasonable time decided by NABI.

The services of the contractor's personnel if requisitioned during the defect liability period shall be made available free of any cost to NABI. If the defects noticed during the guarantee period are not remedial within a reasonable time and / or some equipment or system as a whole remain out of order for a total period of one month (4 weeks) (Unless or otherwise extended) NABI shall have the right to remedy the defects at the contractor's risk & cost without prejudice to any other rights.
13. **Maintenance:** During the guarantee & defect liability, the contractor shall provide at no extra cost necessary material and personal to carry out the repairs & routine maintenance of greenhouse and poly house. The contractor shall attend to all problems experienced in the operation of the system within a reasonable time but not more than 48 Hrs. of receiving the complaint and take corrective action immediately.
14. **Training of personnel at site:** In order to enable NABI's staff to get acquainted with the operation and maintenance of the greenhouse, the contractor at no extra cost to NABI shall train the departmental personnel during the period of construction, installation, testing and prior to virtual completion and taking over by NABI.
15. **Storage of materials and safe custody:** Lockable storage space, if available shall be made available to the contractor by NABI. However, the contractor shall be responsible for watch & ward and safe custody of his equipment and installation till they are formally taken over by NABI. Non-availability of lockable storage space due to any reasons shall not relieve the contractor of his contractual obligations in any way.
16. **Completion period:** All works, of supply installation, testing, commissioning and handing over of the greenhouse in accordance with this contract shall be completed within the stipulated period or within the extended time as has been allowed by the Scientist-In-Charge.

Tenderers Signature with Seal

TERMS & CONDITIONS OF CONTRACT AGREEMENT

SECURITY DEPOSIT

1. The earnest money amounting of Rs2 Lacs..will be treated as security deposit of the successful tenderer.

COMPENSATION CLAUSE

2. The time allowed for carrying out the work as entered in the tender shall be strictly observed by the Tenderer, and shall be reckoned from the **10th day** of the date on which the order to commence the work is given to the Tenderer. The Tenderer shall prepare and submit the details of delivery and installation for the execution of the said work within ten days of award of work for approval of the Scientist Incharge, NABI. The work on the contract shall be executed according to the approved schedule as aforesaid and shall throughout the stipulated period of the contract be proceeded with all due diligence (time being deemed to be the essence of the contract on the part of the Tenderer) **and the Tenderer shall pay as compensation an amount equal to one percent or such smaller amount as Scientist Incharge, NABI may decide on the value of work as per contract**, for every week that the work remains un-commenced or unfinished after the dates mutually agreed upon by the parties. Further to ensure good progress during the execution of the work, the Tenderer shall be bound in all cases in which the time allowed for any work exceeds one month to complete one fourth of the whole of the work before one fourth of the whole time allowed under the contract has elapsed, one half of work before one half of such time has elapsed and three fourth of the work before three fourth of such time has elapsed. In the event of the Tenderer failing to comply with this condition he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Scientist Incharge, NABI, may decide of the value of balance work for everyday that the due quantity of work remains incomplete. Provided always that the entire amount of compensation to be paid under the provisions of this clause shall not exceed ten percent of the awarded cost of work as shown in the tender. The Executive Director, NABI, on a representation from the Tenderer, is however, empowered to reduce the amount of compensation and his decision in writing shall be final.

TIME EXTENSION

3. If the Tenderer shall desire an extension of the time limit for completion of the work on the grounds of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Scientist Incharge, NABI within 10 days of the date of the hindrance on account of which he desires such extensions as aforesaid but before the expiry of time limit and the Scientist Incharge, if in his opinion (which shall be final) reasonable grounds as shown thereof ,authorized such extension of time if any, as may, in his opinion be necessary or proper.

COMPLETION OF WORK

4. Without prejudice to the rights of Scientist Incharge under any clause hereinafter contained on completion of the work, the Tenderer shall be furnished with a certificate by the Scientist Incharge or his representative of such completion, but no such certificate shall be given nor shall the work be considered to be complete until the Tenderer shall have removed from the premises on which the work has been executed, all surplus materials and rubbish, and cleaning off the dirt from all doors, walls, floors, or any other parts of buildings said to have been completed, and the measurements in the said certificate shall be binding and conclusive against the Tenderer, if the Tenderer shall fail to comply with the requirements of this clause as to the removal of scaffolding, surplus materials, and rubbish and cleaning off dirt on or before the date fixed for the completion of the work, Scientist Incharge, NABI may at the expense of the Tenderer have removed such scaffolding ,surplus materials and rubbish and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the Tenderer shall forth with pay the amount of all expenses so incurred, and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any such sale proceeds actually realized by the sale thereof.

ARBITRATION

5. Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions here in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim , right, matter or thing whatsoever, in any arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the person selected from out of a panel of names to be supplied upon a request in writing by party invoking the arbitration by the Executive Director, NABI, at the time of the dispute. It will be no objection to any such appointment that the arbitrator so appointed was associated with the work and that he had to deal with the matters to which the contract relates and that in the course of his duties in association with the Scientist Incharge, NABI, he had expressed views on all or any of the matters in dispute or difference. The arbitrator to whom the matter is originally referred being unable to act for any reason, the Executive Director shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. It is also a term of this contract that no person other than a person appointed by the Executive Director as aforesaid shall act as arbitrator. In all cases where the amount of the claim in dispute is Rs.50000/- (Rs. Fifty thousand only) or above, the arbitrator shall give reasons for the award. Subject as aforesaid the provisions of Arbitration and Cancellation Act 1996 or any statutory modifications or re-enactment thereof and the rules framed there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is also a term of the contract that while invoking arbitration the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

It is also a term of the contract that if a party does not make any demand for arbitration in respect of any claim(s) in writing within 90 days of receiving the intimation from the Scientist Incharge that the bill is ready for payment, the claim if any, shall be deemed to have been waived and absolutely barred and the owner shall be discharged and released of all liabilities under the contract in respect of these claims.

CARRYING OUT OF WORK

6. All the work shall be carried out strictly and in accordance with the specifications given in the tender to the total satisfaction of the Scientist in charge. In the case of an item for which specification are not available in the said specifications relevant BIS specifications applicable as on the date of tenders shall be followed.

INSPECTION OF WORK

7. All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of Scientist Incharge, NABI or his subordinate in-charge of the work and the Tenderer shall at all times, during the usual working hours and at all other times at which reasonable notice of the intention of the Scientist Incharge to visit the works shall have been given to the Tenderer, either himself be present to receive order and instructions or have a responsible agent duly accredited in writing present for that purpose. Orders given to the Tenderer's agent shall be considered to have the same force as if they had been given to the Tenderer himself.

INSURANCE

8. The following insurance cover is to be provided by the Tenderer in the joint names of the employer and the Tenderer for the period from the start date till completion of entire work.
 - a) Cover against damage to other people's property caused by the Tenderer's acts or omission;
 - 1) Cover against death or injury caused by the Tenderer's acts or omission to:
 - i) Anyone authorized to be on the site;
 - ii) Third parties who are not on the site;
9. No Escalation in rates shall be paid.
10. Tenderer Superintendence, Supervision, Technical Staff & Employees.
The Tenderer shall provide all necessary superintendence during execution of the work and as along thereafter as may be necessary for proper fulfilling of the obligations under the contract.
11. The tenderer must visit the site at NABI, sector 81, Mohali before quoting the rates.
12. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the Tenderers who resort to canvassing will be liable to rejection.
13. The rates quoted for foreign equipments shall be CIF Mohali/FOR NABI.
14. The rates for Local equipments shall be inclusive of VAT, Service Tax, other taxes, octroi, etc., and nothing extra will be paid.
15. No T&P will be issued by the department.
16. The final payment shall be made only after completion of the work subject to certification by Scientist –in- Charge.
17. The site of work is at NABI, sector 81, Mohali
18. The Technical specifications of the equipments required are detailed at page **19-23** of this Tender Document.
19. Installation, Testing & Commissioning of the supplied equipments will be done at our site by the bidder in the presence of Scientist -in-Charge of our Institute.

Tenderers Signature with Seal

SPECIAL TERMS AND CONDITIONS OF CONTRACT

1. TENDERER TO BE LIABLE FOR ALL TAXES ETC.

The rates specified in the tender shall be CIF Mohali/ FOR NABI and inclusive of VAT, or any taxes, duties and other charges etc., in respect of the contract and the rates shall be firm irrespective of any variation in the prevailing rates of taxes, levies, octroi, etc., and any fresh imposition of any of these by State/Central/Statutory bodies. The contractor shall indemnify the Director against levy of any taxes, etc., in regard to this contract and in the event of the Director being assessed for any of the said imports, Director shall have the right to recover the total amount so assessed from the contractor's dues and the contractor shall also be responsible for all costs or expenses that may be incurred by Director in connection with any proceedings or limitation in respect of the same.

2. FORCE MAJEURE:

The right of the Tenderer to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Tenderer, including not limited to acts of God, or of the public enemy, restraints of a sovereign state, firms, floods, unusually severe weather.

3. JURISDICTION:

Notwithstanding any other courts having jurisdiction to decide the questions forming subject matter of a suit any and all actions and proceedings arising out of or relative to this contract (including any arbitration in terms thereof) shall lie only in the court of competent Civil jurisdiction in this behalf at Chandigarh, where this contract is to be signed on behalf of Executive Director, NABI and only the said court shall have jurisdiction to try any such actions and/or proceedings to the exclusion of all other courts.

4. SCOPE OF WORK:

The scope of work is as per enclosed details. The Tenderer should note that during the preparation of detailed working drawings, according to which the Tenderer has to execute the work covered under this contract, may undergo changes. The scope drawings for the entire work are not enclosed, but only a few indicating the probable nature of construction are attached. The scope of work is thus not limited only to the details.

5. Scientist Incharge Role:

The Scientist Incharge shall carry out general supervision and direction of the work. He has authority to stop the work. Whenever he considering such stoppage necessary to ensure the proper execution of the work. He shall also have authority to inspect and reject all work and materials, which do not conform to the specifications and to direct the application of Tenderer's forces to any portion of the work, as in his judgment is required, and to order the said force increased or diminished and to decide questions which arise in the execution of the work.

The Scientist Incharge shall have the right to suspend the work or part thereof at any time and no claim whatsoever on this account shall be entertained. In case of any clarification the Tenderer may appeal to the Director, NABI whose decision shall be final and binding on the Tenderer. The above inspection shall, however, not relieve the Tenderer of his responsibilities in regards to defective materials or workmanship and the necessity for rectifying or replacing the same.

6. TENDERER'S RESPONSIBILITY FOR THE MANNER OF EXECUTION OF WORKS

The Tenderer shall be solely responsible for the manner and the method of executing the work. The work shall be subject to the approval of Scientist Incharge from time to time for purposes of determination of the question whether the work is executed by the Tenderer in accordance with the contract.

7. SUBMISSION OF BILLS:

Tenderer is to submit the bills in triplicate along with delivery challans to the Scientist Incharge for works executed by him. Payment will be released on completion of entire work subject to certification by the Scientist Incharge.

8. ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK:

If it shall appear to Scientist Incharge, NABI or his representatives, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of any inferior description or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to the contracted for, or otherwise not in accordance with the contract specifications the Tenderer shall on demand in writing from the Scientist Incharge specifying the work materials, articles complained or not with-standing that the same have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct the work so specified in whole or in part as the case may require, or as the case, remove the materials or articles so specified and provide other and suitable materials or articles so specified at his own cost and in the event of his failing to do so within a period to be specified by the Scientist Incharge in his demand aforesaid, then the Tenderer shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days while his failure to do so that continue and in the case of any such failure Scientist Incharge, NABI may rectify or remove, and re-execute the work or remove and replace with other materials or articles complained of, as the case may be at risk and expenses in all respects of the Tenderer.

9. It shall always prevail, unless otherwise specifically stated, that the entire provisions of Tender document been opened upon and accepted for compliance by the Tenderer without any reservation.

10. Exemption of Customs Duty and Excise Duty

NABI is exempted from payment of Custom Duty and Excise Duty for supply of equipments etc. vide Govt. of India Notification No. 51/96 dt. 23/07/1996. Since the Customs Duty/ Excise Duty and clearance charges will be borne by the Institute, Bidders are requested to quote their rates accordingly. **However it will be the responsibility of the Contractor to shift the equipment to site of work including opening of crates, transportation, loading and unloading. Nothing extra will be paid on any account.**

11. Terms of payment

- a) Imported Equipments: 100% of the equipments value against irrevocable LC on receipt of order acknowledgement from Principles of supplier or telegraphic transfer after completion of work. All banking Charges outside India will have to be borne by the supplier.
- b) Installation and commissioning – 75% against delivery of material at site and balance within 10 days of satisfactory testing and commissioning.

12. No work shall be under taken without the approval of working drawings:

No work shall be undertaken at site by contractor until detailed approved working drawings marked 'Good' for execution/construction for the same is issued by the Institute in writing. Any work done without the aforesaid drawing shall be at the contractor's own risk and costs

13. Approval of samples:

Before undertaking fabrication of doors/windows and any other item or any item of work for use in work the contractor shall arrange and manufacture at his own cost the relevant samples which shall be approved by Engineer-in-Charge. These samples will be sealed by the Engineer-in-Charge in the presence of the contractor, if he so desires and shall remain in the custody of the Engineer-in-Charge for reference and comparison till the completion of work.

14. Income Tax and Vat Deduction:

- i) Deduction on account of Income Tax shall be made at the rate prescribed by the relevant authority from time to time from the gross payments due to the contractor in accordance with section 194c of the Income Tax Act, 1961 in force and as amended from time to time.
- ii) VAT deductions @2% of payment under the Punjab VAT Act 2005 shall be made in the bills of the contractor.

15. Program chart

15.1 The Contractor shall prepare an integrated program chart for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the program within the stipulated period or earlier and submit the same for approval of the Scientist-in-Charge within **15 days** of the issue of letter of acceptance for the contract.

15.2 The work has to be completed in stages as indicated in the **Milestones** and the program should be prepared in such a manner to achieve these Milestones as indicated therein or earlier.

15.3 The program chart should include the following: -

- a) Descriptive note explaining sequence of various activities.
- b) Network (PERT / CPM / BAR CHART) which will indicate resources in financial terms, manpower and specialized equipment for every important stage.

- c) Program for procurement of materials by the contractor.
- d) Program of procurement of machinery / equipments having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor.

- 15.4 If at any time, it appears to the Scientist-in-Charge that the actual progress of work does not conform to the approved program referred above, the contractor shall produce a revised program showing the modifications to the approved program by additional inputs to ensure completion of the work within the stipulated time.
- 15.5 The submission of revised program or approval by the Scientist-in-Charge of such program or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Scientist-in-Charge to take action against the contractor as per terms and conditions of the agreement.

16. Completion certificate and completion plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Scientist-in-Charge and within thirty days of the receipt of such notice, the Scientist-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Scientist-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Scientist-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

17. Completion plan to be submitted by the contractor:

The contractor shall submit completion plan as required vide General Specifications as applicable within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs.15,000 (Rs. Fifteen thousand only) as may be fixed by the Executive Director, NABI Mohali concerned and in this respect the decision of the Executive Director, NABI Mohali shall be final and binding on the contractor.

Tenderers Signature with Seal

Technical Specifications for Construction of Greenhouse

Site of construction: NABI research field, Sector 81, Mohali

Quantity: One

1	Dimensions & Structure	<p>A stand-alone aerodynamic Evan Span greenhouse of total area approx. 220 sq. m with 4 numbers of independent chambers of size 5m x 10m (L x B). The gutter height of the structure is 3.5m and the ridge height 5.25m. Provision of one buffer room of size: 5m x 2.5m and utter height of 3.5m. Vertical column post and other structure materials should be made with Hot Dipped GI channel/pipe of 47mm x 47mm as per ISI standard and should be anti-corrosive, humidity resistant, zinc coated. The structure should be designed to withstand wind loading of 150 km per hour. Size and thickness of columns, purlins, trusses, runners etc. should be as per DBT guidelines. Note: All structure should be fabricated and to get fast installation at site all structure should be assembled with hot dipped galvanized clamps and nut-bolts. This will facilitate shifting the entire structure anywhere in future with minimal wastage like civil work.</p>
2	Entry	<p>The buffer room (size: 5m x 2.5m and utter height of 3.5m) should has a 2.15m x 1.2m twin door with inter-locked entry door system and air curtain with air velocity 18m/s with automatic on/off feature. One walk-way corridor size: 10m x 2m with entry and emergency exit double door with inter-locked Electronic Access Control system. Exterior and Interior doors should be made with prefabricated puff insulated panels in complete Aluminium frame/ fittings and gaskets for leak proof structure. Insulated glass panel fitted with electrically operated and electronically controlled interlocking door entry system to prevent any contamination (2.15m x 1.2m swing doors) with quality door closures. Door systems must have a communication port/ Interface RS485. Note: Door inter-locked control systems should be an ISO 9001 certified.</p>
3	Road Development	<p>Sub base consisting of 100mm thick sand filling, 100mm thick lean concrete of 1:5:10 with proper compaction, with brick on edge flooring grouted with sand for the pathway to greenhouse. Road should be 1.8 meter wide and approx. length of the road is 50 meters. (Quote should be in per running meter)</p>
4	Foundation	<p>Foundation on soil: Bidder should consider proper soil/geotechnical investigation in the quote and provide structural stability certificate and soil investigation report. The bearing capacity used in design shall be based on both shear strength of soil as well as settlement as per ISI standards. RCC pillar foundation with RCC Beam supports duly crossed should be used for proper stability. Curtain Wall 3 feet above the ground (all around the chambers and across the partition portion between chambers). Damp Proof Course in accordance with latest standards conforming to IS 2645. Grouting of side poles in RCC (1:2:4) up to Damp Proof Course level. 600mm of plinth protection all around the periphery of the greenhouse with cement concrete (1:5:10) with standard water proofing using brick ballast and top layer to be provided with 50 mm thick C.C. 1:2:4</p>
5	Flooring	<p>Sub base consisting of 100mm thick sand filling, 100mm thick lean concrete using brick ballast 1:5:10 with proper compaction. The interior flooring area including the buffer room and skirting should be fixed with anti-slippery, anti-skid (of an approved make) tiles. The floor should have proper slope for drainage. Septic Tank: For the drain output after treatment of contamination/ Rain Harvesting and effluents from the transgenic media. Septic Tank Size: 5' x 5' x 10' (L x B x D) made up of reinforced cement concrete using steel reinforcement of 12 mm dia. for removal of contamination and effluents from transgenic media and then finally to a under ream, bulb and 12 mm steel bars. Note: Provision to decontaminated / purified waste as per DBT guidelines.</p>
6	Glazing	<p>Two different quotations to be submitted for two different types of glazings. Any one of these will be selected depending upon technical merits. (The firm should quote the price in the</p>

		<p>financial bid for both the glazings)</p> <p>A) Chambers 1, 2, 3 and 4: Sides and roof covering with both side UV stabilized 10mm five layers polycarbonate sheet (Lexan/equivalent make) fixed with architectural glazing section, using neoprene gasket and silicon treatment. Polycarbonate sheet should be anti-fungal, anti-drip, anti-fog, anti-dust and UV stabilized with a guarantee of 10 years for leakage, fading, colour change etc., Light transparency: 65% or preferably more; Screw: Non Magnetic. Note: The technical data of polycarbonate sheet such as light transmission, Solar Heat Gain Coefficient, Solar reflection, Shading Coefficient, U value and R value should be mention in the quotation. The name of polycarbonate sheet making company with these data should be specified in the quotation.</p> <p>B) Chambers 1, 2, 3 and 4: Sides and roof covering with both side UV stabilized 16mm double skinned acrylic sheet (Deglas cyro/equivalent make) fixed with architectural glazing section, using neoprene gasket and silicon treatment. Acrylic sheet should be anti-fungal, anti-drip, anti-fog, anti-dust and UV stabilized with a guarantee of 10 years for leakage, fading, colour change etc., Light transparency: 85% or preferably more; Screw: Non Magnetic. Note: The technical data of Acrylic sheet such as light transmission, Solar Heat Gain Coefficient, Solar reflection, Shading Coefficient, U value and R value should be mention in the quotation. The name of Acrylic sheet making company with these data should be specified in the quotation.</p> <p>POLYCARBONATE SHEET OR ACRYLIC SHEET WILL BE FIXED ON EITHER SIDE OF THE STRUCTURE FOR BETTER INSULATION AND TEMPERATURE MAINTENANCE.</p>
7	Shade Nets	<p>50%/75% shade net (White Aluminium coated) at gutter level and all sides made of UV stabilized double netted. Motorized and manual rolling system for closing and opening (To be quoted separately)</p>
8	Heating and Cooling System	<p>Through VRF (Variable Refrigerant Flow) or VRV (Variable Refrigerant Volume): Temperature Range in individual chamber : 20 to 40°C A VRV/VRF system typically using an outdoor unit with multiple compressors and different indoor units for different zones. For maintaining 20 to 40°C temperature in 10m x 22m x 3.5m 5.25m (L x W x H on side : at centre) { Individual compartment size : 5m x 10m x 3.5m : 5.25m }(Using VRV/VRF system) Compressor Type: Digital Scroll + Fixed Scroll (Copland make) using Refrigerant – 410A. (Provide Cooling details, capacity of refrigeration unit for heating as well as cooling and other technical details considering individual chamber as well as all four chambers, buffer room and walk-way corridor)</p> <p>Option to be given separately with complete technical specifications using Scroll Compressor for a temperature range of 15 - 40°C using UNITORY TYPE refrigeration cooling system. (Provide all technical details considering individual chamber as well as all four chambers, buffer room and walk-way corridor)</p> <p>Note: Standby units should be considered in quote.</p>
Individual systems for each chambers -		
9	PAR Lights	<p>Photo-synthetically Active Radiation Lamps for supplementing the natural day light by 100 - 800 $\mu\text{moles}/\text{m}^2/\text{s}$ additive only and as per DIN and IEC standard using High Flex LED Lighting system and HPS/HQI Lamps. The intensity of individual light source should be mentioned in $\mu\text{moles}/\text{m}^2/\text{s}$ in quotation.</p>
10	Micro-Humidification System	<p>Humidity should be maintained from 40 % to 90 % $\pm 5^\circ\text{C}$. Using Air Atomization system or using JetSpray system having self-cleaning nozzles and should have the lowest air consumption of any air/water humidifier. Sprays size- 5-10 μm. The control panel uses the latest remote digital interface, which can be mounted up to 100m</p>

		away from the main control unit. The whole system should easy to install and can run on mains, demineralised or softened water. (The Tenderer should provide complete Technical specification)
11	Exhaust Fan	Programmable controlled modulated air-exchanger fitted with mini pleat HEPA filters, 99.99% efficient down to 0.2 to 0.3 micron and a pre filter should be placed in each chamber. One exhaust fan in buffer room duly fixed with pre filters controlled through a timer output. Flow type: Axial BIS/ISO certified
12	Fertigation System	Provision of drip irrigation in all four chambers with appropriate valves, PVC pipes of approved make, pressure etc. (Netafim/NANDAN/Galileo/equivalent make) Provision for water line from the available tube-well Water storage tank of 1000 litres capacity Three nutrient storage tanks of 500 litres All tanks should be PVC tank of approved make Automatic/controlled mixing, EC & pH measurement. Flow rate, system pressure and other details should be mentioned in quote. Separate control for each chamber to be provided in buffer room. Note: Water softener can be installed after testing water quality by the bidders.
13	Climate Control Panel, Data Logger and Remote Accessibility	Temperature, humidity, light sensors to operate each separately by automatic control system. Data logger to monitor and record temperature, humidity, light and fertigation. Remote access/internet/SMS to keep track the data logger through NABI interim facility (around 8 KM away from the actual greenhouse installation site) and password protected. Standard memory storage that can store data at continuous ramping (real time) for at least one year; with data retrieval device. Cabinet should be MS powder coated Panel Consist of following items <ul style="list-style-type: none"> · MCB · Relays · Indication lamps · Voltage, current indicators · Controller · Terminals · Contactors · Overload relays - Controller <ul style="list-style-type: none"> o Digital inputs (24VDC) o Digital outputs (relay) o Analog inputs (4-20 mA) o Analog outputs (4-20 mA) o RS232 port -1 no. o RS485 port -1 no. o Ethernet port – 1no. o Retentive memory Local Display unit <ul style="list-style-type: none"> o Industrial grade PC with internal HDD o RS232, RS485, USB & Ethernet port o Software for control, monitoring & data logging Remote display unit <ul style="list-style-type: none"> o Desktop computer/laptop o Remote view of local display unit data via internet o All operations can be performed from remote/local display units Control Parameters <ul style="list-style-type: none"> o Temp. o RH o Light intensity
14	Weather Station	Provision of weather station with data logger to monitor outside conditions like temperature, humidity, light, wind speed etc. Remote /internet/SMS access to keep track the data logger through NABI interim facility

		<p>(around 8 KM away from the actual greenhouse installation site) and password protected. Standard memory storage that can store data at continuous ramping (real time) for at least one year; with data retrieval device.</p> <p>The standard installation system (tripod, data downloading cable and soft wear, user manual, etc.) should be provided.</p> <ul style="list-style-type: none"> o Control panel should be MS powder coated consist of following items <ul style="list-style-type: none"> · MCB · Relays · Indication lamps · Voltage, current indicators · Controller · Terminals · Contactors · Overload relays - Controller o Digital inputs (24VDC) o Digital outputs (relay) o Analog inputs (4-20 mA) o Analog outputs (4-20 mA) o RS232 port -1 no. o RS485 port -1 no. o Ethernet port – 1no. o Retentive memory <ul style="list-style-type: none"> - Local Display unit o Industrial grade PC with internal HDD o RS232, RS485, USB & Ethernet port o Software for control, monitoring & data logging <ul style="list-style-type: none"> - Control Parameters o Temp. o RH o Light intensity o Wind speed
15	Electrical	<p>Provision of connecting with generator for automatic back up power supply in case of power failure.</p> <p>Complete electrical wiring of greenhouse with copper wire, fire resistant grade, MCB, main switch, light / power points as per requirement, with three tube lights in each chamber and two tube lights in buffer room.</p> <p>Control panel and switches for all equipment (VRV/VRF, Lights, Humidifier, shade nets etc) should be placed in the buffer room.</p> <p>All should be ISI standard.</p>
16	Miscellaneous	<p>Corrosion free, stainless steel wash basin for buffer room and each chamber with drainage points, water connection with tap. ISI standard materials should be provided.</p> <p>Benches with movable tops, lockable wheels with anti-corrosive, rust resistant should be hot dipped galvanized. Tops allow for draining of excess water and design for pots.</p> <p>Sufficient lighting and fixture will be provided inside the chamber and buffer room.</p>

Conditions:

A. Time will be the essence of completion of contract. The time of completion of the project in all respects should be four months, following which 1% penalty per week of delay with a maximum of 10% beyond four months will be charged.

B. Vendor should have experience for making green house and minimum 3 user details should be provided by the bidders (satisfactory certificate/s of installations with similar or near to similar specifications made during the last three years).

C. Vendor should have local factory trained engineers to extend the service support.

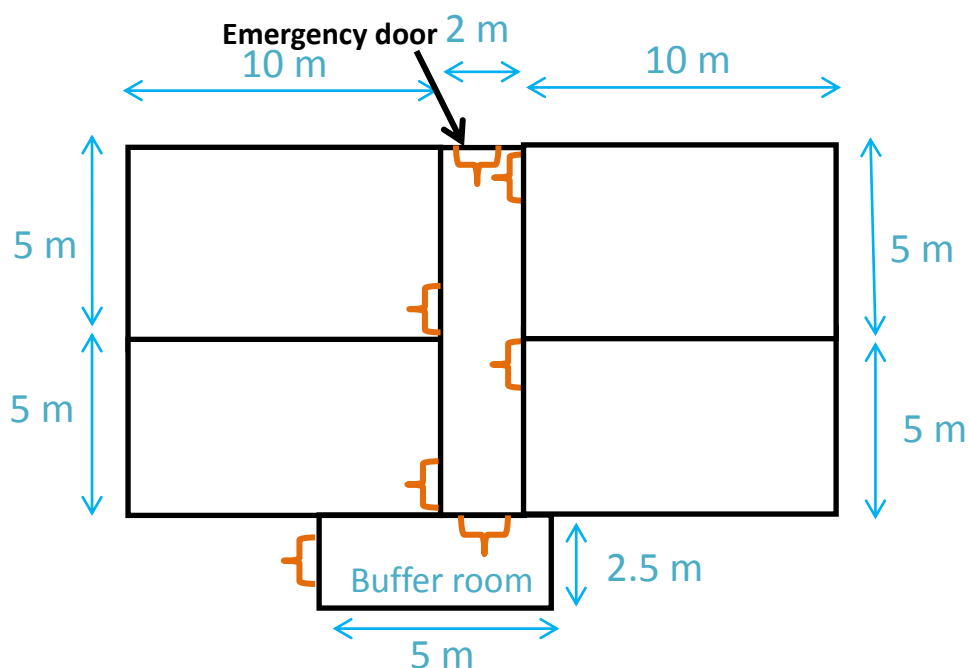
D. Designing, Construction, Installation, Testing & commissioning should be done within four months from the date of purchase order.

E. Three years of warranty and subsequent CMC for five years. The tenderer should quote the rates for CMC separately.

Note: Point to point compliance of the all technical specifications, including five conditions and structural drawings (should be mentioned the orientation for best sun exposure) must be submitted. The attached drawing can be considered for improvements/modifications. After completion of work, final drawings with the information of all instruments and technical details must be provided by the agency.

***Vendors may survey the site at Sector 81, NABI as required.**

Layout of proposed greenhouse for consideration
(Four chambers)



BILL OF QUANTITIES

NAME OF WORK: **Designing, Construction, Testing & Commissioning of Green House at NABI, Sector 81 Campus, Mohali**

Tender No.: **NABI/3(1)/10-11/N-Pur**

Sl. No.	Description	Qty Req.	Rate	Rate in INR, FOR Institute	Rate in Foreign currency, CIF Mohali
1.	Green House (As per the above technical specifications)	1 No			Rates not to be quoted

**Name & Signature of Bidder/
Company with Seal**

PRICE BID

NAME OF WORK: Designing, Construction, Testing & Commissioning of Green House at NABI, Sector 81 Campus, Mohali

Tender No.: No. NABI/3(1)/10-11/N-Pur

Sl. No.	Description	Qty Req.	Rate	Rate in INR, FOR Institute	Rate in Foreign currency, CIF Mohali
1.	Green House (As per the above technical specifications)	1 No			

**Name & Signature of Bidder/
Company with Seal**

FORMAT OF COMPLIANCE STATEMENT OF SPECIFICATIONS

S. N.	Name of specifications/ part / Accessories of tender enquiry	Specifications of quoted Model/ Item	Compliance Whether “YES” Or “NO”	Deviation, if any, to be indicated in unambiguous terms	Whether the compliance / deviation is clearly mentioned in technical leaflet/ literature
1	2	3	4	5	6

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

Name of the Bidder _____

Tender No. _____

1	2	3	4	5	6		7		8		9
Sl No	Item Description	Country of origin	Unit	Qty	Unit Price		Total price (5x6)		Charges for Insurance & transportation to port/ place of destination		Total Price (7+8)
					FOB (named port of shipment)	FCA (named place of delivery)	FOB (named port of shipment)	FCA (named place of delivery)	Ocean	Air	CIF

Total Bid price in foreign Currency _____ in words.

Signature of Bidder**Name:****Business Address:****Note:**

- (a) Indian agents name & address _____
- (b) Installation, commissioning & training charges, if any _____
- (c) Cost of Spares _____
- (d) The Indian agent's commission shall paid in Indian Rupees only based on the Exchange Rate prevailing on the date of negotiation of documents in accordance with clause 22.1 of GCC.
- (e) The cost of optional items shall be indicated separately.

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA

Name of the Bidder _____

Tender No. _____

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	Item Description	Country of Origin	Unit	Qty	Ex-Works. Ex-Warehouse, Ex-show room off the shelf price (inclusive of all taxes already paid)	Total price Ex-Works. Ex-Warehouse, Ex-show room off the shelf price (inclusive of all taxes already paid) 5x6	VAT & other taxes like excise duty payable, if contract is awarded	Packing & forwarding up to station of dispatch, if any	Charges of inland transportation, insurance up to Lab./Instt.	Installation, Commissioning & training charges, If any.

Total Bid price in _____ in words.

Signature of Bidder**Name:****Business Address:****Note:**

(a) The cost of optional items shall be indicated separately.

(b) Cost of spares _____

BID SECURITY FORM

Whereas..... (hereinafter called "the Bidder") has submitted its bid dated..... (Date of submission of bid) for the Designing and construction of..... (Name and/or description of the goods) (Hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE (Name of bank) of (Name of country), having our registered office at (Address of bank) (Hereinafter called "the Bank"), are bound unto (Name of Purchaser) (Hereinafter called "the Purchaser") in the sum of _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ____ day of _____ 2011.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
 - (a) Fails or refuses to execute the Contract Form if required; or
 - (b) Fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions. This guarantee will remain in force up to and including forty-five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the Bank)

Name of Bidder

PERFORMANCE SECURITY FORM

To: (Name of Purchaser)

WHEREAS (Name of Supplier) Hereinafter called "the Supplier" has undertaken, in pursuance of Contract no.....

Dated,..... 2011 to supply.....(Description of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of..... (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until theday of.....20

Signature and Seal of Guarantors

.....

.....

.....

Date.....2011

Address:.....

.....

.....

PERFORMANCE STATEMENT FORM
(For A Period Of Last 3 Years)

Name of the Firm.....

Order placed by (full address of purchaser)	Order No. and date	Description and quantity of ordered equipment	Price	Date of completion of delivery as per Contract/Actual	Remarks indicating reasons for late delivery, if any	Has the equipment been installed satisfactory? (Attach a certificate from the purchaser/Consignee)	Contact Person alongwith Tel. NO., Fax No. & e-mail address

Place :

Date :

Signature
 Rubber stamp

MANUFACTURERS' AUTHORIZATION FORM

Tender No. _____

Dated _____

**The Executive Director,
National Agri-Food Biotechnology Institute
C-127, Industrial Area
Phase VIII, Mohali**

Dear Sir:

We _____ who are established and reputable manufacturers of _____ having factories at *(address of factory)* do hereby authorize M/s _____ *(Name and address of Agent)* to submit a bid, negotiate and receive the order from you against your tender enquiry.

No company or firm or individual other than M/s _____ is authorized to bid, and conclude the contract in regard to this business.

We hereby extend our full guarantee and warranty as per Clause 12 of the General Conditions of Contract and Clause of the Special Conditions of Contract for the goods and services offered by the above firm.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the **Letterhead of the manufacturer** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial un-priced bid.

SERVICE SUPPORT DETAILS FORM

Sl. No.	Nature of training imparted	List of similar type equipments serviced in the past 3 years	Local Address, Telephone Nos. Fax Nos and e mail address of the firm located at Chennai or adjoining areas	Value of minimum stock of consumable spares held at all Times.

Signature and Seal of the manufacturer/Bidder.....

Place:
Date:

FORMAT OF THE INTEGRITY PACT

Integrity Pact
Between
 NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE (NABI) hereinafter called to as “**The Principal**”
 And
 hereinafter referred to as “**The Bidder/Contractor**”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and /or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a. No employee of the Principal, personally or through family members, will in connection with the tender for , or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitles to.
 - b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the chief Vigilance Officer and in addition can initiate disciplinary action.

Section 2 – Commitments of the Bidder(s) / Contractor(s)

- (1) The Bidder(s) /Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution
 - a. The Bidder(s)/ Contractor(s) will not, directly or through any other person of form, offer, promise or give to any of the Principal’s employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b. The Bidder(s)/ Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications,

subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

- c. The Bidder(s)/ Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the agents/representatives in India, if any. Similarly the Bidder(s)/ Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the “guidelines on Indian agents of Foreign Suppliers” shall be disclosed by the Bidder(s)/ Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian Agent/representative have to be in Indian Rupees only. Copy of the “Guidelines on Indian Agents of Foreign Supplies” is annexed and marked as Annexure.
- e. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

- (2) The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder(s) / Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s) / Contractor(s), from the tender process or take action as per the procedure mentioned in the “Guidelines on Banning of Business Dealing”. Copy of the “Guidelines on Banning of Business Dealing” is annexed and marked as Annex –“B”.

Section 4- Compensation for Damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest money Deposit/Bid Security.
- (2) If the Principal has terminated the contract according to Section 3 or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damage of the contract value or the amount equivalent to Performance Bank Guarantee.\

Section 5 – Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti corruption approach or with any other Public Sector enterprises in India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per procedure mentioned in “Guidelines on Banning of business dealings.”

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub Contractors

- (1) The Bidder(s)/ Contractor(s) undertake(s) to demand from all sub contractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.

- (2) The Principal will enter into agreement with identical conditions as this one with all Bidders, Contractors and Sub contractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidders/ Contractors/ Sub Contractor

- (1) The Principal appoints competent and credible Independent External monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Executive Director, NABI.
- (3) The Bidder(s)/ Contractor(s) accepts that the monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) Contractor(s)/ sub Contractor(s) with confidentiality.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor can in this regard demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- (6) The monitor will submit a written report to the Executive Director, NABI within 8 to 10 weeks from the date of reference or intimate to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.
- (7) Monitor shall be entitled to compensate on the same terms as being extended to/provide to Independent Directors on the NABI
- (8) If the Monitor has reported to the Executive Director, NABI a substantiated suspicion of an offence under relevant IPC/PC Act, and the Executive Director, NABI has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (9) The word 'Monitor' would include both singular and plural.

Section 8 – Pact Duration

This pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Director, NABI.

Section 9 – Other provisions

- (1) This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Chandigarh.
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)
Office Seal

(For & on behalf of the Bidder/ Contractor)
Office Seal

Place.....
Date

Witness 1:
(Name & Address) : _____

Witness 2:
(Name & Address): _____
