



**Government of Bihar**  
**Department of Environment, Forest & Climate Change**  
**Office of the Director, Ecology & Environment, Patna**

**SHORT TERM e-TENDER**

(Through e-procurement mode only over <https://www.eproc2.bihar.gov.in>)

Tender Notice No: ~~02~~ /2023-24

Sanjay Gandhi Biological Park, Patna has a lake within the Park campus. The lake has a surface area of about {8 acres approx.}. Water depth varies from (Minimum, 5'-0" ft. to Maximum 7'-0" ft.). The overall volume of the water is {Cubic Feet 9,50,000 approx.}. The lake is also used by visitors for boating and other ecotourism services. There is a proposal to improve the water quality of this lake.

Separate/Online Bids are invited from registered Indian Suppliers {Manufacturers (OEMs) / Authorized Distributors / Dealers / Suppliers} for supply of Air Diffusion System (ADS) Fine Bubble Aeration system.

SL No.	Scope of work	Cost of tender document (In Rupees)	Tender Processing Fee (Non-refundable)	Earnest Money Deposit (In Rupees)	Time of Completion
1	2	3	4	5	6
01.	Establishment of ADS fine Bubble Aeration System in Lake of Sanjay Gandhi Biological Park, Patna.	Rs. 1,000/-	Rs. 590/-	Rs. 2,00,000/-	Six months from the date of award of tender.

Specification of the ADS system to be installed are as follows: -

**FINE BUBBLE AERATION TUBING SPECIFICATION:**

- 304 Stainless Steel Disk Modules each with 100' weighted Aeration Triple Cut Aeration Tubing "LTC"
- Optimum Air Supply - 8.1 SCFM (Standard cubic feet per minute)
- Fluid Turnover Rate @ 15ft. Water Depth - >20 MGD (Million Gallon per day)
- 3/4" "ADS" weighted Feeder Tubing

**COMPRESSOR / BLOWER TECHNICAL SPECIFICATION:**

1. Compressor / Blower to deliver minimum 64 SCFM of filtered air at 6 PSI.
2. Oil - Less Air Quiet Compressor / Blower
3. Max. rated motor power - 22 kw

**SPECIFICATION FOR THE AERATION:**

- a) Oxygen Transfer: "ASCE" Certified minimum of 50% efficiency in 5 meters of clean water.
- b) Bubble Performance:



- i) Maximum bubble diameter 0.125" (3mm)
- ii) Average rise rate of bubble for laminar flow 0.8 feet per second (0.24m per sec.) not to exceed one feet per second.
- iii) The fluid turnover rate (at 5-meter water depth) shall meet or exceed 3000 Cum. Per Hour.

**IMPROVEMENT IN THE WATER QUALITY :**

Reduction in BOD to 3 mg/l (5 days at 20° C) on continuous running of system in 365 days without resorting to any chemical treatment.

The quoted price should include cost of equipment, testing, commissioning, 5 years warranty on all the water aeration components. The quoted price should include one year warranty on all other equipment and cost of AMC for three years including the material cost.

**Tender Schedule/Programme:**

Sl. No.	Activity	Date/Time : Duration
1.	Online Sale/Download date of Tender documents	From 20.11.2023 to 20.12.2023 (3:00 P.M.) ( <a href="https://www.eproc2.bihar.gov.in">https://www.eproc2.bihar.gov.in</a> )
2.	Bid-clarification date and time	21.12.2023 (Director, Sanjay Gandhi Biological Park, Patna)
3.	Date/Time for Submission/ Uploading of offer/Bid	Till 22.12.2023 Up to 1:00 P.M. ( <a href="https://www.eproc2.bihar.gov.in">https://www.eproc2.bihar.gov.in</a> )
4.	Submission of EMD in Hard copy/Original.	EMD will be paid through online mode (i.e. Internet payment, Gateway IPG) Challan or offline (Bank Guarantee) only.
5	Presentation about the project	23.12.2023 at 3:00 P.M. In the office of the Director, Sanjay Gandhi Biological Park, Patna
6	Date & time for Opening of Technical Bid.	23.12.2023 at 4:00 P.M. In the office of the Director, Sanjay Gandhi Biological Park, Patna. ( <a href="https://www.eproc2.bihar.gov.in">https://www.eproc2.bihar.gov.in</a> )
7	Contact person/Nodal Officer for queries	Director Sanjay Gandhi Biological Park, Patna, Email : <a href="mailto:patnazoobihar@gmail.com">patnazoobihar@gmail.com</a> , Mobile No. 8986153174
8	Financial Bid Opening Date and Time	23.12.2023 at 5:00 P.M.

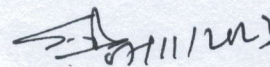
2. Detailed descriptions of the item and instructions /Terms & condition for submitting the e-tender can be downloaded from e-Procurement Portal (<https://www.eproc2.bihar.gov.in>) or ([www.forest.bih.nic.in](http://www.forest.bih.nic.in))
3. Tender fee/cost Rs. 1,000.00 to be paid through e-payment mode (NEFT/RTGS, Net Banking, Credit/Debit Card) only.
4. Tender Processing Fee (TPF) amount Rs. 590.00 has to be paid through e-Payment mode (i.e. NEFT/RTGS, Internet Banking, Credit / Debit Card) only.
5. The tender is "Two Bid" document. The technical bid should contain all the relevant information and desired enclosures in the prescribed format 'Annexure-1' along with Tender Fee & Earnest Money

*S.L*



Deposit (EMD). The financial bid 'Annexure-2' should contain only commercial document. In case, any bidder encloses the financial bid within technical bid, the same shall be rejected summarily.

6. Proof of EMD as shown in the General Terms & Condition should be deposited with Technical Bid.
7. The bidders shall upload the scanned copies of all the relevant certificates, documents etc. in support of their eligibility criteria/technical bid and other certificate/document in the e-procurement portal (<http://www.eproc2.bihar.gov.in>)
8. Bids along with necessary online payments must be submitted through e-payment Portal [www.eproc2.bihar.gov.in](http://www.eproc2.bihar.gov.in) before the date and time specified in the NIT. The department does not take any responsibility for the delay/non-submission of Tender caused due to non-availability of Internet connection, Network Traffic/ Holidays or any other reason.
9. The bidders shall sign on the supporting statements, documents, certificates uploaded by him, owning responsibility for their correctness/ authenticity. The bidder shall attach all the required documents for the specific tender after uploading the same during the bid submission as per the tender notice and bid document.
10. **Corrigendum/ Addendum**, if any, will be published on the departmental website <http://www.forest.bih.nic.in> and e-procurement, Portal Bihar [https:// www.eproc2.bihar.gov.in](https://www.eproc2.bihar.gov.in) itself.



Director,  
Ecology & Environment, Patna



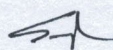
## GENERAL TERMS AND CONDITIONS

### FOR

#### Establishment of ADS fine Bubble Aeration System in Lake of Sanjay Gandhi Biological Park, Patna.

1. The Tenderer are expected to read carefully all the terms and conditions of the tender documents and their submission will be taken as consent to abide. Tenderers are advised to visit the site, examined and understood the scope of work.
2. If the Tenderer gives deliberately wrong information to create conditions for acceptance of the tender, Director, Sanjay Gandhi Biological Park, Patna, reserves the right to reject such tenders without assigning any reason. Not more than one tender will be submitted by one bidder for the same work. Legal action will be taken for furnishing wrong information.
3. Track record - details of involvement in similar works information together with work order copies regarding order receipt/completeness of such furnished information. The Agency/ Company/Individual shall have an experience of at least five years in the field of similar work.
4. Specific experience relating to the particular work. Agency/ Company/ Individual should have executed at least one similar project in India of amount each not less than Rupees 35 lacs. Attach supportive documents.
5. The tenderer will make a presentation for execution of the project as required by Tender Committee on the date fixed for this purpose.
6. **Evaluation of bid by Technical Committee:**

The Technical Evaluation Committee may call the responsive bidders for discussion or presentation to facilitate and assess their understanding of the scope of work and its execution. However, the committee shall have sole discretion to call for discussion/presentation. So, all bidders should be ready with a brief presentation. The Technical Evaluation Committee shall have right to accept or reject any or all tenders without assigning any reasons thereof.
7. **Manner of Submission of Tender:** The tender should be done on two bid method viz 1) Technical Bid & 2) Financial / Price Bid. The bidders should ensure that the technical bid complete in all respect and containing the required enclosures.





**“Technical Bid” shall contain:-[as per Annexure –1]**

1. Letter of transmittal.
2. Proof of EMD deposit of Rupees 2,00,000/- (two lakh) only
3. Photocopy of PAN No./TAN No. and Income Tax return of last three years (2019-20, 2020-21 & 2021- 22).
4. Photocopy of GST registration.
5. Proof of involvement in similar works information together with work order copies regarding order receipt/completeness of such furnished information. The Agency/ Company/Individual shall have an experience of at least five years in the field of similar field.
6. Proof of turnover duly signed by a statutory auditor (shall not be less than 01 crore.)
7. Photocopy of Address proof & Identity proof.
8. Specimen signature attested by Gazetted Officer.
9. Declaration regarding black-list.
10. An affidavit duly certified by (enclosed/ Not enclosed) the notary at the location of the Agencies/Headquarters Patna that the bidder has never been black listed or punished by any court for any criminal offence/breach of contract and that no police/vigilance enquiry/criminal case is pending against either bidder legal entity or against individual Directors of the company or partners etc. of the firm etc.

***Note: All documents duly self-attested should be uploaded in E-tender. Original documents to be shown by the bidder to the Committee at the time of opening of financial bid.***

8. **“FINANCIAL BID”:** - The financial bid shall contain:

Financial/Price Bid Form [as per Annexure – 2] The tenderer shall give the total composite price inclusive of all levies and taxes (inclusive of taxes) and the person (s) for operating the machine 24x7 during contract period i.e., 3 years. The prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. This quoted price will include Design, Fabrication, Supply, Testing, Installation and Commissioning/Establishment, maintenance and operation of ADS Fine Bubble Aeration system for 3 years in the lake of Sanjay Gandhi Biological Park, Patna. The date of Comprehensive maintenance will start once the system is commissioned on the site. The decision will be taken on the total cost of the system including comprehensive maintenance for three years.

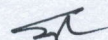
9. **Forfeiture of Earnest Money:** -

- a. If the Tenderer withdraw their Bids after opening of the same or the successful bidders withdraw their Bid after approval of their rates.
- b. If the successful bidder fails to supply or refused either partial or total offer (Acceptance) made by The Director, Sanjay Gandhi Biological Park, Patna.

10. **Return of Earnest Money:** -

- a. After finalization of the Tender, the deposited Earnest Money will be returned back to the unsuccessful bidders.

11. **Deposition of Security Money:** - The selected tenderer must deposit the requisite amount of Security Money i.e., 10% of the tender amount within the stipulated date specified in the acceptance letter in





the form of Demand Draft Payable at Patna duly pledged in favour of Director, Sanjay Gandhi Biological Park, Patna.

12. **Forfeiture of Security Money: -**

a. In the event of failure to supply or maintain the goods/articles/equipment / instruments as per Work Order within the stipulated period, the security deposit may be forfeited

b. If any equipment/ instrument is damaged by the firm, cost of the same will be deducted from the deposited Security money of the contractor.

c. In the event of any kind of dis-satisfaction, then the same (security money) will be forfeited without any reason given to the party.

13. **Refund of Security Deposit** - After successful completion of project and defect liability period, Security Deposit will be refunded within three months if not extended for further maintenance.

14. **AWARD OF CONTRACT: PLACEMENT OF ORDER**

The Tender Committee shall consider placement of orders for jobs on those bidders whose offers have been found technically, commercially and financially acceptable. The Director, Sanjay Gandhi Biological Park, Patna reserves the right to counter offer price(s) against price(s) quoted by any bidder. Acceptance of lowest tender is not obligatory.

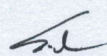
15. **DEFECT LIABILITY PERIOD**

The contractor shall replace all good at his own cost and to the satisfaction of the employer all defects, shrinkage, settlements or other faults which may appear within the period of contract, defect liability period and A.M.C. period and no extra payment will be made for replacement of any article(s). Defect should be rectified immediately by the successful tenderer.

16. **Schedule of Payment**

a) Establishment of ADS fine Bubble Aeration System in Lake of Sanjay Gandhi Biological Park, Patna.

S. N.	Installation Stage	% of Contract Price excluding comprehensive maintenance	Conditions to be fulfilled
1	Supply of all the equipment's on the work site.	30%	I) After inspection certificate is issued.
2	Completion of the total construction of ADS Fine Bubble Aeration system	50%	I) After successful completion and commissioning of project and issue of completion certificate





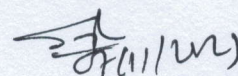
3	Commission of the project at the testing	20%	In the form of fixed deposit in nationalized bank and pledged in favour of Director, Sanjay Gandhi Biological Park, Patna. It shall be released to the successful tenderer after completion of Six months successful running of the system.
4	Release of security deposit		Security money of the 10% of the tendered Cost will be released after three years of successful running.

a) Payment towards AMC for three years shall be released to the successful bidder on quarterly basis in equal installments of the accepted price.

17. **Disputes:** - In the event of any dispute or disagreement arising between the contractors and Director, Sanjay Gandhi Biological Park, Patna with regards to the interpretation of "Terms & Conditions" stipulated herein or in the contract done, the same shall be referred to the Director, Sanjay Gandhi Biological Park, Patna whose decision will be final and binding upon the contractor.
18. The Director, Ecology & Environment, Government of Bihar reserves all rights to accept or reject any Tender without showing any reason.
19. The Tender, submitted by the firm who have already been declared as Black Listed or whose contract was terminated for dissatisfactory supply or repairing works.
20. Regarding Supply and Charges for repairing, Abnormal Low Rate or Abnormal High Rates (in comparison to the market Rate) will not be considered even his being the lowest rate.

21. **ARBITRATION**

If any dispute arises between parties to the Contract, it shall be under the jurisdiction of Civil Court at Patna.



Director,  
Ecology & Environment, Patna



LETTER OF TRANSMITTAL

From:

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To

**The Director,  
Sanjay Gandhi Biological Park,  
Patna-800001**

**Subject: Establishment of ADS fine Bubble Aeration System in Lake of Sanjay Gandhi Biological Park, Patna.**

Sir,

Having examined the details given in Press Notice & bid document as well as General Terms & Conditions for the above work, I/we hereby submit the relevant information.

**I/We had visited the site and examined and understood the scope of work.**

1. I am fully bound with the Press Notice & bid document as well as General Terms & Conditions for the above work
2. I / We hereby certify that all the statements made and information supplied and accompanying statements are true and correct.
3. I / We have furnished all information and details necessary for **Qualification** and have no further pertinent information to supply.
4. I / We submit the certificates in support of our suitability, technical knowledge, experience and capability for having successfully completed the works.
5. I/We will give Practical Demonstration of the System with complete Specifications during Technical Evaluation.

Enclosure:

Seal of applicant

Date of submission

Signature(s) of applicant

Address:

Contact No.



**TECHNICAL BID FORMAT****for****Establishment of ADS fine Bubble Aeration System in Lake of Sanjay Gandhi Biological Park, Patna.**

Sl. No.	Details	Page No. of attachment.
1	Letter of Transmittal.	
2	Proof of EMD deposit of Rupees 2,00,000/- (Two lakh) only.	
3	Photocopy of PAN No./TAN No. and Income Tax return of last three years (2019-20, 2020-21 & 2021- 22) duly signed by the tenderer.	
4	Photocopy of GST registration duly signed by the tenderer.	
5	Proof of involvement in similar works information together with work order copies regarding order receipt/completeness of such furnished information. The Agency/ Company/Individual shall have an experience of at least five years in the field of similar field.	
6	Proof of turnover duly signed by a statutory auditor (shall not be less than 01 crore.)	
7	Photocopy of Address proof & Identity proof.	
8	Specimen signature attested by Gazetted Officer.	
9	Declaration regarding black-list.	
10	Enclose an affidavit duly certified by (enclosed/ Not enclosed) the notary at the location of the Agencies/Headquarters Patna that the bidder has never been black listed or punished by any court for any criminal offence/breach of contract and that no police/vigilance enquiry/criminal case is pending against either bidder legal entity or against individual Directors of the company or partners etc. of the firm etc..	

(Signature of Authorised Person)

(Name)

(Designation)

Name of Firm/Company/Agency

Contact Details



**FINANCIAL BID FORMAT**

for

Establishment of ADS fine Bubble Aeration System in Lake of Sanjay Gandhi Biological Park, Patna.

**FINANCIAL BID**

(On Bidder's letter head)

Sl. No.	Description	Total Amount in Indian Rupees
1.	Survey, Investigation, design, drawings for the project.	
2.	Supply of equipment etc.	
3.	Civil & Electrical Works	
4.	Installation, testing and commissioning	
	<b>Total: -</b>	
5.	For 1 <sup>st</sup> Year of Comprehensive Maintenance (Including the material cost)	
6.	For 2 <sup>nd</sup> Year of Comprehensive Maintenance (Including the material cost)	
7.	For 3 <sup>rd</sup> Year of Comprehensive Maintenance (Including the material cost)	
	<b>Grand Total: -</b>	

**Note** : All the above quoted rates should be inclusive of all taxes and freight etc.

(Signature of Authorized Person)

(Name)

(Designation)

Name of Firm/Company/Agency

Contact Details



### Declaration

I ..... S/o .....Post  
..... P.S. ....Dist. . .... do  
hereby declare than I am/was a supplier of ADS fine Bubble Aeration System in  
Lake to the Department / office ..... and  
no Govt. Dept./office has blacklisted me/my firm name for any work.

(Signature of Authorized Person)  
(Name)  
(Designation)  
Name of Firm/Company/Agency  
Contact Details