



Indraprastha Gas  
Limited

# MEMORANDUM OF UNDERSTANDING



Sri Venkateswara  
college



*Between*

## INDRAPRASTHA GAS LIMITED

New Delhi

*&*

Tirumala Tirupati Devasthanam's

## SRI VENKATESWARA COLLEGE

University of Delhi, New Delhi

*For Environmental Monitoring of  
Reforestation Project*

On 30th March, 2021

MR. AMANDEEP SINGH  
Chief General Manager  
IGL, New Delhi

DR. VARTIKA MATHUR  
Project Investigator  
SVC, New Delhi

PROF. C. SHEELA REDDY  
Principal  
SVC, New Delhi



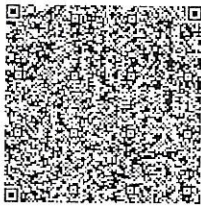
# INDIA NON JUDICIAL

## Government of National Capital Territory of Delhi

### e-Stamp

सत्यमेव जयते

Certificate No.	: IN-DL66493224617902T
Certificate Issued Date	: 27-Mar-2021 04:02 PM
Account Reference	: IMPACC (IV)/ dl833603/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL83360334102146781647T
Purchased by	: INDRAPRASTHA GAS LTD
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: INDRAPRASTHA GAS LTD
Second Party	: SRI VENKATESWARA COLLEGE
Stamp Duty Paid By	: INDRAPRASTHA GAS LTD
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



-----Please write or type below this line-----

### AGREEMENT

This Agreement is made and executed at New Delhi on this 30<sup>th</sup> day of March, 2021.

### BETWEEN

**Indraprastha Gas Limited**, a Company incorporated under Companies Act 1956, having its Registered Office at IGL Bhawan, Plot No. 4, Community Centre, Sector 9, R K Puram, New Delhi –



*V. K. Singh*



*C. Shula Reddy*

Statutory Declaration

1. The authenticity of this Stamp certificate should be verified at 'www.shoilestamp.com' or using e-Stamp Mobile App of Shoilestamp.

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2. The onus of checking the authenticity is on the users of the certificate.

3. In case of any dispute, the user must inform the Stamp Duty Officer.



110022. (hereinafter referred to as **"IGL"** which expression shall unless the context admits otherwise means and include its successors in interest and assignees) **OF THE FIRST PARTY.**

**AND**

**Sri Venkateswara College (SVC)** , is a co-ed & constituent college of University of Delhi started in 1961 and located at Dhuala Kuan, New Delhi, (hereinafter referred to as **"SVC"** which expression shall mean and include its successors and permitted assigns ) **OF THE SECOND PARTY.**

**"IGL"** and **"SVC"** shall hereinafter be collectively referred to as the **"Parties"** and individually referred to as the **"Party"**.

**WHEREAS** IGL is the largest City Gas Distribution company of the Country supplying CNG and PNG to Delhi, Noida, Greater Noida, Ghaziabad, Muzaffarnagar, Kanpur, Rewari, Karnal and other geographical areas in India.

**AND WHEREAS** SVC was established in 1961 in New Delhi as a co-ed & constituent college of the University of Delhi and is considered as one of the best colleges in the Country for Sciences, Commerce and Humanities. It is being managed by Tirumala Tirupati Devasthanams & UGC and awards degrees under the purview of the University of Delhi and offer courses both at the undergraduate and postgraduate levels.

**AND WHEREAS** SVC has approached IGL with the proposal for undertaking scientific study to assess the effect of forest development on the surrounding environmental health, at the Project site of the forest that is being developed at waste land near Barapullah drain area at Sarai Kale Khan, New Delhi, as one of IGL's CSR initiative, over a period of three (3) years.

**AND WHEREAS** replying on the representations made by SVC, as a CSR initiative ensuring environmental sustainability in line with IGL policy, IGL has agreed to provide funding to SVC for carrying out the detailed scientific study of the Project site, to evaluate the biochemical changes (such as phenol, tannin, chlorophyll and carotenoids) and microbiome profile of the plants/ tree species biannually, from this urban forest over a period of three (3) years (hereinafter referred to as the **"Project"**).

**NOW, THEREFORE, THE PARTIES HERETO, INTENDING TO BE LEGALLY BOUND HEREBY AND IN CONSIDERATION OF THE MUTUAL COVENANTS CONTAINED HEREIN, THE PARTIES HEREBY MUTUALLY AGREE TO THE TERMS AS BELOW**

**1. TERM**

This Agreement shall come into effect from **16<sup>th</sup> March 2021** and shall continue and remain in full force and effect till **15<sup>th</sup> March 2024** (**"Term"**) unless terminated earlier as provided in Clause 9. The Agreement shall automatically cease to operate at the end of the Term.

**2. PROJECT FRAMEWORK**

**2.1 Scope of the Project:**

SVC will undertake study and evaluate the biochemical changes (such as phenol, tannin, chlorophyll and carotenoids) and microbiome profile of the plants/ tree species biannually, from this urban forest during the Term of this Agreement. The air quality in and around the urban forest would be monitored strategically every three (3) months during the experimental period. Simultaneously, the key health factors of soil such as soil organic carbon, soil nutrients (macro and micronutrients), heavy metals and keystone microbial indicators (such as rhizobium) will be assessed biannually to monitor relative plant-soil feedback in the newly established forest region.



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*C. Shula Reddy*

## 2.2 Objective of the Project:

To study the effects of increasing forest cover on biochemical, metabolic and microbial profile of the soil (without plant), rhizosphere (soil with plant roots) and plants.

## 2.3 Study Outline:

- Biannual assessment of the air, soil and the vegetation health, along with monitoring plant-soil feedback.
- Identification of microbiome helpful in sustainable urban forest.

## 2.4 Methodology:

- Monitoring of Air** – Air quality of the area would be monitored quarterly for PM 10, PM 2.5, CO<sub>2</sub>, TVOC, HCHO, using portable air monitors.
- Monitoring of Soil** – Equal quantity of soil samples from the reclaimed forest land and the land outside the forest area would be from 10cm depth for following analysis:
  - Soil Organic Carbon
  - Nutrient & Heavy Metal Analysis
  - Microbial Indicator
- Monitoring of Plants** – Following methods would be adopted to monitor plants grown in this Project:
  - Microbial Communities.
  - Phenol & Tannin
  - Chlorophyll & Carotenoids

## 2.5 Location of Project: Reforestation site at waste land near Barapullah Drain, New Delhi.

## 2.6 Project Period: Term of this Agreement.

## 2.7 Project Budget:

The total cost towards undertaking scientific study of urban forest that is being developed at waste land near Barapullah Drain, during the Term of this Agreement would be **INR 19,25,000/- (Rupees Nineteen Lakhs and Twenty Five Thousand only).**

Detailed Budget is as below:-

S.No	Expenditure heads	Year 1 (Rs.)	Year 2 (Rs.)	Year 3 (Rs.)	Cumulative cost for 3 years (Rs.)
1	Equipment [Portable air quality monitor (x2), 4-degree refrigerator, Pipettes (x3)]	2,00,000	0	0	2,00,000
2	Chemicals and outsourcing	4,00,000	5,00,000	4,00,000	13,00,000
3	Travel	35,000	30,000	35,000	1,00,000
4	Contingencies*	70,000	40,000	40,000	1,50,000
5	Institutional overhead (@10%) **	70,500	57,000	47,500	1,75,000
<b>Total Cost (Rs.)</b>		<b>7,75,500</b>	<b>6,27,000</b>	<b>5,22,500</b>	<b>19,25,000</b>



*[Handwritten signature]*

*Vaidhyanath*



*Shula Reddy*



## 2.8 Funding cycle:

IGL has been requested to release each year's Project cost in advance at the start of every year. Payment for each year would be released in the following tranches as provided in the table below:

Year 1 (Total payment to be released: INR. 7,75,500/-)			
S.No	Part Payment	Amount (INR)	Remarks
1	1 <sup>st</sup> part payment @ 90% of annual budget	6,97,950	Upon approval and at the beginning of 1 <sup>st</sup> year
2	2 <sup>nd</sup> part payment @ 10% of annual budget	77,550	Upon completion of 1 <sup>st</sup> year and upon submission of detailed annual report and fund utilization certificate for the 1 <sup>st</sup> part payment of 1 <sup>st</sup> year.

Year 2 (Total payment to be released: Rs. 6,27,000/-)			
S.No	Part Payment	Amount (INR)	Remarks
1	1 <sup>st</sup> part payment @ 90% of annual budget	5,64,300	Upon approval and at the beginning of 2 <sup>nd</sup> year
2	2 <sup>nd</sup> part payment @ 10% of annual budget	62,700	Upon completion of 2 <sup>nd</sup> year and upon submission of detailed annual report and fund utilization certificate for the previous part payments.

Year 3 (Total payment to be released: INR 5,22,500/-)			
S.No	Part Payment	Amount (Rs.)	Remarks
1	1 <sup>st</sup> part payment @ 90% of annual budget	4,70,250	Upon approval and at the beginning of 3 <sup>rd</sup> year
2	2 <sup>nd</sup> part payment @ 10% of annual budget	52,250	Upon completion of 3 <sup>rd</sup> year and upon submission of detailed annual report and fund utilization certificate for the previous part payments.



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*V. K. K. K. K.*



*C. Shula Reddy*

### **3. MONITORING & EVALUATION**

- 3.1 SVC shall submit fund utilization certificate certified by a practicing Chartered Accountant at time of submission of final invoice each year.
- 3.2 Every quarter, the third party engaged by IGL shall monitor and evaluate the Project apart from undertaking impact assessment at the end of the Project.

### **4. COVENANTS OF SVC**

- 4.1 SVC shall provide Quarterly reports to IGL and in such manner as may be required by IGL, providing statistics of the study undertaken with regard to the Project, and annual reports on the expenses and progress of the Project. The report shall also highlight the findings of its study undertaken in terms of the Methodologies contained in this Agreement.
- 4.2 SVC shall submit documentary proof to IGL annually or as and when required by IGL and in such manner so demanded, of having incurred the total expenditure through an audited statement. SVC further agrees that such audited statement can be shared by IGL with its third party auditors for the purposes of verification.
- 4.3 The Parties hereto agree that this Agreement shall subsist as long as the Corpus and Endowment fund exists. In the event of its redundancy, winding up, or such/ other circumstances that impede its continuance or render it infeasible or unviable or impracticable or any likelihood thereof, for any reasons, SVC shall contact IGL for transfer of the funds to any other eligible and qualifying entity or to ascertain any other option in accordance with IGL policies and as per applicable laws.

### **5 CO-BRANDING**

- 5.1 SVC agrees and undertakes not to publish the scientific study reports or any of its findings in connection to the Project without seeking prior written consent of IGL. Additionally, where such permission is granted by IGL, SVC shall ensure that such reports carry IGL logo at conspicuous places of the reports for the purposes of brand recognition and SVC shall acknowledge in its report the support received from IGL.
- 5.2 SVC shall invite IGL officials on all events/ occasions/ felicitation etc. in connection to the Project.
- 5.3 IGL will also have the right to use SVC name and its nature of work and publish the study reports or its findings in CSR related documents

### **6 REPRESENTATIONS AND WARRANTIES**

- 6.1 SVC represents and warrants that:
- a) It is an established educational institute legally constituted in accordance with all Applicable Laws having valid registrations, certificates, permissions, sanctions, licences, approvals, renewals etc.;
- b) It has the necessary experience, expertise and established track record in undertaking scientific studies to assess the effect of forest developments on the surrounding environmental health.
- c) It shall utilize the fund only for the purpose provided for in this Agreement and strictly in terms of the provisions contained herein; and
- d) It possesses the ability to perform its obligations and responsibilities under this Agreement in accordance with the terms and conditions contained herein.

### **7 CONFIDENTIALITY**

- 7.1 Both the Parties agree to keep all the information in connection to the Project confidential. No confidential information shall be provided by any Party to any third party without the prior written consent of the other Party. However, the information can be disclosed to Government/ Statutory Bodies/ Agencies for which prior consent of the other Party would be required. For the purposes of



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*[Handwritten signature]*



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this Clause, "**Representative**" of a Party means any employee, director, advisor, affiliate, investor, potential financing source or any other person concerned or acting on their behalf.

- 7.2 Notwithstanding the provisions of Clause 6.1 above, the receiving Party may disclose the confidential information disclosed under this Agreement to its Representatives on a "need to know" basis.
- 7.3 The receiving Party's obligations in this Agreement, shall not apply to any confidential information, which:
- (i) at the time of its disclosure, is in public domain or which after disclosure becomes part of public domain through no fault of the receiving Party or its Representatives; or
  - (ii) prior to its disclosure to the receiving Party in connection with the Project was already in the possession of the receiving Party or thereafter becomes known to the receiving Party on a non-confidential basis from a source other than the disclosing Party; or
  - (iii) Is or has been developed independently by the receiving Party without reference to or reliance on the disclosing Party's confidential information.

The Party using or disclosing any information with reference to any of these exceptions bears the burden of proof to establish that the relevant exception applies.

## 8 INTELLECTUAL PROPERTY

- 8.1 This Agreement does not grant or convey any right, title or interest, proprietary or otherwise, in or to any trade name, logo, copyrighted material, service mark or trademark owned or licensed by IGL to SVC. SVC may use or permit its respective employees to use any of the trade names, trademarks of IGL in connection herewith only after getting prior written consent of IGL. SVC further hereby acknowledges right of IGL to use the name, logo and trademarks of the SVC in the documents relating to the CSR activities of IGL and other Intellectual Property. SVC shall not at any time do or cause to be done, any act or thing, directly or indirectly, contesting or in any way impairing or tending to impair any part of IGL right, title or interest in its Intellectual Property.
- 8.2 SVC agrees that it shall not adopt, whether during the Term of this Agreement or at any time after its termination or expiry, any mark, word, symbol, slogan, tradename, trademark, usage etc. which in any way infringes the Intellectual Property rights of IGL or those of its affiliate companies. This obligation shall survive the Term or termination of this Agreement.

## 9 INDEMNIFICATION

- 9.1 SVC hereby agrees and undertakes to indemnify and keep IGL indemnified, its directors, officers, representatives and employees indemnified against any loss, charges, liabilities, obligations, expenses including reasonable attorney fees and damage, incurred by IGL, due to any misrepresentation, act, omission or commission caused by the employees/ staff, promoters of SVC, including breach of terms of this Agreement for any violation relating to (a) any claims by third party (b) applicable laws, non-compliance, violations of applicable laws, applicable permits, codes, ordinances or regulations by SVC, (c) any consequences emanating out of the terms of this Agreement or claims on account of any accident, disability/death of any person caused during providing the services by SVC and (d) loss or damage to real or tangible property, caused by SVC for its employees/ staff.
- 9.2 In case of underutilization or misuse/ misutilization of funds provided by IGL or non- performance of the terms of the said Agreement, IGL reserves the right to stop further funding and also will have the right to recover the funding which has been utilized or misutilized.
- 9.3 The provisions of this Clause shall survive the Term or termination of this Agreement.



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*[Handwritten signature]*



*C. Gupta*



## 10 TERMINATION

- 10.1 IGL reserves the right to terminate this Agreement by giving seven (7) days' advance written notice to SVC without assigning any reason thereof if the progress of the Project is found unsatisfactory by IGL.
- 10.2 IGL shall have the right to terminate the said Agreement immediately, if it discovers that the utilization of donated amount is mis-allocated or is being mis-utilized. In case of termination of the said Agreement due to non-performance of the said purpose or due to underutilization or misuse/misutilization of funds provided by IGL to SVC, IGL shall have right to terminate the said Agreement including but not limited to entitlement to claim, including remedy, as per the law.
- 10.3 Upon termination, SVC shall return all the Intellectual Properties and other proprietary material relating to IGL, in case provided under the terms of this Agreement and no copies thereof shall be retained by SVC.

## 11 RESOLUTION OF DISPUTES

- 11.1 In the event of any claims, disputes or differences arising out of or in connection with this Agreement, the disputing Party shall serve a written notice of dispute to the other Party within fifteen (15) days of arising of such claim, dispute or difference.
- 11.2 Pursuant to such notice, the Parties hereto shall promptly and in good faith attempt to resolve such claim or dispute or difference through discussions and negotiations with a view to bring out an amicable resolution and settlement.
- 11.3 If the said claim or dispute or difference is not resolved through discussions and negotiations within thirty (30) days from the written notice of dispute, then either Party may give notice in writing to the other Party of its intention to commence arbitration proceedings, as hereinafter provided, as to the matter in dispute, difference or claim, and no arbitration proceedings in respect of this matter shall commence unless such written notice of arbitration is served upon the other Party.
- 11.4 The Arbitral Tribunal shall comprise of a Sole Arbitrator. The Sole Arbitrator shall be nominated by SVC from a list provided by IGL of three (3) persons from its panel of arbitrators. Depending on the nature of the claim or dispute, the list of persons from IGL shall comprise of persons with the requisite technical expertise and relevant experience.
- 11.5 SVC waives any and all of its objections to the said persons being former employees of IGL or of any other public sector entity or with regard to such persons holding shares in the Company.
- 11.6 If SVC fails to nominate the Sole Arbitrator within a period of ten (10) days from receipt of such list of persons by IGL, then it shall be construed to be a waiver in respect of the said persons on part of SVC and IGL shall be free to nominate one (1) of the persons from the said list to be the Sole Arbitrator.
- 11.7 The arbitration proceedings shall be held in accordance with the provisions of the Indian Arbitration and Conciliation Act, 1996, as amended from time to time. The seat of the arbitration proceedings shall be in Delhi and shall be conducted in English Language. The decision of such arbitration proceedings shall be binding and conclusive upon the Parties.
- 11.8 The fees of the Arbitral Tribunal shall be determined as per 4<sup>th</sup> Schedule of the Arbitration and Conciliation Act, 1996, as amended from time to time, and the Parties to the arbitration proceedings shall equally share the costs and expenses of any such arbitration proceedings.
- 11.9 Notwithstanding any reference to arbitration herein, the Parties shall continue to perform their respective obligations under the Agreement unless they otherwise mutually agree in writing.

## 12 RELATIONSHIP

- 12.1 Nothing contained in this Agreement shall constitute a relationship of partnership or joint venture, or of agency between the Parties.



*Kishor Pathak*



*C. Shula Laddy*



- 12.2 Notwithstanding anything herein contained no relationship of employer and employee shall be deemed to be created between IGL and SVC or IGL and the employees, workers, personnel, or representatives of SVC. IGL shall not be liable in any manner to the employees, personnel or representatives of SVC or for acts of such employees, personnel or representatives of SVC.

### 13 EXCLUSION OF LIABILITY

In no event IGL shall be liable to SVC (including their employees, agents, representatives, other partners) or any other party under or in connection with this Agreement for any non-compliance of laws, rules, regulations or for any direct, indirect, incidental, special, economic or consequential loss or damage, loss of revenue, profits, or goodwill suffered by SVC or any third party in an action in contract, tort (including without limitation negligence) or otherwise.

### 14 AMENDMENTS

Any amendments to any of the clauses of this Agreement shall be proposed and sent in writing to the other Party by the Party proposing such amendment and if both the Parties agree to such amendment, then the same shall be incorporated in the Agreement by execution of a side letter.

### 15 NOTICE

Any notice to be given by either Party hereunder shall be in writing and shall be given in person or sent through any recognised courier service, to the addresses hereinafter indicated, or to such other addresses as either Party may give to the other in writing:

#### Address of IGL:

Indraprastha Gas Limited,

IGL Bhawan, Plot No.4, Community Centre, Sector -9, RK Puram, Delhi -110022.

#### Address of SVC:

Benito Juarez Road, Dhaula Kuan, Delhi -110021.

### 16 GOVERNING LAW AND JURISDICTION

This Agreement shall be governed by the laws of India. The Parties hereby agree that the Courts in New Delhi, India alone shall have the exclusive jurisdiction to try and entertain any and all suits or other proceedings in respect of, relating to or otherwise arising out of this Agreement, hereto subject to the Arbitration Clause.

### 17 WAIVER

Any waiver by IGL of a breach by SVC of any provision of this Agreement shall be limited to that particular breach and shall not operate in any way in respect of any future breach by SVC, and no delay on the part of IGL to act upon a breach shall be deemed a waiver of that breach.

### 18 ASSIGNMENT

- 18.1 SVC shall not assign this Agreement or any of its rights or obligations under this Agreement without obtaining the prior written consent of IGL.
- 18.2 Where any assignment of any of the SVC's rights or obligations under this Agreement has been permitted by IGL, SVC shall remain responsible for the acts and omissions of any assignee under any such assignment.
- 18.3 Any purported assignment by SVC that is not in accordance with this Clause shall be null and void.
- 18.4 All the provisions of this Agreement shall be binding upon and shall inure to the benefit of and be enforceable by the Parties to this Agreement, their successors and permitted assigns.



*Vaishali*



*C. Shula Ruddy*

## 19 SEVERABILITY

The Parties agree that if at any time, any of the terms, conditions and/ or provisions of this Agreement are declared to be invalid or unenforceable to any extent under the applicable laws or under directions or orders of any judicial or other competent authority, this Agreement shall continue to be in force, as if such clause was never in existence while construing the Agreement as conformant to the intent and understanding, contained herein, of the Parties as possible and jointly evolving any requisite amendment.

## 20 ENTIRE AGREEMENT

This Agreement governs the provision of the terms contained herein to the exclusion of all other written or verbal representations, communications, understandings, negotiations, proposals or agreements entered into by the Parties.

## 21 ACKNOWLEDGEMENT AND AUTHORISATION

21.1 Each Party acknowledges that it has read the terms of this Agreement carefully and understands the obligations it is entering into under this Agreement.

21.2 The person executing this Agreement is duly authorized to execute this Agreement.

## 22 FURTHER ACTS

Each of the Parties hereto undertakes to execute, do and take all such steps as may be in their respective powers to execute, do and take or procure to be executed, taken or done and to execute all such further documents deeds and do all further acts, deeds matters and things as may be required to give effect to the provisions of this Agreement.

## 23 COUNTERPART

This Agreement shall be executed in two counterparts, each of which shall constitute the original and both of which taken together shall constitute one and the same Agreement.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE EXECUTED THESE PRESENTS  
THE DAY AND YEAR FIRST HEREINABOVE MENTIONED

Authorized Signatory of IGL


Company Seal



Indraprastha Gas Limited

Date: 30<sup>th</sup> March 2021

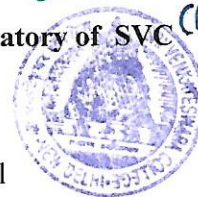
WITNESS:

1.  Gaurav Sharma  
Ch. Mgr (C)

2. 

Authorized Signatory of SVC

Organization Seal



Sri Venkateswara College

Date: 30<sup>th</sup> March 2021

1.  P. Syamal Rao  
(Mr. P. Syamal Rao)

2.   
(Dr. A.K. Chaudhary)



# Activity 1

### ACTIVITY 1 REPORT

NAME OF THE ACTIVITY: First Field Visit for Soil sample collection for the Environmental Monitoring of Reforestation project under MoU with IGL			
DATE	FACULTY	COMMITTEE	COORDINATOR
15 <sup>th</sup> April, 2021	SCIENCE	MoU between IGL & Sri Venkateswara College	Dr. Vartika Mathur
TIME	VENUE	NUMBER OF PARTICIPANTS	NATURE: Outdoor/Indoor
11AM TO 2:30PM	Barapullah Sundial	7	Outdoor
SUPPORT/ ASSISTANCE:	Indraprastha Gas Limited		

### BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	First sampling for Environmental Monitoring of Reforestation Project under MoU between Sri Venkateswara College and IGL (Indraprastha Gas Limited)
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial, Ashram, New Delhi
METHODOLOGY	<ul style="list-style-type: none"><li>Field visit was conducted on 15<sup>th</sup> April 2021</li><li>Site was visited and 4 sites were selected to analyze soil samples</li><li>Soil samples from 10 cm depth were collected from 4 selected sites from the study area in sterilized zipper bags</li></ul>
OUTCOMES	<ul style="list-style-type: none"><li>Soil sample collection before plantation of trees for reforestation.</li></ul>



*C. Sulekha*  
PRINCIPAL  
Sri Venkateswara College  
Dhaulta Kuan, New Delhi-110021



## Collection of Soil Samples



Site 1



Site 2



Site 3



Site 4



*C. Sula Reddy*  
PRINCIPAL  
Sri Venkateswara College  
Dhaura Kuan, New Delhi-110021



**SRI VENKATESWARA COLLEGE**  
(University of Delhi)

**Internal Quality Assurance Cell**

**Chairperson**

Prof C. Sheela Reddy  
Principal  
Sri Venkateswara College

**IQAC Coordinator**

Dr. N. Latha  
Department of Biochemistry

**External Members**

Prof Debi P Sarkar  
Department of Biochemistry  
University of Delhi South  
Campus

Prof Alo Nag  
University of Delhi South  
Campus

Dr. Gitanjali Yadav  
NIPGR, Delhi

**Internal Members**

Dr. Meenakshi Bharat  
Department of English

Dr. Lalitha Josyula  
Department of Electronics

Dr. Namita Pandey  
Department of Political  
Science

Dr. A. K. Chaudhary  
Department of Physics

Dr. K.C. Singh  
Department of Physics

Dr. Swarn Singh  
Department of Mathematics

Dr. Neeraj Sahay  
Department of History

Dr. Vartika Mathur  
Department of Zoology

Dr. Shruti Mathur  
Department of Commerce

Dr. Padma Priyadarshini  
Department of Sociology

Dr. Nimisha Sinha  
Department of Biochemistry

Shri D. Venkat Ramana  
A.O (I/C)

This is to certify that the Activity report (Teacher/Department /Society/Association) has been submitted for documentation to IQAC, Sri Venkateswara College, University of Delhi.

*N. Latha*

IQAC Coordinator  
Sri Venkateswara College

**Coordinator, IQAC**  
**Sri Venkateswara College**  
**(University of Delhi)**  
**Dhaura Kuan, New Delhi-110021**

*C. Sheela Reddy*  
PRINCIPAL

Sri Venkateswara College

**PRINCIPAL**  
**Sri Venkateswara College**  
**(University of Delhi)**  
**Dhaura Kuan, New Delhi-110021**



# Activity 2

### ACTIVITY 2 REPORT

<b>NAME OF THE ACTIVITY:</b> Second Field Visit for Soil sample collection for the Environmental Monitoring of Reforestation project under MoU with IGL			
<b>DATE</b>	<b>FACULTY</b>	<b>COMMITTEE</b>	<b>COORDINATOR</b>
17 <sup>th</sup> July, 2021	SCIENCE	MoU between IGL & Sri Venkateswara College	Dr. Vartika Mathur
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
11AM TO 2:30PM	Barapullah Sundial	8	Outdoor
<b>SUPPORT/ ASSISTANCE:</b>	Indraprastha Gas Limited		

#### BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	Second sampling for Environmental Monitoring of Reforestation Project under MoU between Sri Venkateswara College and IGL (Indraprastha Gas Limited)
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial, Ashram, New Delhi
METHODOLOGY	<ul style="list-style-type: none"><li>Field visit was conducted on 17<sup>th</sup> July 2021 to collect soil and plant samples</li><li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags</li><li>Leaves from three tree species, viz., <i>Adathoda vasica</i>, <i>Tamarix dioica</i>, <i>Neolamarckia cadamba</i> two shrubs <i>Vetiveria zizanioides</i> and <i>Saccharum benghalensis</i> (and one herb (<i>Wrightia tinctoria</i>) were collected to analyze the endophytes associated with them.</li></ul>
OUTCOMES	<ul style="list-style-type: none"><li>Soil samples (in triplicates) from 10 cm depth were collected from the four sites that were selected in the visit 1, in zipper bags.</li><li>Leaves from three tree species, one shrub and one herb were collected to analyze the endophytes associated with them</li></ul>



*C. Sula Bady*  
PRINCIPAL  
Sri Venkateswara College  
Dhaura Kuan, New Delhi-110021



## Collection of Plant Samples



*Adathoda vasica*



*Vetiveria zizanoides*



*Saccharum benghalensis*



*Wrightia tinctoria*



*C. Shula Bady*  
PRINCIPAL  
Sri Venkateswara College  
Dhaura Kuan, New Delhi-110021



## Collection of Soil Samples



Site 1



Site 2



Site 3



Site 4



*C. Suresh Reddy*  
 PRINCIPAL  
 Sri Venkateswara College  
 Dhaula Kuan, New Delhi-110021





Dr. Vartika Mathur interaction with Mr. Navendu, Project Coordinator in Maruvan Foundation (NGO undertaking reforestation site adjacent to Barapullah drain)



Student team led by Dr. Vartika Mathur and Dr. Pooja Gokhlae Sinha for soil and plant sample collection at the reforestation site adjacent to Barapullah drain with Mr. Navendu and Mr. Adeel, Project Coordinators in Maruvan Foundation



*C. Sulekha*  
PRINCIPAL  
Sri Venkateswara College  
Dhula Kuan, New Delhi-110021



**SRI VENKATESWARA COLLEGE**  
(University of Delhi)

**Internal Quality Assurance Cell**

**Chairperson**

Prof C. Sheela Reddy  
Principal  
Sri Venkateswara College

**IQAC Coordinator**

Dr. N. Latha  
Department of Biochemistry

**External Members**

Prof Debi P Sarkar  
Department of Biochemistry  
University of Delhi South  
Campus

Prof Alo Nag  
University of Delhi South  
Campus

Dr. Gitanjali Yadav  
NIPGR, Delhi

**Internal Members**

Dr. Meenakshi Bharat  
Department of English

Dr. Lalitha Josyula  
Department of Electronics

Dr. Namita Pandey  
Department of Political  
Science

Dr. A. K. Chaudhary  
Department of Physics

Dr. K.C. Singh  
Department of Physics

Dr. Swarn Singh  
Department of Mathematics

Dr. Neeraj Sahay  
Department of History

Dr. Vartika Mathur  
Department of Zoology

Dr. Shruti Mathur  
Department of Commerce

Dr. Padma Priyadarshini  
Department of Sociology

Dr. Nimisha Sinha  
Department of Biochemistry

Shri D. Venkat Ramana  
A.O (I/C)

This is to certify that the Activity report (Teacher/Department /Society/Association) has been submitted for documentation to IQAC, Sri Venkateswara College, University of Delhi.

*N. Latha*

IQAC Coordinator  
Sri Venkateswara College

**Coordinator, IQAC**  
**Sri Venkateswara College**  
**(University of Delhi)**  
**Dhaura Kuan, New Delhi-110021**

*C. Sheela Reddy*  
PRINCIPAL

Sri Venkateswara College

**PRINCIPAL**  
**Sri Venkateswara College**  
**(University of Delhi)**  
**Dhaura Kuan, New Delhi-110021**



# Activity 3

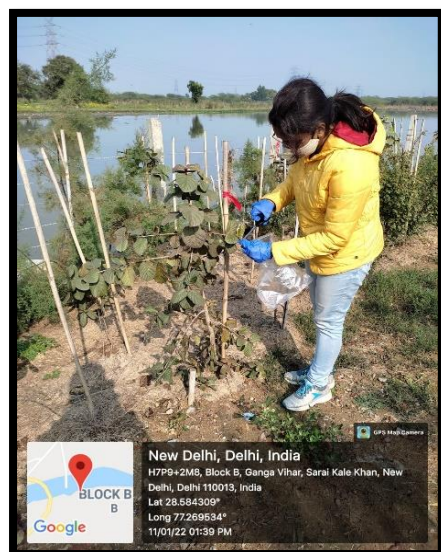
<b>NAME OF THE ACTIVITY: Third Field Visit for Soil and Plant samples collection for the Environmental Monitoring of Reforestation project under MoU with IGL</b>			
<b>DATE</b>	<b>FACULTY</b>	<b>COMMITTEE</b>	<b>COORDINATOR</b>
11 <sup>th</sup> January, 2022	SCIENCE	MoU between IGL & Sri Venkateswara College	Prof. Vartika Mathur
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
11AM to 4:30PM	Barapullah Sundial	5	Outdoor
<b>SUPPORT/ ASSISTANCE:</b>	Indraprastha Gas Limited		

#### BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	Environmental Monitoring of Reforestation Project
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial
METHODOLOGY	<ul style="list-style-type: none"> <li>Field visit was conducted on 11<sup>th</sup> January 2022 to collect soil and plant samples</li> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>
OUTCOMES	<ul style="list-style-type: none"> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags.</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>



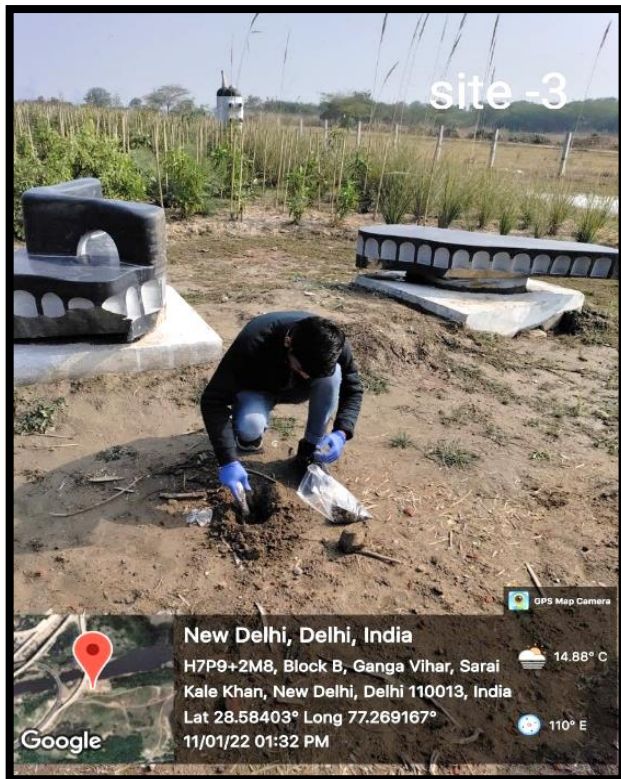
## Collection of Plant Samples



## Collection of Soil Samples











Student team led by Dr. Pooja Gokhale Sinha for soil and plant sample collection at the reforestation site adjacent to Barapullah drain on 2<sup>nd</sup> time point



Tirumala Tirupati Devasthanams

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(University of Delhi)

NAAC Grade A+

### **CERTIFICATE**

This is to certify that the Field Activity was successfully conducted on 11-01-2022 from 11:00 am to 4:00 pm under the supervision of Prof. Vartika Mathur for the project titled "Scientific monitoring of reforestation at Barapullah drain area" in the physical mode and its event report has been submitted to IQAC for records.

Event In-Charge

IQAC Coordinator

Coordinator, IQAC  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021

Principal

PRINCIPAL  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021

# Activity 4



<b>NAME OF THE ACTIVITY: Fourth Field Visit for Plant and Soil samples collection for the Environmental Monitoring of Reforestation project under MoU with IGL</b>			
<b>DATE</b>	<b>FACULTY</b>	<b>COMMITTEE</b>	<b>COORDINATOR</b>
18 <sup>th</sup> July, 2022	SCIENCE	MoU between IGL & Sri Venkateswara College	Prof. Vartika Mathur
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
10AM to 3:30PM	Barapullah Sundial	6	Outdoor
<b>SUPPORT/ ASSISTANCE:</b>	Indraprastha Gas Limited		

#### BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	Environmental Monitoring of Reforestation Project
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial
METHODOLOGY	<ul style="list-style-type: none"> <li>Field visit was conducted on 18<sup>th</sup> July 2022 to collect soil and plant samples</li> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>
OUTCOMES	<ul style="list-style-type: none"> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags.</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>



## Collection of Plant Samples

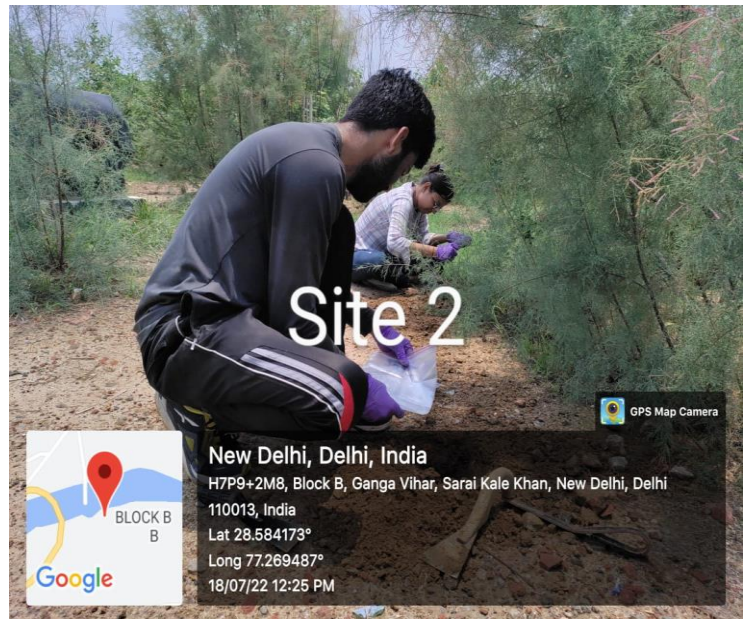




## Collection of Soil Samples



Site 1



Site 2



Site 3



Site 4





Student team led by Dr. Pooja Gokhlae Sinha for soil and plant sample collection at the reforestation site adjacent to Barapullah drain





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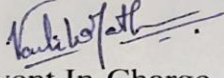
**Sri Venkateswara College**

(University of Delhi)

NAAC Grade A+

## **CERTIFICATE**

This is to certify that the Field Activity was successfully conducted on 18-07-2022 from 10:00 am to 3:30 pm under the supervision of Prof. Vartika Mathur for the project titled "Scientific monitoring of reforestation at Barahpullah drain area" in the physical mode and its event report has been submitted to IQAC for records.

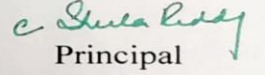


Event In-Charge



**IQAC Coordinator**

**Coordinator, IQAC**  
Sri Venkateswara College  
(University of Delhi)  
Dhoola Kuan, New Delhi-110021



**Principal**

**PRINCIPAL**  
Sri Venkateswara College  
(University of Delhi)  
Dhoola Kuan, New Delhi-110021

# Activity 5



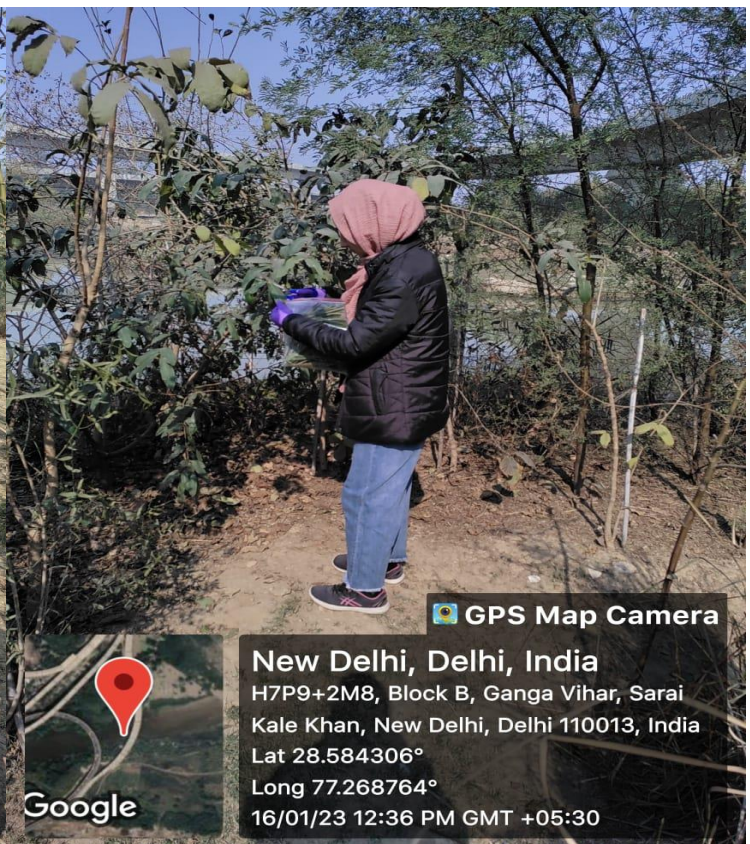
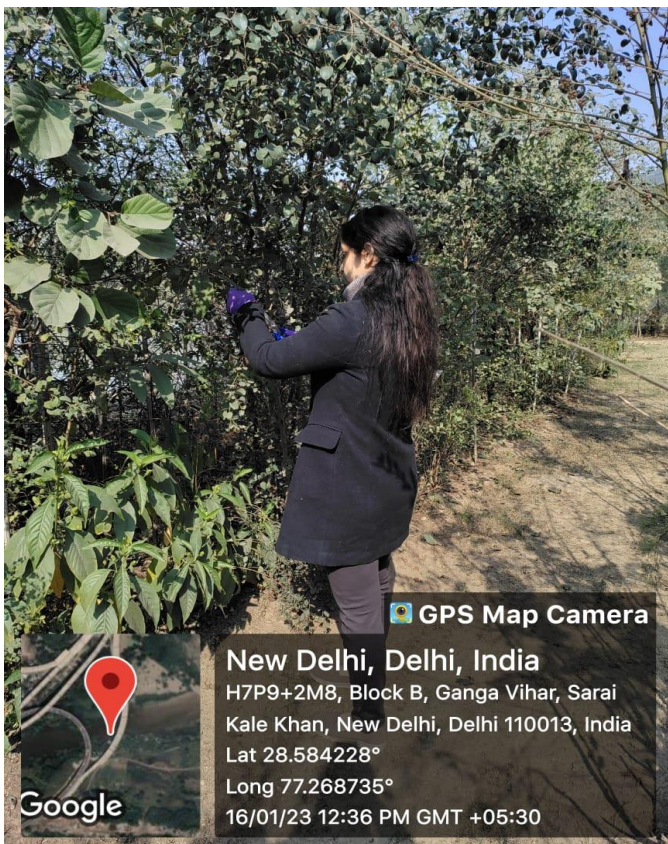
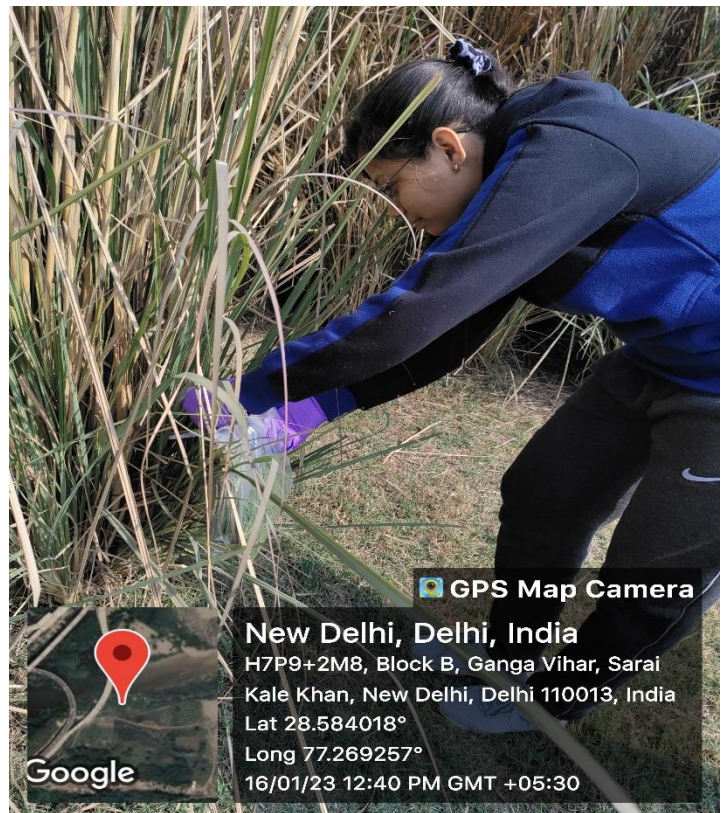
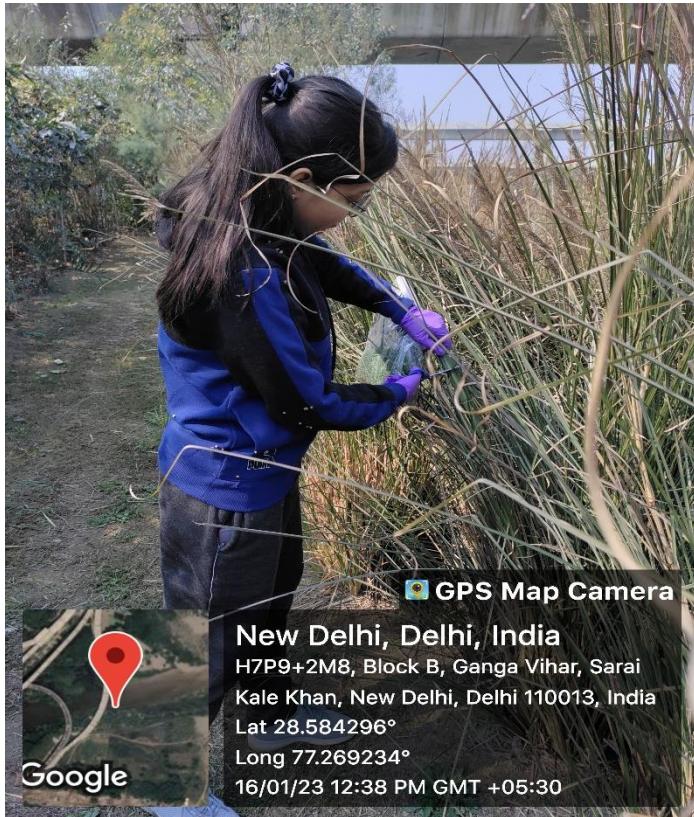
<b>NAME OF THE ACTIVITY: Fifth Field Visit for Plant and Soil samples collection for the Environmental Monitoring of Reforestation project under MoU with IGL</b>			
<b>DATE</b>	<b>FACULTY</b>	<b>COMMITTEE</b>	<b>COORDINATOR</b>
16 <sup>th</sup> January, 2023	SCIENCE	MoU between IGL & Sri Venkateswara College	Prof. Vartika Mathur
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
11AM to 4:30PM	Barapullah Sundial	5	Outdoor
<b>SUPPORT/ ASSISTANCE:</b>	Indraprastha Gas Limited		

#### BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	Environmental Monitoring of Reforestation Project
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial
METHODOLOGY	<ul style="list-style-type: none"> <li>Field visit was conducted on 16<sup>th</sup> January 2023 to collect soil and plant samples</li> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>
OUTCOMES	<ul style="list-style-type: none"> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags.</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>



## Collection of Plant Samples

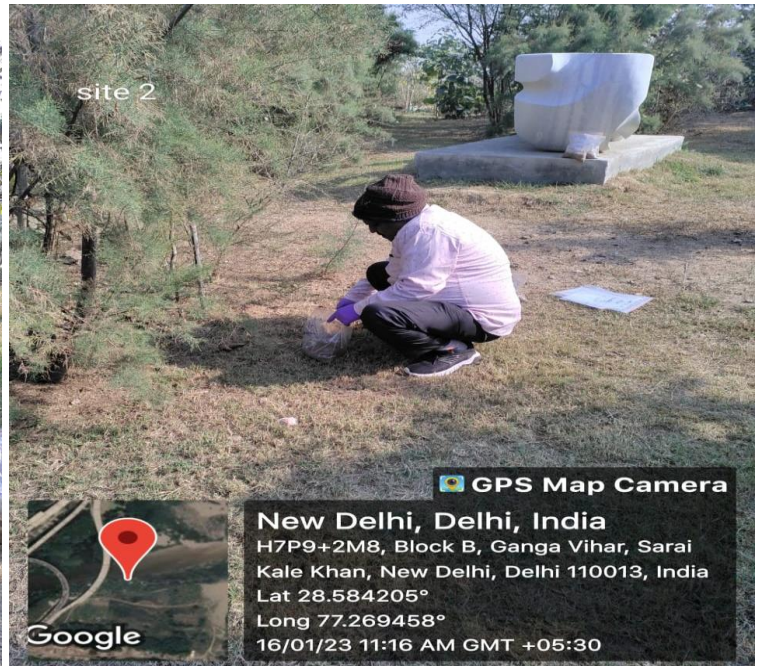




## Collection of Soil Samples



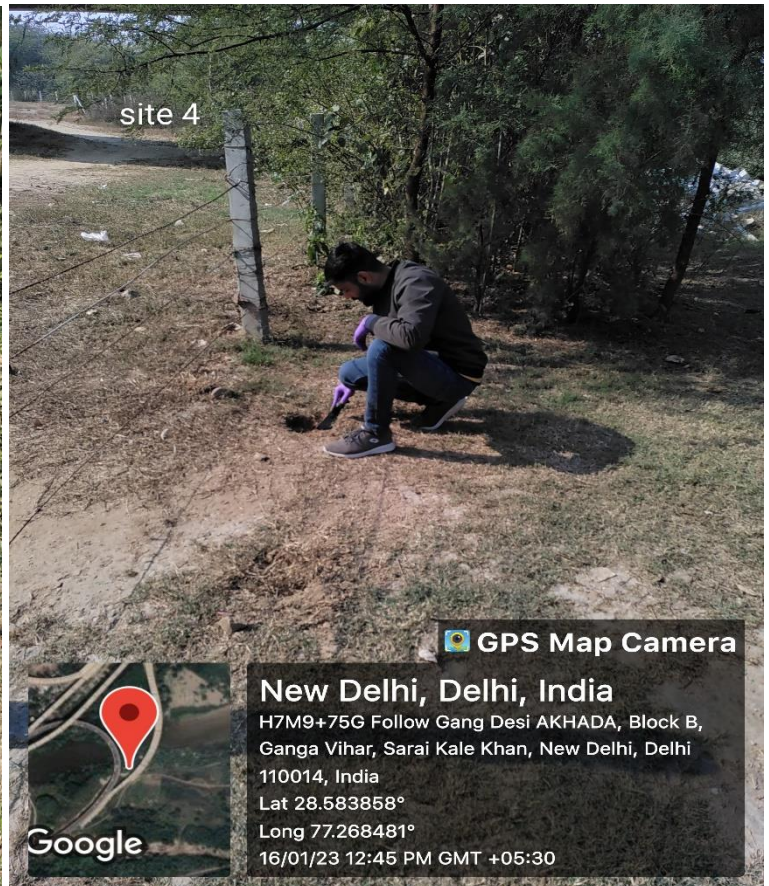
Site 1



Site 2



Site 3



Site 4





Tirumala Tirupati Devasthanams

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**Sri Venkateswara College**

(University of Delhi)

NAAC Grade A+

### **CERTIFICATE**

This is to certify that the Field Activity was successfully conducted on 16-01-2023 from 11:00 am to 4:00 pm under the supervision of Prof. Vartika Mathur for the project titled "Scientific monitoring of reforestation at Barahpullah drain area" in the physical mode and its event report has been submitted to IQAC for records.

Event In-Charge

IQAC Coordinator

Coordinator, IQAC  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021

Principal

PRINCIPAL  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021



# Activity 6

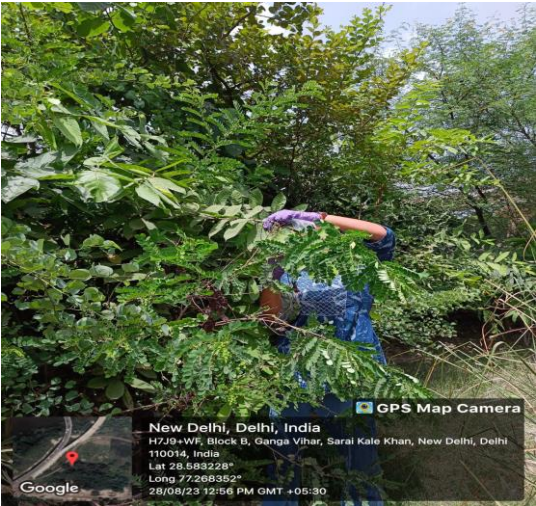
<b>NAME OF THE ACTIVITY: Sixth Field Visit for Plant and Soil samples collection for the Environmental Monitoring of Reforestation project under MoU with IGL</b>			
<b>DATE</b>	<b>FACULTY</b>	<b>COMMITTEE</b>	<b>COORDINATOR</b>
28 <sup>th</sup> August, 2023	SCIENCE	MoU between IGL & Sri Venkateswara College	Prof. Vartika Mathur
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
11AM to 4:30PM	Barapullah Sundial	5	Outdoor
<b>SUPPORT/ ASSISTANCE:</b>	Indraprastha Gas Limited		

#### BRIEF INFORMATION ABOUT THE ACTIVITY

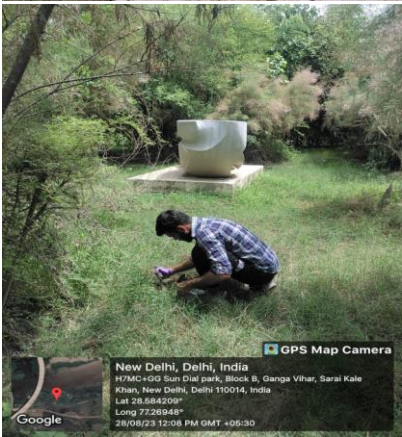
TOPIC/SUBJECT OF THE ACTIVITY	Environmental Monitoring of Reforestation Project
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial
METHODOLOGY	<ul style="list-style-type: none"> <li>Field visit was conducted on 28<sup>th</sup> August 2023 to collect soil and plant samples</li> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>
OUTCOMES	<ul style="list-style-type: none"> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags.</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>



# Collection of Plant Samples



# Collection of Soil Samples





Tirumala Tirupati Devasthanams

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**Sri Venkateswara College**

(University of Delhi)

NAAC Grade A+

## **CERTIFICATE**

This is to certify that the Field Activity was successfully conducted on 18-08-2023 from 11:00 am to 4:00 pm under the supervision of Prof. Vartika Mathur for the project titled “Scientific monitoring of reforestation at Barapullah drain area” in the physical mode and its event report has been submitted to IQAC for records.

Event In-Charge

**IQAC Coordinator**  
Coordinator, IQAC  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021

**Principal**

PRINCIPAL (Acting)  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021



# Activity 7

<b>NAME OF THE ACTIVITY: Seventh Field Visit for Plant and Soil samples collection for the Environmental Monitoring of Reforestation project under MoU with IGL</b>			
<b>DATE</b>	<b>FACULTY</b>	<b>COMMITTEE</b>	<b>COORDINATOR</b>
18 <sup>th</sup> January, 2024	SCIENCE	MoU between IGL & Sri Venkateswara College	Prof. Vartika Mathur
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
11AM to 4:30PM	Barapullah Sundial	5	Outdoor
<b>SUPPORT/ ASSISTANCE:</b>	Indraprastha Gas Limited		

#### BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	Environmental Monitoring of Reforestation Project
OBJECTIVES	Collection of soil and plant (leaves) samples from reforestation site adjacent to Barapullah drain, near sun dial
METHODOLOGY	<ul style="list-style-type: none"> <li>Field visit was conducted on 18<sup>th</sup> January 2024 to collect soil and plant samples</li> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>
OUTCOMES	<ul style="list-style-type: none"> <li>Soil samples (in triplicates) from 10 cm depth were collected from 4 pre-selected sites in zipper bags.</li> <li>Leaves from three tree species, on shrub and one herb were collected to analyze the endophytes associated with them</li> </ul>

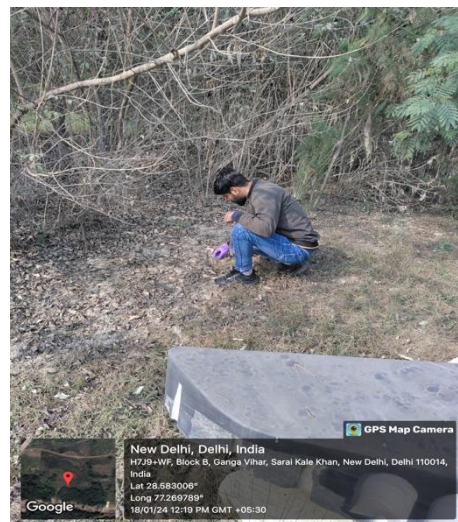
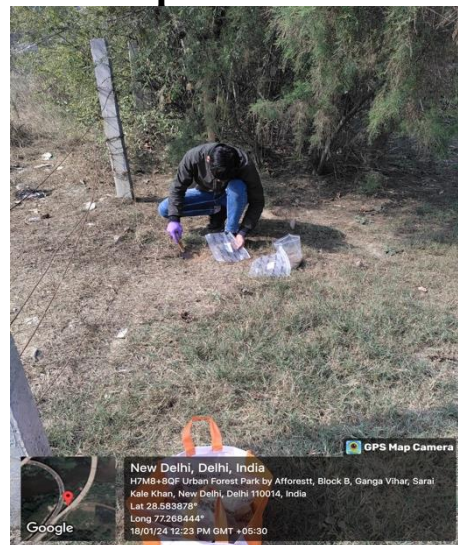
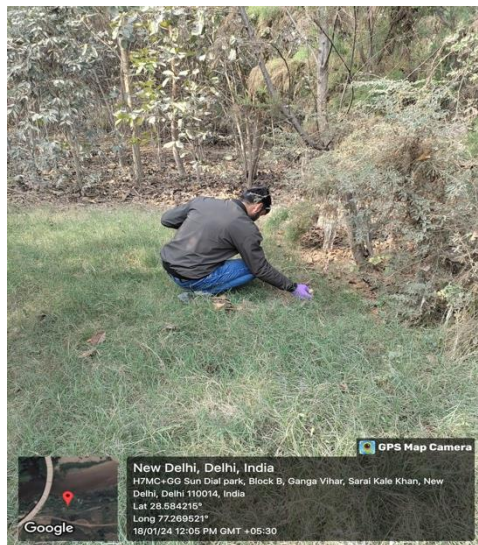


# Collection of Plant Samples





## Collection of Soil Samples







Tirumala Tirupati Devasthanams

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**Sri Venkateswara College**

(University of Delhi)

NAAC Grade A+

## **CERTIFICATE**

This is to certify that the Field Activity was successfully conducted on 18-01-2024 from 11:00 am to 4:00 pm under the supervision of Prof. Vartika Mathur for the project titled "Scientific monitoring of reforestation at Barapullah drain area" in the physical mode and its event report has been submitted to IQAC for records.

Event In-Charge

**IQAC Coordinator**

Coordinator, IQAC  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021

**Principal**

PRINCIPAL (Acting)  
Sri Venkateswara College  
(University of Delhi)  
Dhaura Kuan, New Delhi-110021