

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

**Original Application No. 99 of 2021 (SZ)**

**IN THE MATTER OF:**

Tribunal on its own motion Suo Motu based on the News item published in The Times of India Newspaper, Chennai Edition Dt.05.04.2021, Under the Caption “Chennai, You are breathing micro plastic”

Applicant

Versus

The Chief Secretary to Govt. of Tamil Nadu & 7 Others

Respondent(s)

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*H.D. Varalaxmi*

**DEPONENT**

**Place: Chennai**

**Date: 19.01.2022**



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Respondent(s)

**STATUS REPORT FILED ON BEHALF OF CENTRAL POLLUTION  
CONTROL BOARD, RESPONDENT NO. 8**

I, H. D. Varalaxmi, D/o Shri H.S. Devaiah, Hindu, aged about 51 years and  
having office at the Regional Directorate – Chennai, Central Pollution Control  
Board, 2<sup>nd</sup> Floor, 77-A, Ambattur Industrial Estate, Chennai – 600058, do hereby  
solemnly affirm and sincerely state on oath as follows:-



*H.D. Varalaxmi*  
**H.D. VARALAXMI, M.Tech**  
Regional Director  
CENTRAL POLLUTION CONTROL BOARD  
(MoEF & CC, Govt. of India)  
Regional Directorate (Chennai)  
2nd Floor, 77-A, South Avenue Road,  
Ambattur Industrial Estate, Chennai - 600 058

1. I am presently working as the Regional Director, Regional Directorate (South), Central Pollution Control Board, the 8<sup>th</sup> Respondent herein. I am fully conversant with the facts of the case and have been authorized to file the present status on behalf of the 8<sup>th</sup> Respondent.
  
2. It is submitted that the National Ambient Air Quality Standards (NAAQS) were introduced in 1982. These standards have been revised by CPCB in 1994 and later in 2009. NAAQS takes into account long term exposure to air pollution based on national norms or brief exposures through 01 hourly/ 08 hourly/ 24 hourly standard for 12 parameters. Revised NAAQS were notified in 2009 for 12 pollutants (PM 10, PM 2.5, NO<sub>2</sub>, SO<sub>2</sub>, CO, O<sub>3</sub>, NH<sub>3</sub>, Pb, C<sub>6</sub>H<sub>6</sub>, BaP, As and Ni) based on health impact due to pollutant levels in the atmosphere. However, standards for atmospheric micro plastics (MPs) monitoring were not part of NAAQS.
  
3. It is submitted that the revision of National Ambient Air Quality Standards (NAAQS) has been initiated and standards for atmospheric micro-plastic monitoring shall be examined as a part of the proposed study.



*H.D. Varalaxmi*  
**H.D. VARALAXMI, M.Tech**  
Regional Director  
CENTRAL POLLUTION CONTROL BOARD  
(MoEF & CC, Govt. of India)  
Regional Directorate (Chennai)  
2nd Floor, 77-A, South Avenue Road,  
Symbalur Industrial Estate, Chennai - 600 058

4. It is submitted that CPCB has signed a Memorandum of Understanding (MoU) with IIT Kanpur for the project “Review of National Ambient Air Quality Standards” on December 21, 2021. The study will be completed in 12 months’ time. The copy of the signed MoU is annexed as **Annexure 1**.

### PRAYER

In view of above, it is respectfully prayed that this answering Respondent No. 8, the Central Pollution Control Board shall abide by any order/direction passed by this tribunal



**DEPONENT**

**H.D. VARALAXMI**, M.Tech  
Regional Director  
CENTRAL POLLUTION CONTROL BOARD  
(MoEF & CC, Govt. of India)  
Regional Directorate (Chennai)  
2nd Floor, 77-A, South Avenue Road,  
Symbetpur Industrial Estate, Chennai - 600 058

### VERIFICATION

It is verified that the content of this status is based on official record and information available in the office are true and correct. Nothing has been concealed therein.

Signed and verified on this 19<sup>th</sup> day of January 2022 at Chennai



**COUNSEL FOR  
CPCB**



**DEPONENT**

**H.D. VARALAXMI**, M.Tech  
Regional Director  
CENTRAL POLLUTION CONTROL BOARD  
(MoEF & CC, Govt. of India)  
Regional Directorate (Chennai)  
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**SPEED POST/EMAIL**

File No: EQ-11099/2/2021-AQM-HO-CPCB-HO

December 28, 2021

To,

Prof. Mukesh Sharma  
Department of Civil Engineering  
Indian Institute of Technology Kanpur  
Kanpur - 208016, UP, India

**Sub: Signed Copy of MoU regarding project on "Review of National Ambient Air Quality Standards (NAAQS)" under EC funds**

Sir,

With reference to above mentioned proposal, two copies of MoU signed by IIT Kanpur was received by hand on 24.12.2021.

In this regard, signed copy of the MoU by both parties (CPCB and IIT Kanpur) is enclosed for initiating the study. First installment (₹ 7,39,860/-) shall be released shortly.

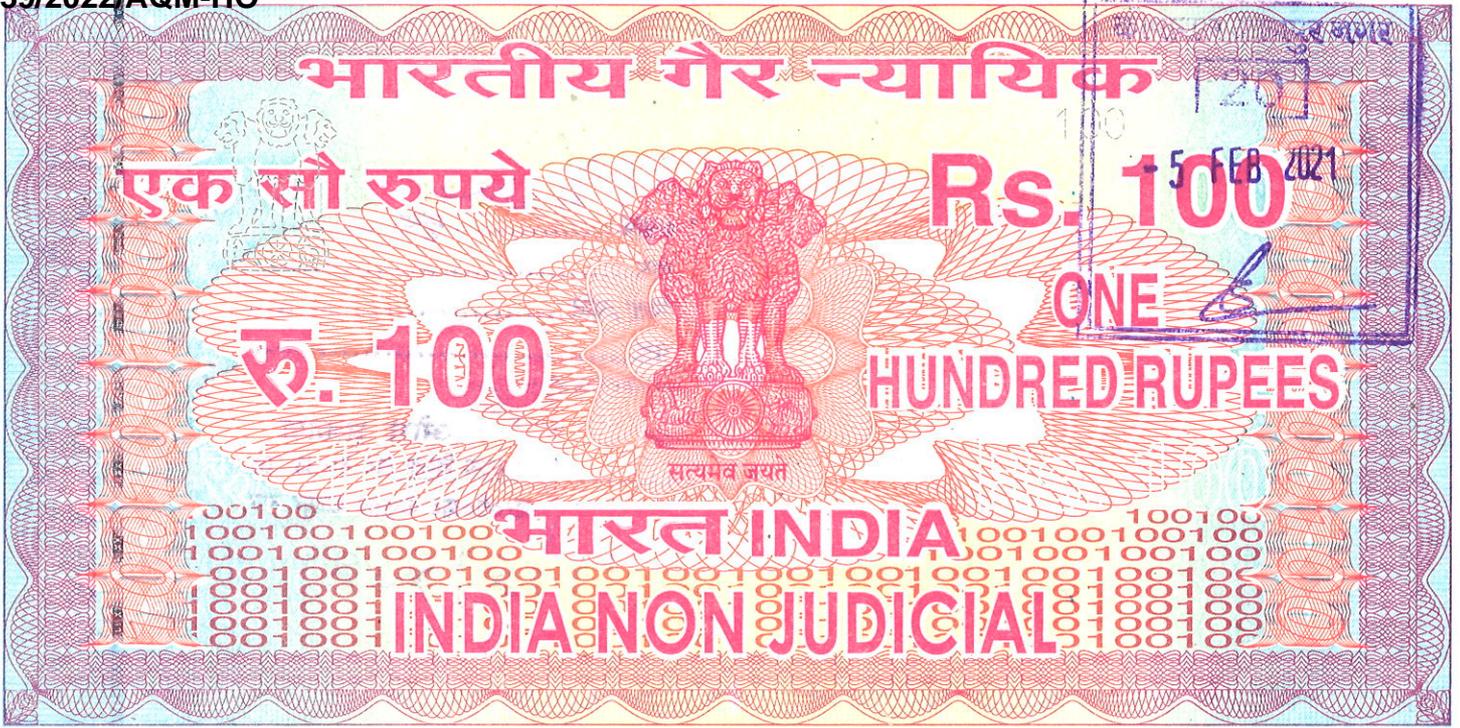
Yours faithfully,

**(P. K. Gupta)**

Director &  
Head, AQM Division

Encl.: As above

24939/2022/AQM-HO



उत्तर प्रदेश UTTAR PRADESH

**MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding (MoU) entered into on this day 21-12-2021, Tuesday

Between

Central Pollution Control Board (CPCB), a statutory organization constituted in September, 1974 under the Water (Prevention and Control of Pollution) Act, 1974. Later, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981 and is having its registered office at Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032 (hereinafter called as 'CPCB'),

And

Indian Institute of Technology, Kanpur, a research and educational institution of national importance is a body corporate incorporated under the Institutes of Technology Act, 1961 and having its office at P.O. IIT Kanpur, Kalyanpur Kanpur, Uttar Pradesh- 208016, India (hereinafter called as IITK) acting through its authorized representative, the Dean of R&D.

CPCB and IITK are hereinafter referred to individually as the "Party" and collectively as the "Parties".

  
 पी. के. गुप्ता/P. K. Gupta  
 वैज्ञानिक "ई" / Scientist "E"  
 केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
 Central Pollution Control Board  
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार  
 M/o Env't. Forest & Climate Change, Govt. of India  
 परिवेश भवन, पूर्वी अर्जुन नगर  
 Parivesh Bhawan, East Arjun Nagar  
 दिल्ली / Delhi-110032

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001

कमांक ..... मुन्ड  
 नाम .....  
 पिता/पति .....  
 पता .....



ओम प्रकाश  
 स्टाम्प डिपेंडा ला० न०-३३ '०५  
 बारा०टी०आ० कार्यालय कानपुर नगर

11/8/2021



## BACKGROUND

Air pollution has become synonymous with rapid urbanization and large-scale development. Problem of mortality and morbidity increases associated with long term exposure to lower concentrations of pollution as well as short term exposure to acute levels of pollution is a major concern. There are many gaseous and particulate matter that pollute our atmosphere. Numerous studies are being conducted to assess the impact of pollutant damage on human and environmental health. To counteract the ubiquitous damage caused by air pollution, various air quality management and control strategies have also gradually evolved.

The objective of ambient air quality standards is to identify effects on public health and environment expected due to presence of different pollutants in atmosphere and set limits to presence of such pollutants in ambient air.

Central Pollution Control board notified National Ambient Air Quality Standards (NAAQS) in 1994 under section 16 (h) of the Air (Prevention and Control of Pollution) Act, 1981. Review of existing standards, criteria governing these standards as well as incorporating new standards with advances in scientific research is a continuous process which has to be taken up periodically. Last revision of NAAQS was notified in 2009.

With changes in fuel, technology and demographics as well as advances in air pollution measurement techniques, risk and exposure assessment in the last decade there is a need to review the standards to incorporate these changes for better improvement in public health. Under National Clean Air Programme (NCAP) launched by Ministry of Environment, Forest and Climate Change (MoEF&CC) in 2019 revision of NAAQS has also been included as setting of appropriate standards is crucial for air quality management in the country.

The Committee for Appraisal of Project Proposals for Utilization of Environmental Compensation Fund, has approved award of this study to IITK at the cost of ₹ 20,90,000. The funding shall be done from EC funds of CPCB.

Prof. Mukesh Sharma, Department of Civil Engineering, IITK, (Principal Investigator) will execute the Study under the MoU. He will receive/disclose Confidential Information on behalf of IITK from/to CPCB under this MoU. He and his team will execute the obligations of non-disclosure of Confidential Information received from CPCB.

### CLAUSE – 1: SCOPE OF MoU

This MoU details the terms and condition regarding the study to be carried out by IITK, the rights and obligations of all the parties with respect there to and the usufructs thereof and the financial arrangements between the parties. The scope of work, activities, and time schedule

पी. के. गुप्ता/P. K. Gupta  
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दिल्ली / Delhi-110032



and cost estimation for the study to be undertaken under this MoU, are detailed in this document.

### **CLAUSE – 2: TITLE OF THE STUDY**

The title of the study is “Review of National Ambient Air Quality Standards” (hereinafter referred to as the Study/Project).

### **CLAUSE – 3: OBJECTIVES**

The objectives of the Study are:

- 3.1. Review criteria for developing NAAQS
- 3.2. Review existing NAAQS
- 3.3. Develop new set of standards

### **CLAUSE – 4: SCOPE OF THE STUDY**

The Study has the following scope of work:

#### **4.1. General air quality information**

- i. Call for scientific research on ambient air quality since last NAAQS revision.
- ii. Review of scientific research on ambient air quality since last NAAQS revision.
- iii. Review criteria for formulating NAAQS adopted globally.
- iv. Review and identify list of pollutants for which standards are to be set. The list shall include pollutants which are relevant to Indian conditions and may be identified on the basis of prevailing activities (transport, industries, commercial, fuel usage, etc.)
- v. Review existing standards for Carbon Monoxide (CO), Lead (Pb), Oxides of Nitrogen (NO<sub>x</sub>), Ozone (O<sub>3</sub>), Sulphur dioxide (SO<sub>2</sub>), Particulate Matter (PM<sub>10</sub>, PM<sub>2.5</sub>), Ammonia, Benzene, Benzo (a) Pyrene, Arsenic and Nickel
- vi. Build on scientific research conducted for previous review to identify new information. (Examination of additional parameters such as Volatile Organic Compounds (VOCs), Formaldehyde, Poly-aromatic Hydrocarbons (PAH), Mercury, Ultra-fine particles, Carbon Black, Micro Plastics, etc.)
- vii. Long term/ Annual and Short term/ Daily exposure standards for all pollutants.
- viii. General information on all identified pollutants.
- ix. Review classification of areas for differential standards based on existing land use and emissions associated with it.
- x. Identification of location specific standards.

#### **4.2. Air quality measurements**

- i. State of the Art review of ambient air quality measurement techniques

  
 पी. के. गुप्ता / P. K. Gupta  
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- ii. Identification of measurement techniques to be included in the revised NAAQS
- iii. Identification of annual/ 24 hourly/ 08 hourly/ 01 hourly averaging periods for each pollutant.
- iv. Identification of frequency & duration of monitoring and minimum number of monitoring days/ hours/ minutes required for estimating pollutant concentrations.
- v. Suggestions on guidelines for setting up monitoring stations.
- vi. Collection of air quality, meteorological, topographical and emission data from concerned sources.

#### 4.3. Health Risk Evaluation

- i. Call for scientific research on human and ecological health risk analysis since last NAAQS revision.
- ii. Systemic state of the art review of long and short term exposure based on evidences from epidemiological studies to estimate meta analytic effect on relative risks.
- iii. Concentration–response function in relation to critical health outcomes for pollutants for relevant averaging times or Dose Response - Lowest-observed-adverse-effect level (LOAEL), No observed- adverse-effect level (NOAEL), Toxicodynamic and Toxicokinetic parameters of pollutants, visibility analysis, establishment of uncertainty factor
- iv. Identification of association between significant health problems and pollutants in ambient air. Impact assessment on various types of population (Children, Elderly, Adults, Factory Workers, etc.). Correlation of existing mortality/ morbidity data specific to the country. Correlation of existing mortality/ morbidity data specific to the country. Correlation of existing all cause non-accidental mortality and cause-specific mortality/ morbidity data specific to the country.

#### 4.4. Align country standards with universal guidelines of WHO

- i. World Health Organization (WHO) has periodically issued health-based air quality guidelines to include increase in evidence on the adverse health effects of air pollution, built on advances in air pollution measurement and exposure assessment and an expanded global database of air pollution measurements.
- ii. In order to align National Ambient Air Quality Standards with international practices, review of universal frame of reference of WHO may be undertaken.
- iii. Recommend interim targets if required for air quality improvement in places with high levels of ambient air pollution with the goal of achieving national air quality standards as expeditiously as possible.

#### 4.5. Implementation of standards

- i. Current levels of pollutant
- ii. Current standards levels of pollutant
- iii. Basis for new standards and associated risk
- iv. Stipulating monitoring techniques for pollutants
- v. Guidelines for determining background air quality levels

  
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- vi. Guidelines for determining non-attainment areas
- vii. Applicability of new proposed standards in sensitive areas
- viii. Cost effectiveness and cost benefit analysis - Cost of implementation of standards and their health benefit as well as implication to the industry/other sectors.
- ix. Update Air Quality Index (AQI) to the level of the revised standards if required

#### **CLAUSE – 5: EXPECTED OUTCOMES**

- 5.1. Health Risk Evaluation of pollutants
- 5.2. Revised NAAQS
- 5.3. Guidelines for determining non-attainment areas
- 5.4. Cost benefit analysis of implementation of standards

#### **CLAUSE – 6: DURATION AND COMMENCEMENT OF MoU**

- 6.1. This MoU shall be effective from the date of signing by both the parties of the MoU. The zero date of the Project will be 21-12-2021.
- 6.2. The duration of the MoU shall be for a period of 12 months from the zero date.
- 6.3. During its tenancy, the MoU may be terminated by a prior notice of not less than one month by either party.
- 6.4. In the event of termination of MOU by either party, IITK shall submit the work done as of the date of such termination to CPCB. On the basis of which either CPCB shall pay or IITK shall refund the cost due for such completed work as the case may be.

#### **CLAUSE – 7: COST OF THE STUDY**

- 7.1. The total estimated cost of the study is ₹24,66,200 which includes manpower, chemical and consumables (required for monitoring), equipment and instruments, travel expenses, contingencies and institution fee etc.

The break up is as follows:

**Table 1: Estimated Cost Break Up**

<b>A: Project Personnel</b>	<b>Scope /Task Assigned</b>	<b>Remuneration ₹</b>
Project Coordinator and Sr. Project Engineer/PDF	Involvement throughout the project, Review and Coordination at all stages of the project, Various aspects related to Air Pollution Exposure and Health Effects, Preparation of Protocols, Review of base document, propose AQS. Cost for Sr. Project Engineer	4,20,000/-

  
 पी. के. गुप्ता/P. K. Gupta  
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	Man days: 40 weeks x 5 days a week= 200; @ ₹ 2,100/day	
Air Quality Management Expert	Review of criteria documents, Review of indoor air quality, Review on exposure assessment studies, Review of air quality monitoring and siting protocols, act as an advisor etc. Man days: 10 weeks x 2 days a week= 20; @ ₹ 10,000/day	2,00,000/-
Monitoring Expert	Review of criteria documents, National and international standards, study on ecological aspects, Risk assessment, act as an advisor etc. Man days: 10 weeks x 2 days a week= 20; @ ₹ 10,000/day	2,00,000/-
Medical expert	Review of criteria documents and various health risk assessment aspects throughout the study Man days: 10 weeks x 2 days a week= 20; @ ₹ 10,000/day	2,00,000/-
Senior Research Associate (2 Nos)	Project member assisting various experts in the study team. Man days: 30 weeks 5 days a week: 150; @ ₹ 1,750/day (for 2 No.s)	5,25,000/-
Total (Manpower)		15,45,000/-

**Table 2: Overall Budget: ₹ 24,66,200**

S. No.	Budget Head	Details	Cost ₹
A	Manpower	Project staff and experts (see previous table)	15,45,000
B	Travel, survey, miscellaneous, literature	Travel, Local stay	3,55,000
C	<b>Sub Total</b>		<b>19,00,000</b>
D	<b>Institute Overhead (@10% of C)</b>		<b>1,90,000</b>
E	<b>Total (D+C)</b>		<b>20,90,000</b>
F	<b>GST (@18%)</b>		<b>3,76,200</b>
G	<b>Grand Total (E+F)</b>		<b>24,66,200</b>

**Total Cost of Project (Table 2): ₹ 24,66,200**

  
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**CLAUSE – 8: PAYMENT TERMS**

- 8.1. The payment to the IITK will be done by CPCB through EC funds as sanctioned by the Committee for Appraisal of Project (PAC) Proposals for Utilization of Environmental Compensation (EC) Fund.
- 8.2. The terms of payment shall be as follows:

S. No.	DELIVERABLES	TIMELINES (in months) (from start of study)	AMOUNT
1	Signing of MoU.	Not Applicable	30% of the Project Cost i.e. ₹ 7,39,860/-
2	Submission of Inception report	02	Not Applicable
3	On submission of Interim report	06	30% of the Project Cost i.e. ₹7,39,860/-
4	On submission of draft final report	10	20% of the Project Cost i.e. ₹ ₹4,93,240/-
5	On submission of final report	12	20% of the Project Cost i.e. ₹4,93,240/-

**CLAUSE – 9: DELIVERABLES****9.1 Deliverables**

Reports	Timeline in Months (from the start of Study)	Deliverables
Inception report	02	Literature review and implementation strategy & schedule, timelines and progress status. Presentation to Steering Committee.
Interim report	06	Preliminary progress status report (details as per schedule).

  
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		Presentation to Steering Committee.
<b>Draft Final Report</b>	10	Draft final report as per agreed objectives and expected outcomes. Presentation to Steering Committee.
<b>Final Report</b>	12	Final report submission as per agreed objectives and expected outcomes. Presentation on conclusions and recommendation.

The project proponent will submit draft reports (three copies - one colored) and final report is to be submitted (five colored hard copies) and soft copy of the report.

## 9.2. Duration of the Project/ Time Schedule (PERT Chart):

### Timelines

S. No.	Activities	Q1			Q2			Q3			Q4		
		1	2	3	4	5	6	7	8	9	10	11	12
1	Detailed project planning												
2	Literature review and compilation												
3	Data Collection, compilation of monitored ambient data for various pollutants												
4	Classification, redefine of areas, time for long and short-term values and frequency of measurements												
5	Review of reported studies co-relating data on morbidity/mortality												
6	Dose-response linkage of pollutants												
7	Health Survey: at minimum 10 locations, where high levels of various pollutants are reported												
8	Development of new standards and associated risk and												

  
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- 10.10. IITK shall handover all the documents, literature, other information and data, along with complete information and report to CPCB within 30 days of the completion of the Study.
- 10.11. In case of subcontract by IITK related to the Study with other organizations, CPCB shall make all the communication and payments related to Project to IITK only.
- 10.12. All payments shall be made through e-transfer for which Bank account details shall be provided by IITK.
- 10.13. TDS shall be deducted as per rule if exemption certificate issued by the Income Tax Department is not furnished by IITK.
- 10.14. IITK will submit to CPCB the utilization certificate of grants received by IITK within 15 days after utilization of each installment. Next installment will be released only after receipt of utilization certificate of previous installments. The unspent amount, if any, will also be refunded to the CPCB. The bills of the instruments to be annexed with the utilization certificate. Utilization certificate, by each participating institution, to be submitted as per CPCB guidelines.
- 10.15. IITK shall seek and provide certified audit report from private parties for utilization of amount transferred under this Project.
- 10.16. Should thereby any delay in execution of the Project, IITK shall notify CPCB in writing giving the reason for delay. If the CPCB feels that Project is not progressing according to the Project plan, it shall be at liberty to ask for refund of the unspent balance.
- 10.17. After 1 month of stipulated time frame for submission of final report, a penalty @ 1% of the project cost per weeks (sealable at maximum of 15% of the project cost) will be deducted from IITK. However, delay in completion of the project due to some unforeseen circumstances may be considered for extension of the project duration by CPCB. Progress report and oral presentation of the project should be done every six months.
- 10.18. The acceptance of the final report will be done by Steering Committee on Review of Ambient Air Quality Criteria/ Standards constituted by CPCB will review progress of project, guide through the studies and accord final acceptance to the project findings.
- 10.19. Standard operating procedures for each activity/measurement/instrument must be prepared, reviewed and approved by competent person.
- 10.20. No reallocation is allowed without prior permission of the competent authority CPCB.
- 10.21. No honorarium of any kind is permissible.
- 10.22. No international travel is permitted under this Project.
- 10.23. No data will be shared to the agencies outside the country.
- 10.24. All instruments, software and Hardware purchased from this project should be handed over to CPCB after completion of Project in good and running condition.
- 10.25. The progress, results and outcomes should not be shared or communicated to any media (for e.g. print, press conferences, interviews, etc.) without permission from CPCB.
- 10.26. Publicity materials/ publications/ patents/ technology and IPR developed out of this Project will solely owned by CPCB.
- 10.27. IIT-Kanpur shall submit proof of deposit of GST to CPCB

  
 पी. के. गुप्ता / P. K. Gupta  
 वैज्ञानिक "E" / Scientist "E"  
 केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
 Central Pollution Control Board  
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार  
 M/o Env't. Forest & Climate Change, Govt. of India  
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 Parivesh Bhawan, East Arjun Nagar  
 दिल्ली / Delhi-110032



**CLAUSE – 11: CONFIDENTIALITY**

The Parties, to the extent of their respective rights to do so, shall exchange such technical information and data as is reasonably required of each Party to perform its responsibilities under this MoU. Each Party agrees to keep in confidence and to use the same degree of care as it uses with respect to its own proprietary data to prevent the disclosure to third parties of all technical information, data and confidential business information (hereinafter referred to as "Consolidated Data"). The disclosing party disclosing the Consolidated Data, shall mark it as confidential. Exchange, use and maintenance of confidential data shall be mutually discussed and agreed to by the parties. The preceding provisions of confidentiality and restriction on use of Consolidated Data shall not apply to:

- 11.1. Information in the public domain or information, which subsequently enter into public domain without committing breach of this Article.
- 11.2. Information in possession of the Party at the time of disclosure and was not acquired, directly or indirectly, from the other Party.
- 11.3. Information, which a Party requires to disclose under law, rules or regulations or court orders.

IITK shall obtain secrecy undertaking from the agencies if any involved in the research Project.

**CLAUSE – 12: INTELLECTUAL PROPERTY RIGHTS****12.1 PUBLICATIONS**

CPCB and IITK shall jointly publish the work. No party shall solely publish any article relating to the research Project, without obtaining written consent of the other party. Decision of the other party in this regard shall be conveyed to the party seeking the permission, within 30 days of the receipt of the request else the party seeking permission shall go ahead with publication.

**12.2 INTELLECTUAL PROPERTY**

Both the parties i.e., CPCB and IITK shall jointly hold intellectual property rights on the work during the Study. If the results of the investigations during the Study are such as to justify taking patent, it shall be decided by the Chairman, CPCB. In case CPCB decides not to go for patenting for inventions during the Study, IITK shall have right to file patent in its sole name.

**CLAUSE 13: FORCE MAJEURE**

  
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Neither party shall be held responsible for non-fulfillment of their respective obligations under this MoU due to the exigency of one or more of the force majeure events such as but not limited to Act of God, War, Flood, Earthquakes, Strikes, Lockouts, Epidemics, Riots, Civil Commotion, etc. provided on the occurrence and cessation of any such events, the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties shall jointly decide about the future course of action.

#### **CLAUSE – 14: AMENDMENT**

No amendment or modification of this MoU shall be valid unless the same is made in writing by both the parties or their authorized representatives and specifically stating the same to be an amendment to this MoU. The amendment shall be effective from the date on which they are made / executed, unless otherwise agreed to.

#### **CLAUSE - 15: LAW GOVERNING THE CONTRACT/DISPUTE RESOLUTION**

The MoU will be governed by The Contract Act, 1872, The Arbitration and Conciliation Act, 1996 & all other Laws of India, for time being in force as amended from time to time.

In the case of dispute, it can only be settled through and by invoking Arbitration clause. All disputes and differences arising out of or in connection with the contract and works of any nature assigned under the same (whether during the progress of the works or after their completion), determination, abandonment or breach of the contract shall be referred to a Sole Arbitrator appointed by the Chairman, CPCB and the Director, Indian Institute of Technology Kanpur. The decision of the Sole Arbitrator shall be final and binding. It will not be an objection to any such appointment that the arbitrators are the government servant and had any interest in the board or the contract entered into directly or indirectly. In all cases, the arbitrator shall state their decision in writing; the arbitrator shall give reasons for award. The venue of such Arbitration shall be at Delhi, India. The cost of the Arbitration shall be shared equally by the parties in the MoU. However, expenses incurred by each party in connection with the preparation, presentation shall be borne by the party itself. Subject as aforesaid the provisions of The Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

The courts in Delhi shall have exclusive jurisdiction to adjudicate the disputes.

#### **CLAUSE-16: EXECUTION OF MoU**

  
 पी. के. गुप्ता/P. K. Gupta  
 वैज्ञानिक "ई" / Scientist "E"  
 केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
 Central Pollution Control Board  
 वातावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार  
 Mo. Env't. Forest & Climate Change, Govt. of India  
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 Parivesh Bhawan, East Arjun Nagar  
 दिल्ली / Delhi-110032



This MoU has been executed in two originals; one of these has been retained by IITK and other by CPCB.

In witness whereof the parties hereto have entered into this MoU effective as of the day and year first above written.

For and on behalf of **CPCB**

Signature



Name

P. K. Gupta

Designation

Sc 'F'

Seal

**पी. के. गुप्ता/P. K. Gupta**  
 वैज्ञानिक "ई" / Scientist "E"  
 केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
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 Parivesh Bhawan, East Arjun Nagar  
 दिल्ली / Delhi-110032

Witness: (Name and Address)

  
 Sakshi Batra  
 Sc. (B)  
 Central Pollution Control Board  
 Delhi-32

For and on behalf of **Indian Institute of Technology Kanpur**

Signature



Name

Prof. A. R. Harish

Designation

Dean, R&D

Seal

**अधिष्ठाता**  
**DEAN**  
**अनुसंधान एवं विकास**  
**Research & Development**  
 आई. आई. टी. कानपुर  
 I.I.T. KANPUR

Witness: (Name and Address)

**Declaration**

I, Mukesh Sharma on behalf of Indian Institute of Technology Kanpur, submitted Project Proposal titled "Review of National Ambient Air Quality Standards" to the Central Pollution Control Board (CPCB) for consideration under EC funding. I Solemnly affirms that this project proposal has not been submitted elsewhere for funding. I also affirm that nothing has been concealed therefrom.

*Mukesh Sharma* 21.12.2021

**Name & Designation of PI (along with office stamp)**

Dr. Mukesh Sharma  
Professor

Department of Civil Engineering  
Indian Institute of Technology Kanpur  
Kanpur - 208 016 India

