BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 240 OF 2024

IN THE MATTER OF:

SINGRAULI PRADOOSHAN MUKTI VAHINI & ORS. …APPLICANT

VERSUS

UNION OF INDIA & ORS. …RESPONDENTS

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THROUGH COUNSEL

BHANWAR PAL SINGH JADON
STANDING COUNSEL, STATE OF U.P.
EMAIL-bhanwar09jadon@gmail.com
PHONE NO.-7838248353

Date: 28.03.2026

Place: Noida

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 240 OF 2024

2 Tickets Rs.-10/-
(P.N. SONEY)
Adv. NOTARY
Robertsganj-Sonbhadra

IN THE MATTER OF:

SINGRAULI PRADOOSHAN MUKTI VAHINI & ORS. ...APPLICANT

VERSUS

UNION OF INDIA & ORS. ...RESPONDENTS

ADDITIONAL AFFIDAVIT ON BEHALF OF DISTRICT MAGISTRATE, SONBHADRA, UTTAR PRADESH IN COMPLIANCE WITH ORDER DATED 23.02.2026 OF THE HON'BLE TRIBUNAL

I, **Badri Nath Singh** aged about **58** years, S/o Shri **Jagannath Singh**, posted as District Magistrate, Sonbhadra, Uttar Pradesh do hereby solemnly affirm and state as under:

1. That, I the Deponent in the above captioned matter, am fully conversant with the facts of the case and am competent and authorized to swear the present reply.

2. That, I state that the contents of this reply have been drafted by my counsel on my instructions, and the contents of the same are true to my knowledge and nothing material has been concealed therefrom.

BACKGROUND OF THE MATTER

3. That, in the present matter, the residents of Sonbhadra District of Singrauli have claimed compensation on account of the medical complications faced by them due to industrial pollution in that area. The Applicants have alleged that large number of industrial units have been set up in the area beyond carrying capacity.

4. That, the matter was last listed for hearing on **23.02.2026**, wherein the Hon'ble Tribunal directed as follows:

"*...1. A letter has been circulated by Counsel for the State of UP seeking adjournment on the ground that the AIIMS, Bhopal has submitted the report to U.P. PCB, Lucknow on 19.02.2026 and the same is yet to be received by the District Magistrate, Sonbhadra. Therefore, a prayer for two weeks adjournment has been made to place the said report on record. The prayer is allowed.*

2. Let an advance copy of the report be also supplied to all the concerned parties atleast one week before the next date of hearing.

3. He submits that a status report will also be filed in respect of the eight recommendations made by the CPCB within four weeks.

4. List on 01.04.2026..."

REPLY IS AS FOLLOWS

5. That, U.P. PCB, Lucknow vide **letter no. H39034/C-2/NGT-681/26** dated **16.03.2026** has submitted the Research Project Report of AIIMS Bhopal titled "***Health Related Effects of Air, Water and Soil Pollution on Human Beings, Due to the Thermal Power Plants (TPPs) and Other Similar Industries in Sonbhadra District of Uttar Pradesh***" to the deponent department.

   A copy of the letter dated 16.03.2026 along with the AIIMS Bhopal Report are annexed herewith and collectively marked as ***Annexure-1***.

6. That, in compliance with the directions of the Hon'ble Tribunal, an advance copy of the aforesaid report has already been supplied to the concerned parties within the stipulated time.

UPDATED STATUS WITH RESPECT TO THE EIGHT CPCB SUGGESTIONS

NOTARY Prasiddha Nath Soney Reg. no. 14/2008 Valid up to 21 Oct. 2028 GOVT. OF U.P. (INDIA)

I. **Suggestion No. 1- "The Ground Water Quality of The Area Needs to Be Extensively and Regularly Monitored By the Ground Water Department And Investigation Be Carried Out About the Causes Of Occurrences of Elements Being Iron, Fluoride, Nitrates And Mercury In Concentration Higher Than BIS Drinking Water Quality Specifications."**

7. That, the deponent vide letter no. **G0194/OA-NO-240/2024/26** dated **16.03.2026** has directed the, U.P. Ground Water Department (Geo-Physical Survey Division), Mirzapur to carry out re-collection of the ground water samples from the identified areas and provide test results thereof to the deponent.

   A copy of letter dated 16.03.2026 is annexed herewith and marked as ***Annexure-2***.

8. That, the U.P. Ground Water Department (Geo-Physical Survey Division), Mirzapur, vide letter no. **646/GWD/G.P.S.** dated **28.03.2026**, has informed that **three (3) groundwater samples, each from ten (10) Development Blocks of District Sonbhadra have been collected and submitted to the U.P. Jal Nigam Laboratory, Lucknow for testing, and the test results of all thirty (30) samples are presently awaited**.

   A copy of letter dated 28.03.2026 along with the list of 30 sampling locations are annexed herewith and collectively marked as ***Annexure-3***.

NOTARY GOVT. OF U.P. (INDIA)

II. **Suggestion No. 2- "The Concerned Department Must Provide Safe Drinking Water in Area Where Quality Is Not Fit for Drinking, Either Through Water Treatment Plants or By Supplying from Other Sources."**

9. That, Executive Engineer, UP Jal Nigam (Rural), vide letter no. **531/M-12/02** dated **23.03.2026**, has informed the deponent department regarding the updated progress in the supply of safe drinking water to the 103 villages having excess fluoride in groundwater. Summary of the updated status is set out hereinbelow:

Particulars	**Villages Receiving Full Potable Supply Through Piped Network**	**Villages Receiving Partial Potable Supply Through Piped Network (40-60% Supply)**	**Villages Where Pipeline Testing Is Underway**
Affidavit Dated 01.12.2025	54	11	38
Current Updated Status	**61**	**15**	**27**

A copy of the letter dated 23.03.2026 is annexed herewith and marked as ***Annexure-4***.

10. That, vide the letter dated **23.03.2026** referred in para above, it has further been informed that **Basti Kuber Nagar** falls on railway land, and **Basti**

NOTARY
Prasiddha Nath Sonwy
(Advocate)
Tehsil-Robertsganj
Distt.-Sonbhadra
Reg. No.-23(14)
Valid up to 21 Oct. 2028
GOVT. OF U.P. (INDIA)

Shivaji Nagar and Prem Nagar fall on NTPC land, and therefore the pipeline work could not be undertaken in the said areas.

III. **Suggestion No. 3- "To Control the Emission in Air Through Industries, SPCBs Should Periodically Check and Ensure the Compliance of Stipulated Emission Norms. To Reduce Dust Pollution Caused by Transportation of Coal and Ash, the Concerned Industries Should Ensure that Transportation is Done in Environmentally Safe Manner by Their Contractor, Transporters and The Transport Authorities Also Need to Strengthen Enforcement in This Regard."**

11. That, in addition to the submissions made in **paragraph 14** of the **Affidavit dated 08.09.2025** (*kindly refer to Judicial Page No. 1212*), it is submitted that the RO, U.P. PCB, Sonbhadra, vide letter no. **G0235/OA-No-240/2024/2026** dated **25.03.2026,** has provided the updated status of compliance with the U.P. PCB action plan for monitoring pollution control measures adopted by the **14 thermal power plants, NCL coal mines, stone crushers and other industries in Sonbhadra**.

A copy of letter dated 25.03.2026 is annexed herewith and marked as ***Annexure-5***.

A copy of the updated compliance status forms a part of Annexure-5 and is marked as ***Annexure-5B***.

IV. <u>Suggestion No. 4- "The Ballia Drain Which Joins Rihand Reservoir Must Be Tapped for Effluent Being Discharged and Tapped Effluents Be Subjected to Adequate Treatment.</u>"

12. That, it is most humbly submitted that the site inspection of the Ballia Drain by the inter-departmental committee was conducted on **26.11.2025** (*kindly refer to Affidavit dated 01.12.2025, Annexure-2, judicial page no. 1334-1342*), it had been submitted that during inspection, no industrial effluent discharge was observed into the Ballia drain.

13. That, it is most humbly and respectfully submitted that, vide **Affidavit dated 01.12.2025**, the deponent, at **paragraph 7** (*kindly refer to judicial page no. 1302*), had stated that during the inter-departmental site inspection dated **26.11.2025**, samples from **seven** locations were collected and forwarded to the U.P. PCB Laboratory, Lucknow for analysis. It is respectfully clarified that the reference to the seventh sampling location was inadvertently mentioned, whereas no sample was in fact collected from the said location (**Outlet of ETP at M/s NTPC Singrauli Super Thermal Power Station**). The said inadvertent error is humbly regretted.

14. That, the Regional Officer, U.P. PCB, Sonbhadra, vide letter no. **G0127/OA-NO-240/2026** dated **20.02.2026**, has informed that with respect to the **six locations** from which samples were collected, the test reports indicate that all the parameters were found to be within the prescribed standards.

A copy of letter dated 20.02.2026 along with the sample test reports are annexed herewith and collectively marked as ***Annexure-6.***

V. **Suggestion No. 5- "The Health Department Should Ensure Periodic Health Checks in The Area Specifically in Respect of The Health Impacts of Air Pollution and Diseases Related to Higher Concentration of Fluoride, Nitrate and Iron in Drinking Water."**

15. That, the Chief Medical Officer, Sonbhadra, vide letter no. **CMO/NGT/Health-Checkup-Camp/2025-26/118** dated **13.03.2026**, has informed that, from **28.11.2025** to **25.02.2026**, a total of **17 health camps** were organized, during which **765 patients** were thoroughly examined. Out of the said patients, **54 were diagnosed with minor respiratory ailments** and **575 with fluorosis**, and necessary treatment was provided at the camps. A copy of letter dated 13.03.2026 along with the details and photographs of the 17 health camps are annexed herewith and collectively marked as ***Annexure-7.***

VI. **Suggestion No. 6- "Under National Clean Air Program (NCAP), Pollution Control Plan Is Being Implemented in Nagar Panchayat, Anpara Area. Similar Plans Be Prepared and Implemented for The Entire Severely Polluted Area. Source Apportionment Study for The Area May Be Conducted from A Reputed Technical Institute by The**

Concerned SPCBs and The Same Be Taken into Account for Preparation of The Said Air Pollution Control Plans."

16. That, the deponent, vide Affidavit dated **01.12.2025**, at para 17 (*judicial pages **1306–1307***), had submitted that the study conducted by **IIT Kanpur**, titled *"**Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity for Anpara City, District Sonbhadra,**"* had been submitted and forwarded to the Peer Review Committee for inviting suggestions/comments to enable finalisation of the findings. In continuation thereof, the Regional Officer, U.P. PCB, Sonbhadra, vide letter no. **G0125/NCAP/2026 dated 19.02.2026**, has requested IIT Kanpur to furnish the finalised report at the earliest, so as to ensure compliance with the directions of the Hon'ble Tribunal.

A copy of letter dated 19.02.2026 is annexed herewith and marked as ***Annexure-8***.

17. That, in this regards, IIT Kanpur vide letter dated **17.03.2026** has informed that the final revision of the report is under progress and the finalized report will be submitted to the U.P. PCB by 30.04.2026.

A copy of letter dated 30.04.2026 is annexed herewith and marked as ***Annexure-9***.

VII. Suggestion No. 7- "SPCBs to Expeditiously Complete the Implementation of CEPI Action Points Prepared and Submitted by

Them and Identify Additional Action Points to Mitigate the Air Pollution to Reduce the CEPI Scores."

18. That, vide letter dated **25.03.2026** (*kindly refer to Annexure-5 of the present affidavit*), as mentioned in paragraph 11 above, the updated compliance status of the **CEPI Action Points for Sonbhadra (U.P.)** has also been provided.

A copy of updated compliance status with CEPI Action Points forms a part of Annexure-5 and is marked as ***Annexure-5A***.

VIII. Suggestion No. 8- "SPCBs to Organise Inter-State Meetings with the District Administrations and Other Concerned Stakeholders Like RTO, Mining Department Etc. To Address and Resolve the Interstate Issues and Share the Minutes of The Inter-State as Well as Intra-State Meetings on The CEPI Portal."

19. That, it is most humbly submitted that NCAP meeting for district Sonbhadra, U.P. was conducted on **16.10.2025** in presence of the representatives of various departments and industries, wherein implementation status with respect to the CEPI Action Points was reviewed and directions were issued to the industries for implementation thereof.

A copy of the MOM dated 24.10.2025 of the meeting dated 16.10.2025 is annexed herewith and marked as ***Annexure-10***.

20. That the deponent, in faithful compliance with the directions of the Hon'ble Tribunal, is filing the present affidavit and remains duty-bound to ensure compliance with the directions in their true letter and spirit.

21. Hence, this Additional Affidavit is respectfully submitted for kind perusal of this Hon'ble Tribunal.

22. That everything stated above is true and correct to my knowledge, derived from official records, and nothing material has been concealed therefrom.

NOTARY
Prasiddha Nath Soney
(Adv.)
Reg. No.
Valid up to 21 Oct. 2028
GOVT. OF U.P. (INDIA)

DEPONENT

28/3/26

VERIFICATION

Verified at **SONBHADRA** on this **28** day of March 2026, that the contents of the above affidavit from paragraphs 1 to **22** are true and correct to the best of my knowledge and belief. No part of it is false and nothing material has been concealed therefrom.

20345

Bachi Nath Singh
S/o
R/o
has been identified by Shri
Appeared before me on 28/3/26 at 10.30 a.m./p.m.
I certified that he/she understands and admits the truthness of facts mentioned in the affidavit/declaration and administered oath to him

PP SONEY
ADV.- NOTARY
SONBHADRA

28/3/26

DEPONENT

28/3/26

Annexure-1

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD
T.C/12V, Vibhuti Khand Gomti Nagar, Lucknow –226010
Phone: 2720831, 2720828 Fax: 0522 – 2720764
Email: info@uppcb.in - Web Site: https://uppcb.up.gov.in

संदर्भ सं0 139034 /सी-2/ NGT-681/26 दिनांक 16-3-26

सेवा मे,

1. अपर मुख्य सचिव/प्रमुख सचिव,
नमामि गंगे एवं ग्रामीण जलापूर्ति/नगर विकास/
चिकित्सा स्थ्वास्थ्य एवं परिवार कल्याण/ऊर्जा विभाग,
उ0प्र0 शासन।
2. जिलाधिकारी, सोनभद्र।
3. प्रबन्ध निदेशक, उ0प्र0 जल निगम (नगरीय/ग्रामीण), लखनऊ।

विषय- मा0 एन0जी0टी0, नई दिल्ली द्वारा ओ0ए0 संख्या 240/2024 (आई0ए0 संख्या 437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी व अन्य बनाम यूनियन ऑफ इण्डिया व अन्य में पारित आदेश दिनांक 02.12.2024 के सम्बंध में।

महोदय,

कृपया उपरोक्त विषयक मा0 एन0जी0टी0, नई दिल्ली द्वारा ओ0ए0 संख्या 240/2024 (आई0ए0 संख्या 437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी व अन्य बनाम यूनियन ऑफ इण्डिया व अन्य में पारित आदेश दिनांक 02.12.2024 का संदर्भ ग्रहण करने का कष्ट करें। उक्त आदेश के सुसंगत अंश निम्नवत हैं:-

....2. The affidavit reveals that a MoU has been entered into between UP PCB and AIIMS Bhopal for carrying out three studies concerning health related impacts of water, air and soil pollution, adverse effect of fly ash exposure and a comprehensive health assessment study. The first report is expected to come 31.12.2025. ...

....4. Learned counsel appearing for the State submits that the first report which is expected to be received by 31.12.2025 will be placed on record by first week of January, 2026....

प्रकरण में सुनवाई हेतु अग्रिम तिथि दिनांक 01.04.2026 नियत है।

अवगत कराना है कि बोर्ड द्वारा अखिल भारतीय आयुर्विज्ञान संस्थान(AIIMS) भोपाल के माध्यम से शीर्षक Health related effects of air and water pollution due to operation of thermal power plant and ash generating industries in Sonbhadra district of Uttar-Pradesh स्टडी करायी गयी है। जिसकी फाइनल रिपोर्ट प्राप्त हो गयी है। उक्त रिपोर्ट में उल्लिखित निष्कर्ष एवं संस्तुतियां निम्नवत हैं:-

CONCLUSION

The comparative analysis of Varanasi and Sonbhadra reveals considerable environmental and health differences caused by industrialization in Sonbhadra. Sonbhadra has poorer air and water quality than Varanasi. Previous year's data also shows that air quality is unhealthy in Sonbhadra.

Environmental assessments show that Sonbhadra's air quality is poor, with a higher proportion of the population exposed to severe AQI categories. Almost all subjects reported dust exposure, primarily from industrial processes.

Respiratory problems such as cough, asthma, chronic bronchitis, protracted bacterial bronchitis are prominently present in Sonbhadra. Skin and eye related problems are very

common and easily observed in Sonbhadra. History of stroke and transient ischemic attack (TIA), poor sleep quality are also present in Sonbhadra.
In control area, problems are very less compared to Sonbhadra.
In conclusion, TPPs operation in the area is badly affecting people's health in Sonbhadra and it is should be taken seriously.

RECOMMENDATIONS

- Stations for air quality monitoring should be more in number near to population compared to existing stations.
- Coal transportation in the area should be managed stringently with all precautions and safety.
- Water Quality Monitoring: Emphasis should be on preventing water pollution and disinfection of water at city supply level and household level.
- Healthcare Initiatives: Instead of more and more research focus should be now on action to prevent health problems and treat those who are affected, a health care programme specifically for population residing near thermal power plants should be started to manage and prevent.
- Community Awareness Programs: Conduct awareness activities to raise awareness about pollution concerns, prevention.
- Intersectoral coordination: Encourage collaboration between various government agencies, industries, NGOs, and local communities to solve the big concern of pollution.
- Thermal power plants should shift their source of fuel from coal to other non-polluting sources.

अतः अखिल भारतीय आयुर्विज्ञान संस्थान (AIIMS), भोपाल की स्टडी रिपोर्ट संलग्न कर इस अनुरोध के साथ प्रेषित की जा रही है कि उक्त स्टडी रिपोर्ट में उपरोक्तानुसार की गयी संस्तुतियों के परिप्रेक्ष्य में अपने विभाग से अपेक्षित कार्यवाही हेतु सम्बंधित को निर्देशित करने का कष्ट करें तथा कृत कार्यवाही की आख्या से एक सप्ताह में अवगत कराना चाहेंगे।
संलग्नक-उपरोक्तानुसार।

सक्षम अधिकारी के अनुमोदनोपरान्त निर्गत।
भवदीय,

(सर्वेश्याम) 16/3/16
मुख्य पर्यावरण अधिकारी (प्रभारी) वृत्त-2

प्रतिलिपिः-

1. उप सचिव, पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, उ0प्र0 शासन को इस अनुरोध के साथ प्रेषित कि प्रकरण में कार्यवाही किये जाने हेतु सम्बंधित विभागों को शासन स्तर से भी पत्र निर्गत कराने का कष्ट करें।
2. सदस्य संयोजक/प्रभागीय वनाधिकारी, जिला पर्यावरण समिति, सोनभद्र को इस आशय से प्रेषित कि उपरोक्तानुसार वर्णित संस्तुतियों के परिप्रेक्ष्य में अपेक्षित कार्यवाही सम्पादित किये जाने हेतु जिला पर्यावरण समिति के माध्यम से समय-समय पर अनुश्रवण एवं समीक्षा करने का कष्ट करें।
3. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र को इस निर्देश के साथ प्रेषित कि जनपद स्तर पर समस्त सम्बंधित विभागों से समन्वय कर आवश्यक कार्यवाही सम्पादित करायें।

Research Project Report

Health related effects of air and water pollution due to operation of thermal power plant and ash generating industries in Sonbhadra district of Uttar-Pradesh

Project Funded by Uttar Pradesh Pollution Control Board

Report Submitted by All India Institute of Medical Sciences (AIIMS) Bhopal

Principal investigator:

Dr. Rajkumar Patil

Professor, Department of Community and Family Medicine

All India Institute of Medical Sciences (AIIMS) Bhopal

Co-investigators:

1. Dr. Amber Kumar, Associate Professor,

Department of Paediatrics

All India Institute of Medical Sciences (AIIMS) Bhopal

2. Dr. Sukumar, Assistant Professor

Department of General Medicine

All India Institute of Medical Sciences (AIIMS) Bhopal

Duration of the project:

Nov 2024-Oct 2025

Abbreviations

Abbreviation	Expansion
AQI	Air Quality Index
CO	Carbon Monoxide
CO2	Carbon Dioxide
CPBC	Central pollution control board
COD	Chemical Oxygen Demand
CFA	Coal Fly Ash
UPPCB	Uttar- Pradesh Pollution Control Board
NO	Nitrogen Oxide
PM	Particulate Matter
QVSFS	Questionnaire for Verifying Stroke Free Status
SO2	Sulphur Oxides
TPP	Thermal Power Plant
TDS	Total Dissolved Solids
TIA	Transient Ischemic Attack
WHO	World Health Organisation

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SUMMARY

This study investigated the health impacts of air and water pollution caused by fly ash generated by thermal power plants (TPPs) and other industries in the Sonbhadra region of Uttar-Pradesh. Its presence in air and water contributed to respiratory infections, gastrointestinal problems, and dermatological conditions. The study aimed to explore the health effects among all age groups, focusing on both adults and children.

Two groups were included in the study, an exposed group residing within a 10-kilometer radius of TPPs and industrial areas, and a control group located approx.100 kilometres away (in Varanasi) with no nearby industrial presence. Total 513 participants from Sonbhadra and 584 from Varanasi participated in the study. Participants with at least a year of residence in their respective areas were selected. Data collection involved interviewer-administered semi-structured questionnaires covering sociodemographic details, housing conditions, environmental factors, smoking, indoor air pollution, health problems, distance to TPP, exposure to dust etc. Screening for Asthma, chronic bronchitis and stroke was done. Physical examination, and some specific investigations were conducted to identify health problems. Individuals requiring further care were referred to nearby government healthcare facilities. Indoor PM levels were measured in participants' homes using portable Aerosol Monitors. Fly ash and water sample was collected from Sonbhadraandfly ash sample was collected from both the study and control areas.

The study revealed significant health disparities between the exposed and control groups. The exposed group had higher proportion of respiratory ailments, such as asthma, chronic bronchitis. Adults as well as children both are affected. Dermatological conditions, gastrointestinal issues, and other acute and chronic health problems were also more prevalent in the exposed population. Pollution of air was identified as a critical contributor to these adverse health effects.

The findings underscored the urgent need for strict enforcement of environmental regulations, better fly ash management practices, in industrial region like Sonbhadra. This research reinforces the importance of proactive measures to mitigate the health risks of industrial pollution and emphasizes the need for sustained monitoring of environmental quality indicators with action. The results advocate for policy changes aimed at reducing the environmental footprint of TPPs and protecting the health of vulnerable communities.

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INTRODUCTION

Environmental factors are closely related to human health. Environmental pollution is the introduction of harmful substances in the natural environment, causing negative changes in air, water, and land quality.

Air and water pollution can cause cancer, neurological abnormalities, cardiovascular ailments, and respiratory issues. Long-term exposure to polluted air and water can impair immunity and make people more susceptible to illness, especially the elderly, pregnant women and children.[1]

Power stations, mining, and ash-handling businesses cause contamination of the air, water, and soil by combined emissions from these sources. Thermal power plants uses gas or coal energy to generate power.

Fly ash a by product of burning coal in thermal power plants is one of the main pollutants. There are serious health and environmental risks associated with the incorrect management and disposal of fly ash.[2]

Fly ash increases the risk of respiratory problems and lowers air quality by contributing to particulate pollution when it is released into the atmosphere.[3] Respiratory conditions like bronchitis, asthma, and Chronic Obstructive Pulmonary Disease (COPD) are associated with long-term inhalation of fly ash particles. Heavy metals in fly ash, if absorbed or consumed, can cause developmental and cognitive problems.[2]Direct skin contact with fly ash can cause irritation or dermatitis. Long-term exposure to fly ash's carcinogenic chemicals has also been linked to an increased chance of developing cancer. Furthermore, leaching from fly ash disposal in ponds or unlined landfills can contaminate drinking water and groundwater, increasing health risks for nearby people.[4]

Fly ash in air increases the concentrations of Particulate Matter (PM), SO2 and NO2 thereby increasing the effects of air pollution.[5] Particulate matter (PM2.5 and PM10), which are microscopic particles that deeply enter the lungs and cause respiratory and cardiovascular problems, are important air pollutants. The load of pollution is increased by heavy metals, which are hazardous even in trace amounts.[6]

In studies, coal dust exposure in school going children was found to culminate in respiratory symptoms.[7] The sulphur, in coal, oxidizes upon combustion and pollutes the air, water, and land by releasing oxides of sulphur. In the early 1970s, one of the largest deposits of coal was found in

Sonbhadra followed by heavy industrialization of the area. Sonbhadra district is known as *Urjanchal* or "Energy Capital of India". It is considered as a critically polluted area due to presence of various thermal power plants(TPPs) and coal mines.[8] Sonbhadra is considered as a critically polluted zone and thus it becomes more important to study the health in this area. Some studies in India[9] reported the impact of environmental pollution on human health; however, rarely any scientific study has been conducted to analyse the health impact of pollution in Sonbhadra district. As a result, the current study was planned and conducted.

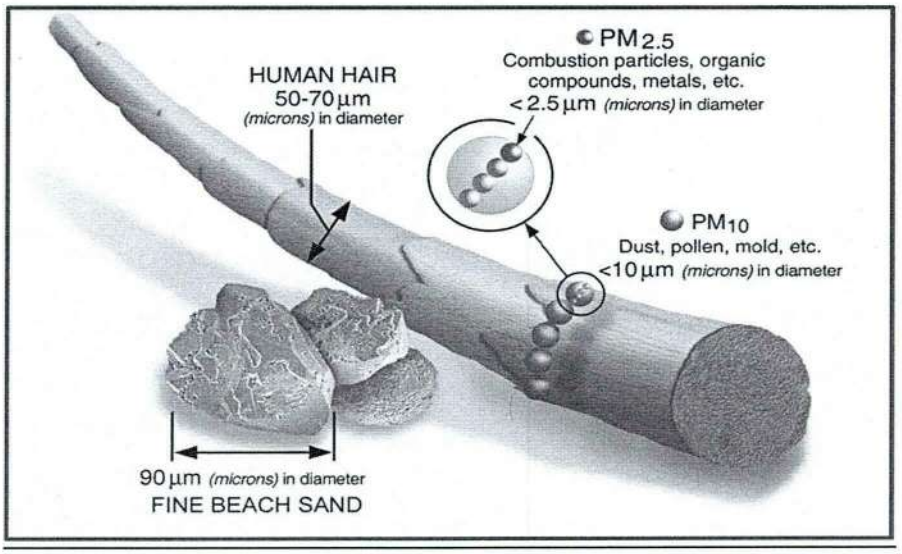

Figure 1: PM2.5 and PM10

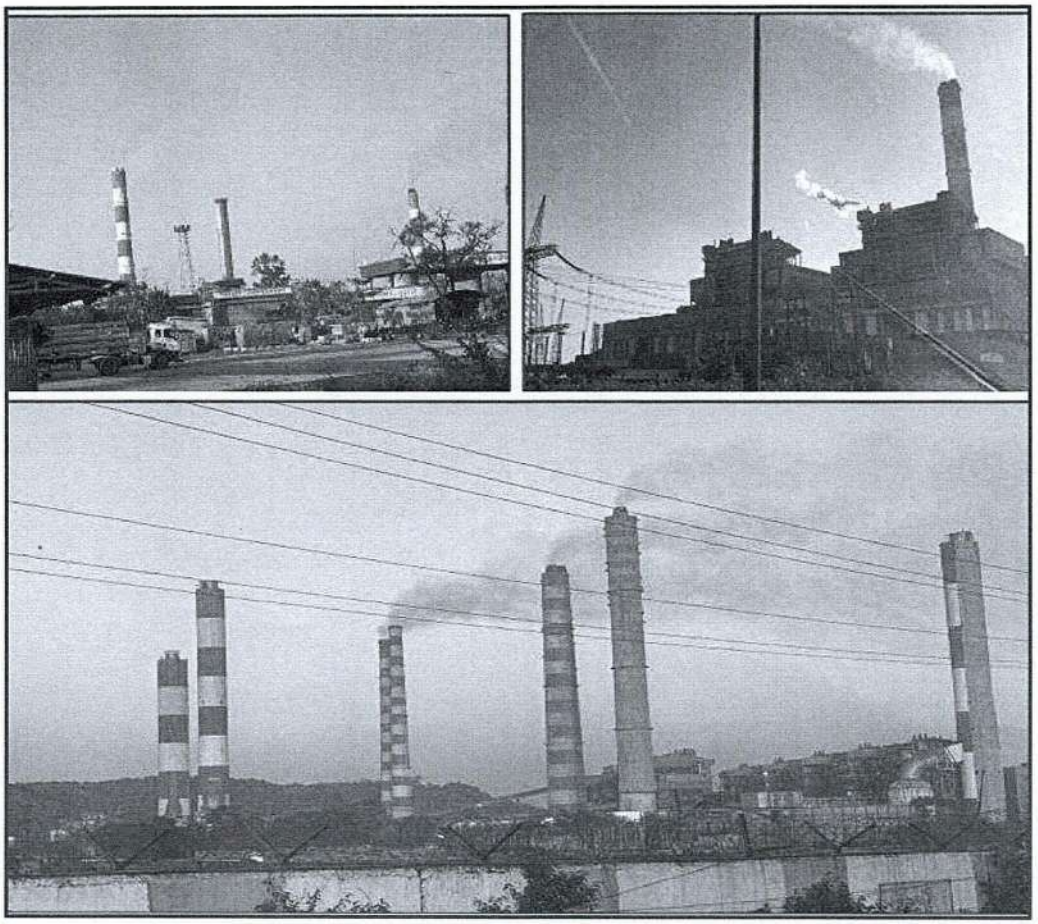

Figure 2: Thermal Power Plants (TPPs) in Sonbhadra

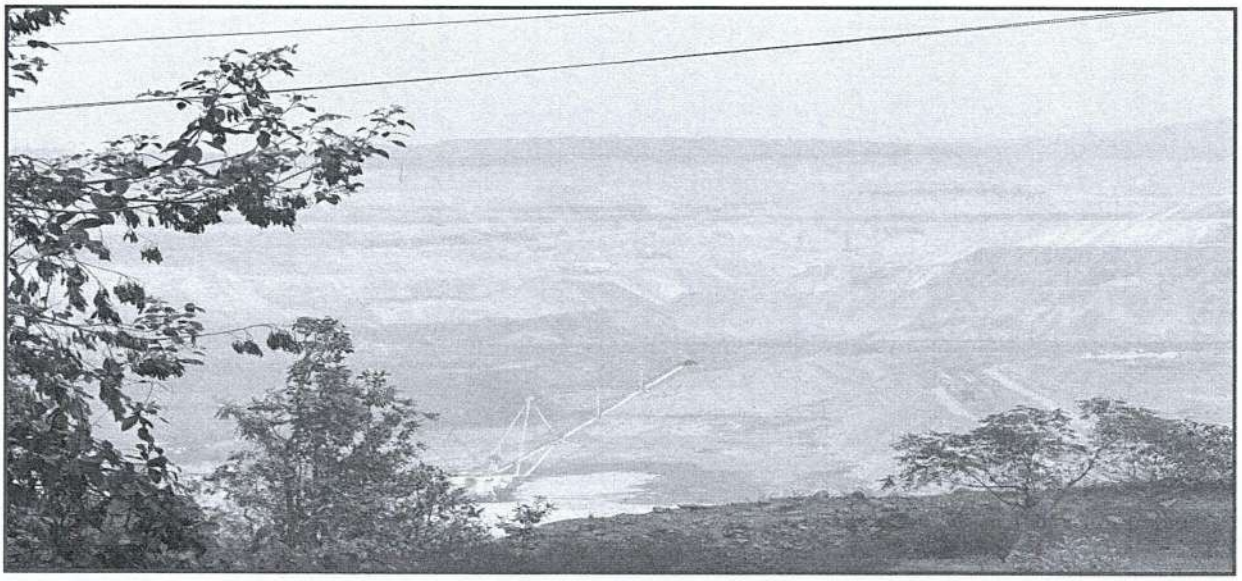

Figure 3: Fly ash dam in Sonbhadra

AIMS AND OBJECTIVES

Aim: To find the health effects of the air and water pollution due to fly ash generated from Thermal power plant and other industries in Sonbhadra area of Uttar Pradesh.

Specific Objectives:

1. To find the health problems due to fly ash, among paediatric as well as adult age group population due to Thermal power plant and other industries.
2. To determine the association between selected air and water quality indicators with health problems in the selected area.
3. To determine the level of selected chemicals related to health, in soil and road dust samples in the Sonbhadra and control area.

METHODOLOGY

Study design and settings

A community-based cross-sectional study was conducted in Sonbhadra and Varanasi, in Uttar-Pradesh. Sonbhadra is situated at the border of Uttar Pradesh and Uttar- Pradesh in Central India. As per census 2011, population of Sonbhadra district is 1,862,559 of which male and female were 971,344 and 891,215 respectively. Sonbhadra district consists of an area of 6,788 square kilometers. [10]

The district's economy is mainly based on coal mining and energy generation, with five operational thermal power plants (TPPs).Health problems and pollution in population exposed to harmful effects due to fly ash and other similar dust producing industries in Sonbhadra was compared with the health problems in non-exposed population of Varanasi. Participants in the exposed group were drawn from rural and urban areas within 10 km of TPPs in Sonbhadra, representing people directly affected by industrial pollution, whereas the non-exposed group consisted of residents of Varanasi, a region known for agriculture and renewable energy. Study was conducted from November 2024 to October 2025.

Sample size and Sampling

A sample of population was selected for the study. Sample size calculation was done by using following formula: n= 4 pq/ d^2 ;$n = (Z^2_{\alpha/2} * p * (100 - p))/(d^2)$

Here, P = Expected proportion in population based on previous studies or pilot studies.(35% prevalence in reference study)[11]

d = Absolute error or precision - sample size with the precision/absolute error of 5% and at type 1 error of 5%.

So the sample size was:

Sample size= (1 .96 x 1.96 x 0.35 x 0.65)/ (0.05 x 0.05) = 350 Sample size = 350 subjects in each group.

Villages and urban areas within ten-kilometer distance from thermal power plants (TPPs)were selected. Total 60houses were selected randomly and family members from 44 houses gave consent and could participate finally in the study. From each house all eligible available members were interviewed, finally 501 participants were interviewed. In Varanasi, total 110 houses were selected randomly, and participants from 86 houses gave consent and finally total 561 participants were interviewed.

Adult and paediatric participants were included to collect a wide range of health and environmental exposure data. Participants who were residing for at least past one year in Sonbhadra, were included. For Sonbhadra and Varanasi both, minimum age pf participant was kept as one year (Infants were excluded).

In Varanasi, Individuals ever employed or ever resided near to thermal power plant were excluded.

Data collection tools and definitions

Data were collected by using semi-structured questionnaire. Questionnaire was prepared in English and translated in Hindi. It included sociodemographic information, housing details, exposure to environmental factors such dust, and smoke, personal and past medical history, and health problems/symptoms experienced by participants in the previous 12 months from the interview. Data were collected using the KOBO Toolbox.

Following were the definitions used in the study:

Questionnaire diagnosis of Asthma-Bronchial Symptom Questionnaire (1984) of the International Union Against Tuberculosis and Lung Disease (The Union), for the diagnosis of asthma was used. It was validated by other researchers.[12,13,14]

The questionnaire diagnosis of asthma was determined by affirmative responses to the questions, consisted of at least one of the two questions, plus one of the three questions as given below:

One or both of two questions:

1.Have you ever had wheezing or whistling sounds in your chest at any time in the last 12 months?

2. Have you woken up with a feeling of tightness in your chest first thing in the morning at any time in the last 12 months?

One or more of three questions:

1. Have you ever had asthma?

2. Have you had an attack of asthma at any time in last 12 months?

3. Are you currently using any medicine including inhalers, aerosols, or tablets for asthma?

Questionnaire diagnosis of Chronic Bronchitis-Chronic Bronchitis was diagnosed based on presence of cough with expectoration for three or more months in a year for two or more consecutive years.[15,16]

Stroke/TIA Screening criteria- The 8-item Questionnaire for Verifying Stroke Free Status (QVSFS) is a screening tool.[17]It was used for ruling out stroke/TIA by assessing previous diagnosis of stroke/TIA and 6 cardinal stroke symptoms. If answer to any question is yes then it is considered that person is/was having stroke/TIA. (Table 1.1)

Table 1.1: Questionnaire for Verifying Stroke Free Status (QVSFS)

S.No.	Question	Response
1	Were you ever told by a physician that you had a stroke?	Yes/No/Unknown
2	Were you ever told by a physician that you had a TIA, ministroke or transient ischemic attack?	Yes/No/Unknown
3	Have you ever had sudden painless weakness on one side of your body?	Yes/No/Unknown
4	Have you ever had sudden numbness or a dead feeling on one side of your body?	Yes/No/Unknown
5	Have you ever had sudden painless loss of vision in one or both eyes?	Yes/No/Unknown
6	Have you ever suddenly lost one half of your vision?	Yes/No/Unknown
7	Have you ever suddenly lost the ability to understand what people are saying?	Yes/No/Unknown
8	Have you ever suddenly lost the ability to express yourself verbally or in writing?	Yes/No/Unknown

Developmental Milestones criteria- WHO's windows of achievement of six gross motor milestones was used to decide for the delay in motor milestones in children.[18] (Table 1.2)

Table 1.2 : Developmental Milestones criteria in children

Milestone	Maximum age in months to attain
Visual fixation	2
Vocalisation	6
Sitting without support	10
Standing with assistance	12
Hands-&-knees crawling	14
Standing alone	17
Walking alone	18
Single word	18
Imaginative play	36

Protracted Bacterial Bronchitis- A wet cough for more than four weeks in absence of any other identifiable cause for cough in children, was considered as protracted bacterial bronchitis.

Aerosol Monitor was used to assess the levels of Air Quality Index (AQI) and air pollutants (PM10,PM2.5,PM1,SO2,NO2 etc.) in houses of participants. AQI and air pollutants categories classification was as per the guidelines by Central Pollution Control Board.[19]

Past one year data (2024-25) of AQI, PM10, PM2.5 for Sonbhadra and Varanasi was obtained from CPCB air quality monitoring site (https://uppcb.up.gov.in/en/page/ambient-air-quality-noise-data) and used in the study to find trend of AQI/PM10/PM2.5 over months.

Water quality standards-Indian Standard of drinking Water 2012 of "Bureau Of Indian Standards" guidelines were followed for determining the water quality.[20]

Data collection

Data collection was done in February and March 2025. Two visits to Sonbhadra and one visit to Varanasi was planned and completed. First visit to Sonbhadra took place in first two weeks of February 2025. Meeting with the government officials, Chief Medical and Health Officer (CMHO) Sonbhadra and Regional Officer (RO), District Pollution Control Board, Sonbhadra were done. Site visits were made to thermal power plant (TPP) locations to familiarize the team with environmental conditions. Areas near to TPP were visited and pre-testing of questionnaire with 15 persons was done to modify the questionnaire as per the requirement.

The second visit to Sonbhadra took place in March 2025. Total 513 individuals (369 adults and 144 children) were interviewed.

A visit to control area, Varanasi was done in March-April 2025. Total 584 individuals (431 adults and 154 children) were interviewed.

Before the study, interviewers explained the participants about the objectives of the study and a participant Information Sheet (PIS) in Hindi was provided to them.

Blood samples were collected from the symptomatic patients and chest X-ray was done for those who were having chronic cough or other respiratory problems in Sonbhadra as well as in Varanasi.

Drinking water samples were collected to analyse various parameters and heavy metals in Sonbhadra and Varanasi. Fly ash samples from Sonbhadra were collected for heavy metals analysis.

Selected areas of Sonbhadra and Varanasi are shown in figure 4 to 7. Data collection in urban and rural areas were done (figure 8-9).

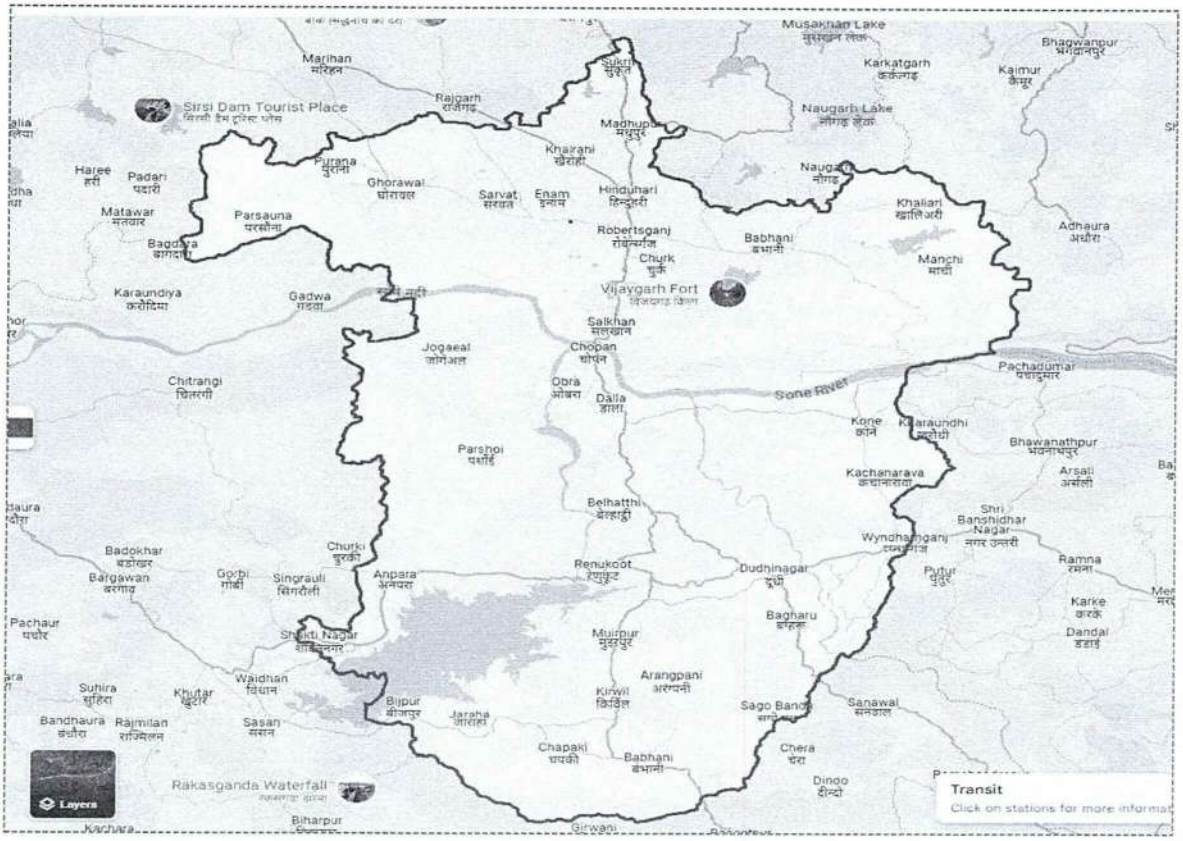

Figure 4: Map of Sonbhadra District

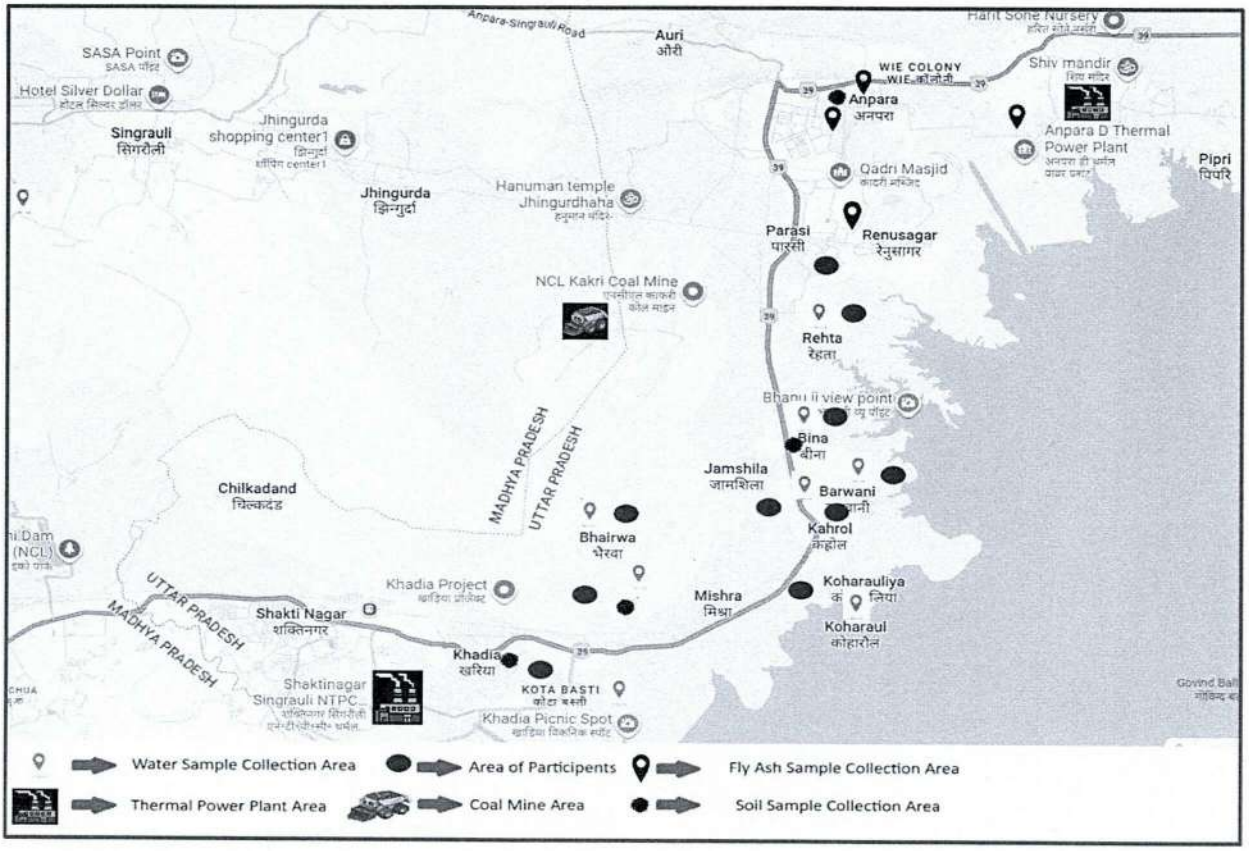

Figure 5: Map of area selected for the study in Sonbhadra District

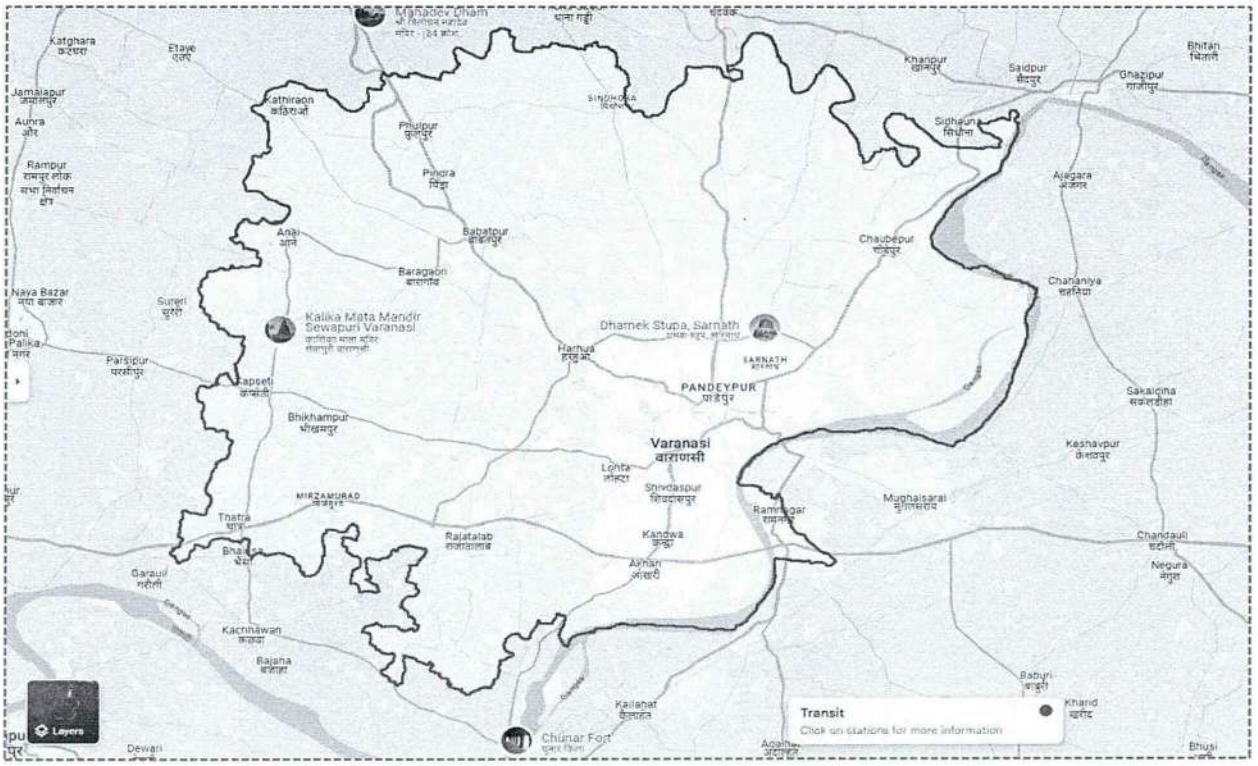

Figure 6: Map of Varanasi District

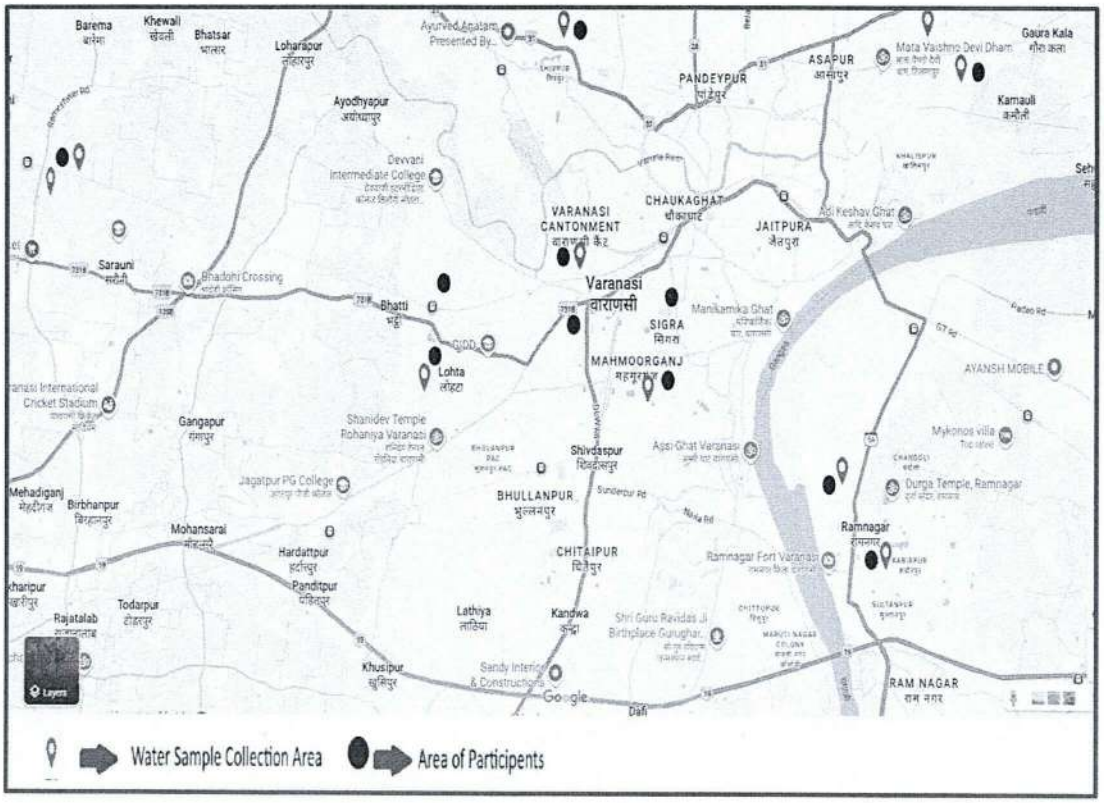

Figure 7: Map of area selected for the study in Varanasi District

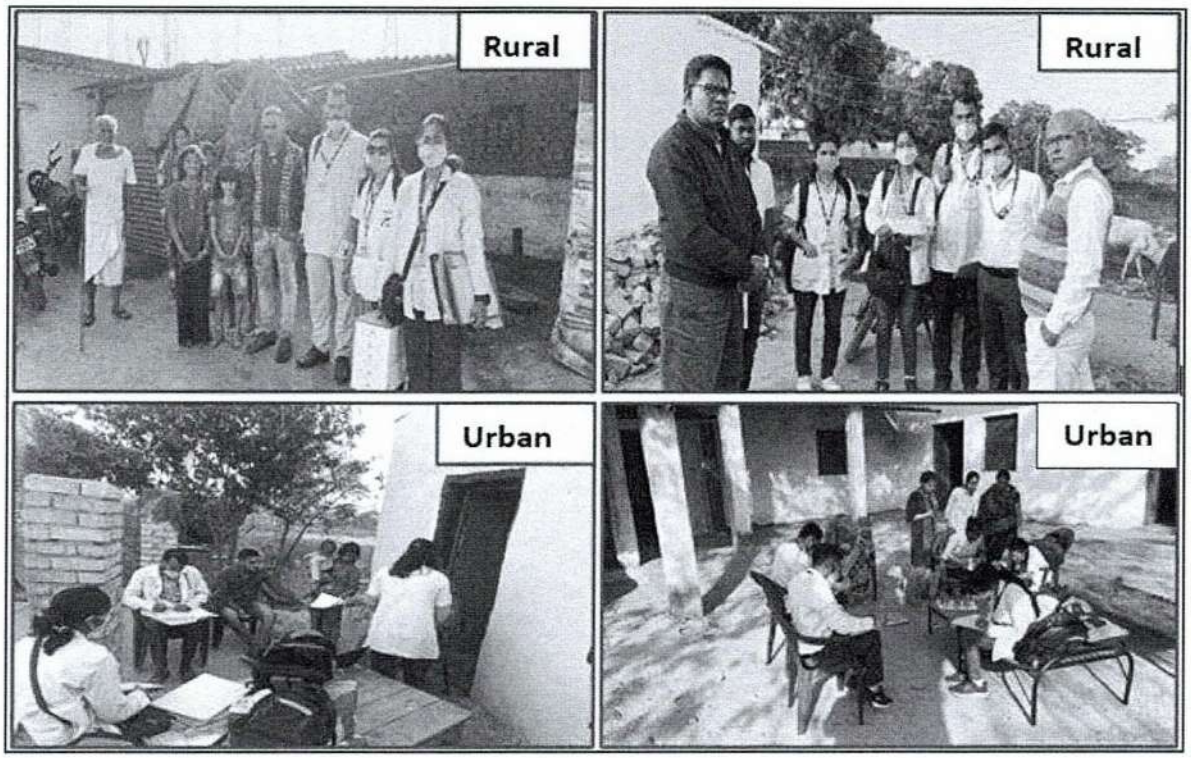

Figure 8: Data collection at Sonbhadra (Rural & Urban)

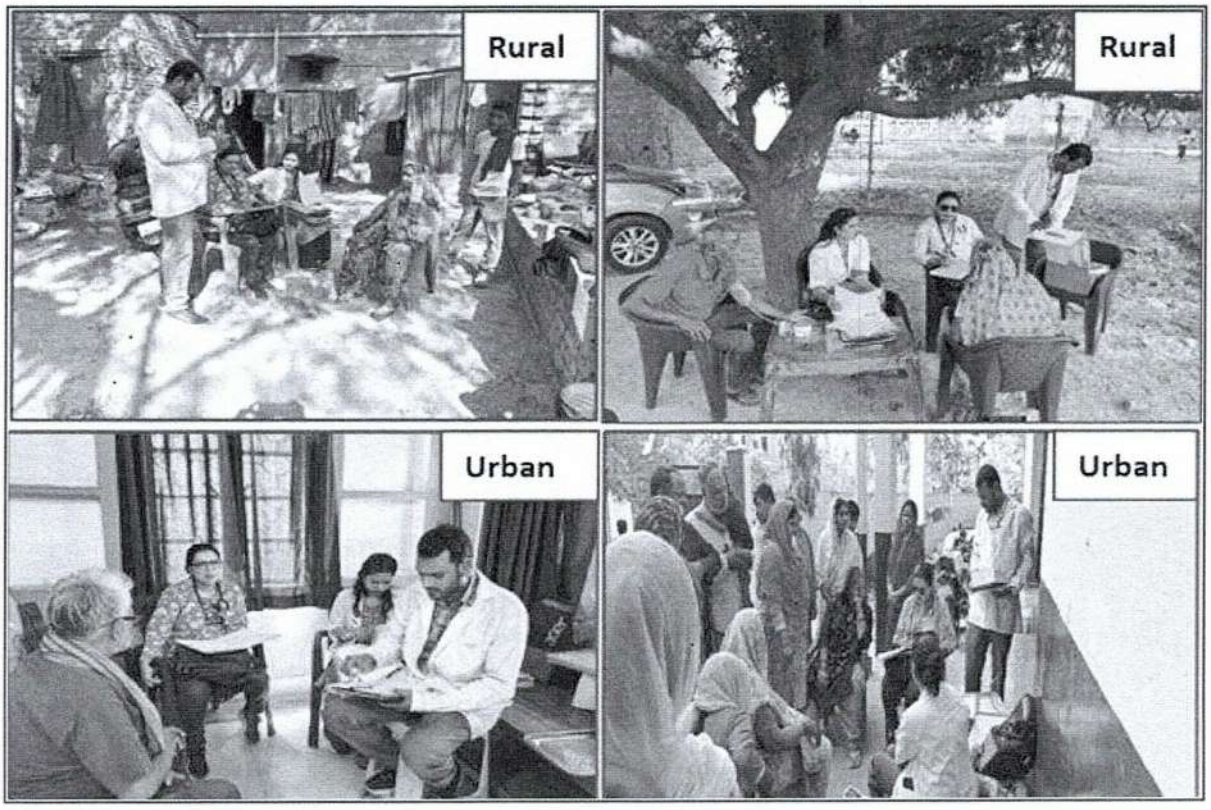

Figure 9: Data collection at Varanasi (Rural & Urban)

Statistical Analysis

Data from Kobo tool box was exported as a spreadsheet and data cleaning was carried out. The data were analysed using the Jamovi statistical program version 2.6.19. Mean and standard deviation/median were used for the numerical variables and nominal/categorical variables were summarized as count and percentages. Chi-square test, and Fisher's exact test were used for categorical data. A p-value of <0.05 indicated statistical significance.

Ethical Considerations

The study was approved by an institutional ethics committee of AIIMS Bhopal. The confidentiality of responses was protected by anonymizing participants' data. Written consent from adults and assent from children was obtained as per the ethical guidelines before the conduct the study.

RESULTS

In present study, total 501 persons including 355(70.85%)adults and 146(29.14%)children participated in Sonbhadra and 561 persons comprising 434(77.36%) adults and 127(22.63%) children participated in Varanasi. Results are shown below in sections.

Household characteristics of participants

Ventilation, water supply and cooking fuel

Table 2.1 shows household characteristics of all the participants in Sonbhadra and Varanasi. There were lesser number of participants getting tap water supply in Varanasi compared to Varanasi (43.3% Vs. 39.9%). Lesser number of houses were having cross ventilation in Sonbhadra compared to Varanasi (74.7% Vs.90.2%).

Table 2.1 : Ventilation, water and cooking related characteristics of participants

Characteristic	Sonbhadra (n-501)		Varanasi (n-561)	
	No.	%	No.	%
Cross Ventilation				
Present	374	74.7	506	90.2
Absent	127	25.3	55	17.1
Water supply				
Public tap	217	43.3	223	39.9
Others	284	56.6	338	60.2
Household disinfection of water				
Water disinfection done	28	5.5	206	36.7
No water disinfection	473	94.4	355	63.3
Primary source of cooking				
Clean fuel	288	57.5	545	97.1
Wood/cow dung cake	213	42.5	16	2.9
Place of cooking				
Separate kitchen	330	65.9	374	66.7
Inside a room	78	15.6	135	24.1
Outside (courtyard)	93	18.6	52	9.3

Presence of black dust and dampness in houses

Table 2.2 shows presence of black dust and dampness inside and outside the houses of participants. Most of the participants' houses in Sonbhadra had black dust inside as well as outside, while only 72(12.83%) of the participants' houses had black dust in Varanasi.

Dampness was present in all 501(100%) of participants' houses in Sonbhadra while it was only 22.8% in Varanasi. The difference was statistically significant.

Table 2.2: Presence of black dust and dampness in Sonbhadra and Varanasi

Characteristic	Sonbhadra (n-501)		Varanasi (n-561)		P value
	No.	%	No.	%	(Chi square)
Black dust present in the house	501	100	72	12.83	<.001(809)
Black dust present over outside walls of house	490	97.8	83	14.79	<.001(734)
Dampness present in the house	501	100	128	22.8	<.001(653)

Proximity of Houses from TPPs

In Sonbhadra, 220 (43.92%) of participants lived within 5 km of a Thermal Power Plant (TPP) and 281(56.08%) lived more than 5 km away.

Results - Adults Participants

Socio-Demographic characteristics of adult participants

Table 3.1 shows socio-demographic characteristics of adult participants from Sonbhadra (n-355) and Varanasi (n-434). In Sonbhadra, 43.66% were belonging to rural areas while in Varanasi, it was 63.13%. Women participants were 47.89% in Sonbhadra and in Varanasi it was 49.54%.

Majority of the participants were in 18-29 years group (37.75% in Sonbhadra and 38.94% in Varanasi). Total 25.35% of the participants were illiterate in Sonbhadra and 14.28% in Varanasi. Total 37.46% and 37.56% were homemakers in Sonbhadra and Varanasi respectively.

Table 3.1: Socio-demographic characteristics of participants (adults) in Sonbhadra and Varanasi

Characteristic	Sonbhadra (n-355)		Varanasi (n-434)	
	No.	%	No.	%
Residence				
Rural	155	43.66	274	63.13
Urban	200	56.34	160	36.87
Sex				
Women	170	47.89	215	49.54
Men	185	52.11	219	50.46
Age (years)				
18-29	134	37.75	169	38.94
30-39	99	27.89	92	21.20
40-49	55	15.49	67	15.44
50-59	12	3.38	52	11.98
60 and above	55	15.49	54	12.44
Education				
Illiterate	90	25.35	62	14.28
Up to high school	111	31.27	160	36.87
Higher Secondary	78	21.97	49	11.29
Graduate and above	76	21.41	163	37.56
Occupation				
Employed	149	42.0	141	32.49

Unemployed	2	0.56	18	4.15
Retired	8	2.25	17	3.92
Homemaker	133	37.46	163	37.56
Student	63	17.75	95	21.89

Type of Diet

Table 3.2 shows that 35.21% participants in Sonbhadra were following a vegetarian diet compared to 74.88 % in Varanasi.

Table 3.2 : Dietary Habits of participants in Varanasi and Sonbhadra (Adult)

Type of Diet	Sonbhadra (n-355)		Varanasi (n-434)	
	No.	%	No.	%
Vegetarian	125	35.21	325	74.88
Mixed	230	64.79	109	25.12

Tobacco and Alcohol consumption

Table 3.3 shows tobacco and alcohol consumption among adult participants in Sonbhadra and Varanasi. There is no significant difference in habit of tobacco use among participants in Sonbhadra and Varanasi. For current Alcohol use, Sonbhadra had significantly higher number of current Alcohol users compared to Varanasi (31.55% Vs 13.59%).

Table 3.3: Tobacco and Alcohol consumption among participants (adults) in Sonbhadra and Varanasi

Tobacco/Alcohol use	Sonbhadra (n-355)		Varanasi (n-434)		P Value (Chi square)
	No.	%	No.	%	
Current Smoker					
Yes	151	42.54	173	39.86	
No	204	57.46	261	60.14	0.448 (0.577)
Present Tobacco Chewer					
Yes	194	54.65	134	30.88	<.001 (45.4)
No	161	45.35	300	69.12	
Current Alcohol User					
Yes	112	31.55	59	13.59	
No	243	68.45	375	86.41	<.001(789)

Status of dust exposure and symptoms

Table 3.4 shows the status of dust exposure among adults in Sonbhadra and Varanasi. All the participants were having exposure to dust in Sonbhadrawhile in Varanasi it was 64.28% were exposed to dust. This difference is statistically significant.

Table 3.4: Status of dust exposure among adults in Sonbhadra and Varanasi

Exposure to dust	Sonbhadra (n-355)		Varanasi (n-434)		P Value (Chi square)
	No.	%	No.	%	
Exposed to dust	355	100.00	279	64.28	<.001(184)
Not exposed to dust	0	0	155	35.71	

Table 3.5 shows symptoms among adult participants who were exposed to dust. Among those who were exposed to dust in Sonbhadra, all of the participants were having some symptom while in Varanasi among those who were exposed to dust 67.97%participants reported the symptoms.

Among those who were exposed to dust, sneezing was most common symptom and it was reported by 99.72% participants in Sonbhadra and by 63.44% participants in Varanasi. Similarly other symptoms (burning in eyes , chest tightness, and breathlessness) were also significantly higher in Sonbhadra.

Table 3.5: Symptoms due to dust exposure among adults in Sonbhadra and Varanasi

Symptom	Sonbhadra (n-355)		Varanasi (n-279)		P Value(Chi square)
	No.	%	No.	%	
Sneezing	354	99.72	177	63.44	<0.001 (308)
Burning in eyes	354	99.72	175	62.72	<0.001 (312))
Chest tightness	331	93.24	19	6.81	<0.001 (625)
Breathlessness	335	94.37	40	14.33	<0.001 (658)
No symptoms	0	0.00	102	36.55	<0.001 (96.9)

Multiple answers

Presence of Asthma and Chronic Bronchitis and its association with proximity to TPP

Table 3.6 shows presence of Asthma and Chronic Bronchitis (based on the questionnaire diagnosis) among adult participants in Sonbhadra and Varanasi. Total 51(14.4%) persons were having Asthma or/and Chronic Bronchitis in Sonbhadra. Among these, 47(13.23%) were having Asthma alone, and 77(21.69%) were having chronic bronchitis alone and 51(14.4%) were suffering from Asthma as well as Chronic Bronchitis.

In Varanasi, 05(10.36%) participants were having Asthma alone, and none of the participant were having Chronic Bronchitis alone or both the conditions together. The difference in number of participants having these conditions between Sonbhadra and Varanasi was statistically significant.

Table 3.6: Presence of Asthma and Chronic Bronchitis among adults in Sonbhadra and Varanasi

Presence of Asthma/Chronic Bronchitis	Sonbhadra (n-355)		Varanasi (n-434)		P Value (Chi square)
	No.	%	No.	%	
Asthma or Chronic Bronchitis or Both	51	14.4	5	1.15	<0.001(51.71)
No Asthma or Chronic Bronchitis	304	85.6	429	98.84	

Table 3.7 shows presence of Asthma, Chronic Bronchitis among adults and its association with distance from TPP in Sonbhadra. Among 167 persons who were residing within 5 km of TPP, 30 (17.96%) were having Asthma or/and Chronic Bronchitis while among 188 persons who were residing within 5-10 km, 21 (11.17%) were having the condition. This difference was statistically not significant.

Table 3.7: Presence of Asthma, Chronic Bronchitis among adults and Distance from TPP in Sonbhadra

Presence of Asthma/Chronic Bronchitis	Distance from TPP				P value (Chi square)
	<5 km (n-167)		5-10 km (n-188)		
	No.	%	No.	%	
Asthma or Chronic Bronchitis or Both	30	17.96	21	11.17	0.685(3.318)
No Asthma or Chronic Bronchitis	137	82.04	167	88.83	

History of Stroke/Transient Ischemic Attack (TIA)and its association with proximity to TPP

Table 3.8 shows presence of stroke/TIA (in past) in Sonbhadra and Varanasi among adult participants. A total of 06 (1.7%) participants in Sonbhadra reported presence of stroke/TIA in past, while in Varanasi, no one was found to have such history.

Table 3.8 : Presence of History of Stroke/TIA among adults in Sonbhadra and Varanasi

Stroke History	Sonbhadra (n-355)		Varanasi (n-434)		P value by Fisher's exact test
	No.	%	No.	%	0.007
Present	6	1.7	0	0	
Absent	349	98.3	434	0	

Table 3.9 shows relation of history of stroke/TIA and distance from TPP in Sonbhadra among adult participants. Among 167 persons who were residing within 5 km of TPP, 2(1.20%) were having history of stroke while among 188 persons who were residing within 5-10 km, 4(2.13%) were having the history. This difference was not found significant.

Table 3.9: History of Stroke/TIA among adults and distance from TPP in Sonbhadra

Presence of History of Stroke	Distance from TPP				
	<5 km (n-167)		5-10 km (n-188)		P value by Fisher's exact test
	No.	%	No.	%	
Stroke	2	1.20	4	2.13	0.497
No Stroke	165	98.80	184	97.87	

Self-Reported Sleep Quality among adults and its association with proximity to TPP

Table 3.10 shows self-reported sleep quality in Sonbhadra and Varanasi among adult participants. In Sonbhadra, a higher number of participants (29.86%) reported that their sleep is not adequate, while in Varanasi it was lower (4.84%).The difference was statistically significant.

Table 3.10: Self-Reported Sleep Quality among adults in Sonbhadra and Varanasi

Adequate sleep	Sonbhadra (n-355)		Varanasi (n-434)		P Value (Chi square)
	No.	%	No.	%	
Yes	249	70.14	413	96.16	<0.001 (789)
No	106	29.86	21	4.84	

Table 3.11 shows association of sleep quality and distance from TPP in Sonbhadra among adult participants. Of 167 persons who were residing within 5 km of TPP, 46 (27.54%) were not having adequate sleep. while among 188 persons who were residing within 5-10 km, 60 (31.91%) were not having adequate sleep. The difference was not statistically significant.

Table 3.11: Sleep quality and Distance from TPP in Sonbhadra (Adult)

Adequate Sleep	Distance from TPP				P value (Chi square)
	<5 km (n-167)		5-10 km (n-188)		
	No.	%	No.	%	
Yes	121	72.46	128	68.09	0.369(0.806)
No	46	27.54	60	31.91	

Health problems and symptoms in past one year (2024-25)

Table 3.12 shows health problems and symptoms in past one year among adult participants in Sonbhadra and Varanasi. All health problems/symptoms were significantly higher in Sonbhadracompared to Varanasi over the previous 12 months. Most common(75.5%) health problem in Sonbhadra was dry cough.

A significantly higher percentage of participants in Sonbhadra reported all health issues, including dry cough/cough without sputum (75.5% vs. 45.9%). Itching(34.9%), burning in eyes(31%), breathing never satisfactory (29%) and gastric acidity (44.8%) were the other common symptoms in Sonbhadra. In Varanasi, cough without sputum(45.9%), fever(19.4%), gastric acidity(33.9%) and cough with sputum(44.3%) were common symptoms.

Table 3.12: Health problems/symptoms in past one yearinSonbhadra and Varanasi (Adult)

Symptoms	Sonbhadra (n-355)		Varanasi (n-434)		P value (Chi square)
	No.	%	No.	%	
Cough without sputum	268	75.5	199	45.9	<.001(71.0)
Cough with sputum	259	73.0	193	44.3	<.001(64.8)
Cough with blood	59	16.6	13	3.0	<.001(43.7)
Breathlessness at night	73	20.6	24	5.5	<.001(40.9)
Breathing never satisfactory	103	29.0	11	2.5	<.001(111)
Fever	154	43.4	84	19.4	<.001(53.5)
Running Nose	215	60.6	180	41.5	<.001(28.5)
Burning in eyes	110	31.0	87	20.5	<.001(12.5)
Itching in eyes	124	34.9	75	17.3	<.001(32.2)
Watering in eyes	124	34.9	145	33.4	0.654(0.201)
Loose Motions	140	39.4	136	31.3	0.018(5.63)
Hard stools	117	33	145	33.4	0.893(0.0180)
Gastric acidity	159	44.8	147	33.9	0.002(9.80)
Gum Swelling	243	68.5	114	26.3	<.002(140)

Itching	192	54.1	91	21.0	<.002(93.1)
Bleeding Gums	241	67.9	216	49.8	<.001(26.3)
Skin related symptoms	123	34.6	84	19.4	<.001(23.6)

Findings of Lipid Profile and Thyroid Profile

Table 3.13 shows lipid profile and thyroid profile among adult participants. Among those who were tested for thyroid hormones, 1(1.9%) washaving hypothyroidism in Sonbhadra.

Total cholesterol was high in 10(18.5%) persons from Sonbhadra and 10(17.24%) in Varanasi.

Total 52 and 62 persons were investigated for Thyroid profile respectively in Sonbhadra and Varanasi.

54 and 58 persons were investigated for lipids respectively in Sonbhadra and Varanasi.

Table 3.13: Findings of Lipid Profile and Thyroid Profile among adult participants

Parameter/Diagnosis	Classification	Sonbhadra		Varanasi	
		No.	%	No.	%
Thyroid Profile (Sonbhadra n-52, Varanasi n-62)	Hyperthyroidism	0	0	1	1.61
	Hypothyroidism	1	1.9	0	0
	Normal	51	98	61	98
Lipids (Sonbhadra n-54, Varanasi n-58) *(Values mentioned in brackets in classification are in mg/dL)*	High Total Cholesterol (≥200)	10	18.5	10	17.24
	High Triglycerides (≥150)	20	37	23	39.65
	Low HDL Cholesterol (<40	10	18.5	14	25.9
	Male, and <50 in Female)	32	59.2	17	29.3
	High LDL Cholesterol(≥100)	32	59.2	38	65.5
	High VLDL Cholesterol(≥40)	14	25.9	12	20.68
	Total cholesterol and LDL both are high	9	16	9	14.2

Chest X-Ray findings of adults in Varanasi and Sonbhadra

Table 3.14 showschest X Ray findings of adults in Sonbhadra and Varanasi. In Sonbhadra, 4 (20%) were having abnormal X-Ray findings while in Varanasi 2(20%) were having abnormal findings. There was no significant difference.

Table 3.14: Chest X-Ray findings of adults in Varanasi and Sonbhadra

Chest X-Ray Findings	Sonbhadra (n-20)		Varanasi (n-10)	
	No.	%	No.	%
Normal	16	80	8	80
Abnormal	4	20	2	20

Results – Children

Socio-Demographic characteristics of children

Table 4.1 shows residence, age and sex wise distribution of children in Sonbhadra and Varanasi. Rural-urban distribution was relatively similar between Sonbhadra and Varanasi (61.6% rural in Sonbhadra and 70.9% rural in Varanasi). Nearly equal number of boys and girls participated in the study, with 54.8% girls in Sonbhadra and 48.0% girls in Varanasi. Larger proportion of participants were in the 1-8 year age range (43.2% in Sonbhadra and 46.5% in Varanasi).

Table 4.1: Socio-Demographic characteristics of participants (children)

Characteristic	Sonbhadra (n-146)		Varanasi (n-127)	
	No.	%	No.	%
Residence				
Rural	90	61.6	90	70.9
Urban	56	38.4	37	29.1
Age (years)				
1-8	63	43.2	59	46.5
9-12	34	23.3	26	20.5
13-17	49	33.6	42	33.1
Sex				
Girl	80	54.8	61	48.0
Boy	66	45.2	66	52.0

Dust Exposure and symptoms of dust exposure among children in Sonbhadra and Varanasi

Table 4.2 shows dust exposure and symptoms of dust exposure among children. All 146(100%) children in Sonbhadra reported exposure to dust compared to 91(71.65%) in Varanasi. This indicates a statistically significant difference in environmental exposure between two locations, with Sonbhadra having a higher proportion of children exposed to dust.

Table 4.2: Dust Exposure among children in Sonbhadra and Varanasi

Exposure	Sonbhadra (n-146)		Varanasi (n-127)		P value (Chi square)
	No.	%	No.	%	
Exposed to dust	146	100	91	71.65	<0.001 (79.2)
Not Exposed to dust	0	0	36	28.34	

Table 4.3 shows the specific symptoms among participants who were exposed to dust. All the children in Sonbhadra had sneezing (100%) compared to Varanasi (79%). Breathlessness was also more common in Sonbhadra, with 21.23% reporting it, compared to 17.5% in Varanasi.

Table 4.3: Symptoms among participants who are exposed to dust (Children)

Symptom	Sonbhadra (n-146)		Varanasi (n-91)		P value (Chi Square)
	No.	%	No.	%	
Sneezing	146	100	72	79	<0.001(79.2)
Burning in eyes	66	45.20	69	75.8	0.133(2.26)
Chest tightness	46	31.50	26	28.5	0.039(4.26)
Breathlessness	31	21.23	16	17.5	0.059(3.55)

Note: Multiple answers

Asthma, Protracted Bacterial Bronchitis and proximity to TPP

Table 4.4 shows presence of asthma and protracted bacterial bronchitis among children in Sonbhadra and Varanasi. Total 8 (5.47%) children in Sonbhadra were classified as having asthma. It was significantly higher compared to Varanasi(1.57%). In 19(13.01%) children, protracted bacterial bronchitis was found in Sonbhadra while in Varanasionly 1 child (0.78%) was having this condition. Both findings were significantly higher in Sonbhadra.

Table 4.4: Asthma and Protracted Bacterial Bronchitis in Sonbhadra and Varanasi (Children)

Asthma/ Protracted Bacterial Bronchitis	Sonbhadra (n-146)		Varanasi (n-127)		P value (Chi square)
	No.	%	No.	%	
Asthma	8	5.47	2	1.57	0.087(2.93)
Protracted Bacterial Bronchitis	19	13.01	1	0.78	<.001(15.00)

Table 4.5 shows presence of asthma, protracted bacterial bronchitis and distance from TPP in Sonbhadra among children. Among 54children who were residing within 5 km of TPP, 08(14.81%) were having Asthma or/and history of protracted bacterial bronchitis while among 92 children who were residing within 5-10 km, 19 (20.65%) were having the condition. This difference between two groups was not significant.

Table 4.5: Presence of Asthma, Protracted Bacterial Bronchitis and Distance from TPP in Sonbhadra (Children)

Presence of Asthma/Protracted Bacterial Bronchitis	Distance from TPP				P value (Chi square)
	<5 km (n-54)		5-10 km (n-92)		
	No.	%	No.	%	
Asthma/Protracted Bacterial Bronchitis present	8	14.81	19	20.65	.380 (0.769)
Asthma/Protracted Bacterial Bronchitis not present	46	85.18	73	79.34	

Symptoms/health problems in last 12 months among participants (Children)

Table 4.6 shows symptoms and health problems in the past 12 months in study areas. Most of the symptoms were significantly more in Sonbhadra compared to Varanasi. Cough without sputum (dry cough) was most commonly reported symptom (71.2%) in Sonbhadra. Other common symptoms were fever(59.6%), cough with sputum(61.6%), running nose (58.2%), and burning eyes (23.2%). In

Varanasi, most common symptom was cough without sputum (37.8%) followed by running nose (29.9%), fever(23.6%) and loose motions (20.5%).

None of the children in Varanasi reported cough with blood, burning eyes, itching in eyes, watering in eyes, gum swelling and skin related problems.

Table 4.6: Symptoms/health problems in last 12 months among participants (Children)

Symptoms	Sonbhadra (n-146)		Varanasi (n-127)		P value (Chi Square/Fisher exact)
	No.	%	No.	%	
Cough without sputum	104	71.2	48	37.8	<.001(30.8)
Cough with sputum	90	61.6	43	33.9	<.001(21.0)
Cough with blood	10	6.8	0	0	0.003(9.03)
Breathing never satisfactory	33	22.6	0	0	<.001(32.7)
Fever	87	59.6	30	23.6	<.001(35.9)
Running Nose	85	58.2	38	29.9	<.001(22.0)
Burning eyes	34	23.3	0	0	<.001(33.8)
Itching in eyes	35	24.0	35	27.6	0.498(0.458)
Watering in eyes	21	14.4	0	0	<.001(19.8)
Loose Motions	41	28.1	26	20.5	0.145(2.12)
Hard stools	25	17.1	20	15.7	0.760(0.0933)
Gum swelling	24	16.4	22	17.3	0.846(0.0379)
Itching	33	22.6	26	20.5	0.670(0.182)
Skin related problems	31	21.2	8	6.3	<.001(12.4)

*P value by Fisher's exact or Chi square test as applicable.

Developmental milestones' delay in 12-59 months children

Table 4.7 shows delayed developmental milestones in 12 months to 59 months age group children who were eligible to check for the age-appropriate milestones. In Sonbhadra, most common delay was in visual fixation (73.3%) followed by single words (70.8%). In Varanasi, vocalisation (31.25%),

Hands and knees crawling(28%) and visual fixation (25%) were delayed in children. Large proportions of children had delayed milestones in Sonbhadra compared to Varanasi.

Table 4.7: Developmental milestones' delay in 12-59 months children

Delayed Milestone	Sonbhadra		Varanasi	
	No.	%	No.	%
Visual fixation (Sonbhadra n-30, Varanasi n-32)	22	73.3	8	25
Vocalisation (Sonbhadra n-30, Varanasi n-32)	21	70	10	31.25
Sitting without support (Sonbhadra n-30, Varanasi n-32)	09	30	7	21.8
Standing with assistance (Sonbhadra n-30, Varanasi n-32)	21	70	2	6.2
Hands-&-knees crawling (Sonbhadra n-30, Varanasi n-32)	21	70	09	28
Standing alone (Sonbhadra n-24, Varanasi n-28)	16	66.6	1	3.5
Walking alone (Sonbhadra n-24, Varanasi n-28)	13	54.1	2	7
Single words (Sonbhadra n-24, Varanasi n-28)	17	70.8	5	17.8
Imaginative play (Sonbhadra n-22, Varanasi n-24)	06	22.2	1	4.1

Behavioural and sleep related problems in past 12 months and proximity to TPP

Table 4.8 shows behavioural and sleep related problems in past 12 months among children in Sonbhadra and Varanasi. None of the children in both places had leg jerking, head rolling, lip smacking, hand flapping and walking in sleep problems. All behavioural problems were more in Sonbhadra compared to Varanasi. The difference between two places is statistically significant except

for difficulty in learning and behaviour related problems. Most common problem in Sonbhadra was leg cramps in sleep (56.16%) followed by grinding teeth. Total 62 (42.46%) children in Sonbhadra also reported to have difficulty in falling asleep. In Varanasi, 12 (9.4%) children had difficulty in falling asleep.

Table 4.8: Behavioural and sleep related problems in past 12 months in children

Behavioural and sleep related problems	Sonbhadra (n-146)		Varanasi (n-127)		Chi square(P value)
	No.	%	No.	%	
Difficulty in learning	49	33.56	23	18.11	0.004(8.35)
Behaviour related problems	16	10.95	10	7.97	0.386(0.750)
Difficulty in falling asleep	62	42.46	12	9.44	<.001(37.9)
Awakes frequently in the night	31	21.23	4	3.14	<.001(20.7)
Grinding teeth	80	54.79	30	23.62	<.001(44.6)
Talking in sleep	57	39.04	6	4.72	<.001(45.9)
Leg cramps in sleep	82	56.16	13	10.23	<.001(64.7)

Note: Multiple answers

Table 4.9 shows behavioural and sleep related problems in past 12 months among children in Sonbhadra and its association with distance of house from TPP. Difficulty in falling asleep, grinding teeth and leg cramps in sleep shows significant difference with a higher proportion of participants having <5 km distance from TPP.

Table 4.9: Behavioural and sleep related problems in past 12 months in children and Distance of house from TPP in Sonbhadra (Children)

Behavioural Problem	Distance from TPP				
	<5 km (n= 54)		5-10 km (n= 92)		P Value (Chi Square)
	No.	%	No.	%	
Difficulty in learning	26	48.14	23	25	0.004(8.18)
Behaviour related problems	10	18.51	6	6.52	0.025(5.02)

Difficulty in falling asleep	34	62.96	28	30.43	<0.001(18.5)
Awakes frequently in the night	16	29.62	15	16.30	0.056(7.58)
Grinding teeth	45	83.33	33	35.86	<.001(29.7)
Talking in sleep	30	55.55	27	29.34	0.008(11.8)
Leg cramps in sleep	43	79.62	39	42.39	<.001(26.8)

Status of Air,Water and Fly Ash related parameters

Status of Air Quality Index (AQI), PM10, PM2.5,PM1 in Sonbhadra and Varanasi

Table 5.1 shows categories of Air Quality Index (AQI) of participants' houses in Sonbhadra and Varanasi at the time of interview. None of the participants were living in good AQI category in Sonbhadra while in Varanasi 54.46% of the participants were living in good AQI category areas. Total 9.38% of partciipants were living in severe harmful category of AQI in Sonbhadra while in Varanasi, none of the participants was in severe AQI category.

Table 5.1: Status of AQI in Sonbhadra and Varanasi (all participants-adults and children)

AQI Category	Range	Sonbhadra (N-501)		Varanasi (N-538)	
		No.	%	No.	%
Good	0-50	0	0	293	54.46
Satisfactory	51-100	322	64	181	33
Moderate	101-200	83	16	20	3.7
Poor	201-300	24	4.79	41	7.62
Very poor	301-400	25	4.99	3	0.55
Severe	401-500	47	9.38	0	0

Table 5.2 shows PM1 categories of participants' houses in Sonbhadra and Varanasi. In Sonbhadra, 38.52% were living in good category while in Varanasi 52.04% were living in good category of PM1. In Sonbhadra, PM1 varied from 13 to 391 mcg/m3 while median PM1 level was 63 mcg/m^3. In Varanasi, it was 5.5 to 86 mcg/m^3 and median value was 18 mcg/m^3

Table 5.2: Status of PM1 in Sonbhadra and Varanasi (all participants-adults and children)

AQI Category	Range	Sonbhadra (N-501)		Varanasi (N-538)	
		No.	%	No.	%
Good	0-50	193	38.52	280	52.04
Satisfactory	51-100	142	28.34	153	28.43
Moderate	101-200	119	23.75	105	19.51
Poor	201-300	19	3.79	48	8.92
Very poor	301-400	8	1.59	0	0
Severe	401-500	20	3.99	0	0

Table 5.3 shows PM10 categories of participants' houses in Sonbhadra and Varanasi. In Sonbhadra, only 100 (19.96%) of the participants were living in good PM10 category while in Varanasi, majority 421 (78.25 %) had good category of PM10. No participant was living in very poor or severe category of PM10 in Varanasi while in Sonbhadra more than 7% were living in these categories.

Table 5.3: Status of PM10 in Sonbhadra and Varanasi (all participants-adults and children)

PM10 Category	Range (in mcg/m^3)	Sonbhadra (n-501)		Varanasi (n-538)	
		No.	%	No.	%
Good	0-50	100	19.96	421	78.25
Satisfactory	51-100	234	46.70	62	11.52
Moderate	101-250	111	22.15	44	8.17

Poor	251-350	19	3.79	11	2.04
Very poor	351-430	9	1.79	0	0
Severe	430+	28	5.58	0	0

Table 5.4 shows PM2.5 categories of participants' houses in Sonbhadra and Varanasi. In Sonbhadra only 28 (5.58%) were living in good category of PM2.5 while in Varanasi, 274 (50.93%) participants were living in good category. In Sonbhadra, a total of 46(9.18%) participants were residing in very poor category of PM2.5 level while only 3(0.56%) of participants were living in this category in Varanasi. There were 47(9.38%) participants living in severe category in Sonbhadra while in Varanasi no one was in this category.

Table 5.4: Status of PM 2.5 in Sonbhadra and Varanasi (all participants-adults and children)

PM2.5 Category	**Range (in mcg/m^3)**	**Sonbhadra (n-501)**		**Varanasi (n-538)**	
		No.	%	No.	%
Good	0-30	28	5.58	274	50.93
Satisfactory	31-60	239	47.50	200	37.17
Moderate	61-90	83	16.56	20	3.72
Poor	91-120	59	11.77	41	7.62
Very poor	121-250	46	9.18	3	0.56
Severe	250+	47	9.38	0	0

Status of Air Quality Index (AQI), PM10, PM2.5 in Sonbhadra and Varanasi in 2024-25

(Calculated from raw data available on https://uppcb.up.gov.in/en/page/ambient-air-quality-noise-data)

Table 5.5 shows median values of AQI, PM10 in Sonbhadra in 2024-25. Lowest AQI was in September 2024 and highest was in April 2024. Among 12 months AQI and PM10 was in satisfactory categories only in September.

Table 5.5: Monthly Median values of AQI and PM10 in Sonbhadra in 2024-25

S. No.	Month	Monthly Median value of AQI	Monthly Median value of PM10
1	Feb 2024	155	182.50
2	Mar 2024	157.50	185.96
3	Apr 2024	159.50	189
4	May 2024	143	164.50
5	June 2024	137.50	156
6	July 2024	121.50	132.50
7	August 2024	111.50	117
8	September 2024	59	59.99
9	October 2024	120.50	130.20
10	November 2024	130	145.50
11	December 2024	139	159.00
12	January 2025	153	180

Table 5.6 shows median values of AQI, PM10 in Varanasi in 2024-25. Lowest AQI was recorded in August and highest was seen in March. Among 12 months AQI was in satisfactory category during July 2024 to January 2025, in remaining months it was in poor category.

Table 5.6: Monthly Median values of AQI and PM10 in Varanasi in 2024-25

S. No.	Month	Monthly Median value of AQI	Monthly Median value of PM10
1	Feb 2024	131.80	147.64
2	Mar 2024	147.20	170.79
3	Apr 2024	146.20	169.26

4	May 2024	143.60	165.70
5	June 2024	112.80	119.37
6	July 2024	83.20	84.24
7	August 2024	73.60	7373
8	September 2024	78.20	78.25
9	October 2024	75.60	75.70
10	November 2024	78.40	78.27
11	December 2024	85.80	87.17
12	January 2025	89.40	91.65

Water quality indicators in Sonbhadra and Varanasi

Table 5.7 shows drinking water samples (10 samples from Sonbhadra and 10 samples from Varanasi) having high level of substances in undesirable amount. As compared to BIS guidelines of India, Aluminium levels were found to be higher in 8 samples in Sonbhadra. Similarly Manganese, Nickel, Lead and Mercury were higher in some samples as shown in table. Varanasi also had high levels of Manganese, Aluminium and Copper in some samples as shown in table 5.7.

Table 5.7: General parameters concerning heavy metals and acceptable limits

Parameters	Acceptable Limit as per BIS (in mg/dL)	No. of samples with unacceptable parameter	
		Sonbhadra (n-10)	Varanasi (n-10)
Chromium (Cr)	50	0	0
Manganese (Mn)	100	2(20%)	2(20%)
Nickel (Ni)	20	1(10%)	0
Arsenic (As)	10	0	0
Cadmium (Cd)	3	0	0
Lead (Pb)	10	1(10%)	0
Beryllium (Be)	4 (as per USEPA)	0	0
Aluminium (Al)	30	8(80%)	1(10%)
Copper (Cu)	50	0	1(10%)
Zinc (Zn)	5000	0	0
Antimony (Sb)	20 (as per WHO)	0	0
Selenium (Se)	10	0	0

Mercury (Hg)	1	1(10%)	0
Silver (Ag)	100	0	0

**For Beryllium(Be), 9 samples could be tested due to technical reasons.*

Heavy Metals In Fly Ash Samples of Sonbhadra

Table 5.8 shows the levels of heavy metals in fly ash samples collected from following seven areas:

1. Renusagar - Hindalco Industry limited Village-Partaliya, District-Sonbhadra
2. Hindalco TPP- Silo Area, E 87, Parasi Rd Garbandha Anpara, Renusagar
3. Hindalco - E 86, Parasi Rd Garbandha Anpara
4. UPRVUNL - Gate No.-2 NH75 Near WIE colony, Anpara C TPP Anpara
5. UPRVUNL - Gate No.-3 NH75 Near Bejarang Nagar, Anpara D thermal Power Plant Anpara
6. Meil – Anpara Energy limited gate-No.2, Megha thermal power station Anpara
7. Meil – Anpara Energy limited gate-No.3, Anpara

Table 5.8: Levels of heavy metals in fly ash samples in Sonbhadra

S No.	Substance Parameter (in mg/kg)	Area of fly ash sample						
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7
1	Beryllium (Be)	0.279	0.817	0.507	0.278	0.224	0.338	0.505
2	Chromium (Cr)	14.638	15.148	12.054	2.900	7.017	6.908	5.76
3	Manganese (Mn)	128.65	203.815	256.955	75.086	117.452	302.903	166.792
4	Cobalt (Co)	3.105	5.899	3.9324	1.779	2.805	2.637	3.183
5	Nickel (Ni)	8.606	18.409	12.187	7.125	10.216	8.913	9.832
6	Copper (Cu)	9.339	17.541	11.64	7.591	9.223	5.176	6.789
7	Zinc (Zn)	241.86	37.218	22.480	171.4	19.562	12.561	21.258
8	Arsenic (As)	3.69	5.732	3.51	3.504	3.286	1.945	2.906
10	Selenium(Se)	3.975	5.508	5.0412	2.937	4.166	2.611	3.282
11	Cadmium(Cd)	0.224	0.451	0.236	0.243	0.195	0.099	0.136
12	Antimony(Sb)	0.379	0.147	0.105	0.021	0.3	0.357	0.231

13	Lead(Pb)	8.358	15.763	9.057	3.663	6.567	3.133	5.041
14	Aluminium(Al)	5882.8	9442.52	7531.03	2205.74	4947.66	3491.37	3616.77

Heavy Metals In Soil Samples of Sonbhadra

Table 5.9 shows the levels of heavy metals in soil samples collected from four areas:

1. Bhairwa, District Sonbhadra
2. Khadiya, District Sonbhadra
3. Bina, District Sonbhadra
4. Anpara, District Sonbhadra

Table 5.9: Levels of heavy metals in soil samples in Sonbhadra

S No.	Parameter (in mg/kg)	Area 1	Area 2	Area 3	Area 4
1	Beryllium (Be)	0.2304	0.3096	0.3264	0.4512
2	Chromium (Cr)	18.5364	13.9824	16.914	8.6412
3	Manganese (Mn)	203.4936	78.8088	94.3788	119.5752
4	Cobalt (Co)	3.4596	2.1912	2.9088	2.4468
5	Nickel (Ni)	10.5828	8.7864	10.8612	6.882
6	Copper (Cu)	62.4876	6.156	6.87	4.7088
7	Zinc (Zn)	105.9048	11.8584	14.3448	16.1964
8	Arsenic (As)	2.5584	2.9376	2.5368	1.398
10	Selenium(Se)	2.958	3.5904	4.2936	2.8548
11	Cadmium(Cd)	3.7104	0.1416	0.1044	0.102
12	Antimony(Sb)	2.8404	0.2772	0.2652	0.1512
13	Lead(Pb)	42.4248	5.5656	6.5184	6.2544
14	Aluminium(Al)	4806.1056	10374.7092	11890.2948	4133.406

CONCLUSION

The comparative analysis of Varanasi and Sonbhadra reveals considerable environmental and health differences caused by industrialization in Sonbhadra. Sonbhadra has poorer air and water quality than Varanasi. Previous year's data also shows that air quality is unhealthy in Sonbhadra.

Environmental assessments show that Sonbhadra's air quality is poor, with a higher proportion of the population exposed to severe AQI categories. Almost all subjects reported dust exposure, primarily from industrial processes.

Respiratory problems such as cough, asthma, chronic bronchitis, protracted bacterial bronchitis are prominently present in Sonbhadra. Skin and eye related problems are very common and easily observed in Sonbhadra. History of stroke and transient ischemic attack(TIA), poor sleep quality are also present in Sonbhadra.

In control area, problems are very less compared to Sonbhadra.

In conclusion, TPPs operation in the area is badly affecting people's health in Sonbhadra and it is should be taken seriously.

RECOMMENDATIONS

- Stations for air quality monitoring should be more in number near to population compared to existing stations. UPPCB
- Coal transportation in the area should be managed stringently with all precautions and safety. coal depth
- Water Quality Monitoring: Emphasis should be on preventing water pollution and disinfection of water at city supply level and household level. clean water
- Healthcare Initiatives: Instead of more and more research focus should be now on action to prevent health problems and treat those who are affected, a health care programme specifically for population residing near thermal power plants should be started to manage and prevent. Health depatt.
- Community Awareness Programs: Conduct awareness activities to raise awareness about pollution concerns, prevention. awareness DA | UPPCB
- Intersectoral coordination: Encourage collaboration between various government agencies, industries, NGOs, and local communities to solve the big concern of pollution.
- Thermal power plants should shift their source of fuel from coal to other non-polluting sources. TPP

REFERENCES

S.N.	Reference
1	Shetty SS, Sonkusare S, Naik PB, Kumari N S, et al. Environmental pollutants and their effects on human health. Heliyon. 2023 Sep 1;9(9):e19496.
2	Chen Y, Fan Y, Huang Y, Liao X, Xu W, Zhang T. A comprehensive review of toxicity of coal fly ash and its leachate in the ecosystem. Ecotoxicol Environ Saf. 2024 Jan 1;269:115905.
3	Vargas Buonfiglio LG, Mudunkotuwa IA, Abou Alaiwa MH, Vanegas Calderón OG, Borcherding JA, Gerke AK, et al. Effects of Coal Fly Ash Particulate Matter on the Antimicrobial Activity of Airway Surface Liquid. Environ Health Perspect. 2017 Jul 5;125(7):077003.
4	Tian Q, Guo B, Nakama S, Sasaki K. Distributions and Leaching Behaviors of Toxic Elements in FlyAsh. ACS Omega. 2018 Oct 11;3(10):13055–64.
5	Yadav AK, Shirin S, Emmanouil C, Jamal A. Effect of seasonal and meteorological variability of air pollution in Sonbhadra coalfield. Aerosol. Sci. Eng. 2022, 6, 61- 70.
6	Billings P. Emissions Of Hazardous Air Pollutants From Coal-Fired Power Plants.
7	Brabin B, Smith M, Milligan P, Benjamin C, Dunne E, Pearson M. Respiratory morbidity in Merseyside schoolchildren exposed to coal dust and air pollution. Arch Dis Child.1994, 70(4), 305e312.
8	Analysis of Air and Soil Quality around Thermal Power Plants and Coal Mines of Sonbhadra Region, India [Internet]. [cited 2025 Jan 13]. Available from: https://www.researchgate.net/publication/363569695_Analysis_of_Air_and_Soil_Quality_around_Thermal_Power_Plants_and_Coal_Mines_of_Sonbhadra_Region_India).
9	Mishra UC. Environmental impact of coal industry and thermal power plants in India. J Environ Radioact. 2004 Jan 1;72(1):35–40.
10	Sonbhadra District Profile. Available from: https://Sonbhadra.nic.in/en/demography/
11	Tanja Pless-Mulloli, Denise Howel, Helen Prince. Prevalence of asthma and other respiratory symptoms in children living near and away from opencast coal mining sites. International Journal of Epidemiology,2001; 30 (3);556-63, https://doi.orq/10.1093/ije/30.3.556.

12	Burney PG, Laitinen LA, Perdrizet S, et al. Validity and repeat- ability of the IUATLD (1984) Bronchial Symptoms Questionnaire: an international comparison. Eur Respir J, 1989; 2: 940– 45.
13	Jindal S K, Gupta D, Aggarwal A N, Jindal R C, Singh V. Study of the prevalence of asthma in adults in North India using a standardized field questionnaire. J Asthma 2000; 37: 345-51.
14	Aggarwal AN, Chaudhry K, Chhabra SK, et al. Prevalence and risk factors for bronchial asthma in Indian adults: a multi- centre study. Indian J Chest Dis Allied Sci 2006; 48: 13–22.
15	Jindal SK, Aggarwal AN, Chaudhry K, et al. A multicentric study on epidemiology of chronic obstructive pulmonary disease and its relationship with tobacco smoking and environmental tobacco smoke exposure. Indian J Chest Dis Allied Sci 2006; 48: 23–29.
16	Definition and classification of chronic bronchitis for clinical and epidemiological purposes. A report to the Medical Research Council by their Committee on the Aetiology of Chronic Bronchitis. Lancet 1965; 1: 775–9.
17	Jones WJ, Williams LS, Meschia JF. Validating the Questionnaire for Verifying Stroke-Free Status (QVSFS) by neurological history and examination. Stroke. 2001;32:2232–2236. doi: 10.1161/hs1001.096191.
18	https://cdn.who.int/media/docs/default-source/child-growth/child-growth-standards/indicators/motor-development-milestones/mm_windows_table.pdf?sfvrsn=cb31ec78_5
19	National Air Quality Index available from: https://cpcb.nic.in/displaypdf.php?id=bmF0aW9uYWwtYWlyLXF1YWxpdHktaW5kZXgvRklOQUwtUkVQT1JUX0FRSV8ucGRm
20	https://cpcb.nic.in/wqm/BIS_Drinking_Water_Specification.pdf

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Annexure-2

कार्यालय जिलाधिकारी, सोनभद्र

पत्रांक– G0194 /O.A.No. 240/2024/26

दिनांक– 16/03/2026

1. सीनियर जिओ फिजिसिस्ट,
   भूगर्भ जल विभाग खण्ड–मिर्जापुर,
   जंगी रोड,
   जनपद–मिर्जापुर।
2. अधिशासी अभियन्ता,
   उ0प्र0 जल निगम (ग्रामीण),
   सोनभद्र।

विषयः–मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ0ए0 संख्या–240/2024 (आई0ए0 नं0–437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी एवं अन्य में पारित आदेशों के अनुपालन में केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा प्रेषित रिपोर्ट में दिये गये सुझाव/संस्तुतियों के अनुपालन के सम्बन्ध में।

उपरोक्त विषयक संदर्भ में मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ0ए0 संख्या–240/2024 (आई0ए0 नं0–437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी एवं अन्य में पारित आदेशों के अनुपालन में केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा प्रेषित रिपोर्ट में दिये गये सुझाव/संस्तुतियाँ निम्नवत् हैः–

a) The ground water quality of the area needs to be extensively and regularly monitored by the ground water department and investigation be carried out about the causes of occurrences of elements (Iron, Fluoride, Nitrates and Mercury) in concentration higher than BIS drinking water quality specifications.
b) The concerned department must provide safe drinking water in areas where water quality is not fit for drinking, either through water treatment plants or by supplying from other sources.

अतः आपको निर्देश दिये जाते हैं कि उक्त सुझाव/संस्तुतियों के सम्बन्ध में अपने विभाग से सम्बन्धित विन्दुओं पर आवश्यक कार्यवाही करते हुये अनुपालन आख्या अविलम्ब एक सप्ताह में प्रेषित करना सुनिश्चित करें।

(बद्री नाथ सिंह)
जिलाधिकारी,
सोनभद्र

o/c
R
R.O.

Annexure-3

कार्यालय
सीनियर जियोफिजिसिस्ट
भूगर्भ जल विभाग जियोफिजिकल सर्वे खण्ड
मीरजापुर।

पत्रांक– /भू0ज0वि0/जि0स0खं0–मी0/ /दिनांक/मीरजापुर: 28/03/ 2026

विषयः मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ0ए0 सं0–240/2024 (आई0ए0 नं0–437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी एवं अन्य में पारितआदेशों के अनुपालन में केन्द्रीय प्रदूषण नियन्त्रण बोर्ड द्वारा प्रेषित रिपोर्ट में दिये गये सुझाव/संस्तुतियों के अनुपालन के सम्बन्ध में।

जिलाधिकारी महोदय, जनपद–सोनभद्र।

महोदय, आपका पत्रांक–G0194/O.A.No. 240/2024/26, दिनांक–16.03.2026 का संदर्भ ग्रहण करने की कृपा करें। जिसके क्रम में मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ0ए0 सं0–240/2024 (आई0ए0 नं0–437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी एवं अन्य में पारित आदेशों के अनुपालन में केन्द्रीय प्रदूषण नियन्त्रण बोर्ड द्वारा प्रेषित रिपोर्ट में दिये गये सुझाव/संस्तुतिया निम्नवत् है।

A) The Ground Water quality of the area needs to be extensively and regularly monitored by the ground water department and investigation be carried out about the causes of occurrences of elements (Iron, fluoride, Nitrates and Mercury) in concentration higher than BIS drinking water quality specifications.
B) The concerned department must provide safe drinking, either through water treatment plants or by supplying from other sources.

उक्त बिन्दु संख्या (A) के क्रम में अपको सादर अवगत कराना है कि खण्डीय कार्यालय द्वारा सोनभद्र के 10 विकास खण्डों में से प्रत्येक विकास खण्ड में 03 चयनित स्थलों से (कुल 30) जल नमूनें एकत्रित कर रासायनिक विश्लेषण हेतु सीनियर हाइड्रोलाजिस्ट, भूगर्भ जल विभाग, भूजल भवन, रासायनिक प्रयोगशाला लखनऊ को प्रेषित किया जा चुका है।

महोदय, भविष्य में भूजल नमूनों का रासायनिक विश्लेषण मा0 राष्ट्रीय हरित अधिकरण (Hon. NGT) के निर्देशानुसार कराया जयेगा।

संलग्नक:- चयनित भूजल नमूनों के स्थलों की सूची।

(स्वप्निल कुमार राय)
सीनियर जियोफिजिसिस्ट

पत्रांक–646/भू0ज0वि0/जि0स0खं0–मी0/दिनांक/मीरजापुर ।

प्रतिलिपिः– क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र को आवश्यक कार्यवाही हेतु प्रेषित।

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(स्वप्निल कुमार राय)
सीनियर जियोफिजिसिस्ट

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जनपद–सोनभद्र

क0स0	जनपद	वि0 ख0	नमूनो के स्थल	स्रोत	अक्षांश	देशांतर
1	सोनभद्र	म्योरपुर	कार्यालय वि0ख0 अधिकारी परिसर म्योरपुर	हैण्डपम्प	24.137911	83.054647
2	सोनभद्र	म्योरपुर	ग्राम–खैराही, वि0ख0–म्योरपुर नन्दलाल के घर के पास	हैण्डपम्प	24.169762	83.076338
3	सोनभद्र	म्योरपुर	ग्राम–देवरी, वि0ख0–म्योरपुर रामाधीन के घर के पीछे	हैण्डपम्प	24.071153	83.046372
4	सोनभद्र	दुद्धी	कार्यालय वि0ख0 अधिकारी परिसर, दुद्धी	हैण्डपम्प	24.215094	83.235571
5	सोनभद्र	दुद्धी	ग्राम–हाथीनाला, वि0ख0– दुद्धी, शंकर जी के मंदिर के पास	समरसिबल	24.301721	83.0922
6	सोनभद्र	दुद्धी	ग्राम–रजखड, वि0ख0– दुद्धी	हैण्डपम्प	24.23172	83.19556
7	सोनभद्र	चोपन	वि0 ख0–चोपन परिसर के बाहर	हैण्डपम्प	24.513234	83.02316
8	सोनभद्र	चोपन	ग्राम पंचायत सचिवालय, पनारी के परिसर में	समरसिबल	24.346255	83.06213
9	सोनभद्र	चोपन	डाला, वि0 ख0– चोपन, शिव मंदिर के बगल में	हैण्डपम्प	24.457288	83.043097
10	सोनभद्र	बभनी	स्टेट बैंक ऑफ इंडिया के सामने वि0ख0 कार्यालय के पास	हैण्डपम्प	23.952816	83.07663
11	सोनभद्र	बभनी	प्रा0 वि0 –भवर के परिसर में	हैण्डपम्प	23.938957	82.960015
12	सोनभद्र	बभनी	परिवार कल्यान केन्द्र,असनहर के परिसर में	हैण्डपम्प	23.974156	83.04297
13	सोनभद्र	घोरावल	प्रा0 वि0 –पेढ के परिसर में	हैण्डपम्प	24.782246	82.761445
14	सोनभद्र	घोरावल	प्रा0 वि0 –फूलवारी पूरना के परिसर में	समरसिबल	24.755825	82.715603

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15	सोनभद्र	घोरावल	वि०ख० अधिकारी, घोरावल परिसर में	हैण्डपम्प	24.749099	82.84426
16	सोनभद्र	राबर्ट्सगंज	प्रा० वि० –पसहीकलां के परिसर में	हैण्डपम्प	24.732979	83.405944
17	सोनभद्र	राबर्ट्सगंज	दुर्गा शिव मंदिर के परिसर में	समरसिबल	24.635012	83.103926
18	सोनभद्र	राबर्ट्सगंज	वि०ख० अधिकारी, राबर्ट्सगंज परिसर में	हैण्डपम्प	24.6565	83.058575
19	सोनभद्र	चतरा	प्रा० वि० –रामगढ के परिसर में	हैण्डपम्प	24.668062	83.247193
20	सोनभद्र	चतरा	ग्राम –निपनियां, वि०ख० चतरा	हैण्डपम्प	24.685404	83.180605
21	सोनभद्र	चतरा	प्रा० वि० –कुसुम्हा के परिसर में	हैण्डपम्प	24.653503	83.137144
22	सोनभद्र	नगवां	ग्राम–खलियारी के मंदिर के परिसर मे	हैण्डपम्प	24.728826	83.364742
23	सोनभद्र	नगवां	ग्राम –भैरामपुर, वि०ख०–नगवां	हैण्डपम्प	24.71525	83.330827
24	सोनभद्र	नगवां	प्रा० चिकित्सालय, वैनी के परिसर में	हैण्डपम्प	24.721546	83.330838
25	सोनभद्र	करमा	उ० प्रा० वि० –सिरविट	समरसिबल	24.803826	82.928672
26	सोनभद्र	करमा	पू० मा० वि०– करमा	हैण्डपम्प	24.827563	82.938025
27	सोनभद्र	करमा	खैराही रेलवे स्टेशन के पास	समरसिबल	24.801132	82.985366
28	सोनभद्र	कोन	प्रा० वि० –कोन	हैण्डपम्प	24.428374	83.350697
29	सोनभद्र	कोन	खेमपुर ग्राम	हैण्डपम्प	24.436362	83.315273
30	सोनभद्र	कोन	प्रा० वि० –नौडिहां	हैण्डपम्प	24.441537	83.271103

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कार्यालय अधिशासी अभियन्ता,

खण्ड कार्यालय उत्तर प्रदेश जल निगम (ग्रामीण), सोनभद्र–231216
E-Mail Id-eecdjnsonebhadra@gmail.com CUG Mobile No.- +91 9473941817

पत्रांक 531 / M-12 / 02 दिनांक– 23.03.2026

सेवा में,

क्षेत्रीय अधिकारी,
प्रदूषण नियंत्रण बोर्ड,
सोनभद्र।

विषयः– मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा ओ0ए0 सं0 240/2024 (आई0ए0 सं0 437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी व अन्य बनाम यूनियन ऑफ इण्डिया व अन्य में परित आदेश दिनांक 08.07.2025 के अनुपालन में प्रमुख सचिव पर्यावरण, वन एवं जलवायु परिर्वतन विभाग, उ0प्र0 शासन की अध्यक्षता में दिनांक 26.11.2022 को सम्पन्न बैठक की कार्यवृत्ति की अनुपालन आख्या प्रेषण के सम्बन्ध में।

महोदय,

उपरोक्त विषयक विशेष सचिव, उ0प्र0 शासन, लखनऊ के पत्रांक संख्या– एन.जी.टी.–656/81–7–2025–1805509 पर्यावरण, वन एवं जलवायु परिवर्तन अनुभाग–7 लखनऊ दिनांक 29 अगस्त 2025 के क्रम में मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा ओ0ए0 सं0 240/2024 (आई0ए0 सं0 437/2024) सिंगरौली प्रदूषण मुक्ति वाहिनी व अन्य बनाम यूनियन ऑफ इण्डिया व अन्य में परित आदेश दिनांक 08.07.2025 के अनुपालन में प्रमुख सचिव, पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, उ0प्र0 शासन की अध्यक्षता में दिनांक 26.11.2025 को सम्पन्न तैयारी बैठक के कार्यवृत्त की अनुपालन आख्या निम्नानुसार है–

सुझाव सं0	एजेण्डा बिन्दु	अनुपालन आख्या
Pipe line Works – Land Status		
1	**Basti Kuber Nagar,** Village Chilkadand (situated on railway land)	No Pipe line work done due to railway land
2	**Basti Shivaji Nagar** and **Prem Nagar** (situated on NTPC land)	No pipe line work done due to NTPC land.
Potable Water Supply – Fluoride – Affected Village		
3	54 villages were stated to be fully receiving potable water thrugh piped supply.	61 villages were stated to be fully receiving potable water thrugh piped supply.
4	11 Villge were receiving approximately 50-70% supply	15 Villge were receiving approximately 40-60% supply
5	38 Village where pipeline testing work was reported to be underway.	27 Village where pipeline testing work was reported to be underway.

भवदीय,

(अरूण सिंह)
अधिशासी अभियन्ता

कार्यालय अधिशासी अभियन्ता, खण्ड कार्यालय, उ0प्र0 जल निगम (ग्रामीण), सोनभद्र।

जनपद सोनभद्र की फ्लोराइड प्रभावित ग्रामों में पाइप पेयजल योजनाओं के माध्यम से की जा रही जलापूर्ति की स्थिति का विवरण।

Sl. NO.	Block Name	Village Name	Name of scheme	जलापूर्ति की स्थिति (55 लीटर प्रति व्यक्ति)
1	2	3	5	6
1	बभनी	धनखोर	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
2	बभनी	घघरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
3	बभनी	घघरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
4	बभनी	खोतोमहुआ	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
5	म्योरपुर	झीलो	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
6	बभनी	झनकपुर	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
7	बभनी	इकदिरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
8	बभनी	बरवा टोला	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
9	बभनी	बरवे	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
10	बभनी	सेलंग	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
11	म्योरपुर	कुण्डाडीह	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
12	म्योरपुर	कुदरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
13	बभनी	कनवा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
14	म्योरपुर	महरीकला	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
15	म्योरपुर	शिशवा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
16	बभनी	हथियार	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
17	बभनी	भलपहरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
18	बभनी	पोखरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
19	म्योरपुर	राजा सरई	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
20	बभनी	रन्दह टोला	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
21	बभनी	सहगोड़ा घघरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
22	म्योरपुर	सागोबांध	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
23	बभनी	सवरां	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
24	म्योरपुर	सुपाचुआ	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
25	बभनी	सतबहनी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
26	दुद्धी	डूमरडीहा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
27	म्योरपुर	डडिहरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
28	बभनी	डूभा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
29	बभनी	चपकी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
30	बभनी	चौना	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
31	म्योरपुर	चैरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
32	बभनी	चैनपुर	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
33	बभनी	जोबेदह	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
34	बभनी	जूरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ

Sl. NO.	Block Name	Village Name	Name of scheme	जलापूर्ति की स्थिति (55 लीटर प्रति व्यक्ति)
1	2	3	5	6
35	म्योरपुर	नेमना	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
36	म्योरपुर	अंजानी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
37	बभनी	अरझट	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
38	बभनी	असनहर	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
39	बभनी	असनडीह	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
40	बभनी	टेकुआरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
41	म्योरपुर	गम्भीरपुर	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
42	म्योरपुर	गाबिन्दपुर	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
43	म्योरपुर	लौबन्द	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
44	दुद्धी	मनबसा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
45	बभनी	बभनी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
46	बभनी	मुनगाडीह	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
47	म्योरपुर	मनरू टोला	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
48	म्योरपुर	किरबिल	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
49	म्योरपुर	पिण्डारी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
50	म्योरपुर	सिरसोती	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
51	म्योरपुर	खैराही	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
52	म्योरपुर	काचन	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
53	म्योरपुर	नधिरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
54	म्योरपुर	आरंगपानी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
55	म्योरपुर	रासपहरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
56	दुद्धी	मझौली	झीलो बीजपुर ग्राम समूह पेयजल योजना	हॉ
57	म्योरपुर	बेलवादह	परासी बेलवादह ग्राम समूह पेयजल योजना	हॉ
58	म्योरपुर	परतलिया	परासी बेलवादह ग्राम समूह पेयजल योजना	हॉ
59	म्योरपुर	मकरा	परासी बेलवादह ग्राम समूह पेयजल योजना	हॉ
60	म्योरपुर	मकरा खास	परासी बेलवादह ग्राम समूह पेयजल योजना	हॉ
61	म्योरपुर	सेन्दुर जरहा	परासी बेलवादह ग्राम समूह पेयजल योजना	हॉ

अधिशासी अभियन्ता

कार्यालय अधिशासी अभियन्ता, खण्ड कार्यालय, उ0प्र0 जल निगम (ग्रामीण), सोनभद्र।

जनपद सोनभद्र में फ्लोराइड प्रभावित ग्राम, जिनमें 40–60 प्रतिशत जलापूर्ति की जा रही है। शेष घरों हेतु पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।

Sl. NO.	Block Name	Village Name	Name of scheme	टिप्पणी
1	2	3	5	6
1	बभनी	बचरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
2	बभनी	डूमरहर	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
3	दुद्धी	झारोखुर्द खास	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
4	दुद्धी	बीडर	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
5	म्योरपुर	परनी	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
6	म्योरपुर	पड़री	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
7	दुद्धी	गुलालझरिया	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
8	म्योरपुर	म्योरपुर	झीलो बीजपुर ग्राम समूह पेयजल योजना	आंशिक जलापूर्ति हो रही है।
9	बभनी	सेमरिया	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन मार्ग चौड़ीकरण में आने के कारण क्षतिग्रस्त हो गयी है। वर्तमान में जलापूर्ति नही हो रही है।
10	चोपन	कचनरवा	हर्रा ग्राम समूह पेयजल योजना	योजना से जलापूर्ति की जा रही थी वर्तमान में नदी की धारा परिवर्तन होने के कारण योजना पर रॉ–वाटर प्राप्त नही हो पा रहा है, जिस कारण योजना से जलापूर्ति बन्द है। नदी में सैण्ड ड्रेजिंग का कार्य प्रगति पर है। ड्रेजिंग का कार्य पूर्ण होने के उपरान्त योजना से जलापूर्ति प्रारम्भ करा दी जायगी।
11	चोपन	कुड़वा	हर्रा ग्राम समूह पेयजल योजना	
12	चोपन	मोइद्दीनपुर	हर्रा ग्राम समूह पेयजल योजना	
13	चोपन	औरडांड	हर्रा ग्राम समूह पेयजल योजना	
14	चोपन	पीपरखाड़	हर्रा ग्राम समूह पेयजल योजना	
15	चोपन	नरहटी	हर्रा ग्राम समूह पेयजल योजना	

अधिशासी अभियन्ता

कार्यालय अधिशासी अभियन्ता, खण्ड कार्यालय, उ0प्र0 जल निगम (ग्रामीण), सोनभद्र।

जनपद सोनभद्र में फ्लोराइड प्रभावित ग्राम, जिनमें पाइप लाइन टेस्टिंग एवं तत्सम्बन्धी कार्य प्रगति पर है का विवरण

Sl. NO.	Block Name	Village Name	Name of scheme	टिप्पणी
1	2	3	5	6
1	बभनी	तेन्दुअल	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
2	बभनी	नवडीहा	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
3	बभनी	गोहड़ा	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
4	म्योरपुर	जरहा	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
5	म्योरपुर	नौडिहा	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
6	दुद्धी	धनौरा	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
7	दुद्धी	खजुरी	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
8	दुद्धी	पीपरडीह	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
9	दुद्धी	रजखड़	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
10	दुद्धी	डुमरडीहा	झीलो बीजपुर ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
11	दुद्धी	धुमा	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
12	दुद्धी	बघमन्दवा	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
13	दुद्धी	बघाडू	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
14	दुद्धी	बोम	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
15	दुद्धी	केवाल	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
16	दुद्धी	घिवही	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
17	दुद्धी	परासपानी	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
18	दुद्धी	अमवार	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
19	दुद्धी	टेढ़ा	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
20	दुद्धी	निमियाडीह	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
21	दुद्धी	देवपुरा	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
22	दुद्धी	मुरीसेमर	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
23	दुद्धी	मेदनीखार	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
24	दुद्धी	चक फूलवार	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
25	दुद्धी	धरती डोलवा	अमवार ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।
26	चोपन	पड़रछ	पड़रछ ग्राम सूमूह पेयजल योजना	आंशिक रूप से जलापूर्ति की जा रही है। अवशेष घरों में जलापूर्ति हेतु पाइप लाइन विस्तार की कार्यवाही प्रक्रियाधीन है।
27	चोपन	बागेसोती	हर्रा कदरा ग्राम समूह पेयजल योजना	पाइप लाइन टेस्टिंग का कार्य प्रगति पर है।

अधिशासी अभियन्ता

Annexure-5

क्षेत्रीय कार्यालय,
REGIONAL OFFICE,
उ0प्र0 प्रदूषण नियंत्रण बोर्ड
U.P. POLLUTION CONTROL BOARD
सोनभद्र
SONBHADRA

संदर्भ संख्याः–
Ref.No.:G0235/O.A. No.240/2024/2026

दिनांकः–
Date:25.03.2026

सेवा में,

जिलाधिकारी महोदय,
सोनभद्र।

विषयः– मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ0ए0 संख्या–240/2024 (आई0ए0 नं0–437/2024) सिंगरौली प्रदूषण मुक्ति बनाम यूनियन ऑफ इंडिया व अन्य में पारित आदेश दिनांक–15.03.2024 के अनुपालन में जनपद–सोनभद्र में प्रदूषण नियंत्रण हेतु तैयार **CEPI Action Plan** एवं तापीय परियोजनाओं, खनन परियोजनाओं व अन्य उद्योगों हेतु एक्शन प्लान के विन्दुओं की अनुपालन के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषय का संदर्भ ग्रहण करने का कष्ट करें। उक्त के सम्बन्ध में जनपद–सोनभद्र में प्रदूषण नियंत्रण हेतु तैयार CEPI Action Plan एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा तापीय परियोजनाओं, खनन परियोजनाओं व अन्य उद्योगों से जनित प्रदूषण के नियंत्रण हेतु तैयार एक्शन प्लान के विन्दुओं की अनुपालन स्थिति/अनुपालन आख्या इस पत्र के साथ संलग्न कर आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु सादर प्रेषित है।

संलग्नकः–यथोपरि।

भवदीय,
25/3/26
(आर0के0 सिंह)
क्षेत्रीय अधिकारी

पृ0सं0 एवं दिनांक उपरोक्तानुसार।
प्रतिलिपिः– निम्नलिखित को सूचनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु सादर प्रेषितः–

1. मुख्य विधि अधिकारी (प्रभारी), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।
2. मुख्य पर्यावरण अधिकारी (वृत्त–2), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।

25/3/26
क्षेत्रीय अधिकारी

कार्यालय : लोढ़ी, राबर्ट्सगंज, सोनभद्र–231216
ई–मेल : **rosonbhadra@uppcb.in**

Office: Lodhi, Robertsganj, Sonbhadra-231216
E-mail: rosonbhadra@uppcb.in

Annexure-5A

REGIONAL OFFICE U.P. POLLUTION CONTROL BOARD, SONBHADRA

Compliacne Staus of CEPI COMPREHENSIVE ENVIRONMENTAL POLLUTION INDEX (CEPI) Action Points of Sonbhadra (U.P.)

S.No	Category	Action Point	Responsible Agency	Compliance Present Progress
1	Other	Noise Monitoring- Board is procuring real time noise monitoring system. This will be installed in Commercial, Residential, Industrial and Sensitive Zones of the Region.	UPPCB	50% Complying
2	Land Environment	Upcoming High Rise Buildings, Commercial Project, Educational Institution, Multi Plexes, Town ship & Building Projects are major source of Municipal Solid Waste, Such projects must ensure setting up of in house MSW disposal facilities as per MSW Rules & ensure compliance of the conditions of the Environment Clearance and NOC from PCB	Project Proponent, ULBs, Other	100% Complying
3	Land Environment	Strategy for implementation / setting up of integrated facility for MSW to be decided in consultation with local civic authority and implementation to be done in time bound manner.	Project Proponent, ULBs & Industries	50%Complying
4	Land Environment	Site selection for MSW disposal	Project Proponent, ULBs & Industries	100%Complying
5	Land Environment	Quantification of MSW	Project Proponent, ULBs & Industries	100%Complying
6	Land Environment	Municipal Solid waste disposal- Authority should develop proper MSW facility as per MSW Rules at Proper site.	Project Proponent, ULBs & Industries	80%Complying
7	Land Environment	Study of impact on Human Health of Water & Air Pollutants	IITR/Any other designated Agency	100%Complying
8	Land Environment	Land Pollution Testing- Soil testing of some large scale industry has been done and is being carried out every month from recognise Laboratory.	Individual Industry & UPPCB	80%Complying
9	Air Environment	Development of Green Belt-Development of Green Belt from 20% to 33% of the total area.	Individual Industry & UPPCB	100%Complying
10	Air Environment	Use of Cleaner Fuel- Time frame to be chalked out by RTO for conversion of all commercial vehicles such as Auto, Bus & Vikram into CNG.	RTO in consultation with gas companies	50%Complying
11	Air Environment	Display of AAQM Data- On line display of AAQM data at two different locations in the area need to be under taken by Industries association and UPPCB	Individual Industry & UPPCB	100%Complying
12	Air Environment	Installation of NAMP Station	UPPCB	100%Complying
13	Air Environment	Clean Fuel for Vehicles- Phasing out of old diesel commercial vehicles is being done as per policy.	RTO & Gas Companies	50 %Complying
14	Air Environment	Introduction of cleaner Fuel for Industrial Use- Currently industries are using Coal/ Petro Coke/Wood and FO/LDO/LSHS as a fuel which emits SPM and SO2 and other pollutants. If CNG is made available to industries the RSPM, SO2 will be reduced and Ambient Air Quality will be improved. Board has given NOC to IGL & Adani Group to provide CNG in Noida for vehicles as well as industrial & domestic use. These companies need to expedite there distribution network for the same at the earliest.	Gas and Oil Companies	NA
15	Air Environment	To supply and promote the use of cleaner fuel like CNG, in order to reduce emissions in the industrial	Individual Industry & UPPCB	100%Complying
16	Air Environment	Switching over to cleaner fuel has been proposed as the best option to control Air Pollution in Industrial Areas. Some industries have already switched to cleaner fuel technology. Technological intervention /switching over to cleaner fuel to be done in time bound manner.	Individual Industry & UPPCB	100%Complying
17	Air Environment	Regular Inspection and Monitoring of Hospitals / Nursing Homes has to be done	UPPCB	100%Complying
18	Air Environment	Proper Storage & Disposal of Hazardous Waste & Solid Waste	Individual Industry & UPPCB	100%Complying
19	Air Environment	Post inventorisation remedial action with respect to air and noise pollution from likely sources shall be taken against defaulters Installation of Acoustic Enclosure with adequate stack height in Old D G Sets to be ensured.	UPPCB	100%Complying
20	Air Environment	Monitoring of DG- Inventorisation of Old D.G. Sets in Industrial clusters and Commercial set ups including Multiplexes / Shopping Malls/ Educational Institution within or near industrial areas to be done by UPPCB.	UPPCB	100%Complying

S.No	Category	Action Point	Responsible Agency	Compliance Present Progress
21	Air Environment	UPPCL to ensure that electric connection is not sanctioned in favour of such industries which are not in conforming area	UPPCL, Electricity Board and Udyog Bandhu	100%Complying
22	Air Environment	Regular combined drives are to be carried out by Pollution Control board and District Administration to identify and seal illegally operating industrial activities.	UPPCB and District Admninistration	100%Complying
23	Air Environment	Regular Monitoring of Pollution Control System in Industries in order to ensure strict compliance of prescribed Norms.	UPPCB	100%Complying
24	Air Environment	Air Pollution Industries- A total of air polluting industries have been identified in the region.	UPPCB & Individual Industries	100%Complying
25	Water Environment	Ground Water Pollution- Ground water study may be carried out in all the 6 Industrial Clusters by Out Sourcing Agencies every 06 months.	UPPCB, Industries & Designated Agencies.	100%Complying
26	Water Environment	Widening and Covering of major open Nalas carrying domestic sewage	UPPCB, ULBs & PWD	70%Complying
27	Water Environment	Strategies regarding cleaner technologies in Paper Industries are to be conducted in a time bound manner. In the Waste Paper based units, stress is being laid for setting up of tertiary treatment facilities in order to ensure maximum recycling of treated waste water. Also recycling of the process water is being done as part of cleaner technologies.	UPPCB & Individual Industries	100%Complying
28	Water Environment	Water Pollution Industrial Source- Adoption of Cleaner Technology if available, in order to reduce quantity of waste water. Promote recycle after treatment for sector like Paper, Tannery.	UPPCB & Individual Industries	100%Complying
29	Water Environment	Upcoming High Rise Buildings, commercial Project, Educational institution, Multi Plexes, Town ship & Building Projects are major source of sewage generation and Municipal Solid Waste. Such projects must ensure setting up of STPs, recirculation of treated water for flushing/gardening regarding purpose & ensure compliance of the conditions of the Environment Clearance and NOC from PCB.	UPPCB and Local Authority.	50%Complying
30	Water Environment	Combined Inspection of STPs by UPPCB and Jal Nigam	UPPCB and Local Authority.	100%Complying
31	Water Environment	Domestic Waste water (Sewage)- Effective operation & Maintenance of installed STP.	UPPCB and Local Authority.	100%Complying
32	Water Environment	Intensive surveys will be done to ensure that practice of reverse boring is not prevalent in the region.	UPPCB and local Authority.	Ensured & Complying
33	Water Environment	Ground Water Pollution-Regular monitoring of Over Head Tanks supplying drinking water in the region and Rainy wells is proposed to be done by Regional Laboratory of State Pollution Control Board	UPPCB and local Authority.	50 %Complying
34	Water Environment	Up gradation of ETP- Conversion of conventional reduction treatment of electroplating waste water to Ion exchange method and its recycling in Large & Medium sector units, wherever existing ETP is not functioning properly. Prospective agents with expertise in this field shall be shortlisted in next 6 months. Also, small industries in the region currently using physic chemical treatment methods to treat their effluent shall be upgraded such as installation of dual media filter and Activated Carbon filter. Directions regarding installation of pH meter, automatic dozing and Maintenance and proper running of ETPs have also been given in the District Level Committee held on 28/5/2012.	Individual Industries (Large and Medium) & UPPCB	100%Complying
35	Water Environment	Up gradation of ETP in existing water polluting units is to be done on case to case basis. Under the up gradation plan, suitable tertiary treatment methods are to be installed in a time bound manner in order to ensure that treated water is recycled/reused to the Maximum extend	Individual Industries (Large and Medium) & UPPCB	100%Complying
36	Water Environment	Installation of energy meter, on line PH meter, automatic chemical dozing system, on line flow measurement and installation of independent laboratory to monitor critical parameters like MLSS, SVI etc. and other inlet and outlet parameters of ETP for Large & Medium Industries and industries situated.	Individual Industries (Large and Medium) & UPPCB	100%Complying
37	Water Environment	Water Pollution Industrial Source- Regular effluent sample collection and analysis of Pollution Control System in Large & Medium & Small Scale Polluting Industries to be done to ensure strict compliance of prescribed Norms	UPPCB & Individual Industry	100%Complying

Annexure-5B

REGIONAL OFFICE, U.P. POLLUTION CONTROL BOARD, SONBHADRA

Progress Status of implementation of Action Plan along with timeline by Thermal Power Plants, NCL Coal Mines, & Other Industries of District Sonbhadra

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
01	M/s NTPC SSTPS, Shaktinagar, Sonbhadra	➢ Fly ash utilization 60 % As on Jan, 2026 ➢ S1 & S2 Ash Dykes are in running condition ➢ AWRS installed DAES available ➢ CEMS & CAAQMS installed and complied ➢ Sprinkling system at the Ash Dyke installed ➢ Ash dyke stability report submitted, Bio-methanation plant available, PM and NO_X Regularly monitored and complied	➢ FGD installation work in all 7 units. ➢ Expansion of AWRS capacity ➢ DAES# Stage 1 and U#7 is under commissioning	➢ FGD expected To Be Commissioned y Dec.-2026 ➢ Dec.-2026 ➢ March-2027
02	M/s NTPC Rihandnagar, SSTP, Rihandnagar, Sonbhadra	➢ Fly ash utilization 63.93% as on Jan'25 (FY 2025-26), Ash dyke stability report is submitted. ➢ DAES available& Operational in Stage - II & Stage III ➢ CEMS & CAAQMS installed and complied ➢ PM and NO_X Regularly monitored and complied ➢ Sprinkling system at the Ash Dyke installed, Dry fog dust suppression system in Stage - III. Cold Fog	➢ FGD installation work in all units ➢ DAES in Stage - I	➢ FGD is expected to be commissioned by 31.07.2027 ➢ DAES Stage-I - Commissioned by 31.10.2026

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
		dust suppression system (CFDS) is commissioned & is operational in Stage – I & Stage – II. ➢ 3 Bio-methanation plant available		
03	M/s U.P. Rajya Vidyut Utpadan Nigam Ltd. (Anpara A, B & D TPS), Anpara, Sonbhadra	➢ Fly utilization 19.02 % As on Dec, 2025 ➢ AWRS installed ➢ Ash DAES available ➢ CEMS & 03 CAAQMS installed and complied ➢ Ash dyke stability report submitted ➢ NOX regularly monitored and complied in all units. ➢ MSW Facility installed and operational	➢ Re-tendering for ESPs installation at ATPS ➢ Renovation work almost completed at BTPS ➢ Anpara TPS applied for FGD exemption for A, B & D TPS.	December-2026
04	M/s MEIL Anpara Energy limited (formely M/s Lanco Anpara Power Limited, Anpara, Sonbhadra)	➢ Fly ash utilization 28.59 % As on Dec, 2025 ➢ AWRS installed ➢ DAES available ➢ CEMS & CAAQMS installed and complied ➢ PM and NOX Regularly monitored and complied ➢ Sprinkling system at the coal yard installed ➢ Dust extraction and dust suppression system provided.	➢ As per MoEF & CC issued a Notification No. G.S.R.465(E) dated 11th July 2025 the plant has field the amendment Application for exemption of applicability of sulphur dioxide standards MoEF&CC, New Delhi on 10th January 2026.	December-2028

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
05	M/s Hindalco Industries Limited, Renusagar Power Division, Renusagar	➢ Fly ash utilization 102.61 % As on Jan, 2026 ➢ Bichhari ash dyke operational so no legacy ash present ➢ Ash dyke stability report submitted ➢ AWRS installed and operational ➢ ZLD achieved ➢ DAES available ➢ CEMS & 03 CAAQMS installed and complied ➢ Sprinkling system at the Ash Dyke installed ➢ PM & NOX regularly monitored and complied	➢ FGD installation work in progress in Boiler 5	➢ Completed by Aug-2026, FGD Erection work is in progress.
06	M/s U.P. Rajya Vidyut Utpadan Nigam Ltd. (Obra A, B - TPS), Obra, Sonbhadra	➢ Fly ash utilization 31.82 % As on Nov, 2024 ➢ Ash dyke stability report submitted ➢ ZLD achieved ➢ Ash dyke stability report submitted ➢ DAES available, CEMS & CAAQMS installed and complied ➢ PM and NOX Regularly monitored and complied ➢ Sprinkling system at the Ash Dyke installed ➢ All old deposited ash has been removed and	➢ FGD installation ➢ Recommendation report for award to work of installation of DFAES for transportation of Fly Ash through Railway has been submitted by M/s RITES. ➢ Obra TPS has sent the negotiation report to HQ for further	➢ Terminated in December 2024. ➢ DFAES through railway will be installed by 2028.

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
		Desilted ash has been disposed in Low Lying area in Orba Sector 2 & 3 and stabilized with soil with Miyawaki Plantation.	course of action. The will be awarded by June 2026	
07	M/s Northern Coal Fields Limited, Bina Project, Bina , Sonbhadra	➢ 05 fog cannons. 02 nos. of truck mounted mist spray ➢ Installation of Automatic wheel washing system. ➢ Fire hydrant pipeline provided ➢ High capacity pressurised water tankers, 20 nos. water sprinklers ➢ 1 no road sweeping machine ➢ 2 nos. truck mounted mist spray gun ➢ ZLD achieved ➢ 1 no CAAQMS installed ➢ Transportation of coal through Railway Wagon and tarpaulin covered trucks ➢ Rain Water Harvesting at 4 places. ➢ Plantation activity along 1.2 km Auri-Shaktinagar highway ➢ 1 additional CAAQMS	➢ Construction of new CHP of 9.5 MTPA ➢ ETP & STP under upgradation by filter press, MGF, ACF etc. ➢ Carrying Capacity of Mine & ➢ traffic study (EC cond.)	➢ Completed in September 2025. ➢ 100 % work has been completed ➢ Carrying Capacity Study Completed. Report is awaited. ➢ Traffic Study completed.

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
08	M/s Northern Coal Fields Limited, Dudhichua Project, Dudhichua, Sonbhadra	➢ Maximum Coal transportation through MGR rest through Rail and covered trucks ➢ Closed Belt Conveyor System ➢ 08 Fixed type mist fog cannon ➢ 02 Truck Mounted Mist Spray System ➢ 02 no road sweeping machine ➢ 04 no rain water harvesting ➢ 01 CAAQMS installed ➢ Rain Water Harvesting at 4 places. ➢ 02 Nos. truck mounted mist spray system are deployed. ➢ Construction of new CHP of 10 MTPA ➢ 02 RCC Bunds constructed to prevent the entry of silt and discharge to Balia nala from mines. ➢ Construction of siltation ponds at 03 locations done ➢ Tyre washing system/mechanism completed Coal transporting vehicles on Road	➢ Semi Automatic Tarpaulin Covering System ➢ Hiring of two additional Truck mounted fog cannons ➢ Up gradation of existing ETP	➢ Tendering under process. To be completed by April- May 2026. ➢ Final Approval under process. To be completed by March –April 2026. ➢ Under approval. To be completed by March 2028.

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
09	M/s Northern Coal Fields Limited, Kakri Project, Kakri, Sonbhadra	➢ Maximum Coal transportation through MGR rest through Rail and covered trucks ➢ High capacity pressurised water tankers ➢ 02 water tankers for sprinkling ➢ 04 nos. of truck mounted fog cannon individual. ➢ 01 truck mounted mist spray guns ➢ 02 rain water harvesting system ➢ 01 CAAQMS installed ➢ Fire hydrant system installed ➢ ZLD achieved, ETP upgradation ➢ Plantation along road sides	➢ Tyre washing system/ mechanism for Coal transporting vehicles on Road. ➢ Construction of Wharf wall/Railway siding	➢ under process ➢ Platform work completed. Rail connectivity to wharf wall is to be done by East central railway. Further, Wharf wall is used Anpara TPS.
10	M/s Northern Coal Fields Limited, Khadia Project, Khadia, Sonbhadra	➢ Maximum Coal transportation through MGR rest through Rail and covered trucks. ➢ All approach road are metalled ➢ Fixed fog cannons are installed, 02 Road sweeping machines , Plantation on overburden dumps, 01 CAAQMS installed, 07 Rain water harvesting system, ZLD achieved , Fire hydrant system	➢ ETP under up-gradation. ➢ Tyre washing system/ mechanism for Coal transporting vehicles on Road. ➢ Construction of Wharf wall / Railway Siding	➢ Completed ➢ Completed ➢ Construction of Wharfwall work completed. A Rapid Loading System (RLS)

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
		installed		of 04 MTPA for dispatch of coal transportation through rail is under construction and will be completed by June 2026. Amendment in EC has been granted by MoEF&CC, Delhi for time extension of construction of RLS upto June 2026.
11	M/s Northern Coal Fields Limited, Krishnashila Project, Bina, Sonbhadra	➢ Maximum Coal transportation through belt pipe conveyer rest through Rail and covered trucks ➢ All CC roads completed ➢ CC road of 6.7 km for coal transportation ➢ 12 water sprinklers installed ➢ 01 Fixed fog cannon ➢ 02 Road sweeping machines ➢ 01 CAAQMS installed ➢ ZLD Achieved ➢ Rain water harvesting system at 07 places ➢ Fire hydrant provided ➢ Wheel washing facility for Bina & Krishnashilla at Bina	➢ Green belt ➢	➢ There is no make of mine water. The run-off water is collected in the sumps of capacity 460000 CuM and 55000 CuM, with additional intermediate sump of Capacity 360000 CuM. ➢ Afforestation and Green Belt developed as per EMP & Mine Closure Plan. Total 6.55 Lacs trees has been planted

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
		Entry Gate ➢ Sedimentation ponds		on 209 Ha. Land including Miyawaki Plantaion on 2.5 Ha. area
12	M/s Grasim Industries Limited Chemical Division, Renukoot, Sonbhadra	➢ ZLD Achieved ➢ APCS with online monitoring system ➢ Brine sludge is completely disposed through TSDF Kanpur Dehat. ➢ Ash disposal site reclaimed completely alongwith miyawaki plantation ➢ 63% of land area developed as green belt. ➢ Captive SLF for disposal of mercury sludge is fully capped. ➢ Process changed to membrane technology ➢ Water sprinklers installed for dust suppression. ➢ Miyawaki Plantation has been done inside the premises	➢ Miyawaki Plantation outside plant premises will be done	➢ Industry vide its email dated 04.06.2024 has informed that it has done Miyawaki Plantation inside its premises & at present Grasim has developed Approx. 63% Green Belt, inside the premises

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
	M/s Birla Carbon India Pvt. Ltd., Renukoot, Sonbhadra	➢ ZLD Achieved ➢ APCS with online monitoring system installed. ➢ PTZ camera installed for continuous monitoring of ZLD. ➢ Green belt developed. ➢ Water sprinklers installed for dust suppression. ➢ Miyawaki Plantation has been done inside the premises.	➢ Miyawaki Plantation outside plant premises will be done.	➢ Completed. As per given target they have completed the miyawaki project in 150 Sqmt
	Aluminum Smelter: M/s HINDALCO Industries Ltd, Renukoot, Sonbhadra	➢ ZLD Achieved ➢ 4.87 Lakh MT Bottom ash utilized for developing low lying area ➢ MSW processing facility operational ➢ APCS installed for process plant and fugitive emission. ➢ Water sprinklers installed for dust suppression. ➢ OCEMS installed on all stacks ➢ Red Mud is properly disposed. ➢ 100 % utilization of Ash	➢ Procurement of equipment for segregation of collected waste ➢ Red mud mixing with fly ash and disposal in abandoned mines proposed	➢ MSW Plant installed along with trammels of different sizes from 100 to 10 mm to segregate dry & wet waste and in operation since August 02, 2023. ➢ Contact has been

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
			➢ Feasibility study awarded to IIFM Bhopal.	awarded to M/s IIFM for conducting pilot study for backfilling of abandoned quarry in Dalla Region of approx. 0.5 Hectare area. ➢ Tripartite agreement between IIFM, UP Forest and AAI was done on 18.08.2023 ➢ IIFM Bhopal has issued permission letter on November 25.2024 to start the execution job. ➢ CCF had given concurrence dated December 22, 2024, on the revised DPR with 23 no's conditions to be complied. IIFM, Bhopal

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
				has submitted Compliance Report to CCF, Mirzapur on March 07, 2025, also issued approval to initiate execution job on March 24, 2025, at Dalla project site in compliance of finalized scheme. ➢ Execution Job at site has been initiated on March 27, 2025. ➢ Dewatering job of the site is going on. ➢ Execution work has been started at the site along with laying of liners as HDPE and GCL at bottom as well side wall.

Sl. No.	TPPS/Coal Mines/Other Industries	Completed	Under progress/ remaining works	Timeline/ Remarks
				➢ Sand laying work and drainage pipe installation job is going on. ➢ Expert Technical committee Members visit has been scheduled on 5th Feb 2026. ➢ Red mud dumping at site will start post visit of Technical Committee members.

25/3/26

R.K. Singh
(Regional Officer)

Annexure-6

क्षेत्रीय कार्यालय,
REGIONAL OFFICE,
उ0प्र0 प्रदूषण नियंत्रण बोर्ड
U.P. POLLUTION CONTROL BOARD
सोनभद्र
SONBHADRA

संदर्भ संख्याः– G0127/O.A.No -240/2026
Ref.No.:

दिनांकः– 20/02/2026
Date:

सेवा में,

श्री भंवर पाल सिंह जाडोन,
शासकीय अधिवक्ता उ0प्र0,
मा0 एन0जी0टी0,
नई दिल्ली–110001.
Email-bhanwar09jadon@gmail.com &
shivanshllm02122@nujs.edu

विषयः– मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ0ए0 संख्या–240/2024 (आई0ए0 नं0–437/2024) सिंगरौली प्रदूषण मुक्ति बनाम यूनियन ऑफ इंडिया व अन्य में पारित आदेश दिनांक–02.12.2025 के अनुपालन के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषय का संदर्भ ग्रहण करने का कष्ट करें। उक्त के सम्बन्ध में अवगत कराना है कि उपरोक्त प्रकरण में मा0 राष्ट्रीय हरित अधिकरण के आदेश दिनांक–09.09.2025 के अनुपालन में गठित संयुक्त समिति द्वारा बलिया नाला का निरीक्षण दिनांक–26.11.2025 को किया गया था। निरीक्षण के दौरान क्षेत्रीय कार्यालय, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा औद्योगिक इकाईयों के एस0टी0पी0/ई0टी0पी0 तथा बलिया नाला व अन्य स्थलों के नमूने एकत्रण का कार्य किया गया। दिनांक–26.11.2025 को एकत्रित किये गये नमूनों की विश्लेषण आख्या इस पत्र के साथ संलग्न कर आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु सादर प्रेषित।

संलग्नकः–यथोपरि।

भवदीय,
20/2/26
(आर0के0 सिंह)
क्षेत्रीय अधिकारी

पृ0सं0 एवं दिनांक उपरोक्तानुसार।

प्रतिलिपिः–मुख्य पर्यावरण अधिकारी (वृत्त–2), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ को सूचनार्थ सादर प्रेषित।

क्षेत्रीय अधिकारी

CENTRAL LABORATORY, UPPCB, LUCKNOW
ANALYTICAL REPORT OF SAMPLES OF SONEBHADRA (INDUSTRIAL-Waste Water)

Date of sample collection:-26.11.2025
Date of sample received:27.11.2025

1454

S. No.	LIMS ID	Sampling Location	Parameters					
			pH	TSS (mg/l)	TDS (mg/l)	TS(mg/l)	BOD(mg/l)	COD(mg/l)
1	34659269	M/s Northern Coal Fields Limited. (NCL) Dudhichua Project, Sonbhadra **(Final Outlet of ETP)**	6.84	23.0	282.0	305.0	6.6	34.0
2	34659266	M/s NTPC Singauli Super Thermal Power Station, Shaktinagar **(Final Outlet of STP)**	7.59	38.0	657.0	695.0	12.5	84.0
3	-	M/s NTPC Singauli Super Thermal Power Station, Shaktinagar, **(Outlet of ETP)**	Waste Water Sample collection not done.					
Standards			**5.5 to 9.0**	**100**	**-**	**-**	**30**	**250**

CENTRAL LABORATORY, UPPCB, LUCKNOW

ANALYTICAL REPORT OF SAMPLES OF SONEBHADRA (SURFACE WATER)

Date of sample collection: 26.11.2025
Date of sample received: 27.11.2025

1455

S. No.	LIMS ID	Sampling Location	Parameters								
			pH	Turbidity (NTU)	Conductivity (µS/cm)	Color	DO (mg/l)	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	TDS (mg/l)
1	34659254	Balia drain after confluence point of Jayant Mine	7.59	42.6	809.3	40	0.8	26	92	66	594
2	34659257	Balia drain near balia drain bridge, Dudhichua	7.46	52	880.6	50	0.4	40	156.4	96	532
3	34659260	Ballia nala after meeting of Ambedkar nagar drain	7.50	48	754.7	40	0.8	28	112	86	488
4	34659263	Ballia nala near Telgav bridge (Before meeting in Rihand Reservoir)	7.53	36	718	30	1.20	16	72	54	534
Standards			**5.5 to 9.0**	**-**			**-**	**30**	**250**	**100**	**-**

CENTRAL LABORATORY, UPPCB, LUCKNOW
ANALYTICAL REPORT OF SAMPLES OF SONEBHADRA (SURFACE WATER)

Date of sample Collection: 26.11.2025
Date of sample Received: 27.11.2025

1456

S. No.	LIMS ID	Sampling Locations	Parameters									
			Hardness (mg/l)	Calcium Hardness (mg/l)	Magnesium Hardness (mg/l)	Chloride (mg/l)	T.Coli (MPN/ 100ml)	F.Coli (MPN/100 ml)	Fluoride (mg/l)	Sulphate (mg/l)	Phosphate-phosphorous (mg/l)	Nitrate (mg/l)
1	34659254	Balia drain after confluence point of Jayant Mine	674	356	318	35	70000	46000	0.40	113	1.76	2.45
2	34659257	Balia drain near balia drain bridge Dudhichua	604	306	298	38	230000	130000	0.36	158	2.52	1.30
3	34659260	Ballia nala after meeting of Ambedkar nagar drain	616	318	298	31	700000	260000	0.32	98.2	1.86	3.36
4	34659263	Ballia nala near Telgav bridge (Before meeting in Rihand Reservoir)	498	278	220	36	540000	240000	0.46	42.5	1.24	2.85
Standards			-	-	-	-	-	-	**2.0**		**5.0**	-

Annexure-7

प्रेषक,

मुख्य चिकित्साधिकारी
सोनभद्र।

सेवा में,

अपर निदेशक,
राज्य स्वास्थ्य संस्थान
उत्तर प्रदेश, लखनऊ।

पत्रांक– मु0चि0अ0/एन0जी0टी0/हेल्थ चेकअप कैम्प/2025–26/1118 दिनांक: 13 मार्च 2026

विषय– मा0 राष्ट्रिय हरित अधिकरण नई दिल्ली में विचाराधीन Original Application No. -240/2024 (IA No. 437/2024) Singrauli Pradooshan Mukti Vahini & Ors. Appicats(S) Versus Union of India & Ors. में मा0 अधिककरण द्वारा पारित आदेश दिनांक 23.02.2026 के सम्बन्ध में।

महोदय,

उपरोक्त विषयक महोदय के पत्रांक– रा0स्वा0सं0/5/एन0जी0टी0/हेल्थ कैंम्प/2025–26/9527 दिनांक 12.03.2026 के सम्बन्ध में सादर अवगत कराना है कि प्रभावित क्षेत्र के जन मानस में वायु प्रदूषण एवं जल में फ्लोराइड, आयरन, नाइट्रेट की मानक से अधिक मात्रा से होने वाले दुषप्रभावों हेतु नियमित हेल्थ चेकअप कैम्प के आयोजन हेतु प्राप्त निर्देश के अनुपालन जनपद में विभिन्न स्थानों पर एन0जी0टी0 हेल्थ कैम्पो का आयोजन किया गया है। जिसकी रिपोर्ट पत्र के साथ संलग्न कर आपकी सेवा में प्रेषित की जा रही है।

महोदय की सेवा में सादर सूचनार्थ प्रेषित।

मुख्य चिकित्साधिकारी
सोनभद्र।

पत्रांक– मु0चि0अ0/एन0जी0टी0/हेल्थ चेकअप कैम्प/2025–26/ तद्दिनांक

प्रतिलिपि– निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित–

1. अपर निदेशक, चिकित्सा स्वास्थ्य एवं परिवार कल्याण,विन्ध्याचल मण्डल मीरजापुर।

मुख्य चिकित्साधिकारी
सोनभद्र।

प्रेषक,

मुख्य चिकित्साधिकारी
सोनभद्र।

सेवा में,

अपर निदेशक,
राज्य स्वास्थ्य संस्थान
उत्तर प्रदेश, लखनऊ।

पत्रांक– मु0चि0अ0/एन0जी0टी0/हेल्थ चेकअप कैम्प/2025–26/ दिनांकः 13मार्च 2026

विषय– मा0 राष्ट्रिय हरित अधिकरण नई दिल्ली में विचाराधीन Original Application No. -240/2024 (IA No. 437/2024) Singrauli Pradooshan Mukti Vahini & Ors. Appicats(S) Versus Union of India & Ors. में मा0 अधिककरण द्वारा पारित आदेश दिनांक 23.02.2026 के सम्बन्ध में।

महोदय,

उपरोक्त विषयक महोदय के पत्रांक– रा0स्वा0सं0/5/एन0जी0टी0/हेल्थ कैंम्प/2025–26/9527 दिनांक 12.03.2026 के सम्बन्ध में सादर अवगत कराना है कि प्रभावित क्षेत्र के जन मानस में वायु प्रदूषण एवं जल में फ्लोराइड, आयरन, नाइट्रेट की मानक से अधिक मात्रा से होने वाले दुषप्रभावों हेतु नियमित हेल्थ चेकअप कैम्प के आयोजन हेतु प्राप्त निर्देश के अनुपालन जनपद में विभिन्न स्थानों पर एन0जी0टी0 हेल्थ कैम्पो का आयोजन किया गया है। जिसकी रिपोर्ट पत्र के साथ संलग्न कर आपकी सेवा में प्रेषित की जा रही है।

महोदय की सेवा में सादर सूचनार्थ प्रेषित।

मुख्य चिकित्साधिकारी
सोनमद्र।

पत्रांक– मु0चि0अ0/एन0जी0टी0/हेल्थ चेकअप कैम्प/2025–26/1118 तद्दिनांक

प्रतिलिपि– निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित–

1. अपर निदेशक, चिकित्सा स्वास्थ्य एवं परिवार कल्याण,विन्ध्याचल मण्डल मीरजापुर।

मुख्य चिकित्साधिकारी
सोनमद्र।

एन0जी0टी0 हेल्थ कैम्प रिपोर्ट–जनपद सोनभद्र

क0स0	दिनांक	हेल्थचेकअप कैम्प स्थान	कैम्प में देखे गये रोगी	कैम्प में श्वांस सम्बन्धित चिन्हित रोगियो का विवरण			फ्लोराइड से ग्रसित रोगियों का विवरण			रिफर किये गये रोगियों का विवरण (चिकित्सालय का नाम सहित)	अन्य विवरण
				संख्या	उपचारित	रेफर	संख्या	उपचारित	रेफर		
1	11/28/2025	कटौली	40	0	0	0	15	15	0		
2	4/12/2025	मदरिया	71	6	6	0	52	52	0		
3	9/12/2025	नेरूइयादामर	62	5	5	0	43	43	0		
4	5/1/2026	नई बस्ती	61	7	7	0	52	52	0		
5	9/1/2026	पटेलनगर	55	5	5	0	50	50	0		
6	12/1/2026	पीपरहवा	73	9	9	0	51	51	0		
7	16-01-2026	झिरगाडंडी	45	4	4	0	39	39	0		
8	19-01-2026	मदरिया	63	4	4	0	56	56	0		
9	20-01-2026	जागीडीह कोडरा	23	0	0	0	7	7	0		
10	22-01-2026	मधुरी	77	7	7	0	70	70	0		
11	23-01-206	मकरा पाटी	32	0	0	0	5	5	0		
12	27-01-2026	रानीतालीबेलहत्थी	27	0	0	0	6	6	0		
13	27-01-2026	नेरूइयादामर	85	4	4	0	81	81	0		
14	30-01-2026	गोबरदहा	51	3	3	0	48	48	0		
15	21/02/2026	लिलासी	32	0	0	0	7	7	0		
16	24/02/2026	दुद्धी	29	0	0	0	3	3	0		
17	25/02/2026	असनहर आश्रम बचरा म्योरपुर	26	0	0	0	2	2	0		
योग			**765**	**54**	**54**	**0**	**575**	**575**	**0**		

CMO
SONBHADRA

NGT CAMP PHOTOS

दिनांक– 28.11.2025 ग्राम– कटौली, ब्लाक दुद्धी,।

दिनांक–04.12.2025
ग्राम– मदरिया, ब्लाक–कोन, चोपन,।

दिनांक–09.12.2025
ग्राम–नेरूइयादामर ब्लाक–कोन, चोपन,।

दिनांक–05.01.2026
ग्राम–नईबस्ती ब्लाक–चोपन,।

दिनांक–09.01.2026
ग्राम–पटेलनगर ब्लाक–चोपन,।

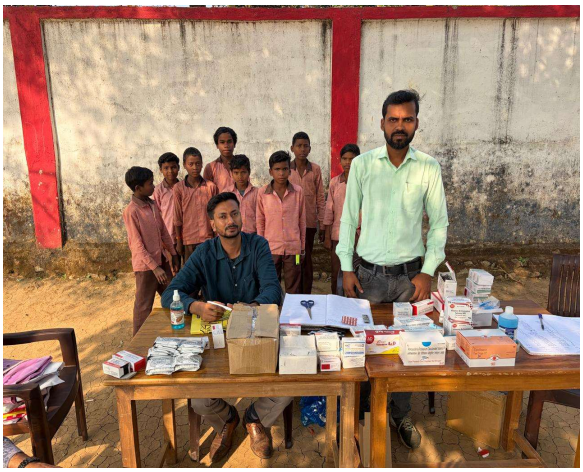
दिनांक–12.01.2026
ग्राम–पीपरहवा ब्लाक–चोपन,।

दिनांक–16.01.2026
ग्राम–झिरगाडंडी ब्लाक–चोपन,।

दिनांक–19.01.2026
ग्राम–मदरिया ब्लाक–चोपन,।

दिनांक–20.01.2026
ग्राम–जोगीडीह कोडरा ब्लाक–म्योरपुर।

दिनांक–22.01.2026
ग्राम–मधुरी ब्लाक–चोपन,।



दिनांक–23.01.2026
ग्राम–मकरापट्टी ब्लाक–म्योरपुर.।

दिनांक–27.01.2026
ग्राम–रानीताली बेलहत्थी ब्लाक–म्योरपुर।

दिनांक–27.01.2026
ग्राम–नेरूदयादामर ब्लाक–चोपन।

दिनांक–30.01.2026
ग्राम–गोबरदहा ब्लाक–.चोपन।

दिनांक–21.02.2026
ग्राम–लिलासी ब्लाक–म्योरपुर।

दिनांक–24.02.2026
ग्राम–दुद्धी ब्लाक–.म्योरपुर।

दिनांक–25.02.2026
ग्राम–असनहर, ब्लाक–म्योरपुर।

Annexure-8

क्षेत्रीय कार्यालय,
REGIONAL OFFICE,
उ0प्र0 प्रदूषण नियंत्रण बोर्ड
U.P. POLLUTION CONTROL BOARD
सोनभद्र
SONBHADRA

संदर्भ संख्याः– G0125/N·CA·P/2026
Ref.No.:

दिनांकः– 19/02/2026
Date:

सेवा में,

श्री (प्रो0) मुकेश शर्मा,
सिविल इंजीनियरिंग विभाग, आई0आई0टी0,
कानपुर।
E-mail:mukesh@iitk.ac.in

Subject: Regarding final reports of 'Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity' for Anpara by IIT-Kanpur.

महोदय,

कृपया उपरोक्त विषय का संदर्भ ग्रहण करने का कष्ट करें। उक्त के सम्बन्ध में अवगत कराना है कि आई0आई0टी0 कानपुर द्वारा अनपरा सिटी की 'Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity' रिपोर्ट अपने विचार और सुझाव/टिप्पणियाँ हेतु उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ द्वारा पत्रांक–H34575/UPPCB/CL/498/Peer Review/2024-25 दिनांक–13.11.2025 के माध्यम से समीक्षा समिति के सदस्यों के समक्ष प्रस्तुत किया गया था।

उक्त के सम्बन्ध में आपसे अनुरोध है कि समीक्षा समिति के सदस्यों से प्राप्त सुझाव एवं टिप्पणियों को फाइनल रिपोर्ट में समेकित करते हुये अनपरा सिटी की 'Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity' फाइनल रिपोर्ट तथा रिपोर्ट की अद्यतन स्थिति के सम्बन्ध में इस कार्यालय को अवगत कराने का कष्ट करें।

भवदीय,
19/2/26
(आर0के0 सिंह)
क्षेत्रीय अधिकारी

पृ0सं0 एवं दिनांक उपरोक्तानुसार।

प्रतिलिपिः–निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु सादर प्रेषितः–

1. मुख्य पर्यावरण अधिकारी (केन्द्रीय प्रयोगशाला), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।
2. मुख्य पर्यावरण अधिकारी (वृत्त–2), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।
3. क्षेत्रीय निदेशालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, लखनऊ–226010।

क्षेत्रीय अधिकारी

कार्यालय : लोढ़ी, राबर्ट्सगंज, सोनभद्र–231216
ई–मेल : **rosonbhadra@uppcb.in**

Office: Lodhi, Robertsganj, Sonbhadra-231216
E-mail: rosonbhadra@uppcb.in

1465

क्षेत्रीय कार्यालय,
REGIONAL OFFICE,
उ0प्र0 प्रदूषण नियंत्रण बोर्ड
U.P. POLLUTION CONTROL BOARD
सोनभद्र
SONBHADRA

संदर्भ संख्याः– G0125/N.C.A.P/2026
Ref.No.:

दिनांकः– 19/02/2026
Date:

सेवा में,

श्री (प्रो0) मुकेश शर्मा,
सिविल इंजीनियरिंग विभाग, आई0आई0टी0,
कानपुर।
E-mail:mukesh@iitk.ac.in

Subject: Regarding final reports of 'Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity' for Anpara by IIT-Kanpur.

महोदय,

कृपया उपरोक्त विषय का संदर्भ ग्रहण करने का कष्ट करें। उक्त के सम्बन्ध में अवगत कराना है कि आई0आई0टी0 कानपुर द्वारा अनपरा सिटी की 'Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity' रिपोर्ट अपने विचार और सुझाव/टिप्पणियाँ हेतु उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ द्वारा पत्रांक–H34575/UPPCB/CL/498/Peer Review/2024-25 दिनांक–13.11.2025 के माध्यम से समीक्षा समिति के सदस्यों के समक्ष प्रस्तुत किया गया था।

उक्त के सम्बन्ध में आपसे अनुरोध है कि समीक्षा समिति के सदस्यों से प्राप्त सुझाव एवं टिप्पणियों को फाइनल रिपोर्ट में समेकित करते हुये अनपरा सिटी की 'Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity' फाइनल रिपोर्ट तथा रिपोर्ट की अद्यतन स्थिति के सम्बन्ध में इस कार्यालय को अवगत कराने का कष्ट करें।

भवदीय,

(आर0के0 सिंह)
क्षेत्रीय अधिकारी

पृ0सं0 एवं दिनांक उपरोक्तानुसार।

प्रतिलिपिः–निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु सादर प्रेषितः–

1. मुख्य पर्यावरण अधिकारी (केन्द्रीय प्रयोगशाला), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।
2. मुख्य पर्यावरण अधिकारी (वृत्त–2), उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।
3. क्षेत्रीय निदेशालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, लखनऊ–226010।

19/2/26
क्षेत्रीय अधिकारी

कार्यालय : लोढ़ी, राबर्ट्सगंज, सोनभद्र–231216
ई–मेल : **rosonbhadra@uppcb.in**

Office: Lodhi, Robertsganj, Sonbhadra-231216
E-mail: rosonbhadra@uppcb.in

Annexure-9

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

DEPARTMENT OF CIVIL ENGINEERING

Dr Mukesh Sharma
Emeritus Professor

P.O. IIT Kanpur, 208016, India
e-mail: mukesh@iitk.ac.in
Phone: +91-512-2597759

Date: 17.3.2026

To
The Member Secretary
UP State Pollution Control Board
Lucknow

Dear Sir,

This is to inform you that the final reports of the project "Comprehensive Source Apportionment, Emission Inventory and Carrying Capacity for the Six Cities in U.P." for Anpara, Gajraula and Raebareli cities are currently under revision, and the final reports will be submitted by April 30, 2026.

The revisions are necessitated to address the suggestions given in the Peer Review Committee's (PRC) meeting held on February 6, 2026, at the UPPCB, Headquarters in Lucknow. Substantial additional revisions including some analysis, upgradation of emission inventory and air quality modelling for PM10 and inclusion of meteorological data are required in the final reports.

Under the circumstances, it is requested that permission is granted to submit the final reports by April 30, 2026.

Thanking you,

Sincerely,

Mukesh Sharma

Annexure-10

केन्द्रीय प्रदूषण नियंत्रण बोर्ड, क्षेत्रीय निदेशालय, लखनऊ (पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार) द्वारा राष्ट्रीय स्वच्छ वायु कार्यक्रम (NCAP) परियोजना के तहत वायु प्रदूषण को नियंत्रित करने के लिये नगर स्तरीय अनपरा एक्सन प्लान (वर्ष 2025–26) कार्य योजना PRANA वेब पोर्टल पर अपलोड किये जाने की समीक्षा के साथ–साथ कार्य प्रस्ताव की वित्तीय एवं प्रशासनिक स्वीकृति प्रदान किये जाने एवं जनपद–सोनभद्र के सिंगरौली क्षेत्र के CEPI SCORE को कम किये जाने हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा तैयार CEPI ACTION PLAN की समीक्षा हेतु जिलाधिकारी महोदय, सोनभद्र की अध्यक्षता में दिनांक–16.10.2025 को पूर्वाह्न 03:00 बजे स्थान–कलेक्ट्रेट सभागार, सोनभद्र में सम्पन्न हुई बैठक की कार्यवृत्त।

राष्ट्रीय स्वच्छ वायु कार्यक्रम (NCAP) परियोजना के तहत वायु प्रदूषण को नियंत्रित करने के लिये नगर स्तरीय अनपरा एक्सन प्लान (वर्ष 2025–26) कार्य योजना PRANA वेब पोर्टल पर अपलोड किये जाने की समीक्षा के साथ–साथ कार्य प्रस्ताव की वित्तीय एवं प्रशासनिक स्वीकृति प्रदान किये जाने एवं जनपद–सोनभद्र के सिंगरौली क्षेत्र के CEPI SCORE को कम किये जाने हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा तैयार CEPI ACTION PLAN की समीक्षा हेतु जिलाधिकारी महोदय, सोनभद्र की अध्यक्षता में दिनांक–16.10.2025 को पूर्वाह्न 03:00 बजे स्थान–कलेक्ट्रेट सभागार, सोनभद्र में समीक्षा बैठक आहुत की गयी थी।

उक्त बैठक की कार्यवाही का विस्तृत विवरण निम्नवत् हैः–

बैठक की कार्यवाही में क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा सभी विभागीय सदस्यों, उद्योग प्रतिनिधियों एव उपस्थित अन्य नागरिक को आयोजित बैठक के एजेण्डा विन्दुओं के बारे में विस्तृत जानकारी दी गयी।

I. PRANA वेब पोर्टल पर नॉन अटेनमेन्ट सीटी अनपरा की वार्षिक कार्ययोजना सह–सूक्ष्म योजना (Annual Action Plan-cum-Micro Plan- Financial Year 2025-26) की वित्तीय एवं प्रशासनिक स्वीकृति प्रदान किये जाने एवं एक्सन प्लान अपलोड किये जाने के सम्बन्ध में:–

क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा सभी विभागों को निर्देश दिये गये कि उक्त एक्सन प्वाइन्ट की सूचनायें सम्बन्धित विभागों द्वारा निर्धारित प्रारूप में भरकर नगर पंचायत, अनपरा एवं क्षेत्रीय कार्यालय, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र को प्रेषित करना सुनिश्चित करें, जिससे कि सूचनायें संकलित कर नगर पंचायत अनपरा द्वारा PRANA वेब पोर्टल पर अविलम्ब अपलोड एवं प्रशासनिक स्वीकृति प्रदान की जा सके।

– कार्यवाही समस्त **City Implementation Committee** सदस्य, सोनभद्र/उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स एवं अन्य

II. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा PRANA वेब पोर्टल पर नॉन अटेनमेन्ट सीटी अनपरा की वार्षिक कार्ययोजना वर्ष 2025–26 के एक्सन प्लान के विन्दुओं पर चर्चा की गयी तथा समस्त विभागों एवं इकाईयों को निर्देशित किया गया। एक्सन प्लान के विन्दुओं की वर्तमान अनुपालन की स्थिति में अनुपालन आख्या उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र एवं नगर पंचायत अनपरा को प्रेषित किया जाना सुनिश्चित करें।

III. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा समस्त उद्योगों से रोड डस्ट के नियंत्रण हेतु स्थापित व्यवस्था के सम्बन्ध में सूचना चाही गयी। उक्त के सम्बन्ध में एन0सी0एल0 कोल खनन परियोजना के उपस्थित प्रतिनिधि द्वारा अवगत कराया गया कि रोड डस्ट के नियंत्रण हेतु सड़कों पर टैंकरों के माध्यम से नियमित जल का छिड़काव किया जाता है तथा रोड डस्ट उत्सर्जन के नियंत्रण हेतु, एन्टी स्मॉग गन से औड़ी मोड़ से शक्तिनगर मुख्य मार्ग पर वॉटर स्प्रिंक्लिंग एवं मैकेनिकल स्वीपिंग मशीन से रोड स्वीपिंग का कार्य किया जाता है।

IV. उपस्थित अधिशासी अधिकारी, नगर पंचायत, अनपरा द्वारा अवगत कराया गया कि अनपरा औड़ी मोड़ एवं डिबुलगंज मार्ग पर टैंकर के माध्यम से नियमित जल का छिड़काव एवं मेकेनिकल रोड स्वीपिंग मशीन द्वारा रोड स्वीपिंग का कार्य कराया जाता है। क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा समस्त तापीय परियोजनाओं, एन0सी0एल0 परियोजनाओं को निर्देशित किया गया कि रोस्टर के अनुसार परिवहन मुख्य मार्ग पर वॉटर स्प्रिंक्लिंग एवं रोड स्वीपिंग का कार्य किये जाने सम्बन्धी कार्य योजना प्रेषित किया जाना सुनिश्चित करें।

– कार्यवाही समस्त उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स /नगर पंचायत–अनपरा एवं अन्य

V. जिला प्रशासन द्वारा अवगत कराया गया कि तापीय परियोजनाओं द्वारा राख का परिवहन उचित ढंग से नहीं किया जा रहा है। राख परिवहन वाहनों द्वारा सड़कों के किनारे यत्र–तत्र राख का निस्तारण किये जाने सम्बन्धी शिकायतें प्राप्त हो रही हैं। क्षेत्रीय अधिकारी महोदय द्वारा अवगत कराया गया कि तापीय परियोजना से राख परिवहन वाहनों के कवर्ड वाहनों के माध्यम से परिवहन किये जाने के निगरानी हेतु समिति का गठन किया गया है। गठित समिति द्वारा पूर्व में राख वाहनों का औचक निरीक्षण किया गया था। निरीक्षण के दौरान राख का परिवहन तारपोलीन कवर्ड वाहनों एवं बल्कर्स के माध्यम से किया जाता पाया गया।

जिलाधिकारी महोदय, सोनभद्र द्वारा समस्त तापीय परियोजनाओं एवं कोल खनन परियोजनाओं को निर्देशित किया गया कि वैज्ञानिक ढंग एवं तारपोलीन कवर्ड वाहनों के माध्यम से ही राख एवं कोल का परिवहन किया जाये तथा क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र को निर्देशित किया गया कि अवैज्ञानिक ढंग से तापीय परियोजनाओं द्वारा राख का निस्तारण नहीं किये जाने के विरूद्ध आवश्यक कार्यवाही किया जाना सुनिश्चित करें।

– कार्यवाही समस्त उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स /उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र

VI. अधिशासी अधिकारी, नगर पंचायत, अनपरा, सोनभद्र द्वारा अवगत कराया गया कि नगरीय सॉलिड वेस्ट के निस्तारण हेतु म्यूनिसिपल सॉलिड वेस्ट मैनेजमेन्ट फेसिलिटीज (एम0एस0डब्ल्यू0) स्थापित एवं संचालित है। उक्त के सम्बन्ध में जिलाधिकारी महोदय, सोनभद्र द्वारा अधिशासी अधिकारी, नगर पंचायत, अनपरा को निर्देशित किया गया कि

एम0एस0डब्ल्यू0 का संचालन नियमित रूप से किया जाये, जिससे कि जनित सॉलिड वेस्ट का निस्तारण वैज्ञानिक ढंग से किया जा सके।

– कार्यवाही समस्त उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स / उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र

VII. जिलाधिकारी महोदय, सोनभद्र द्वारा नगर पंचायत, अनपरा, सोनभद्र द्वारा राष्ट्रीय स्वच्छ वायु कार्यक्रम के अन्तर्गत वायु प्रदूषण के नियंत्रण हेतु आवंटित धनराशि का उपयोग किये जाने के सम्बन्ध में सूचना प्रेषित किये जाने के निर्देश दिये गये हैं।

– कार्यवाही समस्त उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स / उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र

VIII. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद द्वारा पी0यू0सी0 सर्टीफिकेट जारी किये जाने एवं पी0यू0सी0 अप्राप्त वाहनों के विरूद्ध की गयी कार्यवाही के सम्बन्ध में ए0आर0टी0ओ0 से सूचना चाही गयी एवं निर्देशित किया गया कि उक्त सम्बन्धी सूचनायें PRANA वेब पोर्टल पर अपलोड किये जाने हेतु ससमय नगर पंचायत, अनपरा, सोनभद्र को प्रेषित करना सुनिश्चित करें।

– कार्यवाही सहायक सम्भागीय परिवहन अधिकारी एवं प्रभारी यातायात/समस्त उद्योग एन0सी0एल0 परियोजना/ थर्मल पॉवर प्लाण्ट्स, सोनभद्र एवं अन्य

IX. एन0सी0एल0 परियोजनाओं द्वारा कवर्ड कर ही कोयले का परिवहन किया जाये एवं तापीय परियोजनाओं को निर्देशित किया गया कि फ्लाई ऐश का परिवहन कवर्ड वाहनों के माध्यम से किया जाना सूचित करें एवं सतत निगरानी हेतु एक्शन प्लान प्रेषित करना सुनिश्चित करें। इस विषय पर उद्योग प्रतिनिधि द्वारा अवगत कराया गया कि उनके उद्योग परिसर से सभी वाहन पूर्णरूप से कवर्ड कराकर के ही बाहर परिवहन किया जाता है तथा वाहनों के निगरानी हेतु इन्ट्रेन्स एवं एक्जिस्ट पर सी0सी0टी0वी0 कैमरा स्थापित है। उक्त के सम्बन्ध में क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा तापीय एवं कोल खनन परियोजनाओं को निर्देशित किया गया कि अब तक बिना कवर्ड वाहनों के परिवहन किये जाने के सम्बन्ध में की गयी कार्यवाही प्रेषित की जाये।

– समस्त उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स, सोनभद्र एवं अन्य

X. क्षेत्रीय अधिकारी महोदय द्वारा अवगत कराया गया कि परिवेशीय वायु गुणता एवं स्टैक इमीसन के आंकलन हेतु उद्योगों में स्थापित CAAQMS/OCEMS स्थापित है एवं केन्द्रीय प्रदूषण नियंत्रण बोर्ड के सर्वर से कनेक्टेड है।

– कार्यवाही क्षेत्रीय कार्यालय, उ0प्र0 प्रदूषण नियंत्रण बोर्ड/समस्त उद्योग

XI. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा शीत ऋतु में धूल कणों के उत्सर्जन से जनित स्मॉगिंग की स्थिति के नियंत्रण हेतु बनाये गये ग्रेडेड रिसपान्स एक्शन प्लान के विन्दुओं पर कार्यवाही कर सूचनायें उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र को प्रेषित किया जाना सुनिश्चित करें। जिलाधिकारी महोदय द्वारा समस्त उद्योगों को निर्देशित किया गया कि शीत ऋतु में वायु गुणता के नियंत्रण हेतु उद्योगों द्वारा नियमित जल का छिड़काव

एवं उद्योगों में स्थापित वायु प्रदूषण नियंत्रण इकाईयों का नियमित संचालन किया जाना सुनिश्चित करें।

– कार्यवाही समस्त **City Implementation Committee** सदस्य, सोनभद्र/उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स एवं अन्य

XII. जनपद–सोनभद्र के सिंगरौली क्षेत्र के CEPI SCORE को कम किये जाने हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा तैयार CEPI ACTION PLAN के सम्बन्ध में क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र द्वारा अवगत कराया गया कि CEPI ACTION PLAN की समीक्षा हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा CEPI ACTION PLAN REVIEW PORTAL विकसित किया गया है तथा CEPI ACTION PLAN के कुल विन्दुओं में से 26 एक्सन प्वाइंट को पूर्ण कर दिया गया है। जिलाधिकारी महोदय, सोनभद्र द्वारा अवगत कराया गया कि CEPI ACTION PLAN में वायु, जल, मृदा प्रदूषण नियंत्रण हेतु तैयार ACTION PLAN के विन्दुओं पर पूर्णतः अनुपालन कराते हुये अनुपालन आख्या प्रेषित किया जाना सुनिश्चित करें।

– कार्यवाही समस्त **City Implementation Committee** सदस्य, सोनभद्र/उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स एवं अन्य

XIII. जिलाधिकारी महोदय, सोनभद्र द्वारा निर्देशित किया गया कि मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ0ए0 संख्या–240/2024 में पारित आदेशों का अक्षरशः अनुपालन किया जाना सुनिश्चित करें तथा उक्त प्रकरण में जनपद–सोनभद्र के दुद्धीचुआं क्षेत्र में स्थित बलिया नाले में किसी भी प्रकार का औद्योगिक एवं घरेलू उत्प्रवाह निस्तारित न किया जाये।

– कार्यवाही उ0प्र0 प्रदूषण नियंत्रण बोर्ड/उ0प्र0 जलल निगम (ग्रामीण) /प्रभागीय वनाधिकारी /जिला पंचायत राज अधिकारी/ नगर पंचायत–अनपरा, सोनभद्र /उद्योग एन0सी0एल0 परियोजना/थर्मल पॉवर प्लाण्ट्स एवं अन्य

XIV. जिलाधिकारी महोदय, सोनभद्र द्वारा बैठक की उक्त कार्यवाही का अक्षरशः अनुपालन सुनिश्चित करने हेतु निर्देशित किया गया एवं सभी विभागों को निर्देश दिये कि उक्त एक्शन प्वाइन्ट की सूचनायें अपने–अपने विभाग से भरकर नगर पंचायत अनपरा एवं क्षेत्रीय कार्यालय, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र को प्रेषित करना सुनिश्चित करें, जिससे कि संकलित सूचनायें PRANA वेब पोर्टल पर अविलम्ब अपलोड की जा सके एवं जिलाधिकारी महोदय द्वारा राष्ट्रीय स्वच्छ वायु कार्यक्रम के अन्तर्गत तैयार नगर स्तरीय कार्य योजना अनपरा एक्शन प्लान वित्तीय वर्ष 2025–26 की समीक्षा की गयी।

– कार्यवाही समस्त **City ImplementationCommittee** सदस्य, सोनभद्र/उद्योग एन0सी0एल0 परियोजना/ थर्मल पॉवर प्लाण्ट्स/उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सोनभद्र एवं नगर पंचायत–अनपरा, सोनभद्र

अन्त में बैठक धन्यवाद ज्ञापन के साथ सम्पन्न हुई।

24/10/25

क्षेत्रीय अधिकारी,
उ0प्र0 प्रदूषण नियंत्रण बोर्ड,
सोनभद्र।