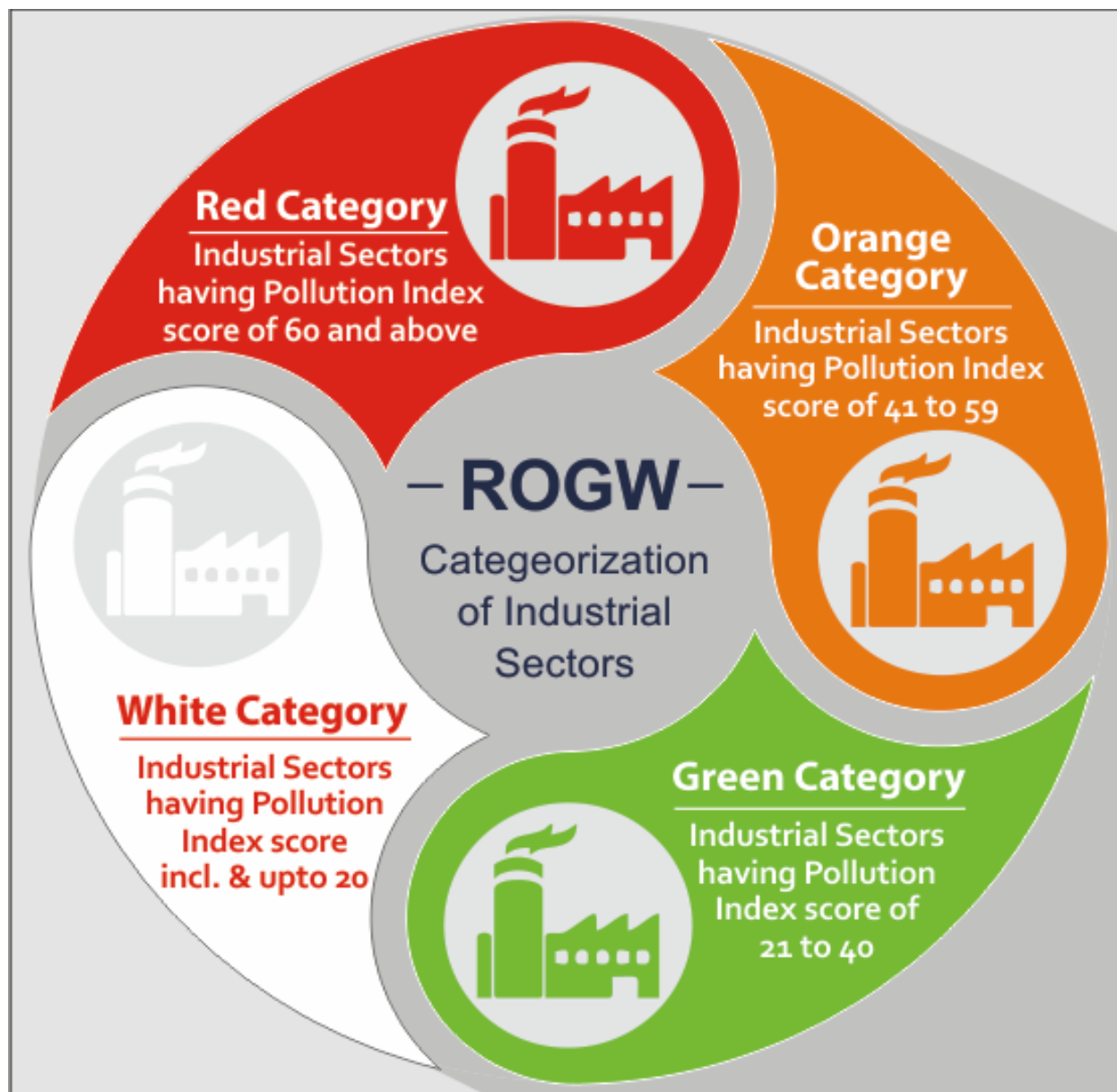


Action Plan for Critically/Severely Polluted Area - Varanasi

COMPREHENSIVE ENVIRONMENTAL POLLUTION INDEX



U.P. POLLUTION CONTROL BOARD, VARANASI

1. INTRODUCTION

In 2009, the Ministry of Environment & Forests (MoEF), Govt. of India in association with Central Pollution Control Board (CPCB), New Delhi and Indian Institute of Technology (IIT), New Delhi have carried out an environmental assessment of industrial clusters across the country named "Comprehensive Environmental Pollution Index" (CEPI) with the aim of identifying polluted industrial clusters & prioritizing planning needs for intervention to improve the quality of environment in these industrial clusters and the nation as a whole.

The CEPI criteria was revised in 2016 and based on the CEPI-2016 criteria, CPCB carried out further monitoring in the year 2017-18, these clusters numbers went upto 100 in whole country, These clusters as may referred to order issued by Hon'ble National Green Tribunal for Original Application No. 1038/2018 dated 10.07.2019.

The industrial clusters/areas having aggregated CEPI scores of 70 and above were considered critically polluted clusters/areas and those with scores less than 70 and more than 60 were classified as Severely Polluted; further detailed investigations were carried out in terms of the extent of environmental damage and formulation of appropriate remedial action plan. There are total 13 Polluted industrial Areas(PIAs) which includes 9 critically polluted Areas(CPA) namely Mathura, Kanpur, Moradabad, Varanasi-Mirzapur, Bulandshahar-Khurja, Firozabad, Gajraula area, Agra, Ghaziabad and 4 severely Polluted Area viz. Noida, Meerut, Aligarh, Singrauli (UP& MP)

Revised CEPI

With a concept to promote industrial development consistent with the environmental objectives and understanding the fact that the original concept and calculation of CEPI score was based on verticals where subjectivity was involved, in order to overcome the subjectivity, revised concept retaining the factors which can be measured/monitored precisely was drafted by CPCB in 2015 and finalized in 2016. The revised criteria for CEPI has been based on following principles:

Revised concept is prepared by eliminating the debatable factors but retaining the factors which can be measured precisely.

To develop the Comprehensive Environmental Pollution Index (CEPI) retaining the existing algorithm of Source, Pathway and Receptor.

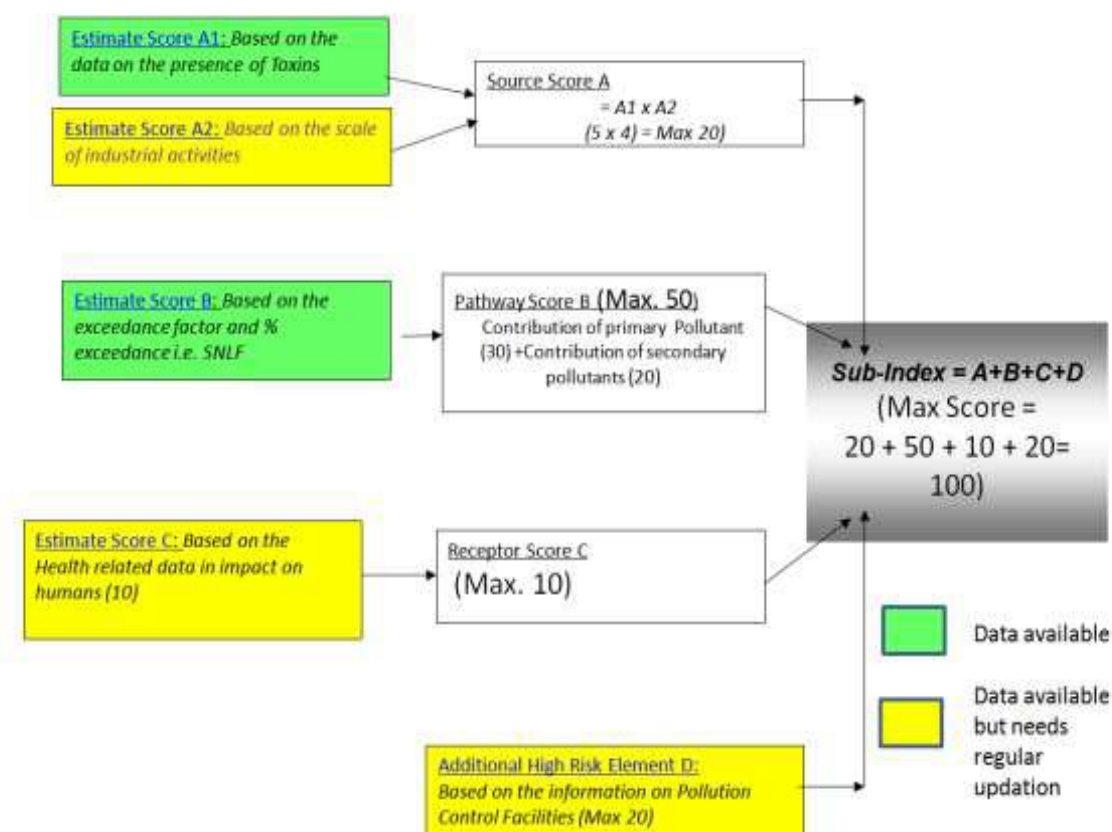
- Develop the Revised CEPI considering the sources of pollution, real time observed values of the pollutants in the ambient air, surface water and ground water of the industrial cluster and health related statistics. The concept is based on the selection of 3 criteria pollutants for each of the environment components i.e. air, surface water and ground water which together indicate the well being of ambient environment.
- Assessment of environmental quality of the area based on the concept of SNLF to which is a surrogate number representing the level of exposure (a function of percentage sample exceedance and Exceedance factor)

Health related statistics to be based on health data available from major hospitals in the area.

The scoring format has also been restructured in Revised CEPI, same is detailed in Table: 2.

| | | |
|--------------------|--|----------|
| Table: 2 | | |
| Component A | Scale of Industrial Activity | 20 Marks |
| Component B | Status of ambient environmental quality (air/surface water/ground water) | 50 Marks |
| Component C | Health related statistics | 10 Marks |
| Component D | Compliance status of industries | 20 Marks |

Revised criteria for evaluation of CEPI



Revised CEPI Evaluation Methodology

A: Source

• Factor #A1 - Presence of Toxin

- Group A – Pollutants / chemicals that are not assessed as acute or systemic = 1
- Group B – Organics / Pollutants / chemicals that are probable carcinogens (USEPA Class 2 and 3) or substances with some systemic toxicity. e.g. VOC's, PAHs, PCBs, air pollutants such as PM10 and PM2.5 = 2
- Group C - Known carcinogens or chemicals with significant systemic or organ system toxicity. e.g. vinyl chloride, benzene, lead, radionuclide, hexa-chromium, cadmium, organophosphate pesticides. = 3

Selection of criteria pollutants :

Option 1: 3 pollutants relevant with the Area depending on the nature of industrial activity (preferable option /method)

Option 2: upto 3 most critical pollutants depending on the concentration and exceedance

- Contribution of remaining two secondary pollutants will be based on the nature of the toxins as mentioned below:

| <i>Group of toxicity of each of the Secondary Pollutants</i> | <i>Contribution Value for each of the pollutant</i> |
|--|---|
| <i>Group A</i> | <i>0.25</i> |
| <i>Group B</i> | <i>0.50</i> |
| <i>Group C</i> | <i>1.00</i> |

Max. Contribution of secondary pollutants=2.00

Max. score of A1 = 3+2 = 5

Factor #A2 –Scale of industrial activities

- Large = 4 (if there are
 - > 10 R17 per 10 sq km area or fraction OR
 - > 2 R17 + 10 R54 per 10 sq km area or fraction OR
 - > 100 R54 per 10 sq km area or fraction
- Moderate = 2.5 (if there are
- 2 to 10 R17 per 10 sq km area or fraction OR 10-100 R54 per 10 sq km area or fraction
- Limited = 1 (else there is any industry within 10 sq km area or fraction)

SCORE A = A1 x A2 (max score = 5 x 4 = 20)

B: Pathway

Factor B- Level of exposure

A surrogate number which will represent Level of Exposure (SNLF) is calculated using % violation of ambient pollutant concentration, which is calculated as

SNLF = (No. of samples exceeded/ total no. of samples) x (Exceedance factor)

| Range of SNLF | Category | Value |
|----------------------|----------|-------|
| 0 (For EF<0.75) | Low | 0 |
| 0 (For 0.75<EF>0.8) | Low | 1.5 |
| 0 (For 0.80<EF>0.85) | Low | 3 |
| 0 (For 0.85<EF>0.9) | Low | 4.5 |
| 0 (For 0.90<EF>0.95) | Low | 6 |
| 0 (For 0.95<EF<1) | Low | 7.5 |
| <0.05 | Moderate | 8.25 |
| 0.05 to <0.1 | Moderate | 9 |
| 0.1 to <0.15 | Moderate | 9.75 |
| 0.15 to <0.2 | Moderate | 10.50 |
| 0.2 to <0.25 | Moderate | 11.25 |
| 0.25 to <0.30 | Moderate | 12 |
| 0.30 to <0.35 | Moderate | 12.75 |

| | | |
|---------------|----------|-------|
| 0.35 to <0.4 | Moderate | 13.5 |
| 0.4 to <0.45 | Moderate | 14.25 |
| 0.45 to <0.5 | Moderate | 15 |
| 0.5 to <0.55 | High | 15.75 |
| 0.55 to <0.6 | High | 16.50 |
| 0.6 to <0.65 | High | 17.25 |
| 0.65 to <0.70 | High | 18.0 |
| 0.7 to <0.75 | High | 18.75 |
| 0.75 to <0.80 | High | 19.5 |
| 0.80 to <0.85 | High | 20.25 |
| 0.85 to <0.90 | High | 21.0 |
| 0.9 to <0.95 | High | 21.75 |
| 0.95 to <1 | High | 22.5 |
| 1.0 and above | Critical | 30 |

Max. Contribution of primary pollutant=30

- Contribution of remaining two secondary pollutants will be based on their category of exceedance as mentioned below:

| Level of SNLF of each of the Secondary Pollutants | Level of SNLF | Contribution Value for each of the secondary pollutants |
|---|---------------|---|
| 0 (For $EF < 0.75$) | Low | 0 |
| 0 (For $0.75 < EF < 0.8$) | Low | 0.5 |
| 0 (For $0.80 < EF < 0.85$) | Low | 1 |
| 0 (For $0.85 < EF < 0.9$) | Low | 1.5 |
| 0 (For $0.90 < EF < 0.95$) | Low | 2 |
| 0 (For $0.95 < EF < 1$) | Low | 2.5 |
| < 0.05 | Moderate | 2.75 |
| 0.05 to < 0.1 | Moderate | 3 |
| 0.1 to < 0.15 | Moderate | 3.25 |
| 0.15 to < 0.2 | Moderate | 3.50 |
| 0.2 to < 0.25 | Moderate | 3.75 |
| 0.25 to < 0.30 | Moderate | 4.0 |
| 0.30 to < 0.35 | Moderate | 4.25 |
| 0.35 to < 0.4 | Moderate | 4.5 |
| 0.4 to < 0.45 | Moderate | 4.75 |
| 0.45 to < 0.5 | Moderate | 5 |
| 0.5 to < 0.55 | High | 5.25 |

| | | |
|---------------|----------|------|
| 0.55 to <0.6 | High | 5.50 |
| 0.6 to <0.65 | High | 5.75 |
| 0.65 to <0.70 | High | 6.0 |
| 0.7 to <0.75 | High | 6.25 |
| 0.75 to <0.80 | High | 6.50 |
| 0.80 to <0.85 | High | 6.75 |
| 0.85 to <0.90 | High | 7 |
| 0.9 to <0.95 | High | 7.25 |
| 0.95 to <1 | High | 7.5 |
| 1 and above | Critical | 10 |

Max. Contribution of secondary pollutants=20

Maximum value of B = 30 + 20 =50

C : Receptor

| Component C (Impact on Human Health) 10 | |
|--|-------|
| Main - 10 | |
| % increase in cases* | Marks |
| <5% | 0 |
| 5-10% | 5 |
| >10% | 10 |

- % increase is evaluated based on the total no. of cases recorded during two consecutive years.
- For Air Environment, total no. of cases related to Asthma, Bronchitis, Cancer, Acute respiratory infections etc. are to be considered.
- For surface water / ground water Environment, cases related to Gastroenteritis, Diarrhea, renal (kidney)malfunction, cancer etc are to be considered.
- For the above evaluation, the previous 5 years records of 3-5 major hospitals of the area shall be considered.

d. Additional High Risk Element

Factor #D - Additional High Risk Element (Inadequacy of pollution control measures for large scale, medium and small scale industries and also due to unorganized sector). It is cumulative of ETPs, CETPs, Air Pollution Control Devices (APCDs) and unorganized waste disposal. Max. Score = 20

■ If all the industries in the area have adequately designed/ operated and maintained pollution control facilities and also common facilities such as CETP/ FETP/ CHWDF are having adequate capacity and are having state of art technology = 0

■ If all the large industries in the area have adequately designed/ operated and maintained pollution control facilities but small and medium industries are defaulting. Common facilities such as CETP/FETP/CHWDF are having adequate in capacity or operation/ maintenance = 5

If all the industries in the area have adequately designed/ operated and maintained pollution control facilities but the common facilities such as CETP/FETP/CHWDF are having inadequate in capacity or operation/ maintenance = 10

■ If all the large industries in the area have adequately designed/ operated and maintained pollution control facilities but small and medium industries are defaulting. Common facilities such as CETP/FETP/CHWDF are having inadequate in capacity or operation/ maintenance = 15

■ Inadequate Facilities of individual as well as common facilities, full penalty = 20

Table : Score for Additional High Risk Element: Factor D

| S No. | Large Scale Industries | Small/ Medium Scale Industries | Common Facilities for Pollution Control | Score |
|-------|------------------------|--------------------------------|---|-------|
| 1. | Adequate | Adequate | Adequate | 0 |
| 2. | Adequate | Inadequate | Adequate | 5 |
| 3. | Adequate | Adequate | Inadequate | 10 |
| 4. | Adequate | Inadequate | Inadequate | 15 |
| 5. | Inadequate | Inadequate | Inadequate | 20 |

Inadequate Facilities: $\geq 10\%$ units deficient in terms of design/ operation and maintenance of pollution control in case of small and medium scale industries

OR

$\geq 2\%$ units deficiency in terms of design/ operation and maintenance of pollution control in case of Large scale industries or common facilities

The status report (last two years) shall be used for the purpose of deciding the score for adequacy.

Evaluation of the Ambient Air Index / Surface Water Index / Ground Water Index

After calculating A, B, C and D; calculate the sub index score (Air / Surface Water / Ground Water) as:

$$\text{Sub-Index Score} = (A + B + C + D)$$

Sub index scores are to be calculated for each of the individual environmental components that is, Air Environment, Surface Water Environment, and Soil & Ground Water Environment separately.

Calculation of the Aggregated CEPI

The aggregated CEPI Score can be calculated as.

$$\text{CEPI} = i_m + \{(100 - i_m) \cdot (i_2/100) \cdot (i_3/100)\}$$

Where,

i_m : maximum sub index; and

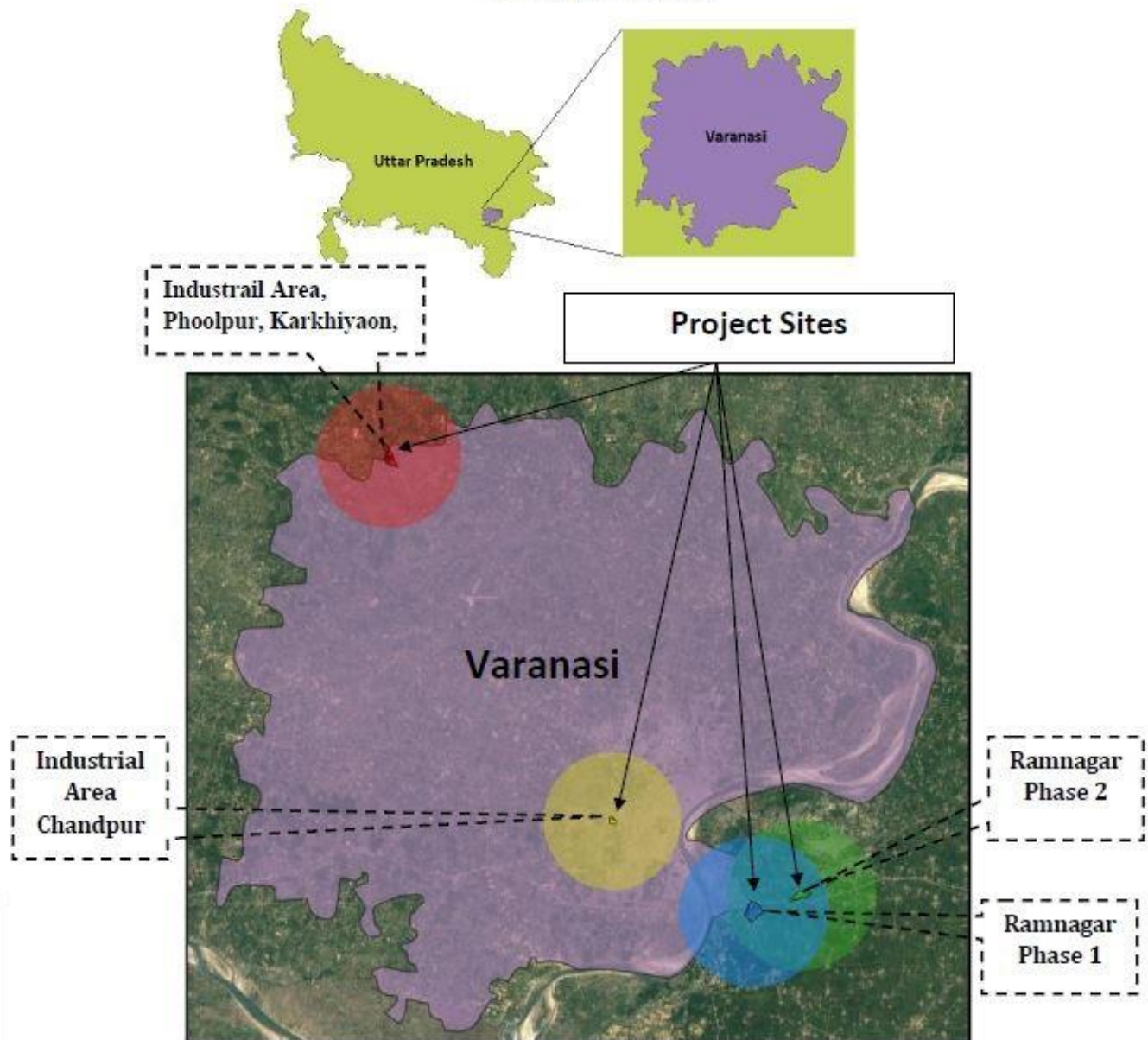
i_2 , and i_3 are sub indices for other media

1.1 AREA DETAILS

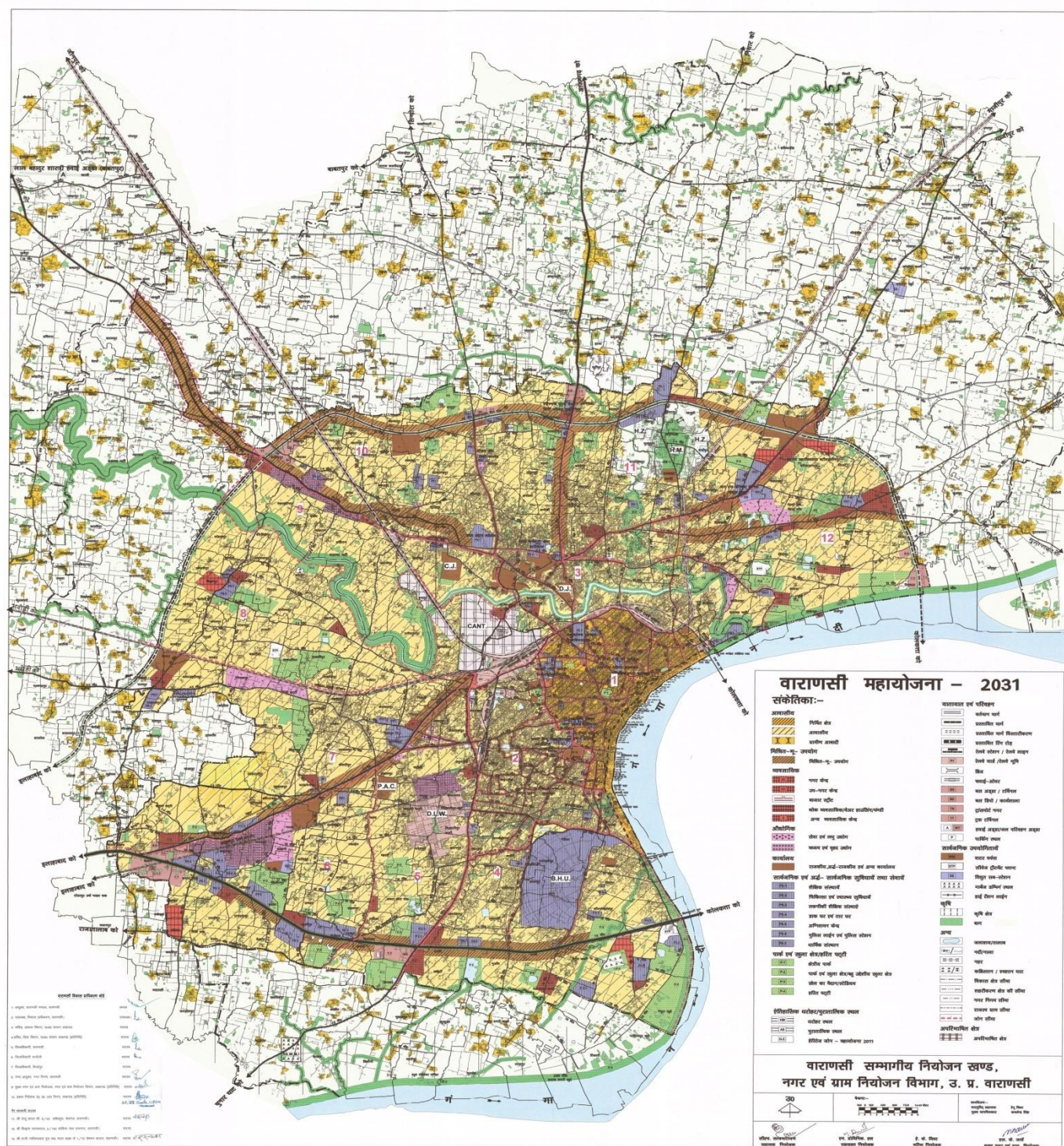
As per the CEPI assessment, following areas have been identified as Critically / Severely Polluted Area:

1. Chandpur Industrial Area, Varanasi
2. Ramnagar Industrial Area Phase-I
3. Ramnagar Industrial Area Phase-II
4. Industrial Area, Phoolpur, Karkhiyaon

LOCATION MAP



VARANASI MASTER PLAN



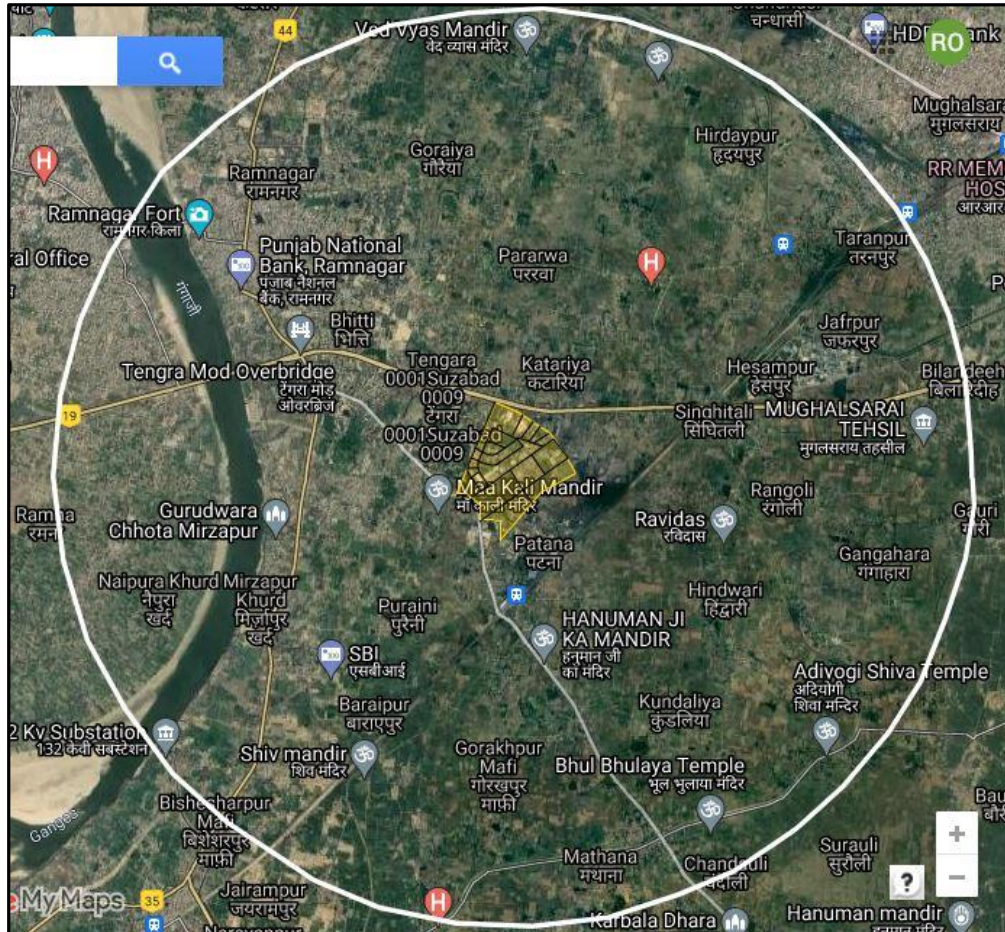
1.2 LOCATION

The coordinates of the cluster boundary are as follows:

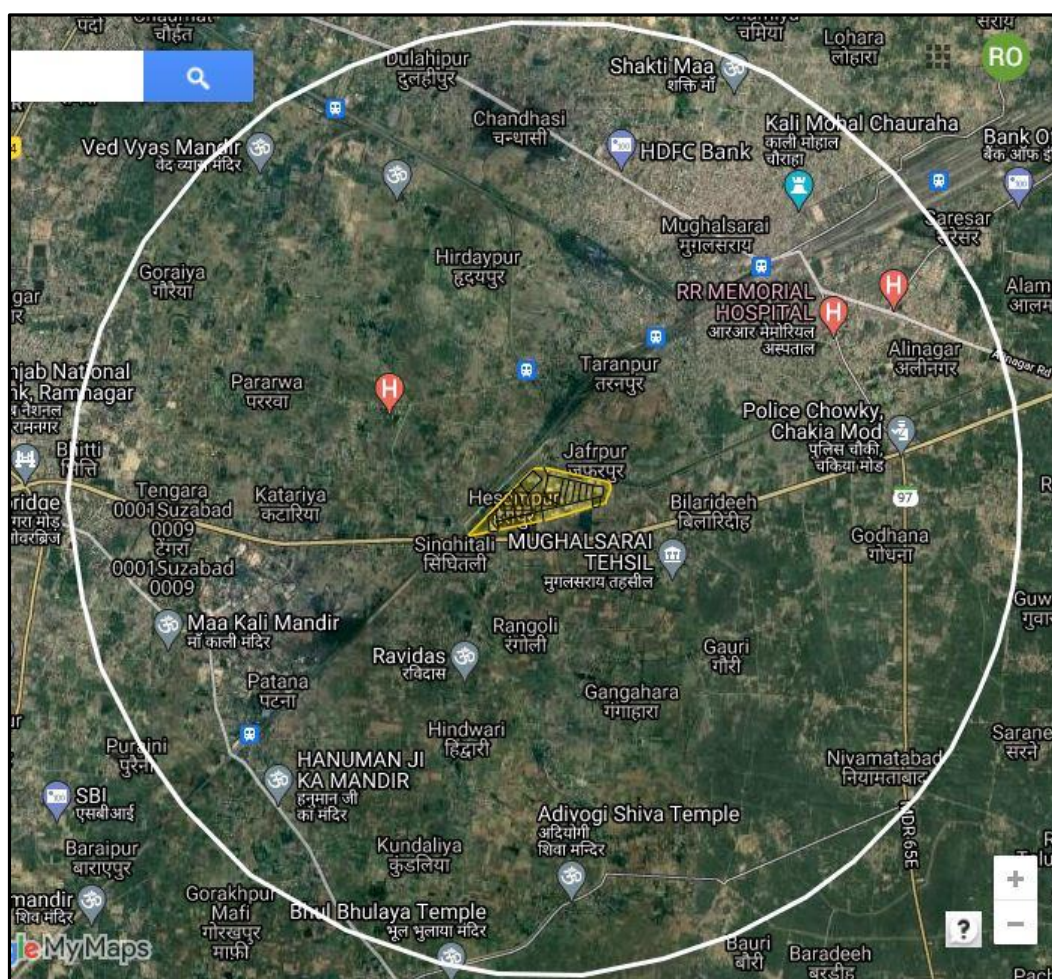
| S. No. . | Name of Industrial Area | Direction | Latitude | Longitude | Remarks |
|----------|---|-----------|------------|------------|---|
| 1. | Industrial Area, Ramnagar, Chandauli | East | 25.2453149 | 83.0695813 | Covered under the Jurisdiction of Regional Office, Varanasi |
| | | West | 25.2501405 | 83.0595035 | |
| | | North | 25.2523089 | 83.0616503 | |
| | | South | 25.2411084 | 83.0596165 | |
| 2. | UPSIDC ,Industrial Estate, Karkiyon, Phoolpur | East | 25.545137 | 82.799580 | |
| | | West | 25.543513 | 82.793377 | |
| | | North | 25.553174 | 82.793370 | |
| | | South | 25.537795 | 82.802232 | |
| 3. | Industrial Estate, Chandpur | East | 25.305256 | 82.962537 | |
| | | West | 25.305421 | 82.957409 | |
| | | North | 25.307229 | 82.959525 | |
| | | South | 25.303484 | 82.958697 | |
| 4. | Industrial Estate, Mirzapur | - | | | Covered under Regional Office, Sonbhadra |
| 5. | Industrial Cluster, Chunar District, Mirzapur | | | | |

1.3 DIGITIZED MAP SHOWING GEOGRAPHICAL BOUNDARIES AND IMPACT ZONES

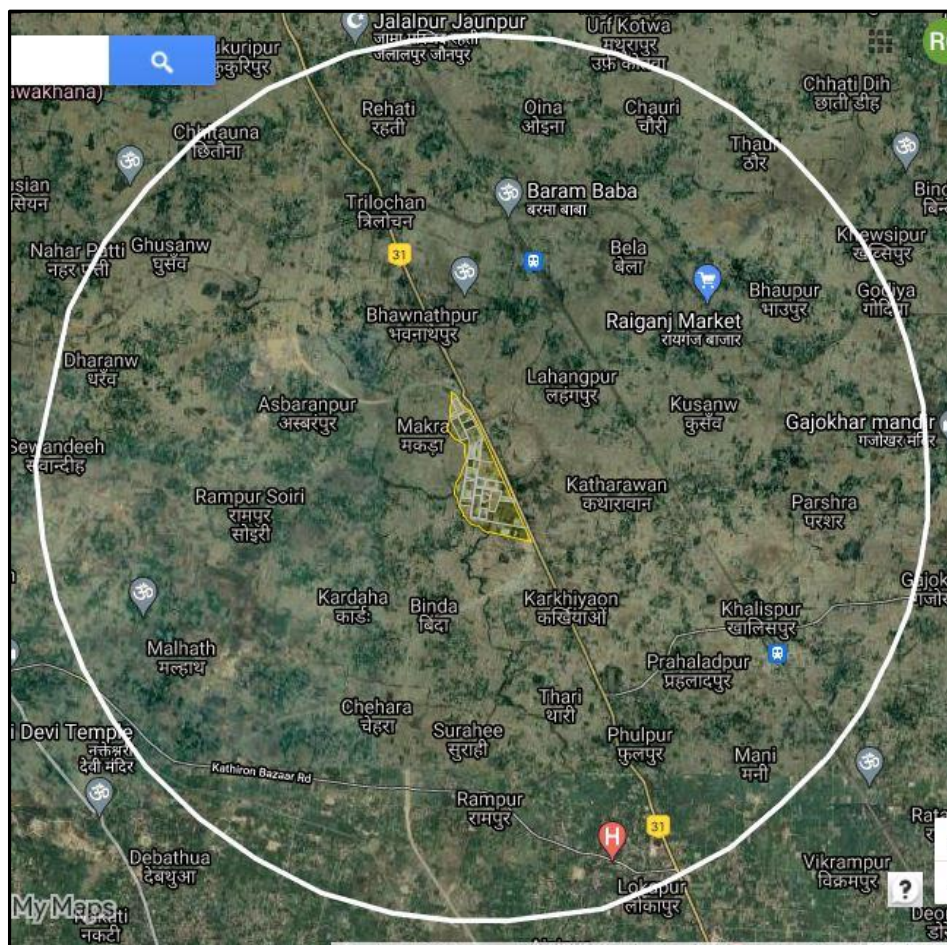
1. Ramnagar Industrial Area Phase - 1



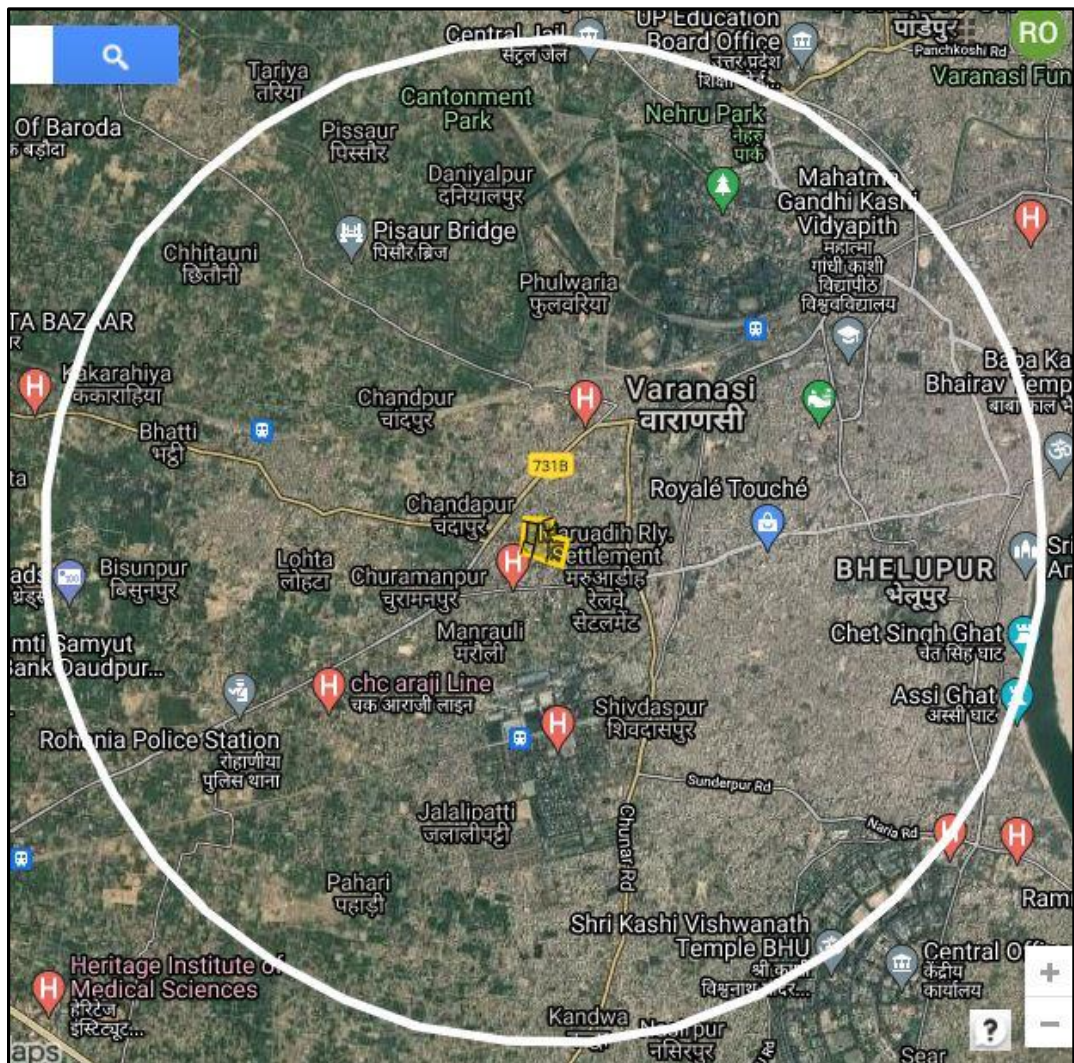
2. Ramnagar Industrial Area Phase - 2



3. UPSIDC ,Industrial Estate, Karkhiyaon, Phoolpur



4. Industrial Estate, Chandpur



1.4 CEPI SCORE

Air, Water, Land and Total

Varanasi-Mirzapur (Acc. to 2018 CEPI Score- Total CEPI – 85.35)

CEPI SCORE CALCULATION

Water Quality Analysis Report

| Pollutant | Group | A1 | A2 | A |
|----------------|-------|------|--------------|-------|
| BOD | A | 0.25 | Moderate=2.5 | A1*A2 |
| Total Coliform | A | 0.25 | | |
| 0.50 | | | | 1.25 |

| Pollutants | (1) Avg | (2) Std | (3) EF | (4) No of Samples Exceeding | (5) Total No of Samples | (6) SNLF Value | |
|----------------|------------|------------|-----------|-----------------------------------|-------------------------------|-------------------|------|
| BOD | 2.62 | 3 | 0.88 | 3 | 12 | L | 0.22 |
| Total Coliform | 41.99 | 250 | 0.17 | 12 | 12 | L | 0.17 |
| B = B1+B2 | | | | | | | 0.39 |

| | | |
|----------|----|-------|
| C | 10 | >10% |
| D | 5 | A-I-A |

| | | |
|------------------|-----------|-----------------------------|
| WATER EPI | (A+B+C+D) | = 1.25+0.39+10+5 = 16.64 |
|------------------|-----------|-----------------------------|

Air Quality Analysis Report Pollutant

| Pollutant | Group | A1 | A2 | A |
|-----------|-------|-----|----------------|--------------|
| PM10 | B | 0.5 | Moderate = 2.5 | A1*A2 = 3.75 |
| PM2.5 | C | 1.0 | | |
| | | 1.5 | | |

| Pollutants | (1) Avg | (2) Std | (3) EF | (4) No of Samples Exceeding | (5) Total No of Samples | (6) SNLF Value |
|-------------|------------|------------|-----------|-----------------------------------|-------------------------------|----------------------|
| PM10 | 185 | 100 | 1.85 | 8 | 12 | 9.75 |
| C6H6 | 1.20 | 5 | 0.24 | 0 | 12 | 0 |
| B = B1 + B2 | | | | | | 9.75 |

| | | |
|---|----|-------|
| C | 10 | <10% |
| D | 5 | A-A-A |

| | | |
|---------|-----------|---------------------------|
| AIR EPI | (A+B+C+D) | 3.75 + 9.75+10+5 =28.5 |
|---------|-----------|---------------------------|

Ground Water Quality Analysis Report

| Pollutant | Group | A1 | A2 | A |
|----------------|-------|------|----------------|-------|
| Total Hardness | A | 0.25 | Moderate = 2.5 | A1*A2 |
| Turbidity | A | 0.25 | | |
| | | 0.5 | | 1.25 |

| Pollutants | (1) Avg | (2) Std | (3) EF | (4) No of Samples Exceeding | (5) Total No of Samples | (6) SNLF Value |
|----------------|------------|------------|-----------|-----------------------------------|-------------------------------|----------------------|
| Total Hardness | 447 | 300 | 1.49 | 6 | 6 | 1.49 |
| Turbidity | 6 | 5 | 1.2 | 4 | 6 | 0.8 |
| B = B1+B2 | | | | | | 2.29 |

| | | |
|---|---|-------|
| C | 0 | <5% |
| D | 5 | A-I-A |

5.

| | | |
|--------------|-----------|--------------------------|
| Ground Water | (A+B+C+D) | =1.25+2.29+5+5 =13.54 |
|--------------|-----------|--------------------------|

| | |
|---------|-------|
| Water – | 16.64 |
| Air - | 28.5 |
| Land – | 13.54 |

| S. No. | Sector | A1 | A2 | A | B | C | D | TOTAL |
|--------|-------------------|-----|-----|------|------|----|---|-------|
| 1 | Water | 0.5 | 2.5 | 1.25 | 0.39 | 10 | 5 | 16.64 |
| 2 | Air | 3.0 | 2.5 | 7.5 | 9.75 | 10 | 5 | 28.5 |
| 3 | Ground water/Land | 0.5 | 2.5 | 1.25 | 2.29 | 5 | 5 | 13.54 |

$$\begin{aligned}
 \text{CEPI Score} &= i_{\max} + \{(100-i_{\max})*(i_2/100)*(i_3/100)\} \\
 &= 28.5 + \{(100-28.5)*(16.64/100)*(13.54/100)\} \\
 &= 28.5 + \{71.5*0.17*0.14\} \\
 &= 40.80
 \end{aligned}$$

1.5 BASELINE STATUS OF SENSITIVE RECEPTORS:

Total population and sensitive receptors (hospitals, educational institutions, courts etc) residing in the area comprising geographical area of the cluster and its impact zone.

| Population (as on 2011 census) | | Number of Hospitals | | Number of Educational Institutions | | Number of Courts | | Other socially sensitive features | |
|-----------------------------------|------------------------------|------------------------|----------------|--|----------------|---------------------|----------------|---|----------------|
| Within Cluster | Impact Zone | Within Cluster | Impact Zone | Within Cluster | Impact Zone | Within Cluster | Impact Zone | Within Cluster | Impact Zone |
| Male Female Total | 1017905 934851 1952756 | 0 | 163 | - | - | 0 | - | Administrative Divisions No. of Tehsils - 3 No. of Blocks - 9 No. of Villages - 1637 | - |

1.6 ECO-GEOLOGICAL FEATURES

Impact Zones [the area comprising of geographical area of the cluster and its impact zone (within 5 km)]

1.6.1 MAJOR WATER BODIES (RIVERS, LAKES, PONDS, ETC.)

| Rivers | | Lakes | | Ponds | |
|-------------------|---|-------------------|----------------|-------------------|----------------|
| Within Cluster | Impact Zone | Within Cluster | Impact Zone | Within Cluster | Impact Zone |
| - | Ganga River, Varuna River Assi River Nad River | - | - | - | 74 |

1.6.2 ECOLOGICAL PARKS, SANCTUARIES, FLORA AND FAUNA OR ANY ECO SENSITIVE ZONES:

Given below is the list of ecologically sensitive zones within the impact zone of the CEPI areas along with their distance and direction from the area:

| S. No. | List of environmentally sensitive zones | Number | Distance and direction |
|--------|---|--------|---------------------------|
| 1 | Kachhua Sanctuary is in Varanasi district in Uttar Pradesh, India. Turtles, the Ganges dolphin and other water animals can be found here. | 01 | |

1.6.3 BUILDINGS OR MONUMENTS OF HISTORICAL/ ARCHAEOLOGICAL / RELIGIOUS IMPORTANCE

| S. No. | List of Buildings or Monuments of historical/archaeological/religious importance | Distance and direction |
|--------|--|------------------------|
| 1. | Aghor Peeth | - |
| 2. | Ashoka Pillar, | - |
| 3. | Alamgir Mosque | - |
| 4. | Bharat Kala Bhavan (Art Museum), | - |
| 5. | Central University for Tibetan Studies | - |
| 6. | Dhanvantari Temple | - |
| 7. | Durga Temple | |
| 8. | Jantar Mantar | - |
| 9. | Kashi Vishwanath Temple | - |
| 10. | Sankat Mochan Hanuman Temple | - |
| 11. | Mahatma Gandhi Kashi Vidyapith | - |
| 12. | Shri Vishwanath Temple on the BHU campus | - |
| 13. | Ramnagar Fort | - |
| 14. | Tulsi Manas Mandir | - |

1.7 INDUSTRY CLASSIFICATION: Density of industry (no. of industries per 10 sq.km area or fraction)

The total number of industries in the cluster is as listed below:

1.7.1 HIGHLY POLLUTING INDUSTRIES (17 CATEGORIES)

| S.No. | Name of Industrial Cluster | Scale Of Industries | Highly Polluting Industries | | |
|-------|---------------------------------------|---------------------|-----------------------------|-------|--|
| | | | Air | Water | No. Of E-Waste/Hazardous Waste Generating Industries |
| 1. | Industrial Area, Chandauli | Large | 0 | 0 | 0 |
| | | Medium | 3 | 3 | 3 |
| | | Total | 3 | 3 | 3 |
| 2. | Industrial Estate, Chandpur, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |

| | | | | | |
|-----------|--|---------------|----------|----------|----------|
| | | Total | 0 | 0 | 0 |
| 3. | Industrial Area, Karkhiyaon, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Total | 0 | 0 | 0 |

***Name of 17 category Industries in Industrial Area, Chandauli**

| S.No. | Name and address of Industry | Status |
|-------|---|-------------|
| 1 | S. A Iron & Alloys Pvt. Ltd., Givnathpur, Ramnagar, Chandauli | Operational |
| 2 | Newal Calcotta Pvt. Ltd., Industrial Area Ramnagar, Chandauli | Operational |
| 3 | Ganga Pulp & Paper Pvt. Ltd. Industrial Area, Ramnagar | Operational |

1.7.2 RED CATEGORY INDUSTRIES (60 CATEGORIES)

| S.No. | Name of Industrial Cluster | Scale Of Industries | Highly Polluting Industries | | |
|-----------|--|---------------------|-----------------------------|-----------|--|
| | | | Air | Water | No. Of E-Waste/Hazardous Waste Generating Industries |
| 1. | Industrial Area, Chandauli | Large | 2 | 2 | 0 |
| | | Medium | 1 | 1 | 0 |
| | | Small | 23 | 23 | 0 |
| | | Total | 26 | 26 | 0 |
| 2. | Industrial Estate, Chandpur, Varanasi | Large | 1 | 1 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 4 | 4 | 0 |
| | | Total | 5 | 5 | 0 |
| 3. | Industrial Area, Karkhiyaon, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 1 | 1 | 0 |
| | | Total | 1 | 1 | 0 |

1.7.3 ORANGE CATEGORY INDUSTRIES

| S.No. | Name of Industrial Cluster | Scale Of Industries | Number of Industries | | |
|-------|---------------------------------------|---------------------|----------------------|-------|--|
| | | | Air | Water | No. Of E-Waste/Hazardous Waste Generating Industries |
| 1. | Industrial Area, Chandauli | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 27 | 27 | 0 |
| | | Total | 27 | 27 | 0 |
| 2. | Industrial Estate, Chandpur, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 15 | 15 | 0 |
| | | Total | 15 | 15 | 0 |
| 3. | Industrial Area, Karkhiyaon, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 12 | 12 | 0 |
| | | Total | 12 | 12 | 0 |

1.7.4 GREEN CATEGORY INDUSTRIES

| S.No. | Name of Industrial Cluster | Scale Of Industries | Number of Industries | | |
|-------|---------------------------------------|---------------------|----------------------|-------|--|
| | | | Air | Water | No. Of E-Waste/Hazardous Waste Generating Industries |
| 1. | Industrial Area, Chandauli | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 54 | 54 | 0 |
| | | Total | 54 | 54 | 0 |
| 2. | Industrial Estate, Chandpur, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 6 | 6 | 0 |
| | | Total | 6 | 6 | 0 |
| | Industrial Area, Karkhiyaon, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 5 | 5 | 0 |
| | | Total | 5 | 5 | 0 |

1.7.5 GROSSLY POLLUTING INDUSTRIES

| S.No. | Name of Industrial Cluster | Scale Of Industries | Highly Polluting Industries | | |
|-------|---------------------------------------|---------------------|-----------------------------|-------|--|
| | | | Air | Water | No. Of E-Waste/Hazardous Waste Generating Industries |
| 1. | Industrial Area, Chandauli | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 9 | 9 | 0 |
| | | Total | 9 | 9 | 0 |
| 2. | Industrial Estate, Chandpur, Varanasi | Large | 1 | 1 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 0 | 0 | 0 |
| | | Total | 1 | 1 | 0 |
| 3. | Industrial Area, Karkhiyaon, Varanasi | Large | 0 | 0 | 0 |
| | | Medium | 0 | 0 | 0 |
| | | Small | 0 | 0 | 0 |
| | | Total | 0 | 0 | 0 |

Status of Industries

| Scale Of Industries | Highly (17 Category) Industries | |
|---------------------|---------------------------------|-------|
| | Air | Water |
| Large | - | - |
| Medium | 03 | 03 |
| Total | 03 | 03 |

| Scale Of Industries | Red Category Industries | |
|---------------------|-------------------------|-------|
| | Air | Water |
| Large | 03 | 03 |
| Medium | 01 | 01 |
| Small | 28 | 28 |
| Total | 32 | 32 |

| Scale Of Industries | Orange Category Industries | |
|---------------------|----------------------------|-------|
| | Air | Water |
| Large | - | - |
| Medium | - | - |
| Small | 54 | 54 |
| Total | 54 | 54 |

2.0 WATER ENVIRONMENT

2.1 Present Status of Water Environment Supported with Minimum One-Year Analytical Data

RIVER GANGA AT U/S VARANASI (NEAR VISHWASUNDARI BRIDGE)

On the basis of CPCB Water Quality Criteria

| S. No. | Parameters | Observed values | Standards | Class of water |
|--------|---------------|-----------------|------------------------------------|----------------|
| 1. | Jan-19 | | | |
| | pH | 8.28 | 6.5 and 8.5 | A |
| | DO(mg/l) | 8.9 | 6mg/l or more | A |
| | BOD(mg/l) | 2.2 | 3mg/l or less | B |
| | COD(mg/l) | 9.2 | - | - |
| | Chloride | 41.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 1300 | TC(MPN/100ml)shall be 5000 or less | C |
| 2. | Feb-19 | | | |
| | pH | 8.36 | 6.5 and 8.5 | A |
| | DO(mg/l) | 10 | 6mg/l or more | A |
| | BOD(mg/l) | 1.7 | 2mg/l or less | A |
| | COD(mg/l) | 8.4 | - | - |
| | Chloride | 50.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 1100 | TC(MPN/100ml)shall be 5000 or less | C |
| 3. | March-19 | | | |
| | pH | 8.29 | 6.5 and 8.5 | A |
| | DO(mg/l) | 8.9 | 6mg/l or more | A |
| | BOD(mg/l) | 2.4 | 3mg/l or less | B |
| | COD(mg/l) | 9 | - | - |
| | Chloride | 47.29 | 250 mg/l or less | A |

| | | | | |
|----|---------------|-------|------------------------------------|---|
| | TC(MPN/100ml) | 1400 | TC(MPN/100ml)shall be 5000 or less | C |
| 4. | April-19 | | | |
| | pH | 8.42 | 6.5 and 8.5 | A |
| | DO(mg/l) | 8.4 | 6mg/l or more | A |
| | BOD(mg/l) | 2.4 | 3mg/l or less | B |
| | COD(mg/l) | 9.2 | - | - |
| | Chloride | 58.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 1400 | TC(MPN/100ml)shall be 5000 or less | C |
| 5. | May-19 | | | |
| | pH | 8.4 | 6.5 and 8.5 | A |
| | DO(mg/l) | 8 | 6mg/l or more | A |
| | BOD(mg/l) | 2.7 | 3mg/l or less | B |
| | COD(mg/l) | 10.2 | - | - |
| | Chloride | 58.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 1700 | TC(MPN/100ml)shall be 5000 or less | C |
| 6. | JUN-19 | | | |
| | pH | 8.43 | 6.5 and 8.5 | A |
| | DO(mg/l) | 8.4 | 6mg/l or more | A |
| | BOD(mg/l) | 2.3 | 3mg/l or less | B |
| | COD(mg/l) | 9.8 | - | - |
| | Chloride | 50.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 1400 | TC(MPN/100ml)shall be 5000 or less | C |
| 7. | July-19 | | | |
| | pH | 8.4 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.9 | 6mg/l or more | A |
| | BOD(mg/l) | 2.8 | 3mg/l or less | B |

| | | | | |
|-----|---------------|-------|------------------------------------|---|
| | COD(mg/l) | 13.2 | - | - |
| | Chloride | 55.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 2100 | TC(MPN/100ml)shall be 5000 or less | C |
| 8. | August-19 | | | |
| | pH | 8.14 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.2 | 6mg/l or more | A |
| | BOD(mg/l) | 3.3 | - | - |
| | COD(mg/l) | 13.6 | - | |
| | Chloride | 32.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 2200 | TC(MPN/100ml)shall be 5000 or less | C |
| 9. | September-19 | | | |
| | pH | 8.3 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.3 | 6mg/l or more | A |
| | BOD(mg/l) | 3.1 | - | - |
| | COD(mg/l) | 14.4 | - | |
| | Chloride | 29.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 2700 | TC(MPN/100ml)shall be 5000 or less | C |
| 10. | October-19 | | | |
| | pH | 8.27 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.2 | 6mg/l or more | A |
| | BOD(mg/l) | 3.2 | - | - |
| | COD(mg/l) | 14.8 | - | - |
| | Chloride | 17.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 3400 | TC(MPN/100ml)shall be 5000 or less | C |
| 11. | November-19 | | | |
| | pH | 8.22 | 6.5 and 8.5 | A |

| | | | | |
|-----|---------------|-------|------------------------------------|---|
| | DO(mg/l) | 7.4 | 6mg/l or more | A |
| | BOD(mg/l) | 3 | 3mg/l or less | - |
| | COD(mg/l) | 13.6 | - | - |
| | Chloride | 25.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 3100 | TC(MPN/100ml)shall be 5000 or less | C |
| 12. | December-19 | | | |
| | pH | 8.42 | 6.5 and 8.5 | A |
| | DO(mg/l) | 8.7 | 6mg/l or more | A |
| | BOD(mg/l) | 2.3 | 3mg/l or less | - |
| | COD(mg/l) | 8.4 | - | - |
| | Chloride | 34.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 2100 | TC(MPN/100ml)shall be 5000 or less | C |

2. RIVER GANGA AT D/S VARANASI (NEAR SARAI MOHANA)

| S. No. | Parameters | Observed values | Standards | Class of water |
|--------|---------------|-----------------|------------------|----------------|
| 1. | Jan-19 | | | |
| | pH | 8.22 | 6.5 and 8.5 | A |
| | DO(mg/l) | 6.7 | 6mg/l or more | A |
| | BOD(mg/l) | 4.1 | - | - |
| | COD(mg/l) | 15.6 | - | - |
| | Chloride | 45.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 43000 | - | - |
| 2. | Feb-19 | | | |
| | pH | 8.24 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.3 | 6mg/l or more | A |
| | BOD(mg/l) | 3.4 | - | - |
| | COD(mg/l) | 13.2 | - | - |

| | | | | |
|----|---------------|-------|------------------|---|
| | Chloride | 56.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 31000 | - | - |
| 3. | March-19 | | | |
| | pH | 8.19 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.2 | 6mg/l or more | A |
| | BOD(mg/l) | 3.6 | - | - |
| | COD(mg/l) | 12.8 | - | - |
| | Chloride | 52.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 31000 | - | - |
| 4. | April-19 | | | |
| | pH | 8.24 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.3 | 6mg/l or more | A |
| | BOD(mg/l) | 3.6 | - | - |
| | COD(mg/l) | 13.8 | - | - |
| | Chloride | 62.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 34000 | - | - |
| 5. | May-19 | | | |
| | pH | 8.2 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.2 | 6mg/l or more | A |
| | BOD(mg/l) | 3.6 | - | - |
| | COD(mg/l) | 16.2 | - | - |
| | Chloride | 64.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 34000 | - | - |
| 6. | Jun-19 | | | |
| | pH | 8.22 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.4 | 6mg/l or more | A |
| | BOD(mg/l) | 3.5 | - | - |

| | | | | |
|-----|---------------|-------|------------------|---|
| | COD(mg/l) | 15.4 | - | - |
| | Chloride | 55.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 27000 | - | - |
| 7. | July-19 | | | |
| | pH | 8.27 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.3 | 6mg/l or more | A |
| | BOD(mg/l) | 3.8 | - | - |
| | COD(mg/l) | 19.6 | - | - |
| | Chloride | 60.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 34000 | - | - |
| 8. | August-19 | | | |
| | pH | 7.96 | 6.5 and 8.5 | A |
| | DO(mg/l) | 6.5 | 6mg/l or more | A |
| | BOD(mg/l) | 4.2 | - | - |
| | COD(mg/l) | 71.2 | - | - |
| | Chloride | 39.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 31000 | - | - |
| 9. | September-19 | | | |
| | pH | 8.17 | 6.5 and 8.5 | A |
| | DO(mg/l) | 6.8 | 6mg/l or more | A |
| | BOD(mg/l) | 4.2 | - | - |
| | COD(mg/l) | 20.8 | - | - |
| | Chloride | 34.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 34000 | - | - |
| 10. | October-19 | | | |
| | pH | 8.22 | 6.5 and 8.5 | A |
| | DO(mg/l) | 6.5 | 6mg/l or more | A |

| | | | | |
|-----|---------------|-------|------------------|---|
| | BOD(mg/l) | 4.2 | - | - |
| | COD(mg/l) | 20.4 | - | - |
| | Chloride | 22.48 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 43000 | - | - |
| 11. | November-19 | | | |
| | pH | 8.16 | 6.5 and 8.5 | A |
| | DO(mg/l) | 6.8 | 6mg/l or more | A |
| | BOD(mg/l) | 4.1 | - | - |
| | COD(mg/l) | 19.6 | - | - |
| | Chloride | 46.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 34000 | - | - |
| 12. | December-19 | | | |
| | pH | 8.68 | 6.5 and 8.5 | A |
| | DO(mg/l) | 7.9 | 6mg/l or more | A |
| | BOD(mg/l) | 3.6 | - | - |
| | COD(mg/l) | 14.4 | - | - |
| | Chloride | 29.98 | 250 mg/l or less | A |
| | TC(MPN/100ml) | 17000 | - | - |

RIVER VARUNA B/C RIVER GANGA AT VARANASI

| S. No. | Parameters | Observed values | Standards |
|--------|---------------|-----------------|-------------------------------------|
| 1. | Jan-19 | | |
| | pH | 8.12 | 6.5 and 8.5 |
| | DO(mg/l) | 2.6 | 6mg/l or more |
| | BOD(mg/l) | 32.4 | 3mg/l or less |
| | COD(mg/l) | 120.8 | - |
| | TC(MPN/100ml) | 280000 | TC(MPN/100ml) shall be 5000 or less |

| | | | |
|----|---------------|--------|------------------------------------|
| 2. | Feb-19 | | |
| | pH | 7.86 | 6.5 and 8.5 |
| | DO(mg/l) | 2.2 | 6mg/l or more |
| | BOD(mg/l) | 26.2 | 3mg/l or less |
| | COD(mg/l) | 112.8 | - |
| | TC(MPN/100ml) | 220000 | TC(MPN/100ml)shall be 5000 or less |
| 3. | March-19 | | |
| | pH | 7.78 | 6.5 and 8.5 |
| | DO(mg/l) | 2.4 | 6mg/l or more |
| | BOD(mg/l) | 24.4 | 3mg/l or less |
| | COD(mg/l) | 116.8 | - |
| | TC(MPN/100ml) | 220000 | TC(MPN/100ml)shall be 5000 or less |
| 4. | April-19 | | |
| | pH | 7.66 | 6.5 and 8.5 |
| | DO(mg/l) | 2.5 | 6mg/l or more |
| | BOD(mg/l) | 24.4 | 3mg/l or less |
| | COD(mg/l) | 96.2 | - |
| | TC(MPN/100ml) | 170000 | TC(MPN/100ml)shall be 5000 or less |
| 5. | May-19 | | |
| | pH | 7.65 | 6.5 and 8.5 |
| | DO(mg/l) | 2.0 | 6mg/l or more |
| | BOD(mg/l) | 28.4 | 3mg/l or less |
| | COD(mg/l) | 108.2 | - |
| | TC(MPN/100ml) | 210000 | TC(MPN/100ml)shall be 5000 or less |
| 6. | Jun-19 | | |

| | | | |
|-----|---------------|--------|------------------------------------|
| | pH | 7.72 | 6.5 and 8.5 |
| | DO(mg/l) | 1.6 | 6mg/l or more |
| | BOD(mg/l) | 29.6 | 3mg/l or less |
| | COD(mg/l) | 112.4 | - |
| | TC(MPN/100ml) | 220000 | TC(MPN/100ml)shall be 5000 or less |
| 7. | July-19 | | |
| | pH | 7.73 | 6.5 and 8.5 |
| | DO(mg/l) | 2.2 | 6mg/l or more |
| | BOD(mg/l) | 26.4 | 3mg/l or less |
| | COD(mg/l) | 104.8 | - |
| | TC(MPN/100ml) | 180000 | TC(MPN/100ml)shall be 5000 or less |
| 8. | August-19 | | |
| | pH | 7.62 | 6.5 and 8.5 |
| | DO(mg/l) | 3.6 | 6mg/l or more |
| | BOD(mg/l) | 22.4 | 3mg/l or less |
| | COD(mg/l) | 82.4 | - |
| | TC(MPN/100ml) | 140000 | TC(MPN/100ml)shall be 5000 or less |
| 9. | September-19 | | |
| | pH | 7.54 | 6.5 and 8.5 |
| | DO(mg/l) | 3.4 | 6mg/l or more |
| | BOD(mg/l) | 15.6 | 3mg/l or less |
| | COD(mg/l) | 76.4 | - |
| | TC(MPN/100ml) | 94000 | TC(MPN/100ml)shall be 5000 or less |
| 10. | October-19 | | |
| | pH | 7.8 | 6.5 and 8.5 |

| | | | |
|-----|---------------|--------|------------------------------------|
| | DO(mg/l) | 4.0 | 6mg/l or more |
| | BOD(mg/l) | 15.6 | 3mg/l or less |
| | COD(mg/l) | 78.2 | - |
| | TC(MPN/100ml) | 110000 | TC(MPN/100ml)shall be 5000 or less |
| 11. | November-19 | | |
| | pH | 7.74 | 6.5 and 8.5 |
| | DO(mg/l) | 4.3 | 6mg/l or more |
| | BOD(mg/l) | 13.6 | 3mg/l or less |
| | COD(mg/l) | 56.4 | - |
| | TC(MPN/100ml) | 94000 | TC(MPN/100ml)shall be 5000 or less |
| 12. | December-19 | | |
| | pH | 7.63 | 6.5 and 8.5 |
| | DO(mg/l) | 4.8 | 6mg/l or more |
| | BOD(mg/l) | 11.6 | 3mg/l or less |
| | COD(mg/l) | 52.2 | - |
| | TC(MPN/100ml) | 79000 | TC(MPN/100ml)shall be 5000 or less |

2.2 WATER BODIES/EFFLUENT RECEIVING DRAINS IN THE AREA IMPORTANT FOR WATER QUALITY MONITORING

| S. No. | Water Bodies | No. of drains discharging | Effluent discharge (MLD) |
|--------|---------------|---------------------------|--------------------------|
| 1. | Ghuraha Drain | 01 | 03 MLD |

2.3 PRESENT LEVELS OF POLLUTANTS IN WATER BODIES/EFFLUENT RECEIVING DRAINS/GROUND WATER (Routine parameters, special parameters and water toxics relevant to the area in three categories – known carcinogens, probable carcinogens and other toxics)

Ghuraha Drain before meeting River Ganga (Industrial **Effluent Receiving drain**)

| S. No. | Parameters | Observed values | Standards |
|--------|----------------|-----------------|-----------|
| | p ^H | 4.46 | - |
| | BOD | 28.4 | - |
| | COD | 90 | - |
| | TS | 726 | - |
| | TDS | 588 | - |
| | TSS | 138 | - |

2.4 PREDOMINANT SOURCES CONTRIBUTING TO VARIOUS POLLUTANTS

| S. No. | Sources | Effluent discharge | Major Pollutants |
|--------|--|--------------------|------------------|
| 1 | Maha Laxmi Yarn Pvt. Ltd., B-4/2, I/A, Ramnagar Chandauli | 50.0 KLD | - |
| 2 | M.P. Filament (A Unit of M.P. Agarwal & Co.), Industrial Area, Ramnagar, Chandauli | 100.0 KLD | - |

2.5 Sources of Water Pollution

2.5.1 Industrial Pollution Sources

The drain wise and sector wise distribution of industries and their estimated treated effluent discharge and details of CETP is given in the tables below:

Summary of Industrial Units

| S. No. | Drain | Type of Industry | | | | | | | Total Effluent Discharge (MLD) |
|--------|-------|---|--------------|------------|---------|-----------------|--------|-------|-----------------------------------|
| | | * The Type of Industry may be changed as per local conditions | | | | | | | |
| | | Sugar | Pulp & Paper | Distillery | Textile | Slaughter House | Others | Total | |
| 1. | 1 | 0 | 2 | 0 | 1 | 0 | 8 | | MLD |

2.5.2 Domestic Pollution Sources

a) Details of Drains

Summary of Drains

| S No. | District | No. of Drains | Type of Drains | | Status of Drains | | | Sewage Discharge (MLD) | | | Total Discharge in the River (MLD) |
|-------|----------|---------------|----------------|------------|------------------|----------|------------------|------------------------|-----------|-------|------------------------------------|
| | | | Domestic | Industrial | Tapped | Untapped | Partially Tapped | Treated | Untreated | Total | |
| 1. | Varanasi | 6 | 6 | 0 | 0 | 6 | - | | 21.16 | 21.16 | 21.16MLD |

b) Details of Sewage Pollution Sources

The details of Sewage Treatment Plants along with installed capacity, utilized capacity, operating agency and discharge point is given in the table below:-

Details of STPs

| S.No. | Name of STP | Location | | Installed Capacity (MLD) | Utilized Capacity (MLD) | Capacity Utilized (MLD) | Operating Govt. Agency | Discharge Drain |
|-------|--------------------|----------|-----------|--------------------------|-------------------------|-------------------------|------------------------|-----------------|
| | | Latitude | Longitude | | | | | |
| 1. | 10 MLD Ramana | - | - | 10 | Under Trail | Under Trail | Under Trail | Under Trail |
| 2. | 50 MLD Ramnagar | | | 50 | Under Trail | Under Trail | Under Trail | Under Trail |
| 3. | 9.8 MLD Bhagwanpur | | | 9.8 | Operational | 9.8 | UPJN | |
| 4. | 12 MLD BLW STP | | | 12 | Operational | 12 | BLW | |
| 5. | 80 MLD Dinapur | | | 80 | Operational | 79.5 | UPJN | |
| 6. | 120 MLD Goithaha | | | 120 | Operational | 36 | UPJN | |

| S.No. | Name of STP | Location | | Installed Capacity (MLD) | Utilized Capacity (MLD) | Capacity Utilized (MLD) | Operating Govt. Agency | Discharge Drain |
|-------|-----------------|----------|-----------|--------------------------|-------------------------|-------------------------|------------------------|-----------------|
| | | Latitude | Longitude | | | | | |
| 7. | 140 MLD Dinapur | | | 140 | Operational | 80 | UPJN | |

DETAILS OF CETPs

| S.No. | District | Name of CETP | Location | | Installed Capacity (MLD) | Utilized Capacity (MLD) | Operating Govt. Agency/SPV | Discharge Drain |
|-------|----------|--------------|----------|-----------|--------------------------|-------------------------|----------------------------|-----------------|
| | | | Latitude | Longitude | | | | |
| 1. | Varanasi | 0 | - | - | - | - | - | - |

2.5.3 **Others Sources** (Agricultural Runoff, Leachate from MSW Dump, Illegal Dump Sites etc.):

3 a) **Municipal Solid Waste**

| S.No. | District | Name of City/ Town | Waste generated (TPD) | Treatment Capacity (TPD) | Gap between waste generated & treatment capacity available (TPD) | Remarks |
|-------|-----------|--------------------|-----------------------|--------------------------|--|---------|
| 1 | Chandauli | Ramnagar | 67.2 | - | - | - |
| 2. | Varanasi | | | | | |

b) Details of Dumping Site 500 Meters from the edge of the River

| S.No. | District | Name of Dumping site | Location | | Area (Ha) | Legacy/Current | Estimated quantity of MSW (MT) | Name of ULB/Panchayat | Disposal Plan (Yes/No) |
|-------|----------|----------------------|----------|-----------|-----------|----------------|--------------------------------|-----------------------|------------------------|
| | | | Latitude | Longitude | | | | | |

| | | | | | | | | |
|--|-----------|----|---|---|---|---|----|---|
| | Chandauli | NA | - | - | - | - | -- | - |
|--|-----------|----|---|---|---|---|----|---|

2.6 Impact on Surrounding Area (Outside the PIAs): on the water sources/drainage system of the area under consideration.

2.7 Details of Water Polluting Industries in the Area/ Cluster

| S. No. | Name and Address | Product | Location | | Status | Treatment Mechanism (ETP/CET P) | Effluent Discharge (KLD) | Effluent Discharge Drain | Consent status | |
|--------|---|-------------------------|----------|-----------|-------------|---------------------------------|--------------------------|----------------------------|----------------|-------|
| | | | Latitude | Longitude | | | | | Air | Water |
| 1 | Baba Paper & Board Mills, I/A, Ramnagar Chandauli | Pulp & Paper | - | - | Operational | ETP | 5.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 2 | D U S S Ltd., Ramnagar, Chandauli | Processing of Milk | - | - | Operational | ETP | 400.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 3 | Ganga Pulp & Paper Pvt., A-6 Industrial Area Ramnagar Chandauli | Pulp & Paper Industry | - | - | Operational | ETP | 1000.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 4 | Maha Laxmi Yarn Pvt. Ltd., B-4/2,I/A, Ramnagar Chandauli | Yarn/Textile Processing | - | - | Operational | ETP | 50.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 5 | Newal Calcotta Pvt. Ltd., Industrial Area Ramnagar | Pulp & Paper Industry | - | - | Operational | ETP | 50.0 | UPSIDC Drain/ Ghuraha | Yes | Yes |

| | | | | | | | | | | |
|----|--|-------------------------|---|---|--------------------|------------|-------|-------------------------------|-----|-----|
| | Chandauli | | | | | | | Nala | | |
| 6 | Industrial Board Mill, Industrial Area, Ramnagar, Chandauli | Mill Board | - | - | Operational | ETP | 10.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 7 | G.R.N. Cellulose (P) Ltd., Industrial Area, Ramnagar, Chandauli | NC. Catton | - | - | Operational | ETP | 100.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 8 | Shri Krishna Paper & Board Mill, Industrial Area, Ramnagar, Chandauli | Mill Board | - | - | Operational | ETP | 20.0 | UPSIDC Drain | Yes | Yes |
| 9 | Saket Enterprises, Industrial Area, Ramnagar, Chandauli | Mill Board | - | - | Operational | ETP | 30.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 10 | Electrochem, Industrial Area, Ramnagar, Chandauli | Electroplating | - | - | Operational | ETP | 5.0 | UPSIDC Drain/ Ghuraha Nala | Yes | Yes |
| 11 | Aishwarya Crations G.T. Road, Chandpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 12.0 | UPSIDC Drain | Yes | Yes |
| 12 | Amarlata Prints S-15/243 Shamsheer Singh Compound, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |

| | | | | | | | | | | |
|----|---|-------------------------|---|---|-------------|-----|---------|--------------|-----|-----|
| 13 | Balaji Prints, N-9/26-3 Patiya, Bajardiha, Varanasi. | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 14 | BHEL, Varanasi | Heavy Engineering | - | - | Operational | ETP | 0.0 | UPSIDC Drain | Yes | Yes |
| 15 | Chitra Kala Prints 8 A.E. Industrial Area, Chandapur, Maheshpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 12.0 | UPSIDC Drain | Yes | Yes |
| 16 | Chitra Nirman Industrial Area, Chandapur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 17 | Chitranashi S-15/243, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 18 | D.L.W., Varanasi | Loco Engineering | - | - | Operational | ETP | 13250.0 | UPSIDC Drain | Yes | Yes |
| 19 | Devraj Prints S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 8.0 | UPSIDC Drain | Yes | Yes |
| 20 | Hanuman Crations, N-9/26-3 Patiya, Bajardiha, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 21 | Hindustan Coca Cola Beverages Pvt. Ltd., Rajatalab, Varanasi | Soft Drink | - | - | Operational | ETP | 500.0 | UPSIDC Drain | Yes | Yes |
| 22 | Kala Nidhi S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |

| | | | | | | | | | | |
|----|---|-------------------------|---|---|-----------------|-----|-------|--------------|-----|-----|
| 23 | Laakhi Creations Industrial Area, Chandapur, Maheshpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 12.0 | UPSIDC Drain | Yes | Yes |
| 24 | Manpasand, Karkhiyaon, Agropark, Varanasi | Food & Beverages | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 25 | Mazda Prints, N. 10/60 DLW Road, Varanasi. | Sari Printing & Washing | - | - | Self Closed | ETP | 0.0 | UPSIDC Drain | - | - |
| 26 | Mazeed Prints, C-26/3 Nawabganj, Varanasi. | Sari Printing & Washing | - | - | Self Closed | ETP | 8.0 | UPSIDC Drain | - | - |
| 27 | Meera Prints C-3 Big Industrial Area, Chandpur, Varanasi | Sari Printing & Washing | - | - | Not Operational | ETP | 8.0 | UPSIDC Drain | - | - |
| 28 | Nidhi Prints S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Self Closed | ETP | 10.0 | UPSIDC Drain | - | - |
| 29 | Nike Energy, Tarna, Varanasi | Metal Surface Treatment | - | - | Operational | ETP | 2.0 | UPSIDC Drain | Yes | Yes |
| 30 | Parle Agro Ltd., Karkhiyaon, Agropark, Varanasi | Food & Beverages | - | - | Operational | ETP | 225.0 | UPSIDC Drain | Yes | Yes |
| 31 | Pooja Prints S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 32 | Pushpanjali Sarees Pvt. Ltd. A-6 Industrial Area, Chandpur, Vaanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |

| | | | | | | | | | | |
|----|---|-------------------------|---|---|-----------------|-----|------|--------------|-----|-----|
| 33 | Pushpanjali Sarees Pvt. Ltd. Unit-2 B-1, B-2, B-1E, B-2 E, Industrial Area, Chandpur, Vaanasi | Sari Printing & Washing | - | - | Operational | ETP | 5.0 | UPSIDC Drain | Yes | Yes |
| 34 | Rangoli, Mahamandal Nagar, Lahurabeer, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 5.0 | UPSIDC Drain | Yes | Yes |
| 35 | Rangsan Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 12.0 | UPSIDC Drain | Yes | Yes |
| 36 | S.N.D. Dyieng & Processing Co. Pvt. Ltd., A-7 Industrial Area, Chandpur, Varanasi. | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 37 | Saurabh Saree Pvt. Ltd. S-17/3 C-4 Krishna Nagar Colony, Pahariya, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 38 | Shaheen Prints, B-26/27, A-2, A-1 Nawabganj, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 39 | Sheetals S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 40 | Shyam Creations S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 41 | Silpi Print, S-15/243 Shamsher Singh Compount, Shivpur, Varanasi | Sari Printing & Washing | - | - | Not Operational | ETP | 5.0 | UPSIDC Drain | - | - |

| | | | | | | | | | | |
|----|---|-------------------------|---|---|-------------|-----|------|--------------|-----|-----|
| 42 | Swastik Dyieng & Processing Co. Pvt. Ltd., P-3, Big Industrial Area, Chandapur, Maheshpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 10.0 | UPSIDC Drain | Yes | Yes |
| 43 | Vijay Laxmi Criations J-13/93 Cotton Mill Compound, Chaukaghat, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 15.0 | UPSIDC Drain | Yes | Yes |
| 44 | Vishal Industries A-4 Industrial Area, Maheshpur, Varanasi | Sari Printing & Washing | - | - | Operational | ETP | 8.0 | UPSIDC Drain | Yes | Yes |

2.8 Effluent Disposal Methods- Ghuraha Drain through River Ganga.

2.9 Quantification Of Wastewater Pollution Load And Relative Contribution By Different Sources viz Industrial/ Domestic
a) Industrial:

| S. No. | Drain | Type of Industry | | | | | | | Total Effluent Discharge (MLD) | Pollution load (BOD in kg/day) |
|--------|--------------------------------------|---|-------------|------------|---------|-----------------|--------|-------|--------------------------------|--------------------------------|
| | | * The Type of Industry may be changed as per local conditions | | | | | | | | |
| | | Sugar | Pulp &Paper | Distillery | Textile | Slaughter House | Others | Total | | |
| 1. | UPSIDC Drain/ Ghuraha Nala/Nad River | 00 | 6 | 00 | 29 | 00 | 9 | 44 | Aprox. 15.9 MLD | Aprox. 568 kg/day |

b) Domestic:

| S No. | No. of Drains | Type of Drains | | Status of Drains | | | Industries | | Sewage Discharge (MLD) | | | Pollution load (BOD in kg/day) |
|----------|------------------|----------------|-------|------------------|----------|---------------------|------------|------------------------------|---------------------------|-----------|-------|-----------------------------------|
| | | Domestic | Mixed | Tapped | Untapped | Partially Tapped | Number | Treated Effluent (MLD) | Treated | Untreated | Total | |
| 1. | 44 | 44 | 0 | 26 | 18 | 0 | 01 | 10 | 360 | 115 | | |

2.10 Action Plan for Compliance and Control of Pollution

2.10.1 Short Term Action Points (upto 1 year, including continuous activities)

Short Term Action Points (upto 1 year, including continuous activities)

| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
|--------------|---|---|--|
| 2.10.1 a) | Water Pollution <ul style="list-style-type: none"> Industrial Source - Proposed Action Plan for effective control of Water Pollution: Regular effluent sample collection and analysis of Pollution Control System in Red, Orange & Green category Industries to be done to ensure strict compliance of prescribed effluent norms. | <u>Frequency</u> Red category- 3 months Orange category - 6 months Green category - 12 months (By UPPCB) & By Individual Industries as follows | UPPCB Individual Industry |
| | <ul style="list-style-type: none"> Installation of energy meter, on line PH meter, automatic chemical dosing system, on line effluent quality & flow measurement (OCEMS) 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 | Ongoing | Individual Industries (Large and Medium) |
| | <ul style="list-style-type: none"> Upgradation of ETP in existing water polluting units is to be done on case to case basis. Under the upgradation 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. | Within 06 months. | Individual Industries. |
| b) | <ul style="list-style-type: none"> Groundwater 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. Also, intensive surveys will be done to ensure that practice of reverse boring is not prevalent in the region. | Ongoing | Jal Nigam/ State Ground Water Authority |
| c) | <ul style="list-style-type: none"> Domestic Waste Water (Sewage): Domestic sewage | | UPPCB and |

| | | | |
|--|---|-----------------|--|
| | contributes to about 80% of Water. The status of Sewage Pollution Control is as follows: | Ongoing | Jal Nigam |
| | <ul style="list-style-type: none"> STPs are Operational | Ongoing | UPPCB and Jal Nigam |
| | <ul style="list-style-type: none"> Combined Inspection of STPs by UPPCB and Jal Nigam | Ongoing Process | UPPCB and Jal Nigam |
| | <ul style="list-style-type: none"> Upcoming High Rise Buildings, Commercial Project, Educational Institution, Multiplex, 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. | Ongoing Process | Project proponent Local Authority & UPPCB. |

2.10.2 Existing Infrastructure Facilities- Water quality monitoring network, ETPs, CETPs, sewerage treatment plant of industry (STPs), surface drainage system, effluent conveyance channels/ outfalls etc.

2.10.3 Technological Intervention

| S. No | Industries | Category | Pollution control measures installed (Y/N) |
|-------|---|----------|--|
| 1 | M.P. Philament (A Unit of M.P. Agarwal & Co.), Industrial Area, Ramnagar, Chandauli | Red | Yes |
| 2 | D U S S Ltd., Ramnagar, Chandauli | Red | Yes |
| 3 | Electrochem Plating, I/A, Ramnagar, Chandouli | Red | Yes |
| 4 | Ganga Pulp & Paper Pvt., A-6 Industrial Area Ramnagar Chandauli | Red | Yes |
| 5 | Maha Laxmi Yarn Pvt. Ltd., B-4/2, I/A, Ramnagar Chandauli | Red | Yes |
| 6 | Newal Calcotta Pvt. Ltd., Industrial Area Ramnagar Chandauli | Red | Yes |
| 7 | Eco Cement India Ltd., Patnawa, Ramnagar, Chandauli | Red | Yes |
| 8 | Jay Laxmi Cement Co. Ltd., Patnawa, Ramnagar, Chandauli | Red | Yes |
| 9 | Bharat Infra Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | Red | Yes |
| 10 | S.A. Iron & Alloys Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | Red | Yes |

| | | | |
|----|---|--------|------------|
| 11 | Metal Alloys, Industrial Area, Ramnagar, Chandauli | Red | Yes |
| 12 | Alakhnanda Cement Pvt. Ltd., Ramnagar, Chandauli | Red | Yes |
| 13 | Trinaini Cement, Patnawa, Ramnagar, Chandauli | Red | Yes |
| 14 | Churk Chunar Cement, Industrial Area, Ramnagar, Chandauli | Red | Yes |
| 15 | Powercon Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | Red | Yes |
| 16 | Jemani Oxide, L-6, Cement Pvt. Ltd., Ramnagar, Chandauli | Red | Yes |
| 17 | Bala Ji Lubricant, Industrial Area, Ramnagar, Chandauli | Red | Yes |
| 18 | Dev Dyeing IA Phase 2 Chandauli | Red | Yes |
| 19 | Karwa Vanijya I A Pase 2 Chandauli | Red | Yes |
| 20 | KaliDev Polytex Phase 2 IA Chandauli | Red | Yes |
| 21 | Marce Pvt.Ltd., Patanawa, Ramnagar, Chandauli | Red | Yes |
| 22 | G.R.N. Cellulose Pvt.Ltd., Industrial Area, Ramnagar, Chandauli | Red | Yes |
| 23 | Savitri Metal, Patanawa, Ramnagar, Chandauli | Red | Yes |
| 24 | R.P. Metal, Patanawa, Ramnagar, Chandauli | Red | Yes |
| 25 | Jai Ambe Metal, Patanawa, Ramnagar, Chandauli | Red | Yes |
| 26 | S.S. Metal, Patanawa, Ramnagar, Chandauli | Red | Yes |
| 27 | M/s Shakambari Print, IIDC, Industrial Area, Phase-II, Chandauli | Orange | Yes |
| 28 | M/s Baba Paper & Board Mills, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 29 | M/s Industrial Board Mill, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 30 | M/s Saket Enterprises, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 31 | M/s Shree Krishna Paper & Board Mill, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 32 | M/s Deena Nath Shreenath Mills Pvt. Ltd., Jivdhipur, Area, Ramnagar, Chandauli | Orange | Yes |
| 33 | M/s Godrej Agrovate Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 34 | M/s Maharashtra Feeds Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 35 | M/s Raman Dairy Vikas Udyog, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 36 | M/s Kisan Faddar Mills, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 37 | M/s Dugdh Utpakak Sahkari Sangh Ltd. (A Unit of Cattale Feed), Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 38 | M/s Sahil Agro, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 39 | M/s Rashtriya Dairy Vikas Udyog, Industrial Area, Ramnagar, Chandauli | Orange | Yes |

| | | | |
|----|--|--------|------------|
| 40 | M/s Arti Oil & Extraction Pvt. Ltd., G.T. Road, Chandauli | Orange | Yes |
| 41 | M/s Arti Oil & Extraction Pvt. Ltd., (Unit No-2), IIDC, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 42 | M/s Ganesh Plywood, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 43 | M/s Krishna Plywood Industries, Niyamatbad, Chandauli | Orange | Yes |
| 44 | M/s Indian Ink & Chemical Industries, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 45 | M/s Ashoka Insulation, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 46 | M/s Sona Agro Fadder Mill, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 47 | M/s Sona Agro Chemicals, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 48 | M/s Ramko Coke Industries, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 49 | M/s Saumyatech, IIDC, Industrial Area, Phase-II, Ramnagar, Chandauli | Orange | Yes |
| 50 | M/s Bhagauti Fuel, Dulhipur, Mughalsarai, Chandauli | Orange | Yes |
| 51 | M/s Balaji Fuel Products, Ramnagar, Chandauli | Orange | Yes |
| 52 | M/s Rahul Coke Pvt. Ltd., Ramnagar, Chandauli | Orange | Yes |
| 53 | M/s Maa Mundeshwari Agro Oil Pvt. Ltd., Basaripur, Sakaldiha Road, Chandauli | Orange | Yes |
| 54 | M/s Siddharth Enterprises, Dulhipur, Mughalsarai, Chandauli | Orange | Yes |
| 55 | M/s Laxmi Engerprises, Dulhipur, Mughalsarai, Chandauli | Orange | Yes |
| 56 | M/s Hizen Feeds, IIDC, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 57 | M/s Jai Bhawani Coke Industries, Ramnagar, Chandauli | Orange | Yes |
| 58 | M/s Varuna Harbo Biotech Pvt. Ltd. Dulhipur, Chandauli | Orange | Yes |
| 59 | M/s Swastik Formulation, Dulhipur, Chandauli | Orange | Yes |
| 60 | M/s Varuna Biocell Pvt. Ltd., Dulhipur, Chandauli | Orange | Yes |
| 61 | M/s Gautam Udyog, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 62 | M/s Cement Product Pvt.Ltd. (Steel Division), Chandauli | Orange | Yes |
| 63 | M/s Sandeep Enterprises, Phase 2 I.A. Chandauli | Orange | Yes |
| 64 | M/s Shiddhi Vinayak Polytex (P) Ltd (Metal Division), Chandauli | Orange | Yes |
| 65 | M/s Maa Mundeshwari Agro Oils (P) Ltd, Chandauli | Orange | Yes |
| 66 | M/s Shubh Sanket Traders Pvt.Ltd., Chandauli | Orange | Yes |

| | | | |
|----|--|--------|------------|
| 67 | M/s Saurabh Sarees (P) Ltd, Chandauli | Orange | Yes |
| 68 | M/s Lubricants Balajee Lubricants, Chandauli | Orange | Yes |
| 69 | M/s Aarti Extractions Private Limited, Chandauli | Orange | Yes |
| 70 | M/s Nutricraft, Ramnagar IA. Chandauli | Orange | Yes |
| 71 | M/s Swastic Grains Pvt.Ltd, Chandauli | Orange | Yes |
| 72 | M/s Yatharth Ram Petrochem (Old Name Mohan Associate) Village-Launda, Jhansi | Orange | Yes |
| 73 | M/s Chandauli | Orange | Yes |
| 74 | M/s Maharashtra Feeds Pvt. Ltd., Unit 2 Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 75 | Pradeshik Coopratve Dairy Faderation .Ltd (Cattle Feed) Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 76 | Drolia Coke Industries Private Limited B-8, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 77 | Jai Durga Industries B-12, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 78 | Shree Ram Fuel Pvt. Ltd. H-4, Industrial Area, Ramnagar, Chandauli | Orange | Yes |
| 79 | M/s Vinayak Polytex Pvt. Ltd., E-23, Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 80 | M/s R.S.S. Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 81 | M/s Neel Kamal Polytex Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 82 | M/s Mithila Plywood Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 83 | M/s Lolark Polytex Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 84 | M/s Bansal Food, Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 85 | M/s Swastik Green Product Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 86 | M/s Sudarshan Vyapar, Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 87 | M/s Swadeshi Aahar Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 88 | M/s Venktes Agro Food Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 89 | M/s Shivam Food Product Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 90 | M/s Matrix Rolar Flour Mills Pvt. Ltd., Ramnagar, Chandauli | Green | Yes |
| 91 | M/s Nutri Kraft India Pvt. Ltd., Ramnagar, Chandauli | Green | Yes |
| 92 | M/s Aksha Rolar Flour Mill, Chandauli | Green | Yes |
| 93 | M/s Anirudh Foods Ltd., Karwat, Dandi, Chandauli | Green | Yes |
| 94 | M/s Salasar Hanuman Ji Greens Pvt. Ltd., Ramnagar, | Green | Yes |

| | | | |
|-----|---|-------|------------|
| | Chandauli | | |
| 95 | M/s Manoj Polymers, Ramnagar, Chandauli | Green | Yes |
| 96 | M/s Baba Udyog, Ramnagar, Chandauli | Green | Yes |
| 97 | M/s Radhika Plastic, Ramnagar, Chandauli | Green | Yes |
| 98 | M/s B.M. Polymer, Ramnagar, Chandauli | Green | Yes |
| 99 | M/s Saurabh Paly Pipes pvt. Ltd., Mughalsarai, Chandauli | Green | Yes |
| 100 | M/s Pradeshik Cooperative Dairy Federation Ltd. (Unit-Cattle Feed Factory) ,Chandauli | Green | Yes |
| 101 | M/s R.K. Shah Polytubes ,Chandauli | Green | Yes |
| 102 | M/s Maharashtra Feed Pvt.Ltd. (Unit-II) ,Chandauli | Green | Yes |
| 103 | M/s Maharashtra Feed Pvt.Ltd. ,Chandauli | Green | Yes |
| 104 | M/s Abhishek Hospital ,Chandauli | Green | Yes |
| 105 | M/s Jain Industries ,Phase 2 Industrial Area Chandauli | Green | Yes |
| 106 | M/s Jain Wax and Candle Industries ,Chandauli | Green | Yes |
| 107 | M/s Ganpati Packaging Industries,Chandauli | Green | Yes |
| 108 | M/s Shri Varu Polytex Pvt. Ltd.,Chandauli | Green | Yes |
| 109 | M/s Swastik Grains Products (P) Ltd.,Chandauli | Green | Yes |
| 110 | M/s Nutrikraft India Pvt. Ltd,Chandauli | Green | Yes |
| 111 | M/s I L & F S Engineering & Construction Company,Chandauli | Green | Yes |
| 112 | M/s Shree Govind Polytex Pvt.Ltd,Chandauli | Green | Yes |
| 113 | M/s Godrej Agrovat Ltd ,Chandauli | Green | Yes |
| 114 | M/s Gharana Foods Ltd.,Chandauli | Green | Yes |
| 115 | M/s Ghanshyam Sarees Pvt.Ltd.,Chandauli | Green | Yes |
| 116 | M/s Indian Air Gases Ltd ,Chandauli | Green | Yes |
| 117 | M/s Meenar Industries Limited,Chandauli | Green | Yes |
| 118 | M/s Aniruddha Food Limited, Chandauli | Green | Yes |
| 119 | M/s Mithila Plywood Pvt.Ltd (Unit-2), Chandauli | Green | Yes |
| 120 | M/s Bindu Agro Industries, Chandauli | Green | Yes |
| 121 | M/s Hi-Tech Food Industries, Chandauli | Green | Yes |
| 122 | M/s Shri Ram Prints, Chandauli | Green | Yes |
| 123 | M/s Kayess Flour Mills Pvt.Ltd. (Old Name Kannaudia Flour Mill), Dulhipur, Mughalsarai, Chandauli | Green | Yes |
| 124 | M/s Sunrise Hatcheries, E-68, Phase-2 IA, Chandauli | Green | Yes |
| 125 | M/s Shri Govind Polytex Pvt.Ltd. | Green | Yes |
| 126 | M/s I L & F S Engineering construction Company, Chandauli | Green | Yes |
| 127 | M/s R K Shah Polytubes Pvt. Ltd., Chandauli | Green | Yes |
| 128 | Sushi Chem, E-4, Industrial Area, Ramnagar, Chandauli | Green | Yes |

| | | | |
|-----|--|-------|-----|
| 129 | VINEET PLASTICS LIMITED DAL D-12, Industrial Area, Ramnagar, Chandauli | Green | Yes |
| 130 | SHREE SHYAM PLASTIC F-16, INDUSTRIAL AREA RAMNAGAR, CHANDAULI, | Green | Yes |
| 131 | Vishwanth Fuel Industries (Glass Division) 241/A- Basant Nagar, Jiwadhipur, Industrial Area, Chandauli | Green | Yes |
| 132 | Kriti Packagers F-2, Industrial Area, IIDC, Ramnagar-2, Chandauli | Green | Yes |

2.10.4.1 Inventorisation of Prominent Industries with Technological Gaps

| S. No. | Industries | Category | Pollution control measures installed (Y/N) |
|--------|----------------|----------|--|
| | Same as 2.10.3 | | |

2.10.4.2 Identification of Low Cost and Advanced Cleaner Technology for Pollution Control

| S. No | Number of industries adopted cleaner technologies | Previous technologies | New technologies |
|-------|---|-----------------------|------------------|
| | | ASP process | same as previous |

2.10.5 Infrastructure Renewal if any required

2.10.5.1 Details of existing infrastructure facilities-

Road-NH2, Electricity, Hospitals,.

2.10.5.2 Need of up gradation of existing facilities -

Roads – Roads have been upgraded.

Electricity – Proper power supply.

Health - Proper facility.

2.10.5.3 De-silting of water tanks, drains, culvert, etc. - NA

2.10.5.4 Construction of lined drains/ connections - Need to linked the drains inside the industrial area as well as Ghuraha Drain.
2.10.5.5 Treatment and management of contaminated surface water bodies -

| S. No. | Contaminated surface water bodies | Treatment adopted | Status |
|--------|-----------------------------------|-------------------|--------|
| 1 | River Ganga, River Varuna | STPs | |

2.10.5.6 Rejuvenation/ Management Plan for important eco-geological features- Needed in every district of Varanasi Regional Office.

2.10.5.7 Comments on Carrying of effluent from industrial units located in non-industrial locations to CETP facilities by lined drains/ pipelines only and prevention of other disposal into city sewerage/ surface drainage- Needed

2.10.5.8 Installation of Gen sets at CETPs - Please provide details if any requirement NA

2.10.6 Managerial and Financial aspects -

2.10.6.1 Cost and time estimates: Details of cost estimated for any infrastructure renewal related works, if any.- To be done by concerned authority /agency

2.10.6.2 Identified private/ public sector potential investors and contribution/ obligation:
Not identified

2.10.6.3 Government Budgetary support requirement

| S. No. | Amount of budget allocated to CEPI area | Remarks |
|--------|---|---------|
| 1 | | |

2.10.6.4 Hierarchical and structured managerial system for efficient implementation

2.10.7 Self monitoring systems industries (ETPs) etc.- Established in all industries of Varanasi Regional Office

| S. No. | Industries | Category | Type | ETPs installed(Y/N) |
|--------|---|----------|------------------|----------------------|
| 1 | M.P. Philament (A Unit of M.P. Agarwal & Co.), Industrial Area, Ramnagar, Chandauli | Red | Dyeing | Yes |
| 2 | D U S S Ltd., Ramnagar, Chandauli | Red | Dairy | Yes |
| 3 | Electrochem Plating, I/A,Ramnagar, Chandauli | Red | Electroplating | Yes |
| 4 | Ganga Pulp & Paper Pvt., A-6 Industrial Area Ramnagar Chandauli | Red | Paper | Yes |
| 5 | Maha Laxmi Yarn Pvt. Ltd., B-4/2,I/A, Ramnagar Chandauli | Red | Dyeing | Yes |
| 6 | Newal Calcotta Pvt. Ltd., Industrial Area Ramnagar Chandauli | Red | Paper | Yes |
| 7 | Eco Cement India Ltd., Patnawa, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 8 | Jay Laxmi Cement Co. Ltd., Patnawa, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 9 | Bharat Infra Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 10 | S.A. Iron & Alloys Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | Red | Sponz Iron | Yes |
| 11 | Metal Alloys, Industrial Area, Ramnagar, Chandauli | Red | Lead Smelting | Yes |

| | | | | |
|----|---|--------|-------------------------|-----|
| 12 | Alakhnanda Cement Pvt. Ltd., Ramnagar, Chandauli | Red | Lead Smelting | Yes |
| 13 | Trinaini Cement, Patnawa, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 14 | Churk Chunar Cement, Industrial Area, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 15 | Powercon Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 16 | Jemani Oxide, L-6, Cement Pvt. Ltd., Ramnagar, Chandauli | Red | Lead Smelting | Yes |
| 17 | Bala Ji Lubricant, Industrial Area, Ramnagar, Chandauli | Red | Oil Recycling | Yes |
| 18 | Dev Dyeing IA Phase 2 Chandauli | Red | Dyeing | Yes |
| 19 | Karwa Vanijya I A Pase 2 Chandauli | Red | Dyeing | Yes |
| 20 | KaliDev Polytex Phase 2 IA Chandauli | Red | Dyeing | Yes |
| 21 | Marce Pvt.Ltd., Patanawa, Ramnagar, Chandauli | Red | Cement Gringdihg | Yes |
| 22 | G.R.N. Cellulose Pvt.Ltd., Industrial Area, Ramnagar, Chandauli | Red | Cotton | Yes |
| 23 | Savitri Metal, Patanawa, Ramnagar, Chandauli | Red | Lead Smelting | Yes |
| 24 | R.P. Metal, Patanawa, Ramnagar, Chandauli | Red | Lead Smelting | Yes |
| 25 | Jai Ambe Metal, Patanawa, Ramnagar, Chandauli | Red | Lead Smelting | Yes |
| 26 | S.S. Metal, Patanawa, Ramnagar, Chandauli | Red | Lead Smelting | Yes |
| 27 | M/s Shakambari Print, IIDC, Industrial Area, Phase-II, Chandauli | Orange | Sari Printing & Washing | Yes |
| 28 | M/s Baba Paper & Board Mills, Industrial Area, Ramnagar, Chandauli | Orange | Mill Board | Yes |
| 29 | M/s Industrial Board Mill, Industrial Area, Ramnagar, Chandauli | Orange | Mill Board | Yes |
| 30 | M/s Saket Enterprises, Industrial Area, Ramnagar, Chandauli | Orange | Mill Board | Yes |
| 31 | M/s Shree Krishna Paper & Board Mill, Industrial Area, Ramnagar, Chandauli | Orange | Mill Board | Yes |
| 32 | M/s Deena Nath Shreenath Mills Pvt. Ltd., Jivdhipur, Area, Ramnagar, Chandauli | Orange | Boiled Rice | Yes |
| 33 | M/s Godrej Agrovate Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 34 | M/s Maharashtra Feeds Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 35 | M/s Raman Dairy Vikas Udyog, Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 36 | M/s Kisan Faddar Mills, Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 37 | M/s Dugdh Utpakak Sahkari Sangh Ltd. (A Unit of Cattale Feed), Industrial Area, | Orange | Cattle Feed | Yes |

| | | | | |
|----|--|--------|----------------------------|-----|
| | Ramnagar, Chandauli | | | |
| 38 | M/s Sahil Agro, Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 39 | M/s Rashtriya Dairy Vikas Udyog, Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 40 | M/s Arti Oil & Extraction Pvt. Ltd., G.T. Road, Chandauli | Orange | Vegetable Oil | Yes |
| 41 | M/s Arti Oil & Extraction Pvt. Ltd., (Unit No-2), IIDC, Industrial Area, Ramnagar, Chandauli | Orange | Vegetable Oil | Yes |
| 42 | M/s Ganesh Plywood, Industrial Area, Ramnagar, Chandauli | Orange | Plyboard | Yes |
| 43 | M/s Krishna Plywood Industries, Niyamatbad, Chandauli | Orange | Plyboard | Yes |
| 44 | M/s Indian Ink & Chemical Industries, Industrial Area, Ramnagar, Chandauli | Orange | Printing Ink | Yes |
| 45 | M/s Ashoka Insulation, Industrial Area, Ramnagar, Chandauli | Orange | Thermacoal | Yes |
| 46 | M/s Sona Agro Fadder Mill, Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 47 | M/s Sona Agro Chemicals, Industrial Area, Ramnagar, Chandauli | Orange | Pesticide Formulation | Yes |
| 48 | M/s Ramko Coke Industries, Industrial Area, Ramnagar, Chandauli | Orange | coal processing | Yes |
| 49 | M/s Saumyatech, IIDC, Industrial Area, Phase-II, Ramnagar, Chandauli | Orange | Tyere paralysis | Yes |
| 50 | M/s Bhagauti Fuel, Dulhipur, Mughalsarai, Chandauli | Orange | coal processing | Yes |
| 51 | M/s Balaji Fuel Products, Ramnagar, Chandauli | Orange | coal processing | Yes |
| 52 | M/s Rahul Coke Pvt. Ltd., Ramnagar, Chandauli | Orange | coal processing | Yes |
| 53 | M/s Maa Mundeshwari Agro Oil Pvt. Ltd., Basaripur, Sakaldiha Road, Chandauli | Orange | Vegetable Oil | Yes |
| 54 | M/s Siddharth Enterprises, Dulhipur, Mughalsarai, Chandauli | Orange | coal processing | Yes |
| 55 | M/s Laxmi Enterprises, Dulhipur, Mughalsarai, Chandauli | Orange | coal processing | Yes |
| 56 | M/s Hizen Feeds, IIDC, Industrial Area, Ramnagar, Chandauli | Orange | Poultry Feed | Yes |
| 57 | M/s Jai Bhawani Coke Industries, Ramnagar, Chandauli | Orange | coal processing | Yes |
| 58 | M/s Varuna Harbo Biotech Pvt. Ltd. Dulhipur, Chandauli | Orange | Pharmaceutical Formulation | Yes |
| 59 | M/s Swastik Formulation, Dulhipur, Chandauli | Orange | Pharmaceutical Formulation | Yes |
| 60 | M/s Varuna Biocell Pvt. Ltd., Dulhipur, Chandauli | Orange | Pharmaceutical Formulation | Yes |
| 61 | M/s Gautam Udyog, Industrial Area, | Orange | Fitkari | Yes |

| | | | | |
|----|--|--------|--------------------|-----|
| | Ramnagar, Chandauli | | | |
| 62 | M/s Cement Product Pvt.Ltd. (Steel Division), Chandauli | Orange | | Yes |
| 63 | M/s Sandeep Enterprises, Phase 2 I.A. Chandauli | Orange | Wire Drawing | Yes |
| 64 | M/s Shiddhi Vinayak Polytex (P) Ltd (Metal Division), Chandauli | Orange | Al Section | Yes |
| 65 | M/s Maa Mundeshwari Agro Oils (P) Ltd, Chandauli | Orange | Salvent Extraction | Yes |
| 66 | M/s Shubh Sanket Traders Pvt.Ltd., Chandauli | Orange | Coal procesing | Yes |
| 67 | M/s Saurabh Sarees (P) Ltd, Chandauli | Orange | | Yes |
| 68 | M/s Lubricants Balajee Lubricants, Chandauli | Orange | Oil Procesing | Yes |
| 69 | M/s Aarti Extractions Private Limited, Chandauli | Orange | Salvent Extraction | Yes |
| 70 | M/s Nutricraft, Ramnagar IA. Chandauli | Orange | Poiltry Feed | Yes |
| 71 | M/s Swastic Grains Pvt.Ltd, Chandauli | Orange | Cattle Feed | Yes |
| 72 | M/s Yatharth Ram Petrochem (Old Name Mohan Associate) Village-Launda, Jhansi | Orange | Tyre Pyrolysis | Yes |
| 73 | M/s Maharashtra Feeds Pvt. Ltd., Unit 2 Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 74 | Pradeshik Cooporative Dairy Faderation .Ltd (Cattle Feed) Industrial Area, Ramnagar, Chandauli | Orange | Cattle Feed | Yes |
| 75 | Drolia Coke Industries Private Limited B-8, Industrial Area, Ramnagar, Chandauli | Orange | SSF | Yes |
| 76 | Jai Durga Industries B-12, Industrial Area, Ramnagar, Chandauli | Orange | SSF | Yes |
| 77 | Shree Ram Fuel Pvt. Ltd. H-4, Industrial Area, Ramnagar, Chandauli | Orange | SSF | Yes |
| 78 | M/s Vinayak Polytex Pvt. Ltd., E-23, Industrial Area, Ramnagar, Chandauli | Green | Woven Sacks | Yes |
| 79 | M/s R.S.S. Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Woven Sacks | Yes |
| 80 | M/s Neel Kamal Polytex Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Woven Sacks | Yes |
| 81 | M/s Mithila Plywood Industrial Area, Ramnagar, Chandauli | Green | Woven Sacks | Yes |
| 82 | M/s Lolark Polytex Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Woven Sacks | Yes |
| 83 | M/s Bansal Food, Industrial Area, Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 84 | M/s Swastik Green Product Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 85 | M/s Sudarshan Vyapar, Industrial Area, Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 86 | M/s Swadeshi Aahar Ltd., Industrial Area, Ramnagar, Chandauli | Green | Flour Mill | Yes |

| | | | | |
|-----|---|-------|---------------------|-----|
| 87 | M/s Venktes Agro Food Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 88 | M/s Shivam Food Product Pvt. Ltd., Industrial Area, Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 89 | M/s Matrix Rolar Flour Mills Pvt. Ltd., Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 90 | M/s Nutri Kraft India Pvt. Ltd., Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 91 | M/s Aksha Rolar Flour Mill, Chandauli | Green | Flour Mill | Yes |
| 92 | M/s Anirudh Foods Ltd., Karwat, Dandi, Chandauli | Green | Flour Mill | Yes |
| 93 | M/s Salasar Hanuman Ji Greens Pvt. Ltd., Ramnagar, Chandauli | Green | Flour Mill | Yes |
| 94 | M/s Manoj Polymers, Ramnagar, Chandauli | Green | Plastic | Yes |
| 95 | M/s Baba Udyog, Ramnagar, Chandauli | Green | Plastic | Yes |
| 96 | M/s Radhika Plastic, Ramnagar, Chandauli | Green | Plastic | Yes |
| 97 | M/s B.M. Polymer, Ramnagar, Chandauli | Green | Plastic | Yes |
| 98 | M/s Saurabh Paly Pipes pvt. Ltd., Mughalsarai, Chandauli | Green | Plastic | Yes |
| 99 | M/s Pradeshik Cooperative Dairy Federation Ltd. (Unit-Cattle Feed Factory) ,Chandauli | Green | Cattle feed | Yes |
| 100 | M/s R.K. Shah Polytubes ,Chandauli | Green | | Yes |
| 101 | M/s Maharashtra Feed Pvt.Ltd. (Unit-II) ,Chandauli | Green | Cattle feed | Yes |
| 102 | M/s Maharashtra Feed Pvt.Ltd. ,Chandauli | Green | Cattle feed | Yes |
| 103 | M/s Abhishek Hospital ,Chandauli | Green | | Yes |
| 104 | M/s Jain Industries ,Phase 2 Industrial Area Chandauli | Green | Soya Bari | Yes |
| 105 | M/s Jain Wax and Candle Industries ,Chandauli | Green | Wax & Candle | Yes |
| 106 | M/s Ganpati Packaging Industries,Chandauli | Green | | Yes |
| 107 | M/s Shri Varu Polytex Pvt. Ltd.,Chandauli | Green | Woven Sacks | Yes |
| 108 | M/s Swastik Grains Products (P) Ltd.,Chandauli | Green | Flour Mill | Yes |
| 109 | M/s Nutrikraft India Pvt. Ltd,Chandauli | Green | Cattle feed | Yes |
| 110 | M/s I L & F S Engineering & Construction Company,Chandauli | Green | Boteling plant | Yes |
| 111 | M/s Shree Govind Polytex Pvt.Ltd,Chandauli | Green | Woven Sacks | Yes |
| 112 | M/s Godrej Agrovat Ltd ,Chandauli | Green | Cattle/Poultry feed | Yes |
| 113 | M/s Gharana Foods Ltd.,Chandauli | Green | Flour Mill | Yes |
| 114 | M/s Ghanshyam Sarees Pvt.Ltd.,Chandauli | Green | Sares Weaving | Yes |
| 115 | M/s Indian Air Gases Ltd ,Chandauli | Green | Medical | Yes |
| 116 | M/s Meenar Industries Limited,Chandauli | Green | Yarn | Yes |
| 117 | M/s Aniruddha Food Limited, Chandauli | Green | Flour Mill | Yes |

| | | | | |
|-----|--|-------|-----------------|-----|
| 118 | M/s Mithila Plywood Pvt.Ltd (Unit-2), Chandauli | Green | Plywood | Yes |
| 119 | M/s Bindu Agro Industries, Chandauli | Green | Carn floor | Yes |
| 120 | M/s Hi-Tech Food Industries, Chandauli | Green | Flour Mill | Yes |
| 121 | M/s Shri Ram Prints, Chandauli | Green | Embridary | Yes |
| 122 | M/s Kayess Flour Mills Pvt.Ltd. (Old Name Kannaudia Flour Mill), Dulhipur, Mughalsarai, Chandauli | Green | Flour Mill | Yes |
| 123 | M/s Sunrise Hatcheries, E-68, Phase-2 IA, Chandauli | Green | Hatcheries | Yes |
| 124 | M/s Shri Govind Polytex Pvt.Ltd. | Green | Woven Sacks | Yes |
| 125 | M/s I L & F S Engineering construction Company, Chandauli | Green | Batching Plant | Yes |
| 126 | M/s R K Shah Poly tubes Pvt. Ltd., Chandauli | Green | | Yes |
| 127 | Sushi Chem, E-4, Industrial Area, Ramnagar, Chandauli | Green | Detergent | Yes |
| 128 | VINEET PLASTICS LIMITEDAL D-12, Industrial Area, Ramnagar, Chandauli | Green | Plastics Tanks | Yes |
| 129 | SHREE SHYAM PLASTIC F-16, INDUSTRIAL AREA RAMNAGAR, CHANDAULI, | Green | PP Roll | Yes |
| 130 | Vishwanth Fuel Industries (Glass Division) 241/A- Basant Nagar, Jiwadhipur, Industrial Area, Chandauli | Green | Sodium silicate | Yes |
| 131 | Kriti Packagers F-2, Industrial Area, IIDC, Ramnagar-2, Chandauli | Green | Polly Roll | Yes |

2.10.8 Data linkages to SPCB / CPCB (OCEEMS)- Please provide details

| S. No. | Industries | Category | Data linkages (Y/N) |
|--------|------------|----------|---------------------|
| 1 | NA | NA | NA |

2.11 MONITORING: SURFACE WATER, GROUND WATER SURFACE WATER MONITORING STATIONS

| # | Location/Station | Location Code | # | Location/Station | Location Code |
|---|--|---------------|---|---|---------------|
| 1 | Industrial Drain meeting before Ghuraha Drain Near M/s Sidhivinayak polytech Industrial area, Ramnagar | SW1 | 3 | Ghuraha drain near M/s Sona Pashuahar, Industrial area, Ramnagar | SW3 |
| 2 | Industrial Drain meeting before Ghuraha Drain near M/s G.R.N cellulose Pvt. Ltd. | SW2 | 4 | Ghuraha drain D/s of Industrial area, Ramnagar at Bhatti Ramnagar | SW4 |

3.0 Air Environment

3.1 Present status of Air environment: supported with minimum one-year analytical data i.e. status of AQI for last 1 year.

| S. No. | Cluster | Months(Jan 2019-Dec 2019) | AQI | Condition |
|--------|---------------|---------------------------|-----|----------------------------|
| 1 | Varanasi City | January | 313 | Very Poor (Red) |
| 2 | | February | 287 | Poor (Dark Yellow) |
| 3 | | March | 239 | Poor (Dark Yellow) |
| 4 | | April | 213 | Poor (Dark Yellow) |
| 5 | | May | 240 | Poor (Dark Yellow) |
| 6 | | June | 166 | Moderate (Yellow) |
| 7 | | July | 76 | Satisfactory (Light Green) |
| 8 | | August | 62 | Satisfactory (Light Green) |
| 9 | | September | 54 | Satisfactory (Light Green) |
| 10 | | October | 190 | Moderate (Yellow) |
| 11 | | November | 281 | Poor (Dark Yellow) |
| 12 | | December | 296 | Poor (Dark Yellow) |

3.1.1 Critical locations for air quality monitoring: Identification of critical locations for air quality monitoring

| S. No. | Locations identified | Coordinates | | Distance and direction |
|--------|---|-------------|------------|------------------------|
| | | Latitude | Longitude | |
| 1. | Industrial Area, Ramnagar, Chandauli | 25.2453149 | 83.0695813 | - |
| 2. | UPSIDC ,Industrial Estate, Karkiyon, Phoolpur | 25.545137 | 82.799580 | - |
| 3. | Industrial Estate, Chandpur | 25.305256 | 82.962537 | - |

3.1.2 Present levels of pollutants in air: Reports of routine parameters, special parameters and air toxic relevant to the area in three categories- known carcinogens probable carcinogen and other toxic

a) Ambient Air Quality Monitoring for following parameters:

| District | Location | | | PM10 Concentration in µg/m3 | | | | | |
|----------|--------------------------------|--|--|-----------------------------|-------------|-----------------------------|--------------------------------|--|--|
| | | | | No. of monitoring days | Minimum (24 | hourly average) Maximum (24 | hourly average) Annual Average | | |
| Varanasi | Regional Office, Jawahar Nagar | | | 98 | 41 | 388 | 196 | | |
| | Sigra | | | 191 | 41 | 388 | 194 | | |
| | Saket Nagar | | | 93 | 77 | 305 | 176 | | |
| | Banaras Hindu University | | | 91 | 63 | 236 | 142 | | |
| | Chandpur | | | 88 | 94 | 356 | 210 | | |

| Month | CO | O3 | NO ₂ | SO ₂ | BEN. | TOL. | XYL. | PM _{2.5} | PM ₁₀ |
|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Unit | mg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ | µg/m ³ |
| Jan-18 | 1.37 | 12.8 | 73.5 | 9.1 | 1.11 | 0.97 | 0.08 | 134 | 297 |

| | | | | | | | | | |
|----------------|--------------|-------------|-------------|------------|-------------|-------------|-------------|-----------|------------|
| Feb-18 | 1.26 | 11.8 | 69.9 | 11.2 | 1.01 | 3.31 | 0.38 | 118 | 216 |
| Mar-18 | 1.12 | 16.2 | 58.0 | 12.9 | 0.86 | 2.11 | 0.15 | 100 | 249 |
| Apr-18 | 1.02 | 26.1 | 52.1 | 11.5 | 0.73 | 1.73 | 0.05 | 71 | 226 |
| May-18 | 0.96 | 29.3 | 29.7 | 10.1 | 0.80 | 1.77 | 0.86 | 67 | 181 |
| Jun-18 | 1.03 | 32.8 | 21.4 | 9.7 | 0.57 | 1.56 | 0.54 | 62 | 159 |
| Jul-18 | 0.84 | 20.7 | 19.6 | 6.7 | 0.30 | 0.79 | 0.05 | 35 | 68 |
| Aug-18 | 0.54 | 23.6 | 14.0 | 5.7 | 0.53 | 1.44 | 0.20 | 37 | 80 |
| Sep-18 | 0.82 | 32.9 | 17.3 | 5.4 | 0.52 | 1.16 | 0.25 | 46 | 116 |
| Oct-18 | 0.80 | 20.3 | 44.4 | 7.2 | 0.84 | 1.71 | 0.74 | 91 | 221 |
| Nov-18 | 1.00 | 36.5 | 66.2 | 11.7 | 1.62 | 3.51 | 0.99 | 177 | 322 |
| Dec-18 | 1.24 | 34.4 | 76.4 | 10.7 | 1.88 | 3.07 | 1.55 | 206 | 311 |
| Average | 1.00 | 24.8 | 45.2 | 9.3 | 0.90 | 1.93 | 0.49 | 95 | 204 |
| Jan-19 | 1.09 | 39.4 | 67.1 | 10.0 | 1.26 | 1.93 | 0.79 | 158 | 269 |
| Feb-19 | 0.86 | 48.9 | 57.7 | 12.1 | 0.98 | 1.64 | 0.56 | 136 | 238 |
| Mar-19 | 0.79 | 61.8 | 39.1 | 9.3 | 1.24 | 1.70 | 1.04 | 106 | 226 |
| Apr-19 | 0.64 | 80.2 | 40.7 | 13.70 | 0.50 | 0.75 | 0.41 | 86 | 243 |
| May-19 | 0.79 | 76.4 | 37.7 | 13.70 | 1.49 | 2.04 | 1.04 | 84 | 282 |
| Jun-19 | 0.63 | 66.9 | 15.7 | 10.1 | 1.41 | 1.90 | 1.71 | 58 | 187 |
| Jul-19 | 0.54 | 27.2 | 10.8 | 8.4 | 1.31 | 1.83 | 1.69 | 38 | 74 |
| Aug-19 | 0.48 | 22.0 | 11.0 | 7.5 | 1.67 | 3.40 | 1.73 | 34 | 58 |
| Sep-19 | 0.35 | 17.2 | 10.7 | 6.2 | 0.83 | 1.3 | 0.27 | 27 | 56 |
| Oct-19 | 0.61 | 21.5 | 26 | 6.1 | 0.92 | 1.51 | 0.74 | 84 | 165 |
| Nov-19 | Maint. | 26.6 | 36.5 | 6 | 0.83 | 1.3 | 0.27 | 141 | 237 |
| Dec-19 | Maint. | 19.6 | 25.2 | 6.5 | 1.91 | 3.91 | 2.59 | 151 | Maint. |
| Avg. | 0.678 | 42.3 | 31.5 | 9.1 | 1.20 | 1.93 | 1.07 | 92 | 185 |

| i) SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5} , Pb and other relevant parameter (for 24 hourly average monitoring values) Ambient air quality Data for SO₂, NO₂&RSPM (B.H.U.) | | | |
|--|-------------------------------|-------------------------------|--------------------------------|
| NAAQS standard | Annual- 50 24Hr-80 | Annual- 40 24Hr-80 | Annual- 60 24Hr-100 |
| Month/Year | SO₂ | NO₂ | RSPM |
| Aug-18 | 3.67 | 12.53 | 78.35 |
| Sep-18 | 5.25 | 16.32 | 98.36 |
| Oct-18 | 7.58 | 25.55 | 176.04 |
| Nov-18 | 8.95 | 29.64 | 284.79 |
| Dec-18 | 9.45 | 26.78 | 178.46 |
| Jan-19 | 9.6 | 28.99 | 182.59 |
| Feb-19 | 10.14 | 30.91 | 184.66 |
| Mar-19 | 9.77 | 34.18 | 176.65 |
| Apr-19 | 9.36 | 36.08 | 189.84 |
| May-19 | 10.01 | 35.88 | 179.23 |
| Jun-19 | 8.52 | 30.97 | 153.67 |
| Jul-19 | 8.23 | 25.16 | 102.37 |

| | | | |
|------|------|-------|--------|
| Avg. | 8.38 | 27.75 | 165.42 |
|------|------|-------|--------|

Closed From 15.09.2019

3.1.3 Predominant sources contributing to various pollutants

| S. No | Sources | Percent contribution | Main Pollutants |
|-------|---------------------|----------------------|--|
| 1. | Vehicular emission | - | SO ₂ , NO _x , PM 2.5 |
| 2. | Road Dust | - | PM 2.5, PM 10 |
| 3. | Solid Waste Burning | - | PM 2.5, PM 10, CO |
| 4. | Industrial emission | - | SPM, NO _x |

3.2 Sources of air pollution: viz industrial, domestic (coal and biomass burning), natural and transport and heavy earth movers

3.3 Air Polluting Industries in the area/ cluster

| S. No | Number of Air Polluting industries | Coordinates | | Distance and direction |
|-------|---|-------------|------------|------------------------|
| | | Latitude | Longitude | |
| 1. | Industrial Area, Ramnagar, Chandauli | 25.2453149 | 83.0695813 | |
| 2. | UPSIDC ,Industrial Estate, Karkiyon, Phoolpur | 25.545137 | 82.799580 | |
| 3. | Industrial Estate, Chandpur | 25.305256 | 82.962537 | |
| | | | | |

3.4 Impact of activities of nearby area as the CEPI Area

Land use distribution (%) of nearby areas of CEPI and map

3.5 Quantification of the air pollution load and relative contribution by different sources (If done from reputed institution)

| S. No. | Air Pollution Sources | Category | Pollution Load | Percentage |
|--------|-----------------------|----------|----------------|------------|
| 1 | | | | |
| 2 | | | | |

3.6 Action plan for compliance and control of pollution

| Short Term Action Points (upto 1 year, including continuous activities) | | | |
|---|--|---|-------------------------------------|
| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
| 3.6 a) | <ul style="list-style-type: none"> Air Pollution Industrial: Detailed Inventory of total air polluting industries in the region. | Stack Monitoring of Large & Medium units every 06 | UPPCB & Individual |

| | <ul style="list-style-type: none"> Proposed Action Plan for effective control of Air Pollution: Regular Monitoring of Air Pollution Control System with a use of (OCEMS) in large and medium Industries in order to ensure strict compliance of prescribed Norms. | months and once in a Year for SSI units. (By UPPCB & by individual Industries) | Industries. |
|---|--|---|--|
| Long Term Action Points (more than 1 year) | | | |
| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
| b) | <ul style="list-style-type: none"> Air Pollution/ Industrial Pollution: Implementation of Cleaner Technology in order to reduce quantity of process and fugitive emissions and effective Operation & maintenance of installed APCS. Implementation of cleaner technology / adoption of cleaner fuel, identification of industries to be done in time bound manner. 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. To supply and promote the use of cleaner fuel like CNG/PNG, in order to reduce emissions in the industrial | 1 Year | UPPCB/ Individual Industry/ IGL |
| c) | <ul style="list-style-type: none"> Introduction of Cleaner Fuel for Industrial Uses: Currently industries are using Coal/Wood/LDO/LSHS as a fuel which emits SPM and SO₂ and other Pollutants. If cleaner fuel such as CNG/PNG is made available to industries the RSPM, SO₂ will be reduced and Ambient Air Quality will be improved. Board has given NOC to IGL for vehicles as well as industrial & domestic use. These companies need to expedite there distribution network for the same | Gas & Oil Companies are in process of getting more and more industries on board and complete switch over from solid fuel to clean fuel will be done in a time bound Manner. | Gas and Oil Companies |
| d) | <ul style="list-style-type: none"> Clean fuel for vehicles: Sufficient number of CNG stations should be provided to ensure continious and enough supply of clean fuel. | 01 year / As per plan submitted by Gas Agencies. | RTO & Gas Companies |
| e) | <ul style="list-style-type: none"> Installation of Ambient Air Quality Monitoring Stations: At | | |

| | | | |
|----|--|-----------|---|
| | present manual AAQM Stations are operational but they need to be upgraded to monitor RSPM and PM _{2.5} as per new AAQM Standard and also other parameters listed in new AAQM continuous AAQM Stations need to be set up Ambient Air Quality in critical Industrial Zones to be monitored manually once in every 02 months on 24 hours basis by UPPCB. | 1 Year | UPPCB and CPCB |
| f) | <ul style="list-style-type: none"> Display of AAQMS data: On line display of AAQMS data at two different locations in the area need to be under taken by Industries Association and UPPCB | 1.5 Years | Industries /UPPCB & CPCB |
| g) | <ul style="list-style-type: none"> Use of Cleaner fuel: Time frame to be chalked out by RTO for conversion of all Commercial vehicles such as Auto, Bus & Auto into CNG. | 01 Year | Transport Department in consultation with Oil & Gas Companies |
| h) | <ul style="list-style-type: none"> Development of Green Belt: Should develop Green belt from 20% to 40% of the total area. | Ongoing | Dept. of Industries /Forest Dept. & Concerned Industries |

3.6.1 Existing infrastructure facilities- Ambient Air Quality Monitoring Network

| Number of manual AQ monitoring station | Number of CAAQMS | Total Monitoring station |
|---|--|--------------------------|
| 5 locations viz | 4 CAAQMS in Varanasi | 6 |
| 1.Jawahar nagar, 2.Sigra, 3.BHU campus, 4.Saketnagar , 5.Chandpur | 1.Orderly Bazar 2. Jal Kal vibhag, Bhelupura 3. New IESD Building, B.H.U. 4. QueensCollege, Lahurabir | |

| # | Location/Station | Location Code | # | Location/Station | Location Code |
|---|------------------|---------------|---|------------------|---------------|
| 1 | Jawahar nagar | 362 | 3 | BHU campus | 810 |
| 2 | Sigra | 553 | 4 | Saketnagar | 811 |
| 5 | Chandpur | 812 | | | |

3.6.2 Pollution control measure installed by the individual sources of pollution

| S. No. | Pollution Sources | Category | APCS installed(Y/N) |
|--------|-------------------|----------|---------------------|
| 1 | | | |

3.6.3 Technological intervention

3.6.3.1 Inventorization of prominent industries with technological gap

| S. No. | Industries | Category | APCS installed(Y/N) |
|--------|------------|----------|---------------------|
| 1 | | | |

3.6.3.2 Identification of low cost and advanced cleaner technology for air pollution control:

3.6.3.3 Introduction and switch over to cleaner fuel

| S. No. | Number of industries adopted cleaner fuel technologies | Previous fuel | New fuel |
|--------|--|---------------|----------|
| 1 | | | |

3.6.4 Need of infrastructure renovation

3.6.4.1 Development of roads: Identification of damaged roads which needs repairment and maintenance:

| S. No. | Identified damaged roads | Length | Remarks |
|--------|--------------------------|--------|---------|
| 1 | | | |

3.6.5 Impact on CEPI score after installation/ commissioning of fully fledged air pollution control systems

| S. No. | CEPI score before APCS | CEPI score before APCS | Percent improvement |
|--------|------------------------|------------------------|---------------------|
| 1 | | | |

3.6.6 Managerial and financial aspects- cost and time estimates

3.6.6.1 Cost and time estimates: Details of cost estimated for any infrastructure renewal related works, if any.

3.6.6.2 Identified private/ sector potential investors and their contribution/ obligations: If any, investment from private sector potential investors please provides details.

3.6.6.3 Government budgetary support requirement

| S. No. | Amount of budget allocated to CEPI area | Remarks |
|--------|---|---------|
| 1 | | |

3.6.6.4 Hierarchical and structured managerial system for efficient implementation

3.6.7 Self monitoring system in industries (stacks, APCDs)

| S. No. | Industries | Category | APCS/APCDs installed(Y/N) |
|--------|------------|----------|---------------------------|
| 1 | | | |

3.6.8 Data linkages to SPCB/ CPCB (OCEMS)

| S. No. | Industries | Category | Data linkage (Y/N) |
|--------|------------|----------|--------------------|
| 1 | | | |

4.Land Environment (Soil and ground water)

4.1 Soil contamination

Journal of the Indian Society of Soil Science, Vol. 63, No. 2, pp 200-208 (2015)

4.1.1 Present status of land environment supported with minimum one-year data:

| S. No. | Cluster | Months(2019) | Present status | Condition |
|--------|-------------------------------|--------------|----------------|-----------|
| 1 | Industrial area , Ramnagar | NA | - | - |
| 2 | | NA | - | - |

4.1.2 Critical locations for land/soil pollution assessment and ground water monitoring

Journal of the Indian Society of Soil Science, Vol. 63, No. 2, pp 200-208 (2015)

| S. No. | Locations identified | Coordinates | | Distance and direction |
|--------|----------------------|--------------------|--------------------|------------------------|
| | | Latitude | Longitude | |
| 1 | Chandauli | 25.16° to 25.27° N | 83.16o to 83.27o E | Eastern part of U.P |

4.1.3 Present levels of pollutants in land / soil and ground water (routine parameters, special parameters and water toxics relevant to the area in three categories- non carcinogens, probable carcinogens and other toxics)

Soil pH status in four selected districts of eastern Uttar Pradesh

| S. No. | Vikas Khands | No. samples | Range | Mean | Acidic | Percent samples | | | |
|--------|--------------------|-------------|---------|------|--------|-----------------|---------|-------------------|--------|
| | | | | | | Slightly Acidic | Neutral | Slightly Alkaline | Alkali |
| 1 | Chandauli District | 558 | 4.5-9.4 | 7.2 | 10 | 18 | 23 | 40 | 8 |

Soil organic carbon (g kg-1) status in four selected districts of eastern U. P

| S. No. | Vikas Khands | No. samples | Range | Mean | Percent samples | | |
|--------|--------------------|-------------|----------|------|-----------------|--------|------|
| | | | | | Low | Medium | High |
| 1 | Chandauli District | 558 | 0.8-11.7 | 4.7 | 57 | 36 | 7 |

Available sulphur status (mg kg-1) in soils of the four districts of eastern U.P

| S. No. | Vikas Khands | No. samples | Range | Mean | Percent samples | | | Nutrient index | Rating |
|--------|--------------------|-------------|----------|-------|-----------------|----|----|----------------|--------|
| | | | | | | | | | |
| 1 | Chandauli District | 558 | 0.43-126 | 16.10 | 39 | 22 | 39 | 2.00 | Medium |

Available boron status (mg kg-1) in soils of the four districts of eastern U.P

| S. No. | Vikas Khands | No. samples | Range | Mean | Percent samples | | | Nutrient index | Rating |
|--------|--------------------|-------------|-----------|------|-----------------|----|---|----------------|--------|
| | | | | | | | | | |
| 1 | Chandauli District | 558 | 0.14-2.26 | 0.55 | 55 | 36 | 9 | 1.54 | Medium |

4.1.4 Pre dominant sources contributing to or posing danger of pollution of land and ground water such as hazardous/ toxic waste or chemical dumps/ storage etc.

| S. No. | Sources | Percent contribution | Main Pollutants |
|--------|---------|----------------------|-----------------|
| 1 | NA | NA | - |

4.1.5 Sources of soil contamination

| S. No. | Sources | Coordinates | | Distance and direction |
|--------|---------|-------------|-----------|------------------------|
| | | Latitude | Longitude | |
| 1 | - | | | |

4.1.6. Types of existing pollution: Please provide details

4.1.7. Remedies for abatement, treatment and restoration of normal soil quality: Please provide details and treatment methods adopted

4.2 Ground water contamination

4.2.1. Present status /quality of ground water

| S. No. | Cluster | Months(2019) | Present status | Condition |
|--------|----------|---------------------------|----------------|-----------|
| 1 | Ramnagar | Post Monsoon, Pre Monsoon | - | |

Hand pump India, Ramnagar Industrial Area, Chandauli

Standard for Drinking Water (IS:10500)

| S.N. | Parameter | Value (Post Monsoon) | Value (Pre Monsoon) | Unit |
|------|--------------|----------------------|---------------------|----------|
| 1. | pH | 7.4-7.6 | 7.5-7.7 | - |
| 2. | Conductivity | 79.5-1665 | 116-1700 | µmhos/cm |
| 3. | Alkalinity | 264-405 | 284-532 | mg/l |
| 4. | BOD | 0.2-0.75 | 0.2-0.9 | mg/l |
| 5. | COD | 1.5-2.0 | 2.0-3.0 | mg/l |

| | | | | |
|-----|----------------|------------|-----------|-----------|
| 6. | Sodium | 22.4-81.75 | 23.5-88.2 | mg/l |
| 7. | Hardness | 252-787.5 | 316-840 | mg/l |
| 8. | TDS | 339-1332.5 | 396- 1682 | mg/l |
| 9. | Phosphate | 0.28-0.79 | 0.30-1.43 | mg/l |
| 10. | Iron | 1.19 | 1.21 | mg/l |
| 11. | Fluride | 0.44-0.95 | 0.59-0.97 | mg/l |
| 12. | Total Coliform | < 2.0 | < 2.0 | MPN/100ml |

Data taken from -ESSENCE-IJERC,Naresh,Gopal Shrivastava ,2018,IX(1):71-89

Hand pump India MarkaII near, Shri R. Yadav House ,Vill Kamauli, Varanasi

| S.N. | Parameter | Value (Post Monsoon) | Value (Pre Monsoon) | Unit |
|------|-----------------------------------|----------------------|---------------------|-----------|
| 1. | pH | 7.57 | 7.75 | - |
| 2. | Conductivity | 502 | 534 | µmhos/cm |
| 3. | Alkalinity | 252 | 264 | mg/l |
| 4. | Nitrogen | 1.70 | 2.1 | mg/l |
| 5. | DO | - | - | mg/l |
| 6. | BOD | - | 0.75 | mg/l |
| 7. | COD | 6.8 | 7.6 | mg/l |
| 8. | Chloride | 36.98 | 41.98 | mg/l |
| 9. | Sulphate | 12.5 | 15.4 | mg/l |
| 10. | sodium | - | 10.50 | mg/l |
| 11. | Calcium as (CaCO ₃) | 324 | 350 | mg/l |
| 12. | Magnesium as (CaCO ₃) | 146 | 162 | mg/l |
| 13. | Fecal Coliform/Total Coliform | NT | NT | MPN/100ml |
| 14. | Turbidity | 8 | 10Total | NTU |
| 15. | Hardness | 470 | 512 | mg/l |
| 16. | TDS | 304 | 322 | mg/l |
| 17. | Fixed Dissolved Solid | - | 196 | mg/l |
| 18. | Ammonia Nitrogen | 0.57 | 0.68 | mg/l |
| 19. | Boron | BDL | BDL | mg/l |
| 20. | Phosphate | 0.20 | 0.27 | mg/l |
| 21. | Iron | - | 1.10 | mg/l |
| 22. | Zinc | - | 0.43 | mg/l |
| 23. | Copper | - | 0.04 | mg/l |
| 24. | Endosulphan -t | NT | NT | ng/l |
| 25. | Total DDT | NT | NT | ng/l |
| 26. | Total BHC | NT | NT | ng/l |

Hand pump India MarkaII, Chandpur Industrial Area, Varanasi

| S.N. | Parameter | Value(Post Monsoon) | Value (Pre Monsoon) | Unit |
|------|-----------|---------------------|---------------------|------|
|------|-----------|---------------------|---------------------|------|

| | | Oct 2019 | March 2019 | |
|-----|-----------------------------------|-----------------|-------------------|-----------|
| 1. | pH | 7.45 | 7.56 | - |
| 2. | Conductivity | 488 | 525 | µmhos/cm |
| 3. | Alkalinity | 362 | 284 | mg/l |
| 4. | Nitrogen | 1.9 | 2.4 | mg/l |
| 5. | DO | - | - | mg/l |
| 6. | BOD | - | 0.90 | mg/l |
| 7. | COD | 8.0 | 6.8 | mg/l |
| 8. | Chloride | 33.48 | 38.98 | mg/l |
| 9. | Sulphate | 16.2 | 17.2 | mg/l |
| 10. | Sodium | - | 14.12 | mg/l |
| 11. | Calcium as (CaCO ₃) | 308 | 322 | mg/l |
| 12. | Magnesium as (CaCO ₃) | 130 | 148 | mg/l |
| 13. | Fecal Coliform/Total Coliform | NT | NT | MPN/100ml |
| 14. | Turbidity | 8 | 10 | NTU |
| 15. | Hardness | 438 | 470 | mg/l |
| 16. | TDS | 294 | 315 | mg/l |
| 17. | Fixed Dissolved Solid | - | 192 | mg/l |
| 18. | Ammonia Nitrogen | 0.62 | 0.73 | mg/l |
| 19. | Boron | BDL | BDL | mg/l |
| 20. | Phosphate | 0.18 | 0.25 | mg/l |
| 21. | Iron | - | 1.02 | mg/l |
| 22. | Zinc | - | 0.34 | mg/l |
| 23. | Copper | - | 0.03 | mg/l |
| 24. | Endosulphan -t | NT | NT | ng/l |
| 25. | Total DDT | NT | NT | ng/l |
| 26. | Total BHC | NT | NT | ng/l |

M/s B.D foods Pvt. Ltd, Karkhiyaw Industrial Area, Vns. Borewell No. 1

| S.N. | Parameter | 30/08/2019 | | Unit |
|-------------|-----------------------------------|-------------------|--|-------------|
| 1. | pH | 8.77 | | - |
| 2. | Turbidity | 1.0 | | NTU |
| 3. | TDS | 634 | | mg/l |
| 4. | total Hardness | 444 | | mg/l |
| 5. | Calcium as (CaCO ₃) | 338 | | mg/l |
| 6. | Magnesium as (CaCO ₃) | 106 | | mg/l |
| 7. | Ca ⁺⁺ | 135.42 | | mg/l |
| 8. | Mg ⁺⁺ | 25.86 | | mg/l |
| 9. | Chloride | 149.45 | | mg/l |
| 10. | Sulphate | 26.0 | | mg/l |
| 11. | Phosphate | 0.12 | | mg/l |
| 12. | Nitrate | 8.5 | | mg/l |

| | | | | |
|-----|----------------|--------|--|-----------|
| 13. | Iron | 0.32 | | mg/l |
| 14. | Total Coliform | Absent | | MPN/100ml |

M/s B.D foods Pvt. Ltd, Karkhiyaw Industrial Area, Vns. Borewell No. 2

| S.N. | Parameter | 30/08/2019 | | Unit |
|------|-----------------------------------|------------|--|-----------|
| 1. | pH | 7.64 | | - |
| 2. | Turbidity | 1.0 | | NTU |
| 3. | TDS | 480 | | mg/l |
| 4. | total Hardness | 350 | | mg/l |
| 5. | Calcium as (CaCO ₃) | 128 | | mg/l |
| 6. | Magnesium as (CaCO ₃) | 222 | | mg/l |
| 7. | Ca ⁺⁺ | 51.38 | | mg/l |
| 8. | Mg ⁺⁺ | 88.97 | | mg/l |
| 9. | Chloride | 95.55 | | mg/l |
| 10. | Sulphate | 24.0 | | mg/l |
| 11. | Phosphate | 0.15 | | mg/l |
| 12. | Nitrate | 6.8 | | mg/l |
| 13. | Iron | 0.15 | | mg/l |
| 14. | Total Coliform | Absent | | MPN/100ml |

Industrial Area Varanasi

| S.N. | Parameter | Value (Post Monsoon) | Value (Pre Monsoon) | Unit |
|------|----------------|----------------------|---------------------|-----------|
| 1. | pH | 7.4-7.6 | 7.5-7.7 | - |
| 2. | Conductivity | 79.5-1665 | 116-1700 | μmhos/cm |
| 3. | Alkalinity | 264-405 | 284-532 | mg/l |
| 4. | BOD | 0.2-0.75 | 0.2-0.9 | mg/l |
| 5. | COD | 1.5-2.0 | 2.0-3.0 | mg/l |
| 6. | Sodium | 22.4-81.75 | 23.5-88.2 | mg/l |
| 7. | Hardness | 252-787.5 | 316-840 | mg/l |
| 8. | TDS | 339-1332.5 | 396- 1682 | mg/l |
| 9. | Phosphate | 0.28-0.79 | 0.30-1.43 | mg/l |
| 10. | Iron | 1.19 | 1.21 | mg/l |
| 11. | Fluride | 0.44-0.95 | 0.59-0.97 | mg/l |
| 12. | Total Coliform | < 2.0 | < 2.0 | MPN/100ml |

Data taken from -ESSENCE-IJERC,Naresh,Gopal Shrivastava ,2018,IX(1):71-89

4.2.2. Source identification (Existing sources of Ground water pollution)

| S. No. | Sources identified | Coordinates | | Distance and direction |
|--------|--------------------|-------------|-----------|------------------------|
| | | Latitude | Longitude | |

| | | | | |
|---|--|--|--|--|
| 1 | Rainfall and the river Ganga,River Varuna | | | |
|---|--|--|--|--|

4.2.3. Ground water quality monitoring program

| S. No. | Sampling Locations | Coordinates | Frequency | Parameters tested |
|--------|-----------------------|-------------|-----------|-------------------|
| 1 | | | | |

4.2.4. Action plan for control of pollution including cost/ time aspects

| Short Term Action Points (up to 1 year, including continuous activities) | | | |
|--|--|-------------------------------------|---|
| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
| 4.2.4 a) | Land Pollution Proper Storage & Disposal of Hazardous Waste & Solid Waste. | To send waste every 03/04 months | Individual Industry |
| Long Term Action Points (more than 1 year) | | | |
| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
| 4.2.4 b) | Land Pollution Soil Testing Soil testing of some large scale industry has been done and is being carried out every month. Soil testing for different metals like Pb, Cr, Cu, Fe etc. twice a year through recognize laboratory. | 01 Year | UPPCB |

4.2.5. Treatment and management of contaminated ground water bodies etc: Please provide details

4.2.6. Impact on CEPI Score after abatement of pollution:

| S. No. | CEPI score before | CEPI score before | Percent improvement |
|-----------|-------------------|-------------------|---------------------|
| | | | |

4.3 Solid Waste Generation and Management:

4.3.1. Waste Classification and Quantification

| S. No. | Source | Category | Quantity |
|--------|-------------------|----------|---------------|
| 1 | Hazardous Waste | - | 126.9 TPA |
| 2 | Bio-Medical Waste | - | 591.85 kg/day |
| 3 | Electronic Waste | - | NA |

| | | | |
|----------|---|-----------|----------------|
| | | | |
| 4 | Municipal Solid Waste/ Domestic Waste/ Sludge Fro STPs/ETPs/CETPs and Other Industrial Sources | - | 67.2 |
| 5 | Plastic Waste | - | 3.5 TPA |
| 6 | Construction and Demolition Waste | NA | 200 MTD |

4.3.1.1. Hazardous Waste

| S. No. | Source | Quantity |
|---------------|--|-----------------|
| | Industries | |
| 1 | Banaras Hotels Ltd Nadesar Varanasi | .14 |
| 3 | Hindustan Coca Cola Beverages(P)Ltd., Mehndigunj, Rajatalab, Varanasi | 186.5 |
| 4 | Parle Agro Pvt Ltd Karkhiyon IA Varanasi | 91.56 |
| 5 | Rugs Mart Barahi newada, Varanasi | 2.43 |
| 6 | Varanasi Beads Ltd. Industrial Area,Chandpur,Varanasi | 13.64 |
| 7 | Raj Metal,Plot No-140 & 140/9, Maheshpur, Varanasi | 1.83 |
| 8 | Goenka Motors Pvt. Ltd.,Sahabadad, Jagatpur, Varanasi | 6.0 |
| 9 | Goenka Motors Pvt. Ltd.,Darekhu, Hardattpur, Rohaniya, Varanasi | 1.0 |
| 10 | Hindustan Media Ventures Ltd.,H M V L Press ,ARAJI NO- 603/5 KOIRAJPURNear Abhay maha vidhyalay,Varanasi | 3.22 |
| 11 | Afcon Infrastructure Ltd,Vill-Ralhupur, Post- Ramnagar,Varanasi | .815 |
| 13 | VARANASI B P INDIAN OIL CORPORATION LTD,INDANE BOTTLING PLANT NH-56 BABATPUR ROAD JAMALPUR VARANASI | .14 |
| 15 | Balaji Lubricants, Ramnagar, Chandauli | 108.0 |
| 16 | BPCL Mughalsarai, Chandauli | 25.6 |
| 17 | Electrochem, I/A, Ramnagar, Chandauli | 28.9 |
| 18 | Ganga Pulp And paper Pvt Ltd, IA Ramnagar | 1.5 |
| 19 | Hindustan Petroleum Mughalsarai, Chandauli | 10 |
| 20 | IOCL Barauni Pipe line, Mughalsarai, Chandauli | 5.0 |

| | | |
|-----------|---|------|
| 22 | M.P. Philament (A Unit of M.P. Agarwal & Co), I/A, Ramnagar, Phase-II, Chandauli | 9.0 |
| 23 | Maha Laxmi Yarn Dyers, I/A, Ramnagar, Chandauli | 3.25 |
| 24 | Meenar Polydyed, Dandi, Mughalsarai, Chandauli | 1.5 |
| 25 | Savitri Metal Industries, Arazi No-204/2, 204/3, Vill-Patanwa, Pargana-Ralhupur, Ramnagar, District-Chandauli | .48 |
| 26 | S. A. Iron & Alloys Pvt. Ltd., Jeevnathpur, Industrial Area, Ramnagar, Chandauli | .2 |

4.3.1.2 Bio-Medical Waste

| S. No. | No. of CBWTF | Quantity | Authorization |
|---------------|---------------------|-----------------|----------------------|
| | 02 | - | 535 |

4.3.1.3 Electronic Waste

| S. No. | No. of Electronic waste treatment facility | Quantity | Authorization |
|---------------|---|-----------------|----------------------|
| 1. | NA | 200Tonne | |

4.3.1.4 Municipal Solid Waste/ Domestic Waste/ Sludge Fro STPs/ETPs/CETPs and Other Industrial Sources

| S. No. | Type of Pollution Sources | % OF Waste Generated |
|---------------|--|-----------------------------|
| | Municipal Solid Waste/ Domestic Waste | 67.2 TPA |

4.3.1.5 Plastic Waste

| Sr. No. | No. of Plastic waste Processing facility | Quantity | Authorization | Compliance status |
|----------------|---|-----------------|----------------------|--------------------------|
| | KNG trending, Ashapur, Sarnath, Varanasi | 3.5 TPA | - | - |

4.3.1.6 Construction and Demolition Waste

| S. No. | No. of C&D waste Processing facility | Quantity | Authorization | Compliance status |
|---------------|---|-----------------|----------------------|--------------------------|
| 1. | IL & FS at Ramana/Varanasi | 200 | Grant | Comply |

4.3.1.7 Quantification Of Waste And Relative Contribution From Different Source

| S. No. | Pollution source | Type of Wastes | Relative Contribution |
|---------------|-------------------------|-----------------------|------------------------------|
| | | | |

4.3.2. Identification of Waste Minimization and Waste Exchange Options: Please provide details if any

4.3.3. Reduction/Reuse/ Recovery/ Recycle Options in the Co-Processing of Waste: Please provide details of co-processing options of waste

4.3.4. Infrastructure Facilities:

4.3.4.1. Existing TSDF/Incineration Facilities Including Capacities

| Sr. No. | TSDF/Incineration Facilities | Capacity | Location |
|---------|------------------------------|----------|--------------|
| 1 | Ramky Enviro India | - | Kanpur dehat |
| 2 | Bharat Oil | - | Kanpur dehat |

4.3.4.2. Present Status / Performance and Need up Gradation Of Existing Facilities Including Enhancement Of Capacities: Please provide details:

1. **Treatment And Management Of Contaminated Waste Disposal Sites Etc:** Please provide details
2. **Impact On CEPI Score After Proper Management Of Solid Waste**

| Sr. No. | CEPI Score before management of solid waste | CEPI Score after management of solid waste | % Change |
|---------|---|--|----------|
| | | | |

5. PPP Model

5.1 Identification of projects proposals (for both the options i.e technology intervention and infrastructure renewal) for implementation under the PPP mode under the Action Plan.

Please provide details of any PPP model based Action Plan taken into consideration for technology intervention and infrastructure renewal, if any.

- a. Identification of Stockholders/agencies to be involved and to evolve financial managerial mechanism for implementation of PPP projects.

Please provide details Stockholders/agencies involved in financial managerial mechanism for implementation of PPP projects, if any.

6. Other infrastructural Renewal measures:

6.1. Green belts

| S. Nos. | Green Belt Developed/upcoming Green belts | Area | Features |
|---------|---|------|----------|
| 1 | | | |

6.2. Development of Industrial Estate(s)

| S. No. | Development of Industrial Estates | Area | Features |
|--------|-----------------------------------|------|----------|
| 1 | | | |

6.3. Development / shifting of industries located in the non industrial areas to the existing/new industrial estates.

| S. No. | Shifting of non-Industrial areas to Industrial Estates | Area | Features |
|--------|--|------|----------|
| 1 | | | |

7. Specific Schemes:

7.1. GIS-GPS System for pollution sources monitoring

Please provide details GIS-GPS System for pollution sources, if any.

| S. No. | GIS-GPS System enabled Pollution sources | Remarks |
|--------|--|---------|
| 1 | | |

7.2. Hydro- geological fracturing for water bodies rejuvenation

Please provide details of Hydro- geological fracturing for water bodies rejuvenation, if any.

7.3. In-situ remediation of sewage

| S. No. | Pollution sources with in-situ remediation facility | Treatment method | Discharge |
|--------|---|------------------|-----------|
| 1 | NA | | |

7.4. Utilization of MSW inert by gas based brick kilns

| S. No. | Number of Brick kilns | Fuel |
|--------|-----------------------|------|
| 1 | NA | |

7.5. Co- processing of wastes in cements industries

| S. No. | Cement industries | Fuel |
|--------|--|------|
| 1 | Eco Cement India Ltd., Patnawa, Ramnagar, Chandauli | |
| 2 | Jay Laxmi Cement Co. Ltd., Patnawa, Ramnagar, Chandauli | |
| 3 | Bharat Infra Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | |
| 4 | Trinaini Cement, Patnawa, Ramnagar, Chandauli | |
| 5 | Churk Chunar Cement, Industrial Area, Ramnagar, Chandauli | |

| | | |
|----|--|--|
| 6 | Powercon Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | |
| 7 | Marce Pvt.Ltd., Patanawa, Ramnagar, Chandauli | |
| 8 | Eco Cement India Ltd., Patnawa, Ramnagar, Chandauli | |
| 9 | Jay Laxmi Cement Co. Ltd., Patnawa, Ramnagar, Chandauli | |
| 10 | Bharat Infra Cement Pvt. Ltd., Jivnathpur, Ramnagar, Chandauli | |
| 11 | Trinaini Cement, Patnawa, Ramnagar, Chandauli | |
| 12 | Churk Chunar Cement, Industrial Area, Ramnagar, Chandauli | |

8. Public awareness and training programs

Please provide details of Public awareness and training programs held and organized within the CEPI areas and their impact.

9. Overall impact on installation/commissioning of pollution control equipment/ measures on the CEPI score

| S. No. | CEPI score before installation/commissioning of pollution control equipment/ measures | CEPI score after installation/commissioning of pollution control equipment/ measures | Percent change (%) |
|--------|---|--|--------------------|
| 1 | | | |

10. Assessment of techno-economic visibility pollution control system in clusters of small/medium scale industries

Please provide detailed assessment report.

11. Efforts shall be made to encourage use of Bio-compost and Bio-fertilizers along with the chemical fertilizers in the state to minimize the unutilized chemical fertilizers runoff into the natural water resources from agriculture fields (through Govt. Policy)

Please ensure the implementation of above mentioned point

12. Summary of proposed action points

12.1 Short Term Action Point (Upto one year, including continuous activities)

| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
|------------|-----------------|------------------|-------------------------------------|
| 12.1 a) | Water Pollution | <u>Frequency</u> | |

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| | <ul style="list-style-type: none"> Industrial Source - Proposed Action Plan for effective control of Water Pollution: Regular effluent sample collection and analysis of Pollution Control System in Red, Orange & Green category Industries to be done to ensure strict compliance of prescribed Norms. | Red category- 3 months Orange category - 6 months Green category - 12 months (By UPPCB) & By Individual Industries | UPPCB Individual Industry |
| b) | <ul style="list-style-type: none"> Installation of energy meter, on line PH meter, automatic chemical dosing system, online continuous effluent and emission monitoring system (OCEEMS) and establishment of independent laboratory to monitor critical parameters like MLSS, SVI etc. and other inlet and outlet parameters of ETP for Large & Medium Industries | Ongoing | Individual Industries (Large and Medium) |
| c) | <ul style="list-style-type: none"> Upgradation of ETP in existing water polluting units is to be done on case to case basis. Under the upgradation 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 extent. | Within 06 months. | Individual Industries. |
| d) | <ul style="list-style-type: none"> Groundwater 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. Also, intensive surveys will be done to ensure that practice of reverse boring is not prevalent in the region. | Ongoing | Jal Nigam/ State Ground Water Authority |
| f) | <ul style="list-style-type: none"> Domestic Waste Water (Sewage): Effective operation & maintenance of installed STP. Joint Inspection of STPs by ULBs/ UPPCB/ Jal Nigam Setting up of STPs in upcoming high rise buildings, commercial project, educational institution, multi plexes, town ship & building projects Reuse of treated sewage. | Ongoing Process | ULBs/ UPPCB & Jal Nigam |

| | | | |
|----|--|--|--------------------------------|
| | Upgradation of STPs to meet revised norms. | | |
| g) | <ul style="list-style-type: none"> Inventorization of Air Polluting Industries: | Stack Monitoring of Large & Medium units every 06 months and once in a Year for SSI units. (By UPPCB & by individual Industries) | UPPCB & Individual Industries. |
| h) | <ul style="list-style-type: none"> Proposed Action Plan for effective control of Air Pollution: Regular Monitoring of Pollution Control System in Industries. | | UPPCB & Individual Industries. |
| i) | <ul style="list-style-type: none"> Illegal setup of Industrial activities: Regular drives are to be carried out by Pollution control board and District Administration to identify and seal illegally operating industrial activities. | Combined drives every 2 months by UPPCB & District Administration. | UPPCB and District Admn. |
| j) | <ul style="list-style-type: none"> UPPCL to ensure: that electric connection is not sanctioned in favor of such industries which are not in conforming area. | Within 01 month | UPPCL and Udyog Bandhu |
| k) | <ul style="list-style-type: none"> Monitoring of D.G Sets: Inventorization 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. I. Post inventorization remedial action with respect to air and noise pollution from likely sources shall be taken against defaulters. II. Installation of Acoustic Enclosure with adequate stack height in Old D G Sets to be ensured. | 06 Months. Ongoing 9 months | UPPCB |
| l) | <ul style="list-style-type: none"> Noise Monitoring: Board is procuring real time noise monitoring system. This will be installed in Commercial, Residential, Industrial and Sensitive Zones of the Region. | Ongoing | UPPCB |
| m) | <ul style="list-style-type: none"> Land Pollution: Proper Storage & Disposal of Hazardous Waste & Solid Waste: | To send waste every 03/04 months to TSDF | Individual Industry/ UPPCB |

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| n) | <ul style="list-style-type: none"> Bio-Medical Waste Disposal: member of authorized Common BMW Treatment Facilities Regular Inspection and monitoring of Hospitals / Nursing Homes has to be done | Inspection of Big Hospitals Every 03 months & Small Hospitals every 06 Months by UPPCB. | Regional Office, UPPCB |
|----|---|---|------------------------|

12.2 Long Term Action Points (More than 1 year)

| Sr. No. | Action Points | Timeline | Responsible Agencies/ Stake Holders |
|---------|---|-------------------------------------|--|
| 12.2 o) | <ul style="list-style-type: none"> Water Pollution Industrial Pollution: Adoption of Cleaner Technology to reduce quantity of waste water, Promote recycle after treatment for sector like Paper, Tannery. 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. | Within 01 Years. (By Industries) | Individual Industries UPPCB & Individual Industries |
| p) | <ul style="list-style-type: none"> Widening and Covering of major open Nalas carrying domestic sewage. | Ongoing | ULBs/UPSIDA |
| q) | <ul style="list-style-type: none"> Groundwater Pollution: Ground water study may be carried out in all Industrial Clusters by Out Sourcing Agencies. | 1 Year. | UPPCB & Designated Agencies. |
| r) | <ul style="list-style-type: none"> Air Pollution/Industrial Pollution: Implementation of Cleaner technology in order to reduce quantity of process and fugitive emissions and effective Operation & maintenance of installed APCS. Implementation of cleaner technology / adoption of cleaner fuel, identification of industries to be done in time bound manner. Switching over to cleaner fuel has been proposed as the best option to control Air Pollution in Industrial Areas. Some | 1 Year | UPPCB and Individual industry |

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| | Industries have already switched to cleaner fuel technology. Technological intervention / switching over to cleaner fuel to be done in time bound manner. To supply and promote the use of cleaner fuel like CNG, in order to reduce emissions in the industrial | | |
| s) | <ul style="list-style-type: none"> Introduction of Cleaner Fuel for Industrial Uses : Currently industries are using Coal/ Wood and 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 & Oil Companies are in process of getting more and more industries on board and complete switch from solid fuel to clean fuel will be done in a time bound manner. | Gas and Oil Companies |
| t) | <ul style="list-style-type: none"> Clean fuel for vehicles: At present 16 CNG stations have been building to supply clean fuel. These stations have Compression capacity. Also, all commercial three wheelers buses being registered using CNG only. Phasing out of old diesel commercial vehicles is being done as per policy. | 01 year / As per plan submitted by Gas Agencies. | RTO & Gas Companies |
| u) | <ul style="list-style-type: none"> Development of Green Belt: Develop Green belt from 20% to 33% of the total area. | Ongoing | Forest Department |
| v) | <ul style="list-style-type: none"> Land Pollution Soil Testing: Soil testing of some large scale industry has been done and is being carried out every month. Soil testing in all 3 industrial clusters of Noida is proposed to be done for different metals like Pb, Cr, Cu, Fe etc. twice a year through recognize laboratory. | 01 Year | UPPCB |
| w) | <ul style="list-style-type: none"> Study of impact on Human Health of Water & Air Pollutants | | IITR (Earlier ITRC) / Health Department |
| x) | <ul style="list-style-type: none"> Municipal solid waste Disposal: At present Municipal solid waste is | | |

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| | disposed as landfill in low lying areas. Authority should develop proper MSW facility as per MSW Rules at Proper site. Quantification of MSW Site selection for MSW disposal 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. 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 | Every 3 months | Project proponent to give compliance report to UPPCB. |
| y) | <ul style="list-style-type: none"> • Committee Update: As per directions from Ministry of Environment and Forest, Government of India short listing of Senior citizen candidate and a representative of a NGO to be included in the State Level Monitoring Committee. | 1 Year | UPPCB and DEC |