KSK Mahanadi Power Company Limited
CIN No : U40300TG2009PLC064062

Works
Near Nariyara Village,
Akaltara Tehsil,
Janjgir - Champa District,
Chhattisgarh
Tel (Site): 07817-284001

Registered Office
8-2-293/82/A/431/A,
Road No. 22, Jubilee Hills,
Hyderabad - 500033.
Tel: +91-40-23559922-25,
Tel: +91-40-23558701
Fax: +91-40-23559930

GSTIN-22AADCK6843M1ZB

Ref.: CECB, BIL/AS/PPKN/2500168/692 **Date: 22.05.2018**

To
The Regional Officer,
Chhattisgarh Environment Conservation Board,
Vyapar Vihar, Near Pt. Deendayal Upadhyaya Park,
Bilaspur, Chhattisgarh.

Sub: - Submission of Environment Statement in **Form-V** for **FY 2017-18**-Reg.

Ref: - i) Consent for Operation No. – 763/TS/CECB/2015 Dt. 22.05.2015
ii) Environmental Clearance No. (Amendment & Extended of Validity)-13012/44/2008-IA.II (T) Dt.19.04.2018 & J-13012/44/2008-IA.II (T), Dt.19.10.2009
iii) Rule 14 of Environmental (Protection) Rule, 1986

Sir,

Inviting your reference on the above mentioned subject, please find enclosed herewith the '**Environmental Statement in Form-V**' duly filled under Rule-14 of the Environmental (Protection) Rules, 1986 for our Unit-1, 2 & 3 (3 x 600MW) in M/s KSK Mahanadi Power Company Limited for the Financial Year ending **31st March, 2018.**

Submitted for your kind Perusal and records please.

Thanking You,
Yours faithfully,

For **KSK Mahanadi Power company Limited**

छत्तीसगढ़ पर्यावरण संरक्षण मंडल कार्यालय बिलासपुर (छ.ग.) 25/05/2018

(Authorized Signatory)

Copy to: i) The Member Secretary, CECB, Raipur, Chhattisgarh.
ii) The Addl. PCCF(C), MoEF &CC, Regional Office (WCZ), Nagpur, Maharashtra

Encl: Environmental Statement in **Form-V- FY 2017-18.**

ENVIRONMENTAL STATEMENT REPORT

OF

KSK Mahanadi Power Company Limited,
Village- Nariyara, Tehsil- Akaltara
District- Janjgir-Champa
Chhattisgarh.

Unit#1, 2 & 3 (3 x 600MW)

For
The Financial Year Ending 31st March 2018

Submitted to

The Regional Officer,
Chhattisgarh Environment Conservation Board,
Vyapar Vihar, Near Pt. Deendayal Upadhaya Park,
Bilaspur, Chhattisgarh-495001

FORM - V
(See Rule 14)

Environmental Statement Report for the financial year ending the 31st March, 2018.

PART-A

(i) Name and address of the Owner/Occupier of the Industry, Operation or process.	:	Mr. K.A Sastry, Director M/s KSK Mahanadi Power Company Limited Village- Nariyara, Tehsil-Akaltara, District- Janjgir-Champa, Chhattisgarh
(ii) Industry Category	:	Red A Category
(iii) Production capacity	:	3 x 600 MW
(iv) Year of Establishment Commercial Operation Date	:	16th Feb 2010 14th Aug 2013 (for **Unit No. #3**) 26th Aug 2014 (for **Unit No. #4**) 28th Feb 2018 (for **Unit No. #2**)
(v) Date of the last environmental Audit Report submitted	:	1st September, 2017

PART-B

Water and Raw Material Consumption

i) **Water Consumption**:

Raw Water	During the previous financial year 2016-17	During the Financial Year 2017-18
For production of DM plant water (m3)	0	0
For cooling water & miscellaneous (m3)	1,36,37,039	1,24,81,471
Potable water (m3)	1,64,058	2,30,579
Total	1,38,01,097	1,27,12,050

Name of the product:	**Water consumption per unit of product**	
Specific water consumption (KL/MWH)	During the previous FY 2016-17	During the FY 2017-18
	2.2	2.17
		Details enclosed as **Annexure-I**
Gross electricity generated (MU)	**Electricity generation**	
	During the previous Financial Year 2016-17	During the Financial Year 2017-18
	6702	5645
		Details enclosed as **Annexure-II**

ii) **Raw Material consumption**:

s.no	Name of raw materials.	Name of products	Consumption of raw material per unit of output (kg/Kwh)	
			During the previous FY 2016-17	During the FY 2017-18
1	Coal	Electricity	0.61	0.63
2	LDO/ HFO (Only during start up)		0.5	0.8

PART-C

Pollution Generated

(Parameters as specified in the Consent issued)

Pollution discharged to Environment/ unit of output

(i) Pollutant	Quantity of Pollution Generated	Percentage of variation from Prescribed Standards

a) Waste Water

Condenser Cooling Water

Parameters	Limit	Range of conc.	% age of variation
pH	6.5- 8.5	7.3-8.2	Within limits
Temp	<5 Deg C	22.8-29	Within limits
FA Chlorine	0.5 mg/L	<0.2	Within limits

Boiler Blow Down

Parameters	Limit	Range of conc.	% age of variation
Suspended solid	100mg/L	14-42	Within limits
Oil & Grease	20 mg/L	<1.0	Within limits
Copper	1 mg/L	<0.01	Within limits
Iron	1 mg/L	0.06-0.054	Within limits

Cooling Tower Blow Down

Parameters	Limit	Range of conc.	% age of variation
FA Chlorine	0.5 mg/L	<0.2	Within limits
Zinc	1.0 mg/L	0.09-0.41	Within limits
Chromium (T)	0.2 mg/L	<0.01	Within limits
Phosphate	5.0 mg/L	0.28-0.97	Within limits

b) Air

Stack emission characteristics **Unit#3**		Quantity Kg/hour	Average concentration (mg/Nm3)	% Variation
Parameters	Limit			
Particulate Matter (PM)	50mg/Nm3	84.4	33.8	-32.4 %
Stack emission characteristics **Unit#4**		Quantity Kg/hour	Average concentration (mg/Nm3)	% Variation
Parameters	Limit			
Particulate Matter (PM)	50mg/Nm3	86.2	34.51	-30.98 %
Unit-2		Quantity Kg/hour	Average concentration (mg/Nm3)	% Variation
Parameters	Limit			
Particulate Matter (PM)	30mg/Nm3	31.7	12.7	-57.6 %

PART-D

Hazardous Wastes

(As specified under Hazardous Wastes (Management, Handling and Transboundary Movement Rules, 2008)

Hazardous Wastes	Total Quantity During the previous financial year (2016-17)	During the financial year (2017-18)
(a) From Process Waste oil	**Nil**	**Nil**
(b) From Pollution Control Facility.	**Nil**	**Nil**
(c) Quantity recycled or re-utilized.	**21.94 MT** of Used Oil (Category no.-5.1) has been disposed to Authorized Recycler of Hazardous Waste.	**18 MT** of Used Oil (Category no.-5.1) has been disposed to Authorized Recycler of Hazardous Waste.

PART-E
Solid Wastes

	Total Quantity	
	During the previous Financial year (2016-17)MT	During the current Financial year (2017-18)(MT)
a) From process Fly Ash	14,03,596.52	11,72,338
b) From Pollution Control facility	Nil	
c) Quantity recycled or re utilized i) Fly Ash **Given to cement industry and brick manufacturer.	11,50,195.62	10,36,719

PART-F

Please specify the characteristics in terms of composition and quantum of Hazardous waste as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste:

The generated used/spent oil is hydrocarbon in nature. **18 MT** of Used/spent oil (under category No.-5.1) is already disposed to authorized recycler of Hazardous Waste during this **FY 2017-18.**

Fly Ash and Bottom Ash:

At present, only Fly Ash & Bottom Ash as Solid Waste is being generated from current power plant operation activities. Fly ash is being collected & Stored at 3900m3 capacity Silo, thereafter pneumatically.

It is being transfer to Bulkers through the air tight telescopic chute use in Cement & Brick Manufacturing industry. Bottom Ash disposed to Ash Pond/dyke. 100% of the Ash Generated from plant operation is being utilized by dispatching to Cement Industry, Brick Manufactures & for Road Construction work. (Ash Dyke storage optimization) Details is enclosed as **Annexure- III.**

Data of Industrial Effluent	**Annexure- IV**
Monthly Source Emissions Unit # 3	**Annexure- V**
Monthly Source Emissions Unit # 4	**Annexure- V (A)**
SUMMARY OF AMBIENT AIR QUALITY RESULTS (Inside Plant)	**Annexure- VI**
SUMMARY OF AMBIENT AIR QUALITY RESULTS (Outside Plant)	**Annexure- VI (A)**

PART-G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production:

1. Low Sulphur Coal is used for power generation: Enabling to lower the So2 – Emission.
2. For Coal transportation through Train- Merry go round track is being used. (i.e. minimize line source emission & Fuel Conservation).
3. For Coal transportation through Roads: Tarpaulin covered trucks/dumpers are being following (To minimize Secondary /Tertiary fugitive dust emission.
4. Optimal Usage of Combustion support or Auxiliary fuels i.e LDO/HFO (lower per MW Liquid fuel cost)
5. Optimization of Coal Inventory level.
6. Reuse & recycle of waste water (Boiler, CT Blow down & DM Plant for ash handling purpose (Reducing demand for fresh raw water).
7. 100% of the Fly Ash Generation from plant operation is being utilized by dispatching to Cement Industry, Brick Manufactures & for Road Construction work (Ash Dyke storage optimization)
8. Use of Low – NOx Burner in furnace (Energy Conservation)
9. All the major Drives are VFD (Energy Conservation)
10. Dust extraction systems are provided & operation to minimize coal dust losses through fugitive dust emission.
11. As on date Greenbelt development is covered with **274Ha**. (**33%**) of total plant area, with **3,80,330 nos.** of plants of various species.

PART-H

Additional measures investment proposal for environmental protection including abetment of pollution prevention of pollution.

Real time data display in Main Gate as well as Website.

Installation & Operation Continuous Stack Emission monitoring system.

Installation & Operation Continuous Ambient Air Quality monitoring system.

Installation & Operation Continuous waste water analyzer system

New plantation with Casualty replacement of previous plantation to be done during FY 2018-19.

PART-I
Miscellaneous

Any other particulars for improving environment protection and abatement of pollution.

1. High efficiency ESP + Hybrid Fabric Filter combination, with 99.7% efficiency has installed for each Unit (600MW)
2. Zero water discharge system has been implemented. Effluents are being used in Ash Handling, Dust Suppression, DM water Production & Green belt development purposes.
3. Development of Greenbelt, ranging 50 to 100m width, by using Local Climate suitable Fast growing plant species.
4. Pulse Jet type bag –filters have been installed at all the Transfer-points meant for Coal transport from CHP area to boiler area.-
5. Water sprinkling arrangement facilitate at all the dust prone areas including Coal yard area.
6. 44 No's Rain Gun type of Water spray system has been installed at Coal yard area.
7. Installation of bag filters & Dry Fog System over the Coal conveyor Transfer Towers.
8. All the major internal roads are concretized and adequate capacity of water tankers has been deployed for water spraying to control fugitive dust emission.
9. Regular sweeping of roads are also in practiced.
10. Necklace drains provided in and around the Coal yard and other area to prevent leachate water.

ANNEXURE – I

WATER CESS RETURN DETAILS FOR FY 2017-18

Consumption of Raw Water (KL)				Reuse/Recycling of waste water (KL)		
Month	Category 1		Category 2	Category 4		
	Cooling Tower Operation.	Boiler Water	Portable	ETP Clarifier plus RO+UF Circuit for DM Water Production	Ash Handling	STP
Apr-17	1435509	0	18693	57183	38322	10530
May-17	945045	0	23142	121245	41896	11595
Jun-17	1427687	0	21530	65118	173123	11455
Jul-17	1038400	0	19986	70064	37260	5150
Aug-17	993394	0	18357	43653	45937	7050
Sep-17	938194	0	16456	51725	48862	5600
Oct-17	1064216	0	17678	67001	76339	6300
Nov-17	975240	0	17003	71120	131069	7275
Dec-17	1050114	0	19566	20819	149490	6950
Jan-18	1232656	0	19426	94697	72844	7070
Feb-18	533059	0	17889	21901	42687	6170
Mar-18	847957	0	20853	43350	11270	10425
Total	**12481471**	**0**	**230579**	**727876**	**869099**	**95570**

ANNEXURE – II

POWER GENERATION AND COAL CONSUMPTION DETAILS FOR FY 2017-18

Month	Month wise Gross Power Generation Details (MU)		Month wise Coal Consumption Detail's (MT)	
	Unit # 3	Unit # 4	Unit # 3	Unit # 4
Apr-17	363	351	200209	199576
May-17	188	224	111126	136317
Jun-17	309	370	185412	224819
Jul-17	216	303	131559	194877
Aug-17	271	231	171927	154896
Sep-17	293	191	174988	119855
Oct-17	300	252	170120	150454
Nov-17	128	317	75606	197842
Dec-17	161	238	104090	152674
Jan-18	235	286	142458	180959
Feb-18	36	179	22549	110295
Mar-18	70	134	64266	115651
Total	2569	3076	1554310	1938215

ANNEXURE – III

FLY ASH GENERATION & UTILISATION DETAILS FOR FY 2017-18												
Month	**Fly Ash Generation (MT)**			**Fly Ash Utilized- Dispatched to Cement Plant. (MT)**			**Fly Ash Utilized for other purpose (MT)**			**Percentage of Utilization (%)**		
Units	**Unit#3**	**Unit#4**	**Unit#2**	**Unit#3**	**Unit#4**	**Unit#2**	**Unit#3**	**Unit#4**	**Unit#2**	**Unit#3 (5th Yr. operation)**	**Unit#4 (4th Yr. operation)**	**Unit#2 (1st Yr. operation)**
Apr-17	61361	61167	0	61361	54977	0	0	1511	0	100%	92%	0
May-17	34977	42906	0	34977	28581	0	0	1323	0	100%	70%	0
Jun-17	60626	73512	0	60626	12493	0	0	977	0	100%	18%	0
Jul-17	43394	64280	0	43394	43251	0	0	1735	0	100%	70%	0
Aug-17	57592	51610	0	57592	21822	0	0	3092	0	100%	48%	0
Sep-17	55584	38454	0	55584	28813	0	0	2474	0	100%	81%	0
Oct-17	56626	50801	0	56626	46597	0	0	1571	0	100%	95%	0
Nov-17	25890	68329	0	25890	66588	0	0	1741	0	100%	100%	0
Dec-17	37809	55678	0	37809	53536		0	2142	0	100%	100%	0
Jan-18	49204	62531	11208	49204	62531	5828	0	9800	0	100%	116%	52
Feb-18	7679	36626	0	7679	36013	0	0	613	0	100%	100%	0
Mar-18	20853	29455	14186	20853	28451	6307	0	1004	1353	100%	100%	54
Total	**511596**	**635348**	**25394**	**511596**	**483652**	**12135**	**0**	**27983**	**1353**	**100%**	**83%**	**53%**

ANNEXURE – IV

DATA OF INDUSTRIAL EFFLUENT (Guard Pond) from APRIL 2017 - MARCH 2018

Month	pH	Total Suspended solids mg/l	Oil & Grease mg/l
Apr-17	7.9	57	<1.0
May-17	7.8	46	<1.0
Jun-17	8.1	53	<1.0
Jul-17	7.9	63	<1.0
Aug-17	7.8	58	<1.0
Sep-17	7.9	66	<1.0
Oct-17	7.8	51	<1.0
Nov-17	7.9	47	<1.0
Dec-17	7.6	53	<1.0
Jan-18	7.2	49	<1.0
Feb-18	8.0	37	<1.0
Mar-18	7.9	42	<1.0

ANNEXURE – V

Monthly Source Emissions (Unit # 3) from April 2017- March 2018

Month	Particulate Matter (mg/Nm^3)	SO_2 (mg/Nm^3)	NOx (mg/Nm^3)
Apr-17	29.7	774	398
May-17	27.2	873	351
Jun-17	29.5	851	326
Jul-17	38.6	870	315
Aug-17	30.2	507	478
Sep-17	34.1	563	475
Oct-17	36.1	547	452
Nov-17	34.6	525	431
Dec-17	35.3	506	394
Jan-18	38.2	543	411
Feb-18	37.0	526	392
Mar-18	35.5	585	401

ANNEXURE – V(A)

Monthly Source Emissions (Unit#4) from April 2017 - March 2018

Month	Particulate Matter (mg/Nm^3)	SO_2 (mg/Nm^3)	NOx (mg/Nm^3)
Apr-17	32.4	864	403
May-17	30.1	904	373
Jun-17	31.6	887	360
Jul-17	33.4	793	332
Aug-17	31.1	533	652
Sep-17	37.2	618	525
Oct-17	33.8	583	497
Nov-17	35.2	560	452
Dec-17	37.4	602	424
Jan-18	35.7	524	373
Feb-18	39.2	580	421
Mar-18	37.0	541	375

Monthly Source Emissions (Unit # 2) from April 2017- March 2018

Month	Particulate Matter (mg/Nm^3)	SO_2 (mg/Nm^3)	NOx (mg/Nm^3)	Remarks
Jan-18	12.3	533	652	
Feb-18	Nil	Nil	Nil	Shutdown
Mar-18	13.1	618	525	

Annexure-VI

SUMMARY OF AMBIENT AIR QUALITY RESULTS FROM APRIL 2017 TO MARCH 2018

Inside Location:

1. BTG Area

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
37.8	27.8	33.2	35.3	70.5	57.4	65.0	67.7	18.4	10.2	14.4	15.9	22.8	13.6	17.6	19.2

Co				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
304	171	234.3	276.9	<0.001	<0.001	<0.001	<0.001	0.5	<0.1	0.2083	0.35	0.006	<0.001	0.0026	0.0043

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
16.4	6.8	11.4	15.0	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.00	<0.00	<0.00	<0.00

(All Values are expressed in µg/m³)

2. CHP Area

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
40.8	32.3	36.1	38.0	72.8	60.4	66.7	69.4	19.7	12	15.5	16.9	24.7	15.4	19.2	20.8

Co				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
337	184	257	302	<0.001	<0.001	<0.001	<0.001	0.7	0.2	0.316667	0.5	0.007	0.001	0.003167	0.00525

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
17.2	6.5	11.6	15.075	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.00	<0.00	<0.00	<0.00

(All Values are expressed in µg/m³)

3. DM Plant

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
37.8	27.8	33.2	35.3	70.5	57.4	65.0	67.7	18.4	10.2	14.4	15.9	22.8	13.6	17.6	19.2

CO				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
285	160	220	261	<0.001	<0.001	<0.001	<0.001	0.4	<0.1	0.208333	0.275	0.004	<0.001	0.002	0.0035

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
16.2	6.3	11.0	14.3	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.00	<0.00	<0.00	<0.00

(All Values are expressed in µg/m^3)

4. Ash Silo Area

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
37.8	27.8	33.2	35.3	70.5	57.4	65.0	67.7	18.4	10.2	14.4	15.9	22.8	13.6	17.6	19.2

CO				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
336	178	245	289	<0.001	<0.001	<0.001	<0.001	0.5	0.1	0.2	0.4	0.006	0.001	0.003	0.004

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
16.5	6.5	11.3	14.8	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.001	<0.001	<0.001	<0.001

(All Values are expressed in µg/m^3)

ANNETURE – VI (A)

SUMMARY FOR AMBIENT AIR QUALITY MONITORING RESULTS FROM APRIL 2017 TO MARCH 2018

Out Side of Plant Area:

1. Tarod village

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
29.5	20.2	24.8	26.4	61.5	49.5	55.0	57.6	16.0	10.7	13.0	14.3	18.1	12.2	15.4	16.6

CO				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
264	115	195	236	<0.001	<0.001	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	0.004	<0.001	0.002	0.002

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
14.6	5.4	10.3	13.3	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.001	<0.001	<0.001	<0.001

(All Values are expressed in µg/m^3)

2. Jhalmala Village

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
29.4	19.2	23.9	25.4	57.4	47.2	52.3	54.3	14.5	10.5	12.2	13.2	16.8	21.1	14.5	15.6

CO				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
273	135	206	245	<0.001	<0.001	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
14.3	5.1	10.2	13.2	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.001	<0.001	<0.001	<0.001

(All Values are expressed in µg/m^3)

3. Amora village

PM 2.5				PM 10				SO_2				No_x			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
27.6	20.1	23.5	25.3	62.1	46.8	54.3	56.4	15.9	10.3	13.1	14.3	18.1	13.2	15.5	16.5

Co				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
265	132	201	243	<0.001	<0.001	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
14.1	5.2	10.1	13.1	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.001	<0.001	<0.001	<0.001

(All Values are expressed in µg/m^3)

4. Sonsari village

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
28.4	19.1	23.0	25.0	60.5	49.1	54.9	57.2	14.8	9.5	12.49167	13.575	17.9	12.8	15.1	16.1

Co				Arsenic				Nickel				Lead			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
271	126	202	242	<0.001	<0.001	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001

O_3				NH				C6H6				Benzo				Hg			
Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%	Max	Min	Avg	98%
14.8	5.1	10.2	12.9	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.001	<0.001	<0.001	<0.001

(All Values are expressed in µg/m^3)

5. Nariyara village

$PM_{2.5}$				PM_{10}				SO_2				NOx			
Max	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**
28.4	18.7	23.9	25.6	59.4	48.1	53.7	55.9	15.3	10.4	12.3	13.4	17.4	12.9	15.0	16.0

Co				Arsenic				Nickel				Lead			
Max	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**
258	143	199	240	<0.001	<0.001	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001

O_3				NH				C6H6				Benzo				Hg			
Max	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**	**Max**	**Min**	**Avg**	**98%**
15.1	5.2	10.1	13.3	<20	<20	<20	<20	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<0.001	<0.001	<0.001	<0.001

(All Values are expressed in µg/m^3