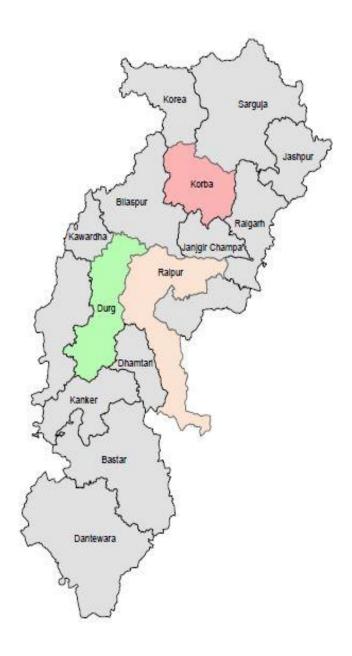
## **Air Quality Index**

(Chhattisgarh)



# **Central Pollution Control Board Zonal Office – Bhopal**

# INDEX

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1.	A Note on Air Quality Index (AQI) of Chattisgarh
2.	Calculated AQI
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#### Status of Air Quality in 03 Districts of Chattisgarh w.r.t. Air Quality Index

Under National Ambient Air Quality Standards, 2009; 12 pollutants are notified based on short term & long term monitoring for Industrial/residential and Sensitive/ecological areas i.e. PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, NH<sub>3</sub>, Pb, O<sub>3</sub>, CO, Ni, As, B(a)P & Benzene. Under National Air Monitoring Program (NAMP), a huge quantity of data generates annually for prescribed parameters i.e. PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>2</sub>. CPCB evaluated the concept of Air quality Index (AQI) utilizing the data of Ambient Air Quality to ascertain the quality of air in terms of its probable impact on health and environment.

AQI is calculated for 03 parameters (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>2</sub>) monitored under NAMP. The calculated values are categorized in 06 pollution categories i.e. Good, Satisfactory, Moderate, Poor, Very Poor & Severe as reported in AQI document.

With the help of mapping softwares i.e. *Autocad Map, Mapinfo & ArcGIS*; yearwise maps of air quality level at stations are also prepared.

Under National Air Monitoring Program (NAMP) program currently **08** Air Quality Monitoring Stations are operational in **03** districts of Chattisgarh state. At each station annually **104** days Air Pollutants (PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>) level is being monitored on 24 hourly basis.

#### The list of NAMP stations established in 03 districts is as below:

Districts	Station Code	Location detail	Class of area
Dainum	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial
Raipur	368	New HIG - 9, Hirapur	Residential
	249	Pragati Nagar NTPC Colony	Residential
Korba	364	HIG 21 & 22, Near Ghantaghar, MP Extn.	Residential
	407	ITI, Rampur	Residential
Bhilai	65	Visak Hotel, Sect4	Residential
	67	Regional Office,5/32,Banglow Office Building	Residential
	245	M. P. Laghu Udyog Nigam	Industrial

The Air Quality Index is calculated for available monitoring data of *September 2014* to *January 2015*. Based on the index value, Air Quality is categorized as Good, Satisfactory, Moderate, Poor, Very Poor & Severe.

**Raipur**, the capital city of Chattisgarh presently has 02 manual NAMP stations established in industrial & residential area to monitor the air quality.

Station no. **223** established in industrial area at M/s Wool Worth India Pvt. Ltd., Sarora has shown air quality trend of *Poor* to *Very Poor*. Due to insufficient data availability (*due to rain Or instrument failure*) of station no. 368, established in residential area, AQI was not calculated.

In **Korba** district presently 03 NAMP stations are operational all at residential area of city. Due to unavailability of sufficient data (*due to rain Or instrument failure*) Air Quality Index of only Station no. 249 is calculated. The air quality level found *Satisfactory* at this station. Establishment of new NAMP stations in industrial area is essential as Korba falls under Critically Polluted Area.

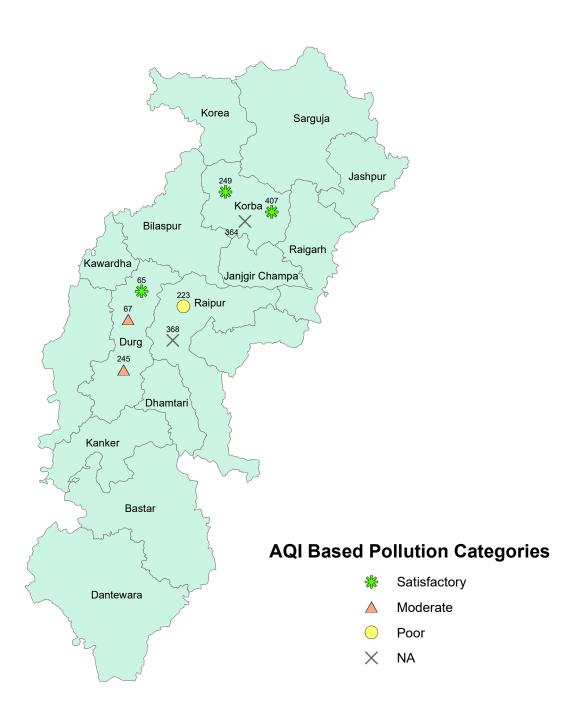
District **Bhilai** has 03 operational NAMP stations in residential and industrial area. At station no. 245 the air quality found to be *Moderate* level, whereas at other two monitoring stations the air quality found to be *Satisfactory*. The prominent air pollutant was  $PM_{10}$ .

#### Air Quality Index Of Chattisgarh

Name of Station				Pollution Category during 2014-15				
City	Code	Location detail	Class of area	Sept	Oct	Nov	Dec	Jan 2015
Raipur	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial	Poor	Poor	Poor	Very Poor	Very Poor
Kaipui	368	New HIG - 9, Hirapur	Residential Insufficient data		ta			
	249	Pragati Nagar NTPC Colony	Residential	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Korba	Korba 364	HIG 21,22, Near Ghantaghar, MP Extn.	Residential	Insufficient data				
	407	ITI, Rampur	Residential	Satisfactory	Insufficient data			
	65	Visak Hotel, Sect4	Residential	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Bhilai 67		Regional Office,5/32,Banglow Office Building	Residential	Moderate	Satisfactory	Satisfactory	Satisfactory	Satisfactory
245		M. P. Laghu Udyog Nigam	Industrial	Moderate	Moderate	Moderate	Moderate	Moderate

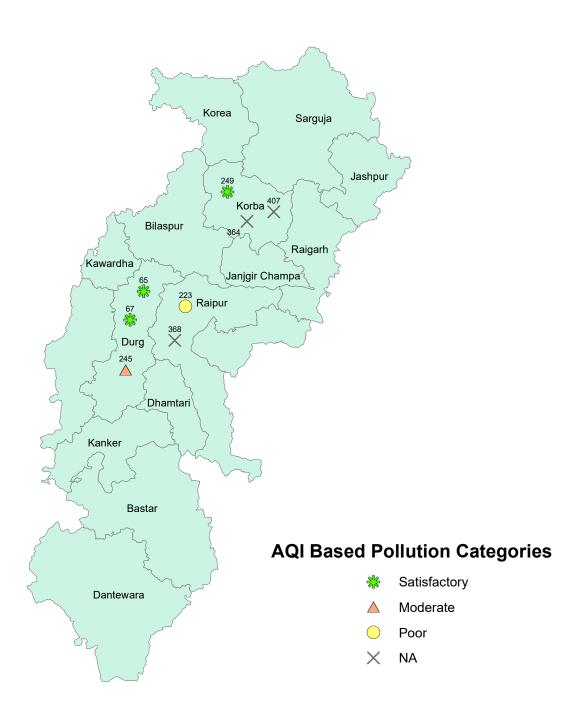
Insufficient data\*:-Either monitoring was not carried out due to rain or instrument failure or NAMP data are not available at Zonal Office, Bhopal

#### Status of NAMP Station (Chattisgarh) Based On Aie Quality Index Month September 2014



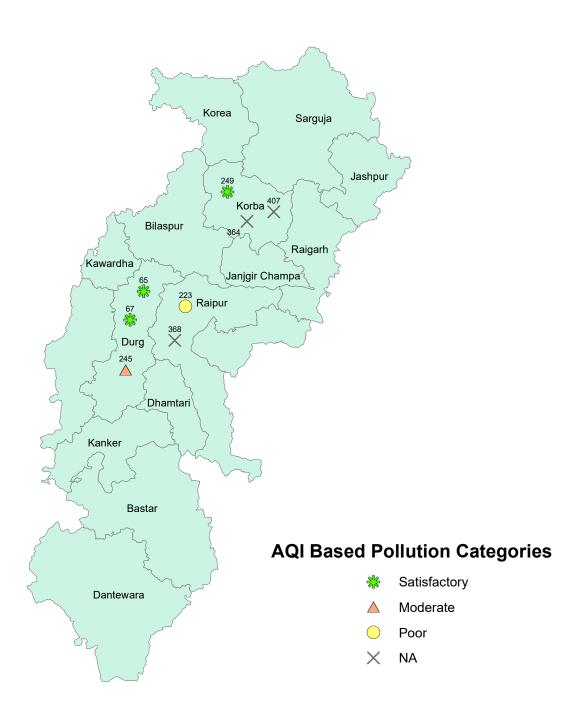
City	Station Code	Location	Area
Raipur	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial
Raipur	368	New HIG - 9, Hirapur	Residential
Korba	249	Pragati Nagar NTPC Colony	Residential
Korba	364	HIG 21,22, Near Ghantaghar, MP Extn.	Residential
Korba	407	ITI, Rampur	Residential
Bhilai	65	Visak Hotel, Sect4	Residential
Bhilai	67	Regional Office,5/32,Banglow Office Building	Residential
Bhilai	245	M. P. Laghu Udyog Nigam	Industrial

#### Status of NAMP Station (Chattisgarh) Based On Aie Quality Index Month October 2014



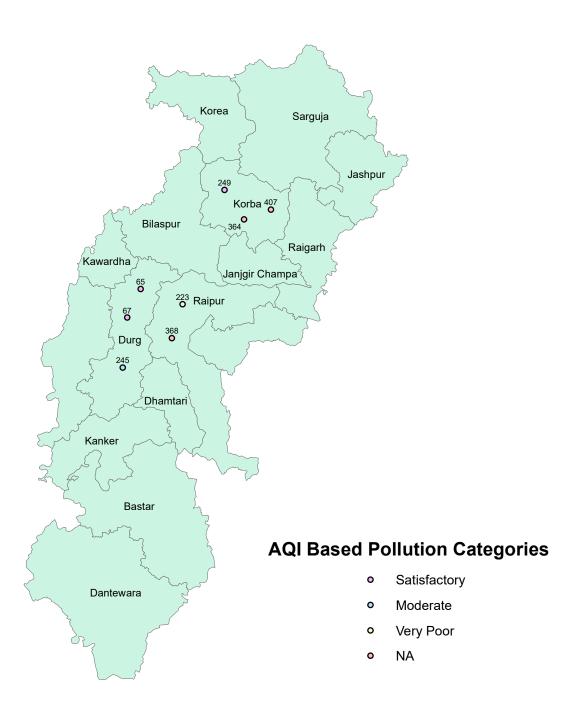
City	Station Code	Location	Area
Raipur	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial
Raipur	368	New HIG - 9, Hirapur	Residential
Korba	249	Pragati Nagar NTPC Colony	Residential
Korba	364	HIG 21,22, Near Ghantaghar, MP Extn.	Residential
Korba	407	ITI, Rampur	Residential
Bhilai	65	Visak Hotel, Sect4	Residential
Bhilai	67	Regional Office,5/32,Banglow Office Building	Residential
Bhilai	245	M. P. Laghu Udyog Nigam	Industrial

### Status of NAMP Station (Chattisgarh) Based On Aie Quality Index Month Nov 2014



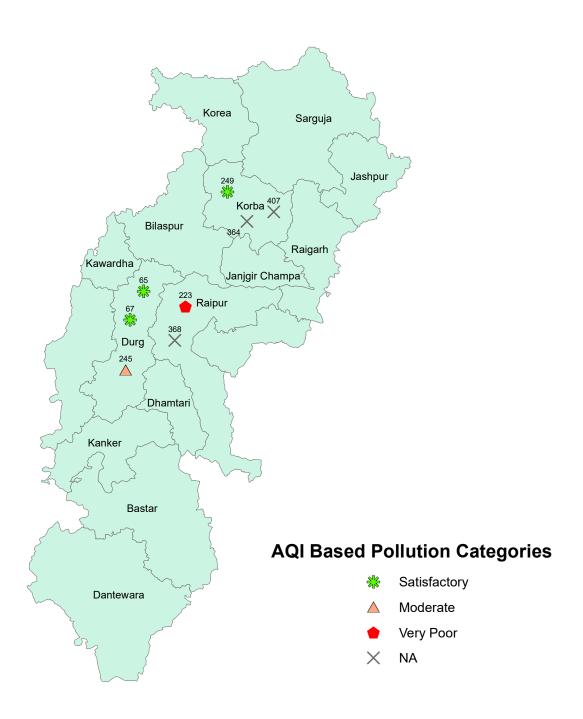
City	Station Code	Location	Area
Raipur	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial
Raipur	368	New HIG - 9, Hirapur	Residential
Korba	249	Pragati Nagar NTPC Colony	Residential
Korba	364	HIG 21,22, Near Ghantaghar, MP Extn.	Residential
Korba	407	ITI, Rampur	Residential
Bhilai	65	Visak Hotel, Sect4	Residential
Bhilai	67	Regional Office,5/32,Banglow Office Building	Residential
Bhilai	245	M. P. Laghu Udyog Nigam	Industrial

### Status of NAMP Station (Chattisgarh) Based On Aie Quality Index Month Dec 2014



City	Station Code	Location	Area
Raipur	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial
Raipur	368	New HIG - 9, Hirapur	Residential
Korba	249	Pragati Nagar NTPC Colony	Residential
Korba	364	HIG 21,22, Near Ghantaghar, MP Extn.	Residential
Korba	407	ITI, Rampur	Residential
Bhilai	65	Visak Hotel, Sect4	Residential
Bhilai	67	Regional Office,5/32,Banglow Office Building	Residential
Bhilai	245	M. P. Laghu Udyog Nigam	Industrial

### Status of NAMP Station (Chattisgarh) Based on AQI Month January 2015



City	Station Code	Location	Area
Raipur	223	M/s Wool Worth India Pvt. Ltd., Sarora	Industrial
Raipur	368	New HIG - 9, Hirapur	Residential
Korba	249	Pragati Nagar NTPC Colony	Residential
Korba	364	HIG 21,22, Near Ghantaghar, MP Extn.	Residential
Korba	407	ITI, Rampur	Residential
Bhilai	65	Visak Hotel, Sect4	Residential
Bhilai	67	Regional Office,5/32,Banglow Office Building	Residential
Bhilai	245	M. P. Laghu Udyog Nigam	Industrial