#### राजस्थान सरकार परिवहन विभाग

क्रमांक :- प.10(281)(2) परि / पीडी / 2010 SP-1 जयपुर, दिनांक :- 29/7/20/४

निदेशक एवं संयुक्त शासन सचिव पर्यावरण विभाग. शासन सचिवालय, जयपूर।

> विषय :- माननीय नैशनल ग्रीन ट्रिब्यूनल, नई दिल्ली में विचाराधीन प्रकरण सं. OA No. 21/2014 में प्रदत्त निर्देशों के क्रम में।

महोदय.

उपरोक्त विषयान्तर्गत निवेदन है कि श्री शिव मंगल शर्मा, अतिरिक्त महाधिवक्ता, राजस्थान सरकार (सुप्रीम कोर्ट) के संलन पत्र में माननीय नैशनल ग्रीन ट्रिब्यूनल, नई दिल्ली द्वारा विचाराधीन प्रकरण सं. OA No. 21/2014 में राज्य सरकार द्वारा प्रस्तुत affidavit को पर्यावरण विभाग की वेबसाइट पर तीन सप्ताह में अपलोड किये जाने के निर्देश प्रदान किये गये हैं।

इस क्रम में राज्य सरकार द्वारा प्रस्तुत affidavit की प्रति आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्न :- उपरोक्तानुसार।

अपर परिवहन आयुक्त (प्र.नि.)

#### BEFORE THE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH, NEW DELHI M.A. NO.284 OF 2015

IN

O. A. NO. 21 of 2014

AND

O.A. NO.95 OF 2014AND

O.A. NO.303 OF 2015

#### IN THE MATTER OF:

Vardhaman Kaushik

..Petitioner

V/S.

Union of India & Ors.

...Respondent

## COMPLIANCE AFFIDAVIT PURSUANT TO ORDER THE DATED 31.05.2016 ON BEHALF OF STATE OF RAJASTHAN

I R. K. Grover S/o Sh. S.R. Grover, aged about 58 years, presently working as Secretary, Department of Environment, Government of Rajasthan do hereby solemnly State and affirm as under:-

- 1. That the present original application was listed before the Hon'ble Tribunal on 31.05.2016, in the said original application, the Hon'ble Tribunal issued notice in MA No. 567 of 2016 with certain directions to the deponent State and other 10 States.
- 2. That the Hon'ble tribunal in the instant matter on 31.05.2016 directed all the States to furnish details through an affidavit on the following indicators:

- "1. Names of two or more most polluted cities in the States.
- 2. Population of the two cities.
- 3. Road densities in the cities.
- 4. Vehicular population in the two cities/districts.
- 5. Source of pollution particularly dust emission, emission by burning of various materials and vehicular and industrial pollution.
- 6. Total number of vehicles diesel and petrol, separately.
- 7. Number of heavy and light vehicles.
- 8. Number of Two wheelers and three wheelers.
- 9. Ambient air quality of the two districts/cities.
- 10. Details and effects of industrial and mining pollution upon the ambient air quality of the districts.
- 11. The source apportionment of dust and other emission/pollution.
- 12. Pollution affecting the joining States."
- 3. It is respectfully submitted that the deponent has obtained certain information from the Department of Transport, Rajasthan State Pollution Control Board and other concerned departments in pursuant to the order passed by the Hon'ble Tribunal dated 31.05.2016 and is filing the present affidavit on that basis to furnish the details on the above parameters:
  - 3.1 Names of two or more most polluted cities in the States
  - (i) It is submitted that Rajasthan State Pollution Control

    Board is engaged in monitoring of ambient air quality.

At present RSPCB is monitoring ambient air quality at 21 locations Jaipur (6), Jodhpur (6), Alwar (3), Kota (3) and Udaipur (3) under National Ambient Air Quality Monitoring Programme. The frequency of monitoring at each station is twice a week on 24 hourly basis. Particulate Matter (PM10) is monitored on 8 hourly basis whereas Sulphur di Oxide (SO2) and Oxides of Nitrogen (NO2) are monitored on 4 hourly basis. The comparative statement of Annual Average of ambient air quality of monitored parameters at all twenty one locations for last five years is enclosed. The annual average concentration of Particulate Matter (PM10) at all the locations in five cities of the State is exceeding the prescribed limit (60µg/M3) under National Ambient Air Quality Standards 2009.

- (ii) The annual average concentration of Oxides of Nitrogen (NO2) and Sulphur di Oxide (SO2) observed is mostly within prescribed limit 40μg/M3 & 50μg/M3 respectively under National Ambient Air Quality Standards 2009.
- (iii) Presently there are only two Continuous Ambient Air Quality Monitoring Stations one each at Jaipur & Jodhpur 21 Manual Ambient Air Quality Monitoring stations in these five cities (Jaipur, Jodhpur, Kota, Udaipur & Alwar) are also not sufficient and number of

stations in each city is not same. Hence, it will not be appropriate to rank these cities with this data.

# 3.2 Population of two districts where Continuous Ambient Air Quality Monitoring Stations (one in each city) have been installed is as under

District	Total	Rural	Urban
 Jaipur	6,626,178	3,154,331	3,471,847
Jodhpur	3,687,165	2,422,551	1,264,614

# 3.3 Road density of the districts, where Continuous Ambient Air Quality Monitoring Stations (one in each city) have been installed is as under

Sr. No	District	Area (in Sq. Km.)	Road Length(Kms.) upto 31.03.2014	Road Length per 100 sq. Km. Area
1.	Jaipur	11143	6105	55
2.	Jodhpur	22850	8358	37

3.4 Vehicular Population in the two districts, where Continuous Ambient Air Quality Monitoring Stations (one in each city) have been installed is as under:

#### Registration of vehicles in the state (category wise) upto May, 2016

District	Two Wheeler	Three Wheeler	Light Motor Vehicle	Heavy Motor Vehicle	Total
Jaipur	1910739	27744	546191	129736	2614410
Jodhpur	727677	12974	207376	90870	1038897

3.5 Source of Pollution Particularly dust emission, emission by burning of various materials and vehicular and industrial pollution:



Main sources of pollution are as under

- (a) Climatic conditions & Arid nature of the area also contribute significantly in higher level of Particulate Matter in the Ambient Air.
- (b) Pollution from vehicles.
- (c) Pollution generated from the residential areas.
- (d) Pollution from Industries.

The State Board has requested to all concerned departments (Commissioner Transport, Addl.Chief Secretary UDH, Principal Secretary LSG, Principal Secretary Food & Supply, Secretary, Department of Agriculture, Govt. of Rajasthan Jaipur) vide letter dated 18.01.2016 to take action for improvement of Ambient Air Quality in five cities being monitored by State Board (Copy enclosed).

The Department of Environment, Govt. Of Rajasthan has prohibited the burning of left-over straw after harvesting of the crops in whole of Rajasthan vide notification dated 27.08.2015

3.6 Total number of vehicles diesel and petrol separately, where Continuous Ambient Air Quality Monitoring Stations (one in each city) have been installed is as under:

Name of City	Total no. Of veh	icles registered from	4/2010 to 3/201
-	Petrol	Diesel	Total
Jaipur	801383	174236	975619
Jodhpur	317520	95397	412917

3.7 Number of heavy and light vehicles, where

Continuous Ambient Air Quality Monitoring

Stations (one in each city) have been installed is as under



Light vehicles	Heavy Vehicles
	129736
546191	123700
	90870
207376	90870
	546191

3.8 Number of two wheelers and three wheelers, where

Continuous Ambient Air Quality Monitoring

Stations (one in each city) have been installed is as under.

District	Two Wheeler	Three Wheeler
Jaipur	1910739	27744
Jodhpur	727677	12974

### 3.9 Ambient air quality of the two districts/cities

The comparative statement of Annual Average of ambient air quality of monitored parameters at all twelve locations for last five years of Jaipur and Jodhpur and one station each of Continuous Ambient Air Quality Monitoring installed at Jaipur & Jodhpur since july 2012 is enclosed herewith and marked as **ANNEXURE R/1** 

# 3.10 Details and effects of industrial and mining pollution upon the ambient air quality of the districts.

Rajasthan State Pollution Control Board has discussed the issue regarding source apportionment studies of dust and other emission / pollution for Jaipur city with IIT Kanpur. IIT, Kanpur has submitted proposals with draft MoU. The proposals is under process

# 3.11 The source apportionment of dust and other emission/pollution.

Rajasthan State Pollution Control Board has discussed the issue regarding source apportionment studies of dust and other emission/ pollution for Jaipur with IIT Kanpur. IIT Kanpur has submitted proposals with draft MoU. The proposals is under process.

#### 3.12 Pollution affecting the joining States.

Rajasthan State Pollution Control Board has not conducted any such specific study.

**DEPONENT** 

#### VERIFICATION

Verified at Jaipur, on this \_\_\_\_\_day of July, 2016, I the above mentioned deponent do hereby verify that the contents of the above affidavit are true and correct and nothing contained in the aforesaid submissions is false, no facts have been suppressed and nothing material has been concealed therefrom.

DEPONENT

Through Counsel

(SHIV MANGAL SHARMA)
ADDITIONAL ADVOCATE GENERAL
FOR STATE OF RAJASTHAN

PLACE:-NEW DELHI FILED ON:- .07.2016

# Note on Ambient Air Quality of Rajasthan State in Five Cities in the matter of Vardhman Kaushik V/S Union of India & Os. Being O.A.No.21/2014 before Hon'ble NGT, Principal Bench, NewDelhi

#### 1. Name of two or more most polluted cities in the States:

Central Pollution Control Board is executing a nation-wide programme of ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP).

- a) Rajasthan State Pollution Control Board is engaged in monitoring of ambient air, at present RSPCB is monitoring ambient air quality at 21 locations Jaipur (6). Jodhpur (6). Alwar (3), Kota (3) and Udaipur (3) under National Ambient Air Quality Monitoring Programme. The frequency of monitoring at each station is twice a week on 24 hourly basis. Particulate Matter (PM<sub>10</sub>) is monitored on 8 hourly basis whereas Sulphur di Oxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>2</sub>) are monitored on 4 hourly basis. The comparative statement of Annual Average of ambient air quality of monitored parameters at all twenty one locations for last five years is enclosed. The annual average concentration of Particulate Matter (PM<sub>10</sub>) at all the locations in five cities of the State is exceeding the prescribed limit (60µg/M³) under National Ambient Air Quality Standards 2009.
- D) The annual average concentration of Oxides of Nitrogen (NO<sub>2</sub>) and Sulphur di Oxide (SO<sub>2</sub>) observed mostly within prescribed limit 40μg/M<sup>3</sup> & 50μg/M<sup>3</sup> respectively under National Ambient Air Quality Standards 2009.

Presently there are two Continuous Ambient Air Quality Monitoring Stations one each at Jaipur & Jodhpur. The number of Manual Ambient Air Quality Monitoring stations in these five cities (Jaipur, Jodhpur. Kota, Udaipur & Alwar) are also not sufficient and number of stations in each city is not same. Hence it will not be appropriate to rank these cities with this data.

#### 2. Population of the two cities:

Information is not related with the State Board.

#### 3. Road densities in the cities:

Information is not related with the State Board.

#### 4. Vehicular population in the two cities:

Information is not related with the State Board.

5. Source of pollution particularly dust emission, emission by burning of various material and vehicular and industrial pollution:

- The sources of pollution particularly dust emission, the State Board has requested to all concern departments (Commissioner Transport, Addl.Chief Secretary UDII, Principal Secretary LSG, Principal Secretary Food & Supply, Secretary & Department of Agriculture, Govt, of Rajasthan Jaipur) vide letter dated 18.01.2016 to take action for improvement of Ambient Air Quality in five cities being monitored by State Board (Copy enclosed). The further action taken report may be obtained from concerned departments.
- The Department of Environment, Govt. Of Rajasthan has prohibited the burning of left-over straw after harvesting of the crops in whole of Rajasthan vide notification dated 27.08.2015

#### 6. Total no. of vehicles Diesel & Petrol Separately:

Information is not related with the State Board.

#### 7. Number of Heavy and Light vehicles:

Information is not related with the State Board.

#### 8. Number of Two wheelers and Three Wheelers:

Information is not related with the State Board.

#### 9. Ambient Air Quality of Two Districts /Cities:

The comparative statement of Annual Average of ambient air quality of monitored parameters at all twenty one locations for last five years for five cities is enclosed.

# 10. Details & effects of Industrial and mining pollution upon the ambient air quality of the districts:

The State Board has not conducted any such study yet.

However, the State Board has discussed issue on source apportionment studies of dust and other emission / pollution for Jaipur city among five cities with IIT Kanpur. The IIT Kanpur has submitted proposals with draft MoU and the proposals are under process.

#### 11. The source apportionment of dust and other emission / pollution.

The State Board has discussed issue on source apportionment studies of dust and other emission / pollution for Jaipur city among five cities with ITT Kanpur. The ITT Kanpur has submitted proposals with draft MoU and the proposals are under process.

#### 12. Pollution affecting Joining States:

The State Board has not conducted any such study yet.



#### RAJASTHAN STATE POLLUTION CONTROL BOARD

4, PARYAVARAN MARG, INSTITUTIONAL AREA, JHALANA DOONGRI, JAIPUR. Laboratory Phone No. 0141 - 5159607, 5159648, Fax No. 0141 - 5159665

F11 (509) RPCB/Lab/ 873

Date: 6-7-16

Commissioner Transport, Govt. Of Rajasthan, Jaipur

<u>Súbject</u>:- Status of Ambient Air Quality of Rajasthan State in Five Cities in the matter of Vardhman Kaushik V/S Union of India & Os. Being O.A.No.21/2014 before Hon'ble NGT, Principal Bench, NewDelhi

Reference:-Your e-mail dated 1.07.2016.

Sir,

With reference to above, as desired please find enclosed herewith Status of Ambient Air Quality of Rajasthan State in Five Cities in the matter of Vardhman Kaushik V/S Union of India & Os. Being O.A.No.21/2014 before Hon'ble NGT, Principal Bench, NewDelhi.

Your's Sincerely,

Enclosed: - As above.

(K.C.A. Arun Prasad)

Member Secretary

#### Government of Rajasthan Department of Environment

No. F. 12(1)Env./2015

Jaipur, Dated : 27-08-2015

#### NOTIFICATION

Government of Rajasthan, after consultation with Rajasthan State Pollution Control Board is of the opinion that the burning of left-over straw after harvesting of the crops causes air pollution. Therefore, under Section 19(5) of the Air (Prevention and Control of Pollution) Act, 1981, the burning of such left-over straw in whole of Rajasthan is hereby prohibited with immediate effect.

(O.P.Meena)
Additional Chief Secretary

Environment

Copy forwarded to the following:

- 1. Additional Chief Secretary Agriculture Department Govt. of Rajesthan
- 2. Chairperson, Rajasthan State Pollution Control Board, Jaipur.
- 3. All District Collectors of Rajasthan for information & necessary action at their end.

Director Cum Joint Secretary
Environment

English lett.docx

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Rajasthan State Pollution Control Board

. Institutional Area, Jhalana Dungri, Jaipur-302004 Tel\_ 0141-5101871 (O), 2709383 (R)

Fax | 0141-5159694

D.O. letter No. 2280 Dated: - 18-1-16

FII (60) RSD(B/Jah

Dear Ms. Gary. And Fill (60) RSP(B/1)
The State Board is regularly monitoring ambient air quality under National Air Quality Monitoring Programme (NAMP) at 21 locations in five major cities of Rajasthan namely Jaipur, Jodhpur, Udaipur, Alwar and Kota. Based on the analysis reports, it has been observed that level of Particulate Matter (PM10) is exceeding the imit prescribed under "National Ambient Air Quality Standard 2009".

The stake holder departments involved in the process are being hereby informed bout the causes of deterioration of Ambient Air Quality, in the urban and neighboring ural areas. You are requested to look in to the above matter and take appropriate neasure as given in Annexure-1 for improvement of ambient air quality in these cities.

aclosed: As above

s Gazatei Rathore rnmissioner Transport vi. of Rajasthan, Dur

(Aprana Arora) Chairperson

#### Suggestions for improvement in Ambient Air Quality in State

16

1. Launch extensive awareness camp to motivate citizens against polluting vehicles;

2. Ensure Strict action against visibly polluting vehicles;

3 Install weigh in motion bridges at entries point of these cities to prevent overloading;

4. Take steps for parking of vehicles at designated areas only and prohibit the parking of vehicles in the heavy traffic areas;

- 5. Introduce sensor system for diversion of traffic timely to avoid traffic congestion or for route diversion;
- 6. Synchronize traffic movements/ Introduce intelligent traffic system for lane-driving;

7. Take steps for installation of remote sensor based PUC system etc;

8. Formulate action plan for controlling decongestion of fuel stations including increasing number of dispensing machines;

Prepare action plan to check fuel adulteration and random monitoring of fuel quality data;

10. Prepare action plan for public transport on CNG mode;

11. Undertake road widening and improvement of infrastructure for decongestion of road;

12. Promote battery operated vehicles;

13. Prepare action plan for alternate roads and bridges for smooth movement of vehicles.

garna Arora 1 a.s. Chairman



Rajasthan State (50)
Pollution Control Board

4. Institutional Area, Jhalana Dungn, Jaipur-302004

Tel 0141-5101871 (O), 2709383 (R)

Fax: 0141-5159694

D.O. letter No. 2282 Dated: 181-16

FII (60) RSPCB/Lah.

Repeted Ser,

The State Board is regularly monitoring ambient air quality under National Air Quality Monitoring Programme (NAMP) at 21 locations in five major cities of Rajasthan namely Jaipur, Jodhpur, Udaipur, Alwar and Kota. Based on the analysis reports, it has been observed that level of Particulate Matter (PM<sub>10</sub>) is exceeding the limit prescribed under "National Ambient Air Quality Standard 2009".

The stake holder departments involved in the process are being hereby informed about the causes of deterioration of Ambient Air Quality, in the urban and neighboring rural areas. As Urban Development & Housing Department is functioning as a hub of civic services being provided for the development of urban areas of the above cities, we hereby seek your kind attention to look into the matters given at Annexure - I and issue directions to concerned officials to take measures for improvement of ambient air quality in these cities.

finclused: As above

St. A.K.Jain
Additional Chief Secretary,,
Urban Development and Housing
Govt. of Rajasthan,
Jaipur

reford,

(Aprana Arora)

## Suggestions for improvement in Ambient Air Quality in State

1. Formulate action plan for creation of green buffers along the traffic corridors;

2. Introduce wet/mechanized vacuum sweeping of roads;

3. Maintain roads in good condition for free-flow of traffic to reduce emissions and dust;

4. Introduce water fountains at major traffic intersection, wherever feasible;

5. Undertake greening of open areas, gardens, community places, schools and housing societies;

6. Take steps for blacktopping/ pavement of road shoulders to avoid road dust;

- 7. Take stringent action against open burning of bio-mass/leaves/tyres etc to control such activities;
- 8. Ensure proper collection of horticulture waste (bio-mass) and composting cumgardening approach;

9. Ensure strict enforcement of ban on burning of municipal garbage/ solid waste;

10. Prohibit use of coal in hotels and restaurants and eliminate use of kerosene for cooking in these cities;

11. Control dust pollution at construction sites through appropriate cover;

12. Undertake control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units;

13. Ensure carriage of construction material in closed/covered vessels;

14. Set-up helpline in States/UT for taking action against reported noncompliance;

- 15. Evolve a system of reporting of garbage/municipal solid waste burning through mobile based applications and other social media platform linked with Central and State level Control Rooms;
- 16. Establish Standard Operating Procedure to provide quick and effective response to complaints;
- 17. Ensure DG sets meeting the standards only be allowed to operate;
- 18. Promote use of LPG instead of coal in restaurants/ dhabas /road side eateries;
- 19. Take steps for setting up of bio-mass based power generation units to avoid bio-mass burning.
- 20. Undertake road widening / Alternate road, and improvement of infrastructure for decongestion of road;
- 21. Encourage multi-level parking to decongest the roads.





Rajasthan State
Pollution Control Board

4. Institutional Area. Jhalana Dungri, Jaipur-302004

Tel: 0141-5101871 (O), 2709383 (R) Fax: 0141-5159694

D.O. letter No. 2281 Dated: -18-1-16

FII (60) RSPCB/Lah

Despetation 1

The State Board is regularly monitoring ambient air quality under National Air Quality Monitoring Programme (NAMP) at 21 locations in five major cities of Rajasthan namely Jaipur, Jodhpur, Udaipur, Alwar and Kota. Based on the analysis reports, it has been observed that level of Particulate Matter (PM<sub>10</sub>) is exceeding the limit prescribed under "National Ambient Air Quality Standard 2009".

The stake holder departments involved in the process are being hereby informed about the causes of deterioration of Ambient Air Quality, in the urban and neighboring rural areas. You are requested to look in to the above matter and take appropriate measure as given in Annexure-1 for improvement of ambient air quality in these cities.

Enclosed: As above

Sh. Manjeet Singh Principal Secretary, Local Self Govt. Covt. of Rajasthan, Libur March

(Aprana Arora) Chairperson

Annexure-I

### Suggestions for improvement in Ambient Air Quality in State

1. Formulate action plan for creation of green buffers along the traffic corridors;

2. Introduce wet/mechanized vacuum sweeping of roads;

3. Maintain roads in good condition for free-flow of traffic to reduce emissions and dust;

4. Introduce water fountains at major traffic intersection, wherever feasible;

5. Undertake greening of open areas, gardens, community places, schools and housing societies;

6. Take steps for blacktopping/ pavement of road shoulders to avoid road dust;

- 7. Take stringent action against open burning of bio-mass/leaves/tyres etc to control such activities;
- 8. Ensure proper collection of horticulture waste (bio-mass) and composting cumgardening approach;

9. Ensure strict enforcement of ban on burning of municipal garbage/ solid waste;

10. Prohibit use of coal in hotels and restaurants and eliminate use of kerosene for cooking in these cities;

11. Control dust pollution at construction sites through appropriate cover;

12. Undertake control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units;

13. Ensure carriage of construction material in closed/covered vessels;

14. Set-up helpline in States/UT for taking action against reported noncompliance;

- 15. Evolve a system of reporting of garbage/municipal solid waste burning through mobile based applications and other social media platform linked with Central and State level Control Rooms;
- 16. Establish Standard Operating Procedure to provide quick and effective response to complaints;

17. Ensure DG sets meeting the standards only be allowed to operate;

18. Promote use of LPG instead of coal in restaurants/ dhabas /road side eateries;

- 19. Take steps for setting up of bio-mass based power generation units to avoid bio-mass burning.
- 20. Undertake road widening / Alternate road, and improvement of infrastructure for decongestion of road;

21. Encourage multi-level parking to decongest the roads.

Arma Arora
IA.S
CHAIRMAN



Rajasthan State Pollution Control Board

4, Institutional Area, Jhalana Dungri, Jaipur-302004 Tel: 0141-5101871 (O), 2709383 (R) Fax: 0141-5159694

D.O. letter No. 2283 Dated: 18-1-1

FII (60) ESPCB/John

Dear St. Kuldeep;

The State Board is regularly monitoring ambient air quality under National Air Quality Monitoring Programme (NAMP) at 21 locations in five major cities of Rajasthan namely Jaipur, Jodhpur, Udaipur, Alwar and Kota. Based on the analysis reports, it has been observed that level of Particulate Matter (PM<sub>10</sub>) is exceeding the limit prescribed under "National Ambient Air Quality Standard 2009".

The stake holder departments involved in the process are being hereby informed about the causes of deterioration of Ambient Air Quality, in the urban and neighboring rural areas. You are requested to look in to the above matter and take appropriate measure as given in Annexure-1 for improvement of ambient air quality in these cities.

Enclosed: As above

Sh. Kuldeep Ranka Secretary.

Department of Agriculture, love of Rajasthan, aipur

ly ads

(Aprana Arora) Chairperson

# Suggestions for improvement in Ambient Air Quality in State

1. Practice of open burning of bio-mass waste / agriculture waste (Crop) etc be stopped immediately as it has been banned by Department of Environment vide notification dated 27.08.2015. Ensure strict enforcement of ban on burning of agriculture waste and crop residues;

2. Ensure proper collection of horticulture waste (bio-mass) and composting cumgardening approach.

3. Oraganise awareness programme for farmers to control open burning of agriculture waste and gainful utilization of agricultural waste for production of non conventional power generation.

4. Undertake Satellite based monitoring for tracking and enforcing agriculture waste burning.

Irma Arora



Rajasthan State
Pollution Control Board

4. Institutional Area, Jhalana Dungri, Jaipur 302004

Tel.: 0141-5101871 (O), 2709383 (R) Fax: 0141-5159694

D.O. letter No. 2275 Dated: - 18-1-16

FII (60) RSPCB/Lale.

Sepret of End,

The State Board is regularly monitoring ambient air quality under National Air Quality Monitoring Programme (NAMP) at 21 locations in five major cities of Rajasthan namely Jaipur, Jodhpur, Udaipur, Alwar and Kota. Based on the analysis reports, it has been observed that level of Particulate Matter (PM<sub>10</sub>) is exceeding the limit prescribed under "National Ambient Air Quality Standard 2009".

The stake holder departments involved in the process are being hereby informed about the causes of deterioration of Ambient Air Quality, in the urban and neighboring unal areas. You are requested to look in to the above matter and take appropriate measure as given in Annexure- I for improvement of ambient air quality in these cities.

nclosed: As above

h. Subodh Agarwal rincipal Secretary, ood and Civil Supplies, ovt. of Rajasthan, hipur

Mads,

(Aprana Arora)

#### Suggestions for improvement in Ambient Air Quality in State

- 1. Formulate action plan for controlling decongestion of fuel stations including increasing number of dispensing machines;
- 2. Prepare action plan to check fuel adulteration and random monitoring of fuel quality data:
- 3. Install vapor recovery system in fueling stations;
- 4. Prohibit use of Coal in hotels and restaurants and eliminate use of Kerosene for cooking;
- 5. Promote use of LPG instead of coal in restaurants/dhabas/ road side eateries

Annual average Concentration level of Ambient Air Quality at 06 different locations of Jaipur Under NAMP from year 2010 to year 2015

		Ajmerig	ate		VKIA		Jhatana		
Year	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub>	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (µg m3)	NO <sub>2</sub> (µg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)
Standards	50	40	60	50	40	60	50	40	60
2010	6.0	38.1	121	6.1	41.9	252	5.3	31.6	106
2011	6.3	38.9	143	6.4	39.0	216	5.9	34.5	90
2012	9.2	52.7	159	9.6	53.5	238	7.8	46.6	125
2013	7.3	43.2	119	8.1	40.3	258	6.7	37.5	102
2014	7.1	41.2	122	7.8	43.3	236	6.7	39.4	100
2015	7.0	36.1	145	7.8	38.1	249	6.7	34.0	112

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					Jaipur				
		Chandp	oole		MIA		RO Office, Jaipur		
Year	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)
Standards	50	40	60	50	40	60	50	40	60
2010	6.2	42.7	198	5.5	34.8	102	5.9	40.5	195
2011	6.4	39.4	164	5.9	34.8	101	6.8	38.7	192
2012	9.1	52.3	209	7.9	47.7	129	9.6	54.4	271
2013	7.2	40.6	143	6.4	34.7	107	8.0	41.9	197
2014	7.1	41.8	148	6.5	37.1	103	7.6	42.9	225
2015	7.0	37.7	180	6.6	32.1	111	7.5	39.2	230

Annual average Concentration level of Ambient Air Quality at 06 different locations of Jodhpur Under NAMP from year 2010 to year 2015

Jodhpur

	N	lahama	ndir	Sojati	gate (Re	sidential	R.O.Office (Industria		
Year	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (µg/m3)
Standards	50	40	60	50	40	60	50	40	60
2010	5.2	20.3	199	5.8	23.9	211	7.0	21.7	208
2011	5.1	22.2	204	5.5	24.2	217	5.9	22.8	196
2012	5.6	23.2	227	6.3	25.8	237	5.7	22.2	223
2013	5.1	21.8	235	5.8	24.2	229	5.4	22.2	249
2014	6.1	27.0	160	7.1	34.8	249	7.5	30.1	196
2015	5.5	23.2	141	6.0	25.3	192	7.1	23.4	129

Jodhnur

					Jodhpu	r			
	DIC (	Office (I	ndustrial	Shas	tri Naga	r Police	Office of Housing		
Year	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg m3)	PM <sub>10</sub> (RSPM) (μg/m3)
Standards	50	40	60	50	40	60	50	40	60
2010	5.6	22.3	162	5.6	23.9	178	5.0	20.9	149
2011	5.3	23.3	124	5.4	24.0	143	5.1	22.5	127
2012	5.9	23.2	129	6.2	26.3	181	5.7	23.3	141
2013	5.2	22.1	117	5.7	25.3	131	5.2	22.3	109
2014	7.1	33.8	142	7.8	33.3	193	6.4	28.9	
2015	6.0	23.9	133	5.6	23.0	151	5.6	22.4	172

# Annual average Concentration level of Ambient Air Quality at 03 different locations of Kota under NAMP from year 2010 to year 2015

	Re	gional (	Office,	K.V.F	K.V.K.,BORKHEDA, Municipal Corpor					
Year	SO <sub>2</sub> (μg m3)	NO <sub>2</sub>	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (µg/m3)	
Standards	50	40	60	50	40	60	50	40	60	
2010	7.2	~ 29.6	146	6.3	25.9	115	6.1	26.9	121	
2011	8.3	33.1	164	6.5	28.3	128	6.7	29.5	125	
2012	9.1	33.2	177	7.1	30.2	147	7.1	30.2	146	
2013	7.4	36.1	160	6.9	33.5	114	6.8	32.4	110	
2014	7.2	37.7	147	6.4	34.7	120	6.4	33.7	111	
2015	6.8	34.6	145	6.2	32.8	119	6.2	31.5	116	

# Annual average Concentration level of Ambient Air Quality at 03 different locations in Alwar under NAMP from year 2010 to year 2015

	G	aurav S	olvex	Re	gional C	Office	RHC	O Pum	p House
Year	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM 10 (RSPM) (µg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)
Standards	50	40	60	50	40	60	50	40	60
2010	9.0	25.0	278	6.3	26.7	199	8.5	20.8	182
2011	12.1	21.2	246	10.7	19.6	169	12.1	20.4	164
2012	12.5	23.4	163	7.4	20.0	141	11.2	22.8	152
2013	11.8	22.2	295	7.3	19.4	266	11.6	22.4	284
2014	13.4	24.0	255	8.6	20.6	223	12.1	23.6	244
2015	10.1	25.3	200	9.2	24.3	171	9.6	25.2	164

# Annual average Concentration level of Ambient Air Quality at 03 different locations in Udaipur under NAMP from year 2010 to year 2015

		Ambam	ata	1	Town Ha	ıll	]	RO Offi	ce
Year	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg m3)	PM <sub>10</sub> (RSPM) (μg/m3)
Standards	50	40	60	50	40	60	50	40	60
2010	5.1	31.4	78	6.1	34.3	92	6.0	34.3	170
2011	5.0	23.9	111	6.5	36.6	151	6.4	36.7	243
2012	5.1	21.8	121	6.2	35.2	134	6.4	36.1	209
2013	5.4	24.7	114	6.1	35.3	129	6.5	36.2	184
2014	5.3	25.6	87	5.7	34.1	101	6.0	35.5	145
2015	5.5	27.4	112	5.9	34.2	129	6.3	36.2	220

# MONTHLY AVERAGE CONCENTRATION LEVEL OF AMBIENT AIR POLLUTANTS AT 06 DIFFERENT MONITORING STATIONS AT JAIPUR UNDER NATIONAL AMBIENT AIR QUALITY MONITORING PROJECT.

JAIPUR -2016

	T	T			UR -201					
			Ajmeriga			VKIA			Jhalai	na
	Month	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	РМ <sub>10</sub> (RSPM) (µg/m3)	SO <sub>2</sub> (μg/m <sup>3</sup> )	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	<b>SO</b> <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM 1 (RSPN (ng/m
1	JANUARY,2016	`9.9	42.2	216	10.9	45.2	322	9.3	39 0	132
2	FEBRUARY,2016	9.4	40.2	170	9.91	41.0	254	9.5	39 3	124
3	MARCH,2016	9.1	39.0	156	10.3	42.6	288	9.1	39.1	115
4	APRIL,2016	8.6	36.7	177	9.68	38.3	332	8.4	32.8	121
5	MAY,2016	8.1	31.2	244	8.46	34.8	331	8.1	29.5	185
6	JUNE,2016	8.2	32.3	185	8.32	32.1	289	7.6	26.9	126
S.No.	Month		Chandpol	е		MIA		RO C	Office, Ja	ipur
		SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (µg/m3)
1	JANUARY,2016	10.3	43.5	326	9.07	38.0	150	11.1	43.6	272
2	FEBRUARY,2016	9.9	39.7	279	8.68	36.2	114	10.8	41.9	230
3	MARCH,2016	9.2	41.0	274	8.44	35.4	119	10.7	42.2	244
4	APRIL,2016	8.6	38.0	284	7.22	32.1	126	9.3	37.5	292
5	MAY,2016	8.5	32.4	265	7.1	28.1	141	8.9	33 1	310
6	JUNE,2016	7.7	30.5	243	7.1	26.8	134	8.5	31 6	294
S	standard	80	80	100	80	80	100	80	80	100

MONTHLY AVERAGE CONCENTRATION LEVEL OF AMBIENT AIR POLLUTANTS AT 03 DIFFERENT MONITORING STATIONS AT KOTA UNDER NATIONAL AMBIENT AIR QUALITY MONITORING PROJECT.

#### KOTA-2016

					7 4 201						
S.No	Month	Regiona	ol Office, A Kota (17		K.V	KOTA(32	,	Municipal Corporation Building, Kota(326)			
•		- SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM 10 (RSPM) (ug/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM 10 (RSPM) (µg/m3	
1	JANUARY,2016	7.8	47.6	197	6.6	46.0	178	6.0	36.3	186	
2	FEBRUARY,2016	7.7	39.4	213	6.0	40.0	131	6.2	42.2	130	
3	MARCH,2016	7.7	41.0	194	6.1	33.4	122	6.4	37.0	142	
4	APRIL,2016	7.7	43.9	221	6.8	44.9	148	6.6	39.3	121	
5	MAY,2016	7.2	39.3	182	6.68	42.7	128	6.5	39.5	143	
6	JUNE,2016	6.7	33.5	130	6.32	32.3	123	6.1	33.5	104	

# MONTHLY AVERAGE CONCENTRATION LEVEL OF AMBIENT AIR POLLUTANTS AT 03 DIFFERENT MONITORING STATIONS AT UDAIPUR UNDER NATIONAL AMBIENT AIR QUALITY MONITORING PROJECT. UDAIPUR -2016

			Ambamat	ra		Town Ha	all		RO Offic	.e
S.No.	Month	<b>SO</b> <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (µg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)
1	JANUARY,2016	5.6	28.1	145	5.8	34.8	134	6.2	36.2	290
2	FEBRUARY,2016	5.7	29.2	118	6.0	35.2	130	6.6	37.3	201
3	MARCH,2016	5.8	30.7	96	6.1	35.0	94	6.4	35.8	193
4	APRIL,2016	5.7	30.3	118	6.1	34.8	94	6.5	37.2	161
5	MAY,2016	5.5	28.2	129	6.0	34.3	179	6.5	36.2	236
6	JUNE,2016	5.8	27.1	108	6.0	32.2	114	6.5	33.3	135

# MONTHLY AVERAGE CONCENTRATION LEVEL OF AMBIENT AIR POLLUTANTS AT 03 DIFFERENT MONITORING STATIONS AT ALWAR UNDER NATIONAL AMBIENT AIR QUALITY MONITORING PROJECT.

#### **ALWAR -2016**

		0		ALVV		1		,		
		G	aurav Sol	vex	R	egional (	Office	RHCO	Pump H	ouse MIA
S.No.	Month	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (µg/m3)	NO <sub>2</sub> (μg/m <sup>3</sup> )	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)
1	JANUARY,2016	8.9	30,3	227	7.1	28.1	194	8.5	29 5	192
2	FEBRUARY,2016	8.8	32.0	176	6.6	28.8	151	8.4	30.9	161
3	MARCH,2016	8.0	32.8	190	6.6	29.8	136	8.2	31.9	157
4	APRIL,2016	8.4	32.6	172	6.9	30.5	152	8.0	32 6	168
5	MAY,2016	13.3	34.3	171	6.8	32.0	149	8.8	33.5	161
6	JUNE,2016	8.7	33.9	159	6.4	31.9	108	8.0	33.4	139

MONTHLY AVERAGE CONCENTRATION LEVEL OF AMBIENT AIR POLLUTANTS AT 06 DIFFERENT MONITORING STATIONS AT JODHPUR UNDER NATIONAL AMBIENT AIR QUALITY MONITORING PROJECT.

JODHPUR -2016

MOI	VITORING SITES>	Mahama	ndir (Resid	ential Area	Sojat	gate (Res	idential	R.O.Off	ice (Indu	strial Area)
S.NO.	MONTH	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub> (RSPM)	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub> (RSPM)	SO <sub>2</sub>	NO <sub>2</sub>	PM 10 (RSPM)
1	JANUARY,2016	6.0	36.7	176	6.2	38.5	149	6.3	40.9	199
2	FEBRUARY,2016	4.8	22.8	159	5.1	28.6	162	5.0	22.5	206
3	MARCH,2016	4.9	20.3	148	5.0	26.0	163	5.0	19.5	198
4	APRIL,2016	4.8	17.6	118	4.9	19.0	149	4.8	17.7	169
5	MAY,2016	4.8	17.8	165	4.9	19.3	214	7.1	19.2	171
6	JUNE,2016	4.7	18.3	152	4.8	19.7	155	4.8	20.7	227

МОІ	NITORING SITES>	DIC Off	ice (Indust	rial Area)		Nagar Po esidential	lice Station Area)	Office of Housing Board Chopasni Road (Residentia Area)			
5.NO.	HTNOM	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	SO <sub>2</sub> (μg/m3)	NO <sub>2</sub> (μg/m3)	PM <sub>10</sub> (RSPM) (μg/m3)	
1	JANUARY,2016	6.1	38.4	136	6.3	40.5	179	5.9	35.4	148	
2	FEBRUARY,2016	5.4	25.4	136	5.1	26.4	195	4.9	22.6	176	
3	MARCH,2016	5.1	23.2	145	5.1	22.7	179	5.0	19.5	183	
4	APRIL,2016	5.0	18.6	142	4.9	18.2	158	4.8	18.1	145	
5	MAY,2016	5.0	18.2	206	4.9	19.0	202	4.9	17.6	228	
6	JUNE,2016	4.8	18.8	166	4.8	19.7	198	4.8	21.1	164	

## Annexure-B

## Population Census, 2011

District	Total	Rural	Urban
Jaipur	6,626,178	3,154,331	3,471,847
Jodhpur	3,687,165	2,422,551	1,264,614
Udaipur	3,068,420	2,459,994	608,426
Alwar	3,674,179	3,019,728	654,451
Kota	1,951,014	773,410	1,176,604

Statement - 1
Population and decadal change by residence: 2011 (PERSONS)

State/ District		Population 2011				
	Total	Rural	Urban	Total		
2	3	4	5	6	7	0
JASTHAN	68,548,437	51,500,352	17,048,085		19.0	8 29.0
ganagar	1,969,168	1,433,736	535,432	10.0	7.3	
umangarh	1,774,692	1,424,228	350,464	16.9	17.3	. 18.1
ner	2,363,937	1,563,553	800,384	24.3	23.9	15.5
ru	2,039,547	1,463,312	576,235	20.3		25.0
jhunun	2,137,045	1,647,966	489.079	11.7	21.5 8.5	17.3
ır	3,674,179	3,019.728	654,451	22.8		23.8
atpur	2,548,462	2,053,363	495,099	21.4	18.1	50.5
lpur	1,206,516	959,066	247,450	22.7	21.4	21.1
ıli	1,458,248	1,240,143	218,105	20.9	18.9	40.1
Madhopur	1,335,551	1,069,084	266,467	19.6	19.9	26.8
	1,634,409	1,432,616	201,793	23.5	18.2	25.3
	6,626,178	3,154,331	3,471,847	26.2	20.7	48.6
	2,677,333	2,043,427	633,906	17.0	18.6	33.9
ır	3,307,743	2,670,539	637,204	19.2	12.6	34.1
ur	3,687,165	2,422,551	1,264,614	27.7	16.2	33.5
ner	669,919	580,894	89,025	31.8	26.9	29.4
r	2,603,751	2,421,914	181,837	32.5	34.5	16.5
	1,828,730	1,676,975	151,755		33.1	25.1
	1,036,346	827,692	208,654	26.2	25.2	38.0
	2,037,573	1,577,567	460,006	21.8	182	38.3
	2,583,052	1,547,642	1,035,410	11.9	10.4	17.7
	1,421,326	1,103,603	317,723	18.6	18.7	18.4
	1,110,906	888,205	222,701	17.3	15.1	25.5
га	2,408,523	1,895,869	512,654	15.4	13.4	24.0
and	1,156,597	972,777	183,820	19.2	18.0	23.6
pur	1,388,552	1,299,809	88,743	17.7	13.9	42.8
ra	1,797,485	1,669,864	127,621	25.4	26.6	9.8
garh	1,544,338	1,259,074	285,264	26.5	27.2	18.9
	1,951,014	774,410	1,176,604	16.1	15.2	20.2
	1,222,755	968,541	254,214	24.4	6.1	40.3
	1,411,129	1,181,838	229,291	19.7	14.0	47.8
				19.6	16.8	36.3
rh						26.8
rh		3,068,420 867,848	3,068,420 2,459,994	3,068,420 2,459,994 608,426	3,068,420 2,459,994 608,426 23.7	3,068,420 2,459,994 608,426 23.7 22.9

### Annexure-C

Registration of vehicles in the state (category wise) upto May, 2016

			1	, , , , , , , , , , , , , , , , , , , ,	, -010
District	Two Wheeler	Three Wheeler	Light Motor Vehicle	Heavy Motor Vehicle	Total
Jaipur	1910739	27744	546191	129736	2614410
Jodhpur	727677	12974	207376	90870	1038897
Udaipur	583830	7640	123808	36702	751980
Alwar	564327	2250	117971	26722	711270
Kota	628802	9871	128359	26068	793100

ANNE	THE PARTY IN	, B	DISTRI	OT AND	CAT	AGORY	WISE	REGIST	RATION	UF J	/EH(CLE			2016			Arn.
ATTEN	Die .				111	- October	Car				Fradore	Taxi		uses	Emeso	Onie	Total Control
A	Rick		eter Ric	Asha.	Pass.	Goods	F	-				Curlille			JA 1017.54	Unite	rs Total
Japy	51			575	6187	14581	3382	8	9	-	10	31		12	13	7.4	15
Dudu	-0	7.5	243	6	3	1 14501	104				5611	32424		1485	84274	5838	2448559
Kotputali	0	676	547	57	74	959	468	-			136	154		76	511	4	20977
Chomu	0	218	197	6	3		121			-	4	1994		146	14571	840	
Shahpura	0		-0	0	0	13	661	420			33	94		41	190.1	35	17481
Total Dausa	55		V 20 1		6267	15654	34586	2 8054	1 5989	5	3084	34888		931	102805		
Swaimadho	ppur 0		100	257	437	225	5464		1629	8	119	2402	10	398	565	474	218730
Karouli	0	1523		12	393 647	190	5173				827	2369	20	330	4930	463	198633
Total	0	4339			1477	428	13969			_	116	1407		05	1980	- 8	127354
Sıkar	0	2477	27 1 58		1335	314	18609	-	_	-	1062	6178		33	12601	1045	544727
Jhunhunu	0	2016	30 33	87	1075	623	16849			_	449	3213 3518		93 82	15998	959	342289
Churu	15	925	33 75	66	177	250	7397			-	76	1660	25		9655	1053	283068
Sujangarh	0	163			38	10.	1058	608	1232		0	155	9		783	281	151191
Alwar	15	5582			625	1206	43913	39942	69171		968	8546	123	46	39779	2356	797048
Shahihanpul	0	5376			909	1301	34125	9555	61271		1717	2474	31	66	22334	1221	677776
Bhiwadi	0	2660	34 24		0	0	0	.0	0	4	0	0	0		0	g.	0
Total	2	5643			022	111	2823	1066	2362	+	0	144	29	4	928	193	34910
Bharatpur	2	2733			167	574	36948			$\rightarrow$	1717	2618	346		23262	1414	712686
Dholpur	0	9773			365	83	3008	10403 3824	49110 15923	_	1834	1252	225	_	16807	142	369764
Total	2	3711	31 227	1 8	32	657	14367	14227	65033	_	78 1912	899 <b>2151</b>	317	$\rightarrow$	8731	197_	132474
Amer	0	4976	28 533	2 1	572	5001	39407	13974	20634		1532	4908	349		25538 18641	939	502238
Beawar	0	11245	186	0 5	43	1475	4159	3805	2662		54	1227	754		3136	1315	613436 132793
Nagour	0	21768			01	1206	12910	15391	98404		1061	2951	207		4569	1055	369299
Didwana Tonk	0	12072			81	287	5762	4356	7330		13	678	473		4421	608	145828
Kishangarh	0	19611			52	219	4883	3986	21246		884	1183	134	5	4730	395	235599
Kekri	0	1454			0	137	1500	921	1273	-	0	74	43		949	94	30172
Total	0	118398			35	55 <b>8380</b>	262 <b>68983</b>	500	1441	+	35	42	15	_	318	82	17322
Jodhpur	0	71255			53	10366	74551	42933 29713	152990		3579	11063	8196	_	6764	4217	1544449
Barmer	Q	13299			06	955	6184	5990	64738 16491		769	11358 5504	7961	-	7407	3203	995815
ARAMO,	U	4400	199	5	22	358	2732	2418	8680	+	186	2271	1367		4717 5745	722 599	189761
Balotra	0	26140		18	36	145	1383	972	1346	T	23	293	54		355	97.	70042 32390
Phalodi Total	0	15122		1		107	602	482	4287		0	123	80	-	644	121	22628
Pali	0.	93081				11931	85452	39575	95540		9657	19549	10002	2 80	0868	4742	1310636
Sirohi	0	351768 115938				2939	12852	6663	17984		2440	4537	1590	7	746	899	413165
Jaiore	0	114720				1100	5093	5045	10115	1	1245	3400	1062	3	502	469	151559
Aburoad	0	17348	407	19		1129	5738 1446	7652 344	22641	+	1706	3151	956		750	341	166193
Bhinmal	0	24627	284	13		56	733	1040	625 3346	+	0	366 127	38 92		63	56	21499
Total	0	624401	9832	293	0	5339	25862	20744	54711	5	5395	11581	3738		005	74 1839	31961
Udaipur	1	583830	7640	309	5	3052	67595	19001	17283	-	5024	8758	5973			1923	<b>784377</b> 753904
Dungerpur	0	169865	1	69		870	6561	5118	7709	3	3455	2227	1653			540	205538
Ratanpur Banswara	0	0	0	0	-	0	0	0	0		0	0	0		0 1	9	0
Rajsamand	0	224455 159335	3312 1699	875		990	9260	6604	8674	4	018	2076	1721	4.7	61	244	266992
Total	3	1137485	-	682 534		1393 5305	7676	4826	8546	_	295	1831	1036	53	48	139	194806
Chittorgarh	1	292283	3580	139			15859	35549	42212	_		14892	10383	449	917 2	816	1421240
Pratapgarh	0	62236	141	80	-		1315	2333	30470 <b>6438</b>			2549	1991	13.		Seci -	388823
Bhilwara	0	456740	3844	118			34029	16179	35376		790	500 2601	350	111		181	75550
Shahpura	0	24268	27	12		28	388	996	2606		0	31	2638	177		839 94	581212 28973
otal	1	835527	7691	2674	7	453 5	1391	31893	74890	13	455	5681	5030	330			1072558
Kota	4	565902	9803	3391	1	910 5	7098	17733	26785	86	518	3998	3781	197		474	720291
halawar	0	181585	1149	479		richer III c	7462	4525	22125	26	522	1417	640	436	88 8	57	227944
laran	0	169605 164647	786	317			5929	8839	20016			1229	1222	566	3 5		218513
Rampanimandi	0	62900	68	40			3302	5836	24571			1475	792	20		67	207627
otal	4	1144639	12414	4492				1550 38483	3418			155	221	227		96	74483
likaner	0	282325	9529	1650		W-0	0850	11986	96915 38183			3274	6656	3416		-	1448858
Sanganagar	8	291361	4875	1077		0.00	1000	17277	77772	34		1923	3228	2966			406686
anumangarh	0	134340	1057	447			1614	5487	28381	1.		796	4013 1640	2192			447228
ohar	0	14813	75	36	1 2		394	687	3747	0		36	172	1009			195135
okha otal	0	6009	58	27	100		511	307	1325	C		56	61	574			9262
Total	90	728848	15903	3238				35744	149408	433	33 7	815	9114	5364			080411
		10424069	142614	39920	65	705 91	3543 4	03259	977520	768	22 13	3236 1	03567	5254			840381

Anna

## Annexure-E

Name of City	Total no. Of vehicles registered from 4/2010 to 3/2016					
= = = = = = = = = = = = = = = = = = = =	Petrol	Diesel	Total			
Jaipur	801383	174236	975619			
Jodhpur	317520	95397	412917			
Udaipur	228488	44296	272784 319331 220937			
Alwar	272559	46772				
Kota	189844	31093				

Table 2.1

# COMPARATIVE CHART OF ROAD, VEHICLE & POPULATION

5 10	District	Population 2011 (IN '000)	Area (in Sq. Km)	Road Length* (Kms.) Upto	Vehicle Registered Upto Mar.	Vehicle per 1000	Road Length Per 100	Road Leng
DE L				31.03.14	2014	Person	Vehicle	Km. Area
2		3	4	5	6	7		
10.1	Ajmer	2585	8481	4488	654058	253	8	9
Z	Alwar	3672	8380	5609	556144	151	1	53
3	Banswara	1798	5037	3351	214454	119	1	67
4	Barmer	2604	28387	9924	166120	64	2	67
5	Bharatpur	2549	5066	3273	302804	119	6	35
-	8hilwara	2411	10455	5360	474355		1	65
N/A	Bikaner	2368	27244	6402	355795	197	1	51
8	Bundi	1114	5550	2248	177749	150	2	23
3	Chittorgarh	1544	10856	3207	311666	160	1	41
28	Churu .	2041	16830	4217	126336	202	1	30
22	Dholpur	1207	3034	1915	102466	62	3	25
	Dungarpur	1389	3770	2912	157350	85	2	63
	Ganganagar	1970	7984	4387	377034	113	2	77
器	Hanumangarh	1780	12650	3267	165420	191	1	55
15	Jaipur	6664	11143	6105	2222060	93	2	26
16	Dausa	1637	3432	2991	169034	333	0	55
2	Jaisalmer	672	38401	4871	52937	103	2	87
Œ J.	lalore	1830	10640	3856	148177	79	9	13
3 1	lhalawar	1411	6219	3020		81	3	36
J	hunjhunu	2140	5928	4079	175509 216043	124	2	49
1	odhpur	3686	22850	8358		101	2	69
≥ K	ota	1950	5443	2363	860612	233	1	37
B	aran	1224	6992	2600	654159	335	0	43
E N	agaur	3309	17718	7982	168292	137	2	37
P	ali	2039	12387	5116	397424	120	2	45
S.	Madhopur	1338	4498	2296	454455	157	2	41
Sil	kar	2678	7732	4464		115	1	51
Sir	rohi	1037	5136		254412	95	2	58
To	nk	1422	7194	1971 2712	400455	131	1	38
Ud	aipur	2000	13419		222121	132	1	38
Ra	jsamand	1450	3860	6708	150000	203	1	50
Kar	rauli	4450	5524	2923		133	2	76
Par	tapgarh	868	5524	2345		65	2	42
Tot			42240 1	2234		64	4	-
CD.	Roads	1 3	12240 1	37554	11184430 1	63 '	1	40