



SOCIAL IMMERSION PROJECT REPORT

**“Assessing the Impact Of ‘Air Pollutants’ on the Health of
Autorickshaw Drivers, Mangaluru”**

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Dr. Samir Ranjan

Dr. R. Satish Kumar



CERTIFICATE

This is to certify that Mr./Miss **Ajay Ballal, Imad Ul Huq Kola, Poornima Yadav, Priya Cutinho, Rohan Bhaskar Shetty, Shodhan Shetty & Vishwaroop Shetty**, PGDM, IFIM Business School, have undergone a “Social Immersion Project” (SIP) at **APD Mangaluru** on the topic “**Assessing the Impact Of ‘Air Pollutants’ on the Health of Autorickshaw Drivers, Mangaluru**” under the guidance of **Dr. Githa Heggde, Dr. Samir Ranjan & Dr. R. Satish Kumar** towards partial fulfillment of the award of the Post-Graduate Diploma in Management during the academic year 2016 – 2018.

Faculty Mentors: Dr. Githa Heggde (Dean- Research and International Affairs)

Dr. Samir Ranjan (Dean- Academics)

Dr. R. Satish Kumar (Professor- Marketing)



ACKNOWLEDGEMENT

Don't worry about not being acknowledged by others: worry about failing to acknowledge them"

- Confucius

Gratitude can never be expressed in words, but this is the only perception which makes the words to flow from one's inner heart. We owe a deep sense of gratitude to those who have contributed to the successful completion of this endeavor and take this opportunity with much pleasure to thank all the people who have helped us through the course of journey towards producing this project report.

At the onset, we express our gratitude to the Almighty God for his abundant grace, blessings and goodwill throughout this project.

We are grateful to our mentors **Dr. Githa Heggde, Dr. Samir Ranjan & Dr. R. Satish Kumar**, IFIM B School for their constant support, encouragement and guidance.

And to **Mr. Abdullah A. Rehman** who gave his valuable time for the interaction and allowed us to carry out this project.

Our appreciation and thanks goes to **Dr. Don Gregory Mascarenhas of Father Mullers Hospital and Mr. Sujith of Lupin** for helping us with the medical tests. Our heartfelt gratitude to all the autorickshaw drivers who have contributed a lot in the study by their active participation.

We would also like to thank all who helped us directly or indirectly in completing this project successfully.

Investigators

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ABOUT THE ORGANIZATION

Anti-Pollution Drive known as APD, is an Indian non-profit organization founded on 2 October 2014 by an Indian eco-activist **Abdullah A Rehman**. APD is equipped with environmentally aware and have conscientious volunteers helping to control the air pollution across the cities of India. APD aims at spreading awareness about pollution and its negative impact on human health and on the earth among the Indian citizen.

History

The Anti-Pollution Drive (APD) was established in October 2014 and has been continuously making awareness about the negative impact of the pollution.

Activities

- ✓ Striving towards creating and offering solutions to all sorts of pollution.
- ✓ Creating awareness and sensitize the public about the negative impact of pollution through workshops, mass media and internet.
- ✓ Fostering a participatory mass movement against smoke emitting vehicles.
- ✓ Coming up with creative and effective strategies to fight pollution.
- ✓ Making pollution an urgent public issue and fostering the engagement of government and non-government agencies for addressing it.
- ✓ Pollution prevention at all levels – personal, industrial and institutional.
- ✓ Conducting research in pollution and compiling authentic data on pollution and its harmful impact.

ABOUT THE PROJECT

As we all know our environment is very necessary for our healthy existence on earth. It gives us everything- air, water, land, plants, and sky for our healthy survival. But what we have given it back? We have returned it back a threat i.e. **POLLUTION** in the form of air, water, soil and many other forms of environmental pollution. The polluted air we breathe goes to our whole body and affects the respiratory functions. It becomes the reason of origin of many diseases like cancer, respiratory problems, lungs disorders, bronchitis, asthma and many more. As a human, it is our main duty to keep our environment safe for our future generation and bring out the solutions to stop and reduce it.

As many of us experience air pollution-related symptoms such as watery eyes, coughing, or wheezing. The actual risk depends on the person's current health status, the pollutant type and concentration, and the length of exposure to the polluted air. Those most vulnerable segments are - Outdoor workers (Traffic Police, Auto/Bus/Taxi Drivers, Street Vendors, Street Sweepers and Construction workers), children under age 14 (whose lungs are still developing), individuals with heart disease, individuals with lung disease, pregnant women and those engaging in outdoor recreational activities (jogging and walking outdoors). The first phase of the project aimed **to assess the impact specifically on the health of the Traffic Police and Traffic Wardens in Bengaluru.**

Taking it forward, now we are assessing the impact of air pollutants on the auto rickshaw drivers in Mangaluru.

The aim of the project is to:

- ✓ Conduct health tests like the PFT (pulmonary function test) to capture the actual impact and to collect relevant data through survey.

- ✓ Develop new health impact indicators with focus on the affected patients and reporting to the assigned authority to take the potential action.
- ✓ Provide guidelines to the samples as well as to the health professionals on helping patients to reduce the exposure to air pollution.
- ✓ Evaluate strategies designed to reduce air pollution.

PROJECT MODULES

The Components of the project include the following modules-

Module No.	Name	Deliverables/Outcomes
1	Assessing the perception of Air Pollution through a manual survey	Survey Results
2	Conducting the Pulmonary Function Test (PFT)	Actual Health Impact on Lungs, most affected individuals
3	Provision of medication	Temporary relief (adaptation)
4	Provision of scientific pollution masks	Temporary relief (adaptation)
5	Identification of the sources of pollution and the levels - including site study, monitoring using sensors, etc.	Solution possibilities for mitigating air pollution

METHODOLOGY

Our Approach is to evolve an action plan along with the stakeholders based on our strategy for deployment.

→ Connect to all stakeholders

- Impact Group – Autorickshaw drivers
- Hospital / Pulmonologist to conduct PFT
- RTO / Traffic Department
- Pollution Control Board
- Media

→ Perception Survey and PFT

→ Collation and analysis of the results

→ Identification of locations of the most affected individuals

→ Distribution of masks and medication

→ Preparation of Reports

STAGE -I
(PLANNING)

Planning Stage:

In PFT 2.0 we conducted PFT (Pulmonary Function Test) on Auto drivers of Mangaluru to



know effect of air pollution on their health. Before going to the field, we discussed and made some strategies. We also made a note of rickshaw stands in Mangaluru. Then we arranged for a meeting with the **Traffic Police Commissioner** to discuss about our project and ask permission regarding the same. Our team met **doctors of Father Muller**

hospital and KMC hospital to arrange for technician to do our project. We got a positive response from **Dr. Don of Father Muller hospital** for the technician to conduct our PFT test.



Discussion with Mangaluru Traffic Commissioner of Police Mr. K. Tilakchandra

LIST OF AUTORICKSHAW STAND TO BE COVERED:

- Father's Muller
- Bunts Hostel
- Lady Hill Circle
- Urwa Store
- KMC Attavar
- KSRTC
- Bejai
- PVS Circle
- Hampankatta Signal
- Nanthoor
- Central Railway Station
- Yeyyadi Junction
- Sri Krishna Bhawan
- Kankanady Railway station
- Kottara Chowki

TAKE PERMISSION TO CARRY OUT THE RESEARCH

FROM:

- ✓ Commissioner of Police- Mangaluru
- ✓ Traffic Police commissioner
- ✓ M.P.



At Deputy Commissioner's office with (Former Traffic Police commissioner Mr. Uday Nayak)

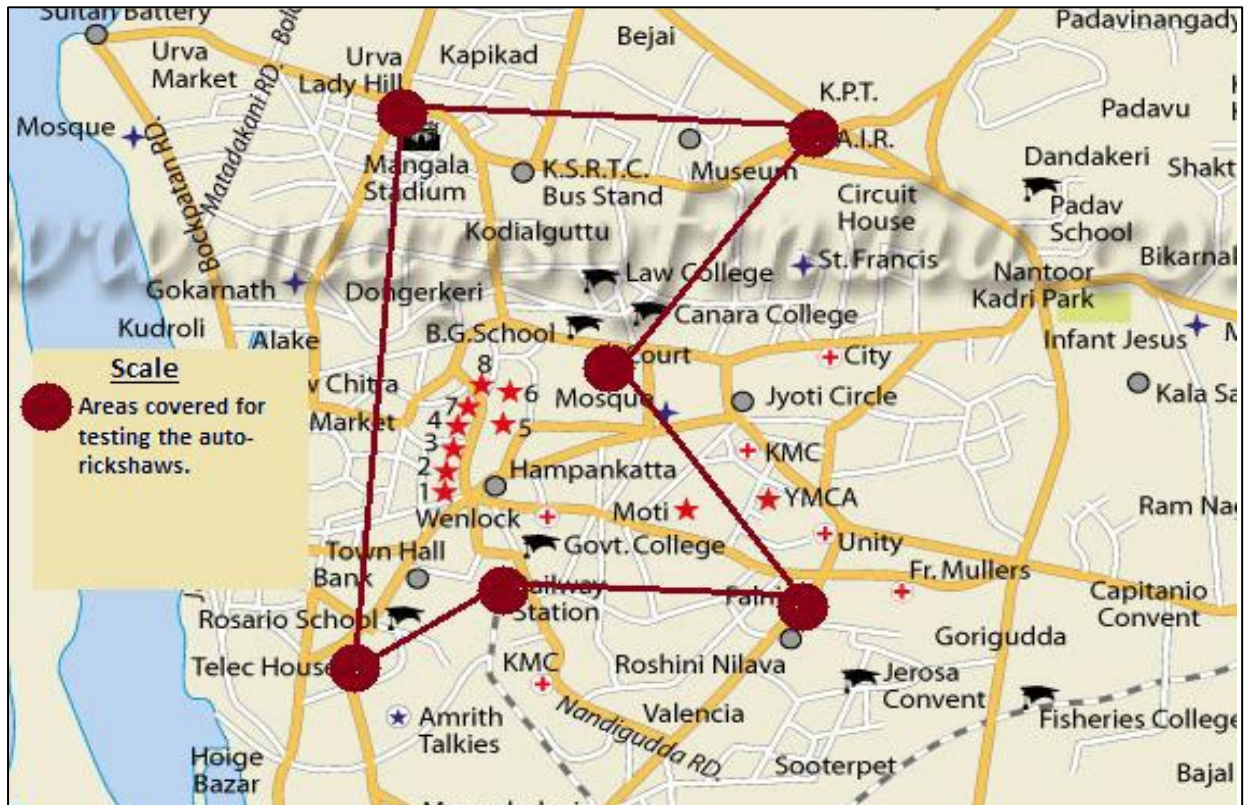


Presenting Proposal to MP Mr. Nalin Kumar Kateel

STAGE -II
(INVESTIGATING)

OVERVIEW OF THE SITE:

A sample of 510 was collected from the highlighted locations. The locations were chosen based on the concentration of the auto's in the stands.



- We were tasked with attending rickshaw stands that were distributed over the city and entertain the drivers to take the PFT.
- The team had decided on a daily target of 30 successful tests to be carried out on the drivers.
- We dedicated 6 hours of daily field visits in 2 shifts (4 hour and 2 hour) to achieve our daily target.
- At the end of the day we furnished our day's proceedings to our respective mentors by uploading our experience reports onto the LMS.

- We carried ourselves in the most disciplined fashion and made sure to display uniformity in our appearance. The team could be identified with the help of badges that were furnished by the NGO.
- Our daily test reports were updated onto the master Excel file that we used for our end analysis.
- The entire team functioned like a single unit- switching between tasks and responsibilities ranging from pitching the test to the drivers to assisting the technician in carrying out the test.
- We would like to give a special mention to the **Lupin technician- Mr. Sujith** who the key played in the entire field study. We would also like to thank **Mr. Abdullah from APD** for his continuous support in all ventures during the study.



Testing Auto Rickshaw Drivers at
Father's Muller Auto Stand



Auto rickshaw driver taking the test at
Karangalpady rickshaw stand

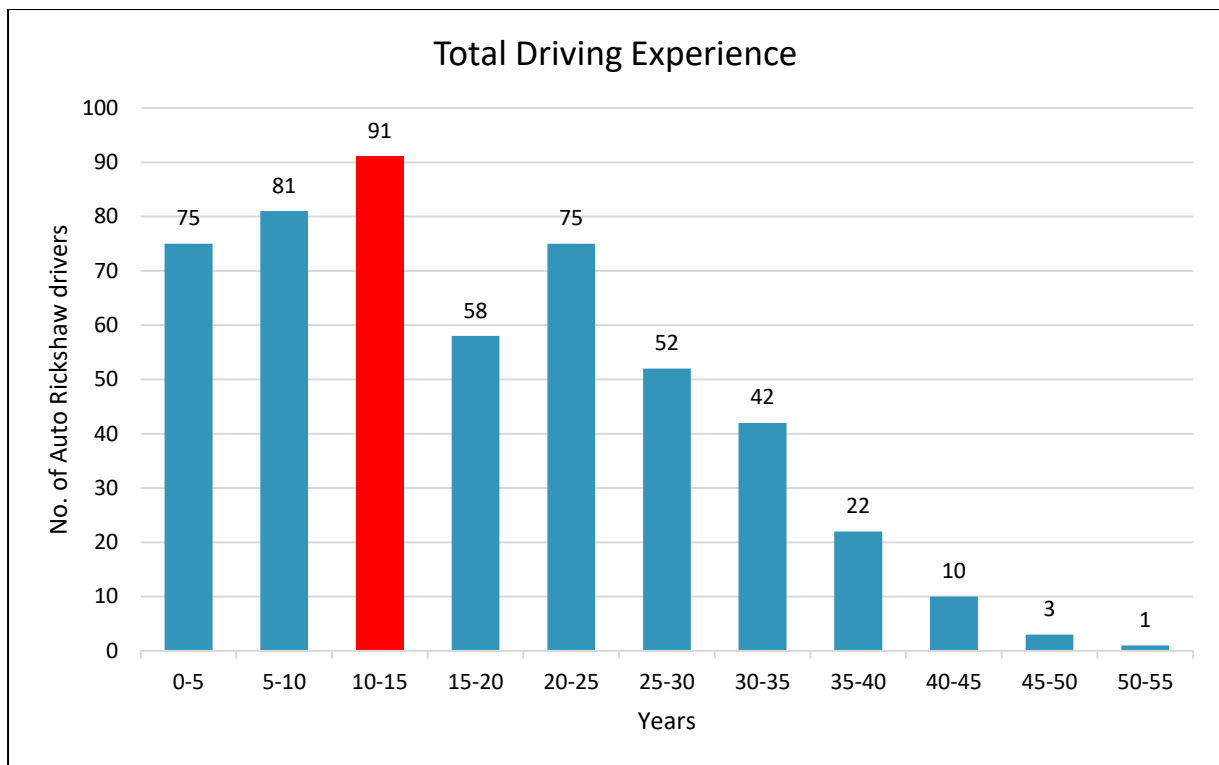


Explaining the procedure and distributing juice at Lady Hill Circle



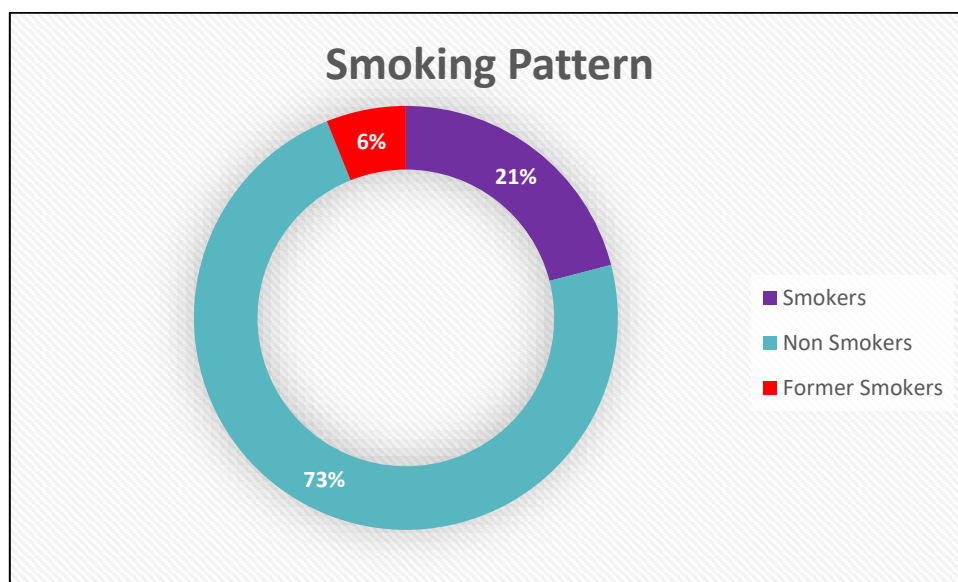
Performing test at Mallikatte Market rickshaw stand

**STAGE -III
(ANALYZING)**



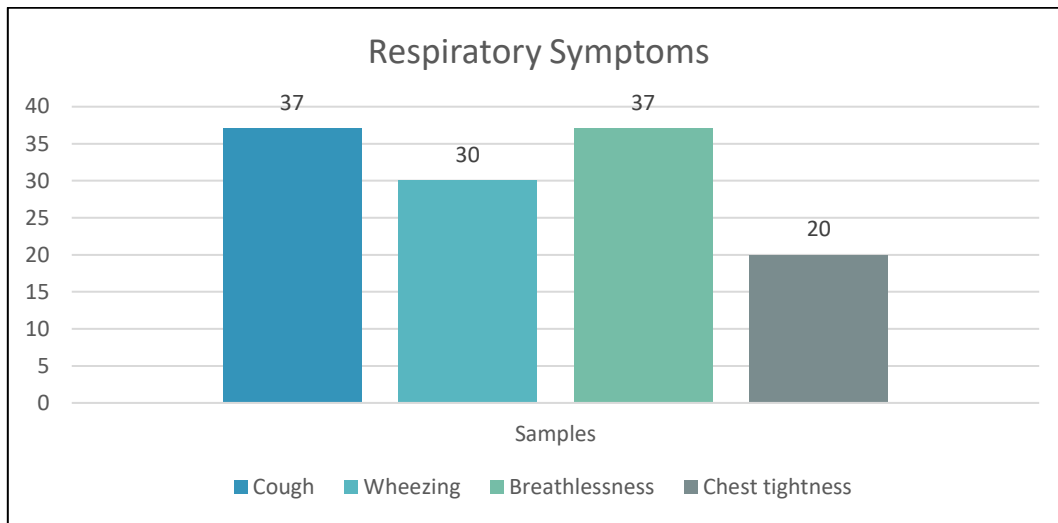
Bar diagram highlighting the experience level of the assessed sample

Data presented in the figure states that the majority of auto rickshaw drivers have an average driving experience of 10 to 15 years.



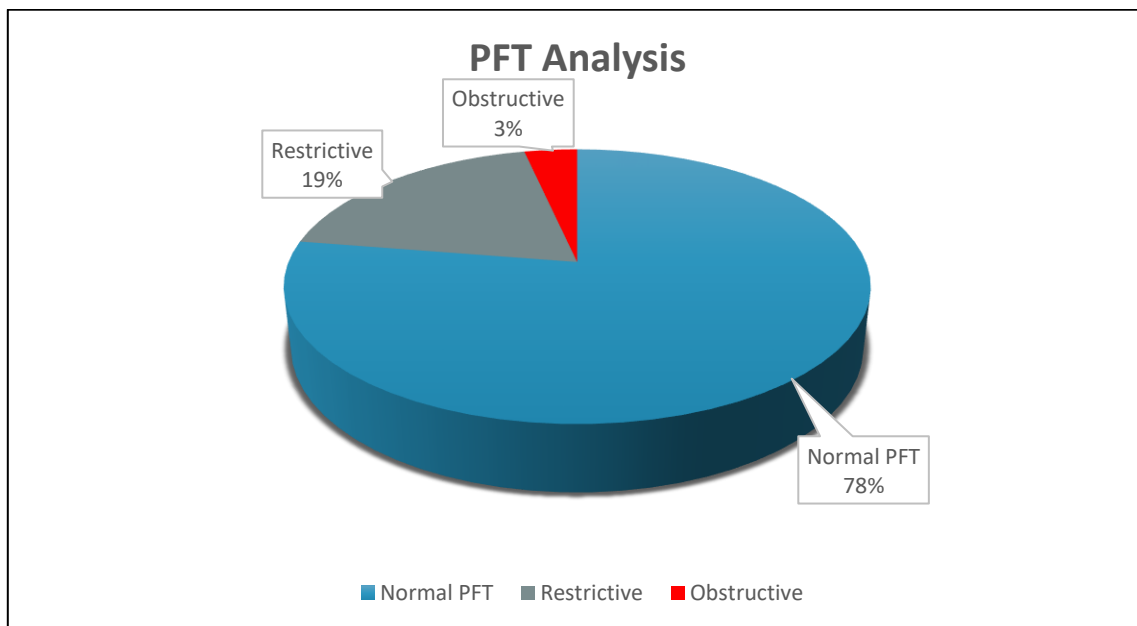
Pie diagram showing percentage distribution of smoking pattern

Data presented in the figure states that the majority of auto rickshaw drivers do not have a smoking habit. The number of non-smokers in the sample are 372 (73%).



Bar diagram depicting respiratory illnesses

The above column chart reflects the concentration of samples for respiratory ailments. The two most common ailments faced are cough and breathlessness (37 out of 510)



Pie diagram showing percentage distribution of pulmonary disorders.

From the sample size of 405, we found 314 patients exhibiting normal lung functioning. 77 (19%) patients exhibited restrictive lung functioning and 14 (3.46%) exhibited obstructive lung functioning.

STAGE -IV
(GENERATING SOLUTION)

TEV REPORT

**(Technical, Economic, Financial
&Operational Feasibility)**

Challenges Faced (Hindrances):

In our SIP Project, we dealt with the issue of “Assessing the impact of Air Pollution on the Health of Auto Rickshaw Drivers, Mangaluru”. The doctors report suggests that out of 405 valid samples collected from 510 auto rickshaw drivers, 19% (77) have restrictive lung function and 3.45% (14) have obstructive lung function. This data clearly shows that around 1/5th of the total sample population has been adversely effected by air pollution. To reduce the further impact of the pollution on the affected and as a precautionary measure for others it is better to take up preventive action.

Possible Solutions:

1. Air Pollution Masks

Air pollution masks help to reduce the intake of pollution particles while breathing. Air pollution masks are like surgical masks but they are designed to protect the users from air pollutants. These masks are available from multinational companies like **3M, Dettol, On Mask** and are priced at **Rs.200** and above. These masks can be used by the auto rickshaw drivers while driving which will reduce the inflow of polluted air. This will be beneficial to both the affected and as precaution to the auto rickshaw drivers.

To the affected

- It reduces the further increase of respiratory issue by preventing pollutants from entering the lungs.
- It helps to recover from the respiratory problems by providing better quality of air.
- The health of the drivers will improve as they get better quality air.

As precaution

- It will prevent polluted air from entering the lungs.
- There will be a reduced chance of getting affected by respiratory disorders.

The main challenge that is faced with the air pollution masks is the climatic condition of Mangaluru. With the inputs from the ACP of Mangaluru Police who used the air pollution masks, we found that the air pollution masks prevent tanning of the area where mask is used leaving a white patch on the face. This discourages the users to use the mask as it will affect their appearance even though it is saving them from harmful effects of air pollution.

To overcome the challenge faced we can develop full face masks which will not leave tan patches at same time prevent the face from sun burns, tanning which will be an added advantage. The material for the mask should be a porous cloth which can be washed and re used. There must be proper ventilation to ensure that the user does not face excess heat due to use of mask.

2. Air Purifiers:

An air purifier or air cleaner is a device which removes contaminants from the air in a room. These devices are commonly marketed as being beneficial to allergy sufferers and asthmatics, and at reducing or eliminating second-hand tobacco smoke. The commercially graded air purifiers are manufactured as either small stand-alone units or larger units that can be affixed to an air handler unit (AHU) or to an HVAC unit found in the medical, industrial, and commercial industries. Air purifiers may also be used in industry to remove impurities such as CO₂ from air before processing. Pressure swing absorbers or other adsorption techniques are typically used for this.

These air purifiers are mainly targeted at the sufferers of air pollution. The drivers can use these purifiers to breath pure air which will help them to recover from respiratory problems. It is suggested to be used by the un affected to be safe against the pollution.

To get the air purifier installed in an auto rickshaw certain changes need to be made including closed compartment which will be a costly affair for the auto drivers. The compartment also need to be ventilated for the users to breath in.

The cost of the air purifiers starts at **9000 INR**. It is suggested that the auto rickshaw manufacturers change the design of the auto rickshaw to make it a closed compartment which will also increase the safety of the occupants and reduce the inflow of dust and other polluting materials inside an auto rickshaw.

Conclusion:

The above two are the presented solutions to prevent from harmful effects of air pollution. It will be great if the pollution itself can be reduced which can be by use of Electric Vehicles, which are still in their infant stages. The pollution will be reduced by increasing use of public transport, bicycles and non-polluting vehicles. The electric vehicles which are expected to take over all the fossil fuel vehicles in the coming decade are the saviors of the planet to a large extent from not only pollution but also from the major challenges of Global Warming, climatic changes etc.

ANNEXURE



Anti Pollution Drive (APD) Foundation
City Light, Balmatta Road,
Mangaluru 575 001, Karnataka, India

20-04-2017

COMMISSIONER OF POLICE
MANGALURU, DK

Respected Sir

We are a non-profit organisation called Anti-Pollution Drive (APD) Foundation working on environmental conservation.

This is for your kind information and reference we have 34 MBA student interns from around the country who have joined us to initiate 8 projects which will benefit the city and the country.

They will be visiting different places around the city and interacting with people, also will be carrying our awareness drives. We have also launched a project to assess the carbon footprint of public transport vehicles and the health impact of air pollution on rickshaw drivers.

We have provided our identity badges to all the volunteers for identification purposes.

Thanking you

Yours Faithfully



Abdullah Rehman
APD Foundation

Handwritten signature and date: 20/04/17

QUESTIONNAIRE

Name:

Subject No:

Age:

Gender:

Years of experience:

Ethnicity:

COUGH

- Do you usually cough as much as 4 to 6 times a day, 4 or more days out of the week? Y/N
- For how many years have you had this cough?No. of years

PHLEGM

- Do you usually bring up phlegm from your Chest? Y/N
- For how many years have you had trouble with Phlegm?No. of years

EPISODES OF COUGH AND PHLEGM

- Have you had periods or episodes of cough and phlegm lasting for 3weeks or more each year? Y/N
IF YES TO A
- For how long have you had at least 1 such episode per year?No. of years

WHEEZING

- Does your chest ever sound wheezy or whistling?
1. When you have a cold? Y/N
 2. Most days or nights? Y/N
- IF YES TO 1 or 2
- For how many years has this been present?No. of years

BREATHLESSNESS

- Are you troubled by shortness of breath when on the level or walking up a slight hill? Y/N
- Do you ever have to stop for breath after walking about 100 yards (or after a few minutes) on the level Y/N

CHEST COLDS AND CHEST ILLNESSES

- If you get a cold, does it usually go to your Chest? (Usually means more than X the time.) Y/N

PAST ILLNESSES

- Did you have any lung trouble before the age of 16? Y/N
- A. Have you ever had asthma? Y/N
IF YES to A:
- B. Do you still have it? Y/N
- C. Was it confirmed by a doctor? Y/N
- D. At what age did it start?age in years
- E. If you no longer have it, at whatage stopped

TOBACCO SMOKING

- A. Have you ever smoked cigarettes? (No means less than 20 packs of cigarettes or 12 oz. of tobacco in a lifetime or less than 1 cigarette a day for 1 year. Y/N

FAMILY HISTORY

Were either of your natural parents ever told by a doctor that they had a Chronic lung condition such as:

	FATHER				MOTHER		
	Yes	No	Don't know		Yes	No	Don't know
• Chronic Bronchitis?	_____	_____	_____	_____	_____	_____	
• Emphysema?	_____	_____	_____	_____	_____	_____	
• Asthma?	_____	_____	_____	_____	_____	_____	
• Lung cancer?	_____	_____	_____	_____	_____	_____	
• Other chest Conditions?	_____	_____	_____	_____	_____	_____	

ABOUT THE ORGANISATION

Name of the legal entity: Anti-Pollution Drive (APD) Foundation

Website: <http://www.antipollution.org/>

Date of formation: 2nd October (2014), registered officially on the 16th October 2015

Mission: *To work towards mitigating air pollution and improvise public, environment and economic health in India.*

Vision: *A clean and healthy environment*

Organization structure:

APD foundation have four core teams: these are specified below:

- Public Health Team
- Awareness Team
- Legal Team
- Solutions and Strategy Team

Contact Details:

Name of the person heading the organization: Mr. Abdullah A Rehman

Regd, office address: 2nd Floor, City Light Building, Balmatta Road, Mangaluru

Email address: info@antipollution.org

Phone No: +91 82442 70008 | 97400 00008

REFERENCES

- <http://www.antipollution.org/>
- <http://slideshare.com>
- Wikipedia and the Google search engine

MEDIA COVERAGE

APD Foundation to assess effect of air pollution on health of auto drivers

Vinobha.KT@timesgroup.com

Mangaluru: After conducting a pulmonary function test on the traffic police of Mangaluru city, the Anti-Pollution Drive Foundation has initiated a programme to assess the impact of air pollution on the health auto rickshaw drivers in the city.

The project was initiated with the student interns of IFIM Business School, who were interning with the foundation. The testing is done at the various auto stands across the city.

Abdullah A Rehman, founder, APD Foundation, told TOI that the study is being conducted under the guidance of Dr Don Gregory, pulmonologist at Fr Muller Hospital. "Auto rickshaw drivers are continuously exposed to air pollution and are vulnerable to its ill effects. Sujith



ASSESSMENT: Student interns of IFIM Business School conduct tests to know the impact of air pollution on auto drivers

Kumar of Lupin Pharmaceuticals is collecting the data vide the spirometer. This study will further enable us to understand an integrated as-

essment of the impact of air pollution on Mangaluru city," Abdullah said.

Although 250 rickshaw drivers have been screened,

the foundation aims to cover 500 drivers and data such as their age, years of service, tobacco use, non-smoker, asthmatic history, family respiratory history and weight are being collected during the drive. Recently, the foundation has assessed the air quality levels of Mangaluru under their project called 'Shuddha Gaali', where it found reduced air quality levels in the city, he said.

"Air pollution is a rising concern in the country and there are no data available to showcase the impact it has had on the environment and people. We are hoping our data and numbers will fill the gap in the system and help our policy makers to provide appropriate solutions or enforce existing laws to mitigate the air pollution and its rising impact on our city," Abdullah said.

Does poor air quality affect auto drivers? If yes, how?

About 500 auto-men being screened in stands across M'luru

Depthi.Sanjiv @timesgroup.com

TWEETS @depthisMIRROR

#Mangaluru

First it was the traffic police men and now auto drivers. Anti-Pollution Drive (APD) Foundation has initiated the Phase-2 to assess the health impact of air pollution on auto rickshaw drivers of coastal city by conducting the Pulmonary Function Test (PFT) on auto drivers.

The project was initiated with the student interns of IFIM Business School, who were interning with APD Foundation. The testing is done at various auto stands located around the city and mostly at the locations from where they collected the air quality levels - through the Shudha Gaali project.

Speaking to Bangalore Mirror, Abdullah A Rehman, founder, APD Foundation said that study is being conducted under the guidance of Dr Don Gregory, pulmonologist, Fr Muller Hospital. Auto rickshaw drivers are continuously exposed to air pollution and vulnerable to its effect. Sujith Kumar of Lupin Pharmaceuticals Inc is collecting the data vide the spirometer. This study will further enable us to understand an integrated assessment of the impact of air pollution on Mangaluru city, he said

About 250 drivers have been screened and they hope to screen about 500 drivers. Various details such as age, years of service, smoking - non-smoker, asthmatic history, family respiratory history and weight are being collected during the drive.

Abdullah said air pollution is a rising concern in the country and it's our concern there are no data to show the impact it has had on our environment and its people. We are hoping our data and numbers will fill the gap in the system and help our law and policy makers to provide appropriate solutions or enforce existing laws to mitigate air pollution and its rising impact on our city, he said. The Foundation is in talks with a few hospitals who will offer treatment at concessional rates, he said.

ವಾಯು ಮಾಲಿನ್ಯ ಪರಿಣಾಮ ತಪಾಸಣೆ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಪರೀಕ್ಷೆ | ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನಿಂದ ಕಾರ್ಯಕ್ರಮ

■ ವಿಜಯವಾಣಿ ಸುದ್ದಿಬಾಲ ಮಂಗಳೂರು

ನಗರದ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯ ಪರಿಣಾಮ ಅಳಿಯಲು ಆಂಟಿ ಪೊಲ್ಯೂಷನ್ ಡೆವ್ ಫೌಂಡೇಶನ್ ನಿಂದ ಬೆಂಗಳೂರಿನ ಐಎಫ್‌ಐಎಮ್‌ನ ವಿದ್ಯಾರ್ಥಿ ವೃಂದದ ಸಹಕಾರದೊಂದಿಗೆ 2ನೇ ಹಂತದ ಅಧ್ಯಯನ ನಡೆಯಿತು.

ಫಾದರ್ ಮುಲ್ಟಿಸ್ಕಾ ಉಸಿರಾಟ ತಜ್ಞ ಡಾ.ಡಾನ್ ಗ್ರೇಗೋರಿ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಕಾರ್ಯಕ್ರಮ ಸಂಘಟಿಸಲಾಯಿತು. ಈ ಅಧ್ಯಯನವು ಭವಿಷ್ಯದಲ್ಲಿ ಮಂಗಳೂರು ನಗರದ ಮೇಲೆ ವಾಯುಮಾಲಿನ್ಯದ ಪರಿಣಾಮ ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ.

ರಿಕ್ಷಾ ಚಾಲಕರು ಹೊರಗಡೆ ಕೆಲಸ ಮಾಡುವವರಾಗಿದ್ದು, ನಿರಂತರವಾಗಿ ವಾಯುಮಾಲಿನ್ಯ ಮತ್ತು ಅದರ ಮಾರಣಾಂತಿಕ ಕಾಯಿಲೆಗಳಿಗೆ ತುತ್ತಾಗುತ್ತಾರೆ. ಲ್ಯೂಪಿನ್ ಫಾರ್ಮಾಸಿಯುಟಿಕಲ್ಸ್ ನ ಸುಜಿತ್ ಕುಮಾರ್ ಸ್ವಿರೋಮೀಟರ್‌ನೊಂದಿಗೆ ಡೇಟಾ ಸಂಗ್ರಹ ಮಾಡುತ್ತಿದ್ದಾರೆ. ಸುಮಾರು 500 ರಿಕ್ಷಾ ಚಾಲಕರುಗಳನ್ನು ಪರೀಕ್ಷೆ ಮಾಡುವ ಗುರಿಯನ್ನು ಸಂಸ್ಥೆ ಹೊಂದಿದೆ. ಎಪಿಡಿ ಫೌಂಡೇಶನ್ ಈಗಾಗಲೇ ಮಂಗಳೂರಿನ ವಾಯು ಗುಣಮಟ್ಟವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಿದೆ.



ಮಂಗಳೂರು ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮ ಅಳಿಯಲು ಆಂಟಿ ಪೊಲ್ಯೂಷನ್ ಡೆವ್ ಫೌಂಡೇಶನ್‌ನಿಂದ ಅಧ್ಯಯನ ನಡೆಯಿತು.

ನಮ್ಮ ಕಾನೂನು ಮತ್ತು ನೀತಿ ನಿರೂಪಕರಿಗೆ ವಾಯುಮಾಲಿನ್ಯ ಕುರಿತ ಅಂಕಿ-ಅಂಶಗಳು ಸೂಕ್ತ ಪರಿಹಾರ ನೀಡಬಲ್ಲದು. ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯ ಮತ್ತು ಅದರ ಖರುಗತಿಯ ಪರಿಣಾಮಗಳನ್ನು ನಿಯಂತ್ರಿಸಲು ನಮ್ಮ ಅಧ್ಯಯನ ಸಹಕಾರಿಯಾಗಲಿದೆ.

! ಅಬ್ದುಲ್ಲಾ ಎ. ರೆಹಮಾನ್ ಎಪಿಡಿ ಫೌಂಡೇಶನ್ ಸಂಸ್ಥಾಪಕ

ವಾಯುಮಾಲಿನ್ಯ ಪರಿಣಾಮ; ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ತಪಾಸಣೆ



ರಿಕ್ಷಾ ಚಾಲಕರಲ್ಲಿ ವಾಯುಮಾಲಿನ್ಯ ಪರಿಣಾಮದ ಬಗ್ಗೆ ಪರಿಶೀಲನೆ ನಡೆಸಲಾಯಿತು.

ಮಹಾನಗರ, ಮೇ 7: ಮಂಗಳೂರು ಟ್ರಾಫಿಕ್ ಪೊಲೀಸರ ಉಸಿರಾಟ ಕ್ರಿಯೆಯ ಪರೀಕ್ಷೆ (ಪಿಎಫ್‌ಟಿ) ಸಂಘಟಿಸಿದ ಅನಂತರ, ಆಂಟಿ ಪೊಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ನಗರದ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಅಳಿಯಲು 2ನೇ ಹಂತದ ಪರೀಕ್ಷೆ ಪ್ರಾರಂಭಿಸಿದೆ. ಈ ಪ್ರಾಜೆಕ್ಟ್ ಅನ್ನು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನಲ್ಲಿ ಶಿಷ್ಯವೃತ್ತಿಯನ್ನು ಪಡೆಯುತ್ತಿರುವ ಬೆಂಗಳೂರಿನ ಐಎಫ್ ಐಎಮ್‌ನ ವಿದ್ಯಾರ್ಥಿ ವೃಂದದವರೊಂದಿಗೆ ಕಳೆದ ವಾರ ಪ್ರಾರಂಭಿಸಲಾಯಿತು.

ಫಾ| ಮುಲ್ಟರ್ನ ಉಸಿರಾಟ ತಜ್ಞ ಡಾ| ಡಾನ್ ಗ್ರೆಗೋರಿ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಅಧ್ಯಯನವನ್ನು ಸಂಘಟಿಸಲಾಯಿತು. ರಿಕ್ಷಾ ಚಾಲಕರು ಹೊರಗಡೆ ಕೆಲಸ ಮಾಡುವವರಾಗಿದ್ದು ಇವರು ನಿರಂತರವಾಗಿ ವಾಯು ಮಾಲಿನ್ಯ ಮತ್ತು ಅದರ ಮಾರಣಾಂತಿಕ ಕಾಯಿಲೆಗಳಿಗೆ ತುತ್ತಾಗುವ ಸಂಭವ ಹೆಚ್ಚು ಲ್ಯೂಪಿಸ್ ಫಾರ್ಮಾಸಿಯುಟಿಕ್‌ನ ಸುಜಿತ್ ಕುಮಾರ್ ಅವರು ಸ್ಪಿರೋಮೀಟರ್‌ನೊಂದಿಗೆ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹ ಮಾಡುತ್ತಿದ್ದಾರೆ. ಈ ಅಧ್ಯಯನವು ನಮಗೆ ಭವಿಷ್ಯದಲ್ಲಿ ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ.

ಸುಮಾರು 500 ರಿಕ್ಷಾ ಚಾಲಕರ ಗುರಿ ಹೊಂದಿದ್ದು ಅದರ ಪೈಕಿ 250 ಚಾಲಕರನ್ನು ಈಗಾಗಲೇ ತಪಾಸಣೆ ಮಾಡಲಾಗಿದೆ. ಅವರ ವಯಸ್ಸು ಸೇವೆಯ ವರ್ಷಗಳು,

ಧೂಮಪಾನಿಗಳು / ಧೂಮಪಾನಿಗಳಲ್ಲ ದವರು, ಅಸ್ತಮಾ ಇತಿಹಾಸ, ಕುಟುಂಬದ ಉಸಿರಾಟದ ಇತಿಹಾಸ ಮತ್ತು ತೂಕದಂತಹ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹಣೆ ಮಾಡಲಾಯಿತು. ಉಳಿದ ಚಾಲಕರನ್ನು ತಪಾಸಣೆ ಮಾಡಲಾಗುವುದು.

ಇತ್ತೀಚೆಗೆ ಆಂಟಿ-ಪೊಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ತಮ್ಮ ಯೋಜನೆ ಯಾಗಿರುವ ಶುದ್ಧ ಗಾಳಿ ಎನ್ನುವ ಪ್ರಾಜೆಕ್ಟ್ ಆಡಿಯಲ್ಲಿ ಮಂಗಳೂರಿನ ವಾಯು ಗುಣಮಟ್ಟವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಿತ್ತು ಮತ್ತು ನಗರದ ಹಲವಾರು ಪ್ರದೇಶಗಳಲ್ಲಿ ಕಳಪೆಯಾಗಿರುವ ವಾಯು ಗುಣಮಟ್ಟವನ್ನು ಗಮನಿಸಲಾಗಿತ್ತು.

ವಾಯು ಮಾಲಿನ್ಯವು ದೇಶದಲ್ಲಿ ಬೃಹತ್ತಾಗಿ ಬೆಳೆಯುತ್ತಿರುವ ಸಮಸ್ಯೆಯಾಗಿದೆ. ನಮ್ಮ ಪರಿಸರ ಮತ್ತು ಅದರ ಜನತೆಯ ಮೇಲೆ ಅದ ಪರಿಣಾಮವನ್ನು ತೋರಿಸುವ ಯಾವುದೇ ಡೇಟಾ ಲಭ್ಯವಿಲ್ಲದೇ ಇರುವುದು ನಮ್ಮ ಕಳಕಳಿಗೆ ಕಾರಣವಾಗಿದೆ. ನಮ್ಮ ಡೇಟಾ ಮತ್ತು ಅಂಕಿ-ಅಂಶಗಳು ವ್ಯವಸ್ಥೆಯಲ್ಲಿನ ಕೊರತೆಯನ್ನು ನೀಗಿಸಬಹುದು. ನಮ್ಮ ಕಾನೂನು ಮತ್ತು ನೀತಿ ನಿರೂಪಕರಿಗೆ ಸೂಕ್ತವಾದ ಪರಿಹಾರವನ್ನು ಕಂಡುಕೊಳ್ಳಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ. ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯ ಮತ್ತು ಅದರ ಏರುಗತಿಯ ಪರಿಣಾಮಗಳನ್ನು ನಿಯಂತ್ರಿಸಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ ಎಂದು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನ ಸಂಸ್ಥಾಪಕರಾದ ಅಬ್ದುಲ್ಲ ಎ. ರೆಹಮಾನ್ ತಿಳಿಸಿದರು.

ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಆರೋಗ್ಯ ತಪಾಸಣೆ



ಮಂಗಳೂರು: ಮಂಗಳೂರು ಟ್ರಾಫಿಕ್ ಪೊಲೀಸರ ಉಸಿರಾಟ ಕ್ರಿಯೆಯ ಪರೀಕ್ಷೆ (ಪಿಎಫ್‌ಟಿ) ಸಂಘಟಿಸಿದ ನಂತರ, ಆಂಟಿ ಪೊಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ನಗರದ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಅಳಿಯಲು ಎರಡನೇ ಹಂತದ ಕಾರ್ಯಕ್ರಮವನ್ನು ಪ್ರಾರಂಭಿಸಿದೆ.

ಐಎಫ್‌ಐಎಮ್‌ನ ವಿದ್ಯಾರ್ಥಿಗಳು ಈ ಕಾರ್ಯ ನಿಯಂತ್ರಿಸುತ್ತಿದ್ದು, ಫಾದರ್ ಮುಲ್ಟರ್‌ನ ಉಸಿರಾಟ ತಜ್ಞರಾಗಿರುವ ಡಾ.ಡಾನ್ ಗ್ರೆಗೋರಿ ಮಾರ್ಗದರ್ಶನ ನೀಡುತ್ತಿದ್ದಾರೆ.

ರಿಕ್ಷಾ ಚಾಲಕರು ಹೊರಗಡೆ ಕೆಲಸ ಮಾಡುವವರಾಗಿದ್ದು ಇವರು ನಿರಂತರವಾಗಿ ವಾಯು ಮಾಲಿನ್ಯಕ್ಕೆ ಮತ್ತು ಅದರ ಮಾರಣಾಂತಿಕ ಕಾಯಿಲೆಗಳಿಗೆ ಒಡ್ಡಿಕೊಳ್ಳುತ್ತಾರೆ. ಲ್ಯೂಪಿಸ್ ಫಾರ್ಮಾಸಿಯುಟಿಕ್‌ನ ಸುಜಿತ್ ಕುಮಾರ್ ಅವರು ಸ್ಪಿರೋಮೀಟರ್‌ನೊಂದಿಗೆ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹ ಮಾಡುತ್ತಿದ್ದಾರೆ. ಈ ಅಧ್ಯಯನವು ನಮಗೆ ಭವಿಷ್ಯದಲ್ಲಿ ಮಂಗಳೂರು ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ.

ಸುಮಾರು 500 ರಿಕ್ಷಾ ಚಾಲಕರಗಳ ಗುರಿಯನ್ನು ಹೊಂದಿದ್ದು, ಅದರ ಪೈಕಿ 250 ಚಾಲಕರನ್ನು ಈಗಾಗಲೇ ತಪಾಸಣೆ ಮಾಡಲಾಗಿದೆ ಮತ್ತು ಅವರ ವಯಸ್ಸು, ಸೇವೆಯ ವರ್ಷಗಳು, ಧೂಮಪಾನಿಗಳು / ಧೂಮಪಾನಿಗಳಲ್ಲದವರು, ಅಸ್ತಮಾ ಇತಿಹಾಸ, ಕುಟುಂಬದ ಉಸಿರಾಟದ ಇತಿಹಾಸ ಮತ್ತು ತೂಕದಂತಹ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹಿಸಲಾಗಿದೆ ಎಂದು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನ ಸಂಸ್ಥಾಪಕ ಅಬ್ದುಲ್ಲ ಎ. ರೆಹಮಾನ್ ಪ್ರಕಟಣೆಯಲ್ಲಿ ತಿಳಿಸಿದ್ದಾರೆ.

ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ತಪಾಸಣೆ

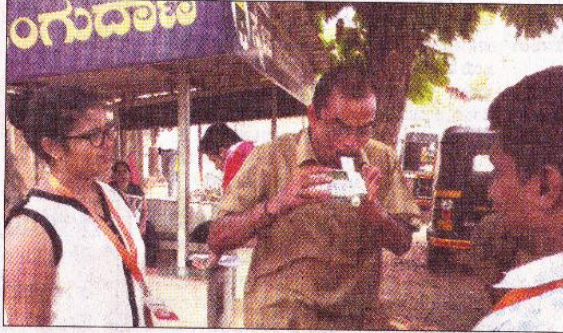
ಮಹಾನಗರ: ಆಂಟಿ ಪೊಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ವತಿಯಿಂದ ನಗರದ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಅಳಿಯಲು ಹಂತ-2ನು ಪ್ರಾರಂಭಿಸಿದೆ. ಈ ಪ್ರಾಜೆಕ್ಟ್ ಅನ್ನು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನಲ್ಲಿ ಶಿಷ್ಯವೃತ್ತಿಯನ್ನು ಪಡೆಯುತ್ತಿರುವ ಬೆಂಗಳೂರಿನ ಐಎಫ್ ಐಎಮ್‌ನ ವಿದ್ಯಾರ್ಥಿ ವೃಂದದವರೊಂದಿಗೆ ಇತ್ತೀಚೆಗೆ ಆರಂಭಿಸಲಾಯಿತು. ಈ ಅಧ್ಯಯನವನ್ನು ಫಾ | ಮುಲ್ಟರ್‌ನ ಉಸಿರಾಟ ತಜ್ಞರಾಗಿರುವ ಡಾ | ಡಾನ್ ಗ್ರೆಗೋರಿಯವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಸಂಘಟಿಸಲಾಯಿತು. ಈ ಅಧ್ಯಯನವು ನಮಗೆ ಭವಿಷ್ಯದಲ್ಲಿ ಮಂಗಳೂರು ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ.

ಸುಮಾರು 500 ರಿಕ್ಷಾ ಚಾಲಕರಗಳ ಗುರಿಯನ್ನು ಹೊಂದಿದ್ದು ಅದರ ಪೈಕಿ 250 ಚಾಲಕರನ್ನು ಈಗಾಗಲೇ ತಪಾಸಣೆ ಮಾಡಲಾಗಿದೆ ಮತ್ತು ಅವರ ವಯಸ್ಸು ಸೇವೆಯ ವರ್ಷಗಳು, ಧೂಮಪಾನಿಗಳು / ಧೂಮಪಾನಿಗಳಲ್ಲದವರು, ಅಸ್ತಮಾ ಇತಿಹಾಸ, ಕುಟುಂಬದ ಉಸಿರಾಟದ ಇತಿಹಾಸ ಮತ್ತು ತೂಕದಂತಹ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹಣೆ ಮಾಡಲಾಯಿತು. ಉಳಿದ ಚಾಲಕರನ್ನು ತಪಾಸಣೆ ಮಾಡಲಾಗುವುದು ಎಂದು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನ ಸಂಸ್ಥಾಪಕ ಅಬ್ದುಲ್ಲ ಎ. ರೆಹಮಾನ್ ತಿಳಿಸಿದರು.

ವಾಯು ಮಾನ್ಯ: ರಿಕ್ಷಾ ಚಾಲಕರ ತಪಾಸಣೆ

ಮಂಗಳೂರು: ಮಂಗಳೂರು ಟ್ರಾಫಿಕ್ ಪೊಲೀಸರ ಉಸಿರಾಟ ಕ್ರಿಯೆಯ ವರೀಕೆ (ಪಿಎಫ್‌ಟಿ) ಸಂಘಟಿಸಿದ ನಂತರ, ಅಂಟಿ ಪಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ನಗರದ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಆಳೆಯಲು ಹಂತ-2ನ್ನು ಪ್ರಾರಂಭಿಸಿದೆ. ಈ ಪ್ರಾಜೆಕ್ಟ್ ಅನ್ನು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನಲ್ಲಿ ಶಿಷ್ಟವ್ಯಕ್ತಿಯನ್ನು ಪಡೆಯುತ್ತಿರುವ ಬೆಂಗಳೂರಿನ ಐಎಫ್‌ಐಎಮ್‌ನ ವಿದ್ಯಾರ್ಥಿ ವೃಂದದವರೊಂದಿಗೆ ಆರಂಭಿಸಲಾಗಿದೆ.

ಆಧ್ಯಯನವನ್ನು ಫಾ.ಮುಲ್ಲರ್‌ನ ಉಸಿರಾಟ ತಜ್ಞ ಡಾ. ಡಾನ್ ಗ್ರೆಗೋರಿಯವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಸಂಘಟಿಸಲಾಯಿತು. ರಿಕ್ಷಾ ಚಾಲಕರು ಹೊರಗಡೆ ಕೆಲಸ ಮಾಡುವವರಾಗಿದ್ದು ಇವರು ನಿರಂತರವಾಗಿ ವಾಯು ಮಾಲಿನ್ಯಕ್ಕೆ ಮತ್ತು ಅದರ ಮಾರಾಂತಿಕ ಕಾರುಲೆಗಳಿಗೆ ಒಡ್ಡಿಕೊಳ್ಳುತ್ತಾರೆ. ಲ್ಯೂಪಿಸ್ ಫಾರ್ಮಾಸಿಯುಟಿಕಲ್‌ನ ಸುಜಿತ್ ಕುಮಾರ್ ಅವರು ಸ್ಪಿರೋಮೀಟರ್‌ನೊಂದಿಗೆ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹ ಮಾಡುತ್ತಿದ್ದಾರೆ. ಈ ಆಧ್ಯಯನವು ನಮಗೆ



ಎಪಿಡಿ ಫೌಂಡೇಶನ್ ವತಿಯಿಂದ ವಾಯು ಮಾಲಿನ್ಯ ತಪಾಸಣೆ ನಡೆಯಿತು.

ಭವಿಷ್ಯದಲ್ಲಿ ಮಂಗಳೂರು ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ. ಸುಮಾರು 500 ರಿಕ್ಷಾ ಚಾಲಕರುಗಳ

ಗುರಿಯನ್ನು ಹೊಂದಿದ್ದು, ಅದರ ಪೈಕಿ 250 ಚಾಲಕರನ್ನು ಈಗಾಗಲೇ ತಪಾಸಣೆ ಮಾಡಲಾಗಿದೆ ಮತ್ತು ಅವರ ವಯಸ್ಸು, ಸೇವೆಯ ವರ್ಷಗಳು, ಧೂಮಪಾನಿಗಳು, ಧೂಮಪಾನಿಗಳಲ್ಲದವರು,

ಅಸ್ತಮಾ ಇತಿಹಾಸ, ಕುಟುಂಬದ ಉಸಿರಾಟದ ಇತಿಹಾಸ ಮತ್ತು ತೂಕದಂತಹ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹಣೆ ಮಾಡಲಾಯಿತು. ಉಳಿದ ಚಾಲಕರನ್ನು ತಪಾಸಣೆ ಮಾಡಲಾಗುವುದು.

ವಾಯು ಮಾಲಿನ್ಯವು ದೇಶದಲ್ಲಿ ಬೃಹತ್ತಾಗಿ ಬೆಳೆಯುತ್ತಿರುವ ಸಮಸ್ಯೆಯಾಗಿದೆ. ನಮ್ಮ ಪರಿಸರ ಮತ್ತು ಅದರ ಜನತೆಯ ಮೇಲೆ ಅದರ ಪರಿಣಾಮವನ್ನು ತೋರಿಸುವ ಯಾವುದೇ ಡೇಟಾ ಲಭ್ಯವಿಲ್ಲದೇ ಇರುವುದು ನಮ್ಮ ಕಳಕಳಿಗೆ ಕಾರಣವಾಗಿದೆ.

ನಮ್ಮ ಡೇಟಾ ಮತ್ತು ಅಂಕಿ-ಅಂಶಗಳು ವ್ಯವಸ್ಥೆಯಲ್ಲಿನ ಕೊರತೆಯನ್ನು ನೀಗಿಸಬಹುದು. ನಮ್ಮ ಕಾನೂನು ಮತ್ತು ನೀತಿ ನಿರೂಪಕರ ಸೂಕ್ತವಾದ ಪರಿಹಾರವನ್ನು ಕಂಡುಕೊಳ್ಳಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ. ನಮ್ಮ ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯ ಮತ್ತು ಅದರ ಏರಿಗತಿಯ ಪರಿಣಾಮಗಳನ್ನು ನಿರೀಕ್ಷಿಸಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ ಎಂದು ನಾವು ನಂಬಿದ್ದೇವೆ ಎಂದು ಎಪಿಡಿ ಫೌಂಡೇಶನ್ ಸಂಸ್ಥಾಪಕ ಅಬ್ದುಲ್ಲಾ ಎ. ರೆಹಮಾನ್ ತಿಳಿಸಿದ್ದಾರೆ.

ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರ ಆರೋಗ್ಯ ತಪಾಸಣೆ

ವಿಕ ಸುದ್ದಿಯೊಳ ಮಂಗಳೂರು

ಮಂಗಳೂರು ಟ್ರಾಫಿಕ್ ಪೊಲೀಸರ ಉಸಿರಾಟ ಕ್ರಿಯೆಯ ಪರೀಕೆ (ಪಿಎಫ್‌ಟಿ) ಸಂಘಟಿಸಿದ ನಂತರ ಅಂಟಿ ಪೊಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ನಗರದ ಆಟೋ ರಿಕ್ಷಾ ಚಾಲಕರಲ್ಲಿ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಆಳೆಯಲು ಹಂತ-2ನ್ನು ಪ್ರಾರಂಭಿಸಿದೆ.

ಈ ಯೋಜನೆಯನ್ನು ಎಪಿಡಿ ಫೌಂಡೇಶನ್‌ನಲ್ಲಿ ಶಿಷ್ಟವ್ಯಕ್ತಿಯನ್ನು ಪಡೆಯುತ್ತಿರುವ ಬೆಂಗಳೂರಿನ ಐಎಫ್‌ಐಎಮ್‌ನ ವಿದ್ಯಾರ್ಥಿ ವೃಂದದವರೊಂದಿಗೆ ಇತ್ತೀಚೆಗೆ ಆರಂಭಿಸಲಾಯಿತು.

ರಿಕ್ಷಾ ಚಾಲಕರು ನಿರಂತರವಾಗಿ ವಾಯು ಮಾಲಿನ್ಯಕ್ಕೆ ಮತ್ತು ಅದರ ಮಾರಾಂತಿಕ ಕಾರುಲೆಗಳಿಗೆ ತುತ್ತಾಗುವ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಈ



ಆಧ್ಯಯನವನ್ನು ಫಾ.ಮುಲ್ಲರ್‌ನ ಉಸಿರಾಟ ತಜ್ಞ ಡಾ.ಡಾನ್ ಗ್ರೆಗೋರಿ ಮಾರ್ಗ ದರ್ಶನದಲ್ಲಿ ಸಂಘಟಿಸಲಾಯಿತು. ಲ್ಯೂಪಿಸ್ ಫಾರ್ಮಾ ಸ್ಯೂಟಿಕಲ್‌ನ ಸುಜಿತ್ ಕುಮಾರ್ ಅವರು ಸ್ಪಿರೋಮೀಟರ್‌ನೊಂದಿಗೆ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹ ಮಾಡುತ್ತಿದ್ದಾರೆ. ಈ ಆಧ್ಯಯನ

ಭವಿಷ್ಯದಲ್ಲಿ ಮಂಗಳೂರು ನಗರದ ಮೇಲೆ ವಾಯು ಮಾಲಿನ್ಯದ ಪರಿಣಾಮವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುತ್ತದೆ.

ಸುಮಾರು 500 ರಿಕ್ಷಾ ಚಾಲಕರ ತಪಾಸಣೆ ಗುರಿಯನ್ನು ಹೊಂದಿದ್ದು, ಅದರ ಪೈಕಿ 250 ಚಾಲಕರನ್ನು ಈಗಾಗಲೇ

ತಪಾಸಣೆ ಮಾಡಲಾಗಿದೆ ಮತ್ತು ಅವರ ವಯಸ್ಸು, ಸೇವೆಯ ವರ್ಷಗಳು, ಧೂಮಪಾನಿಗಳಲ್ಲದವರು, ಅಸ್ತಮಾ ಇತಿಹಾಸ, ಕುಟುಂಬದ ಉಸಿರಾಟದ ಇತಿಹಾಸ ಮತ್ತು ತೂಕದ ಡೇಟಾವನ್ನು ಸಂಗ್ರಹಣೆ ಮಾಡಲಾಯಿತು.

ಇತ್ತೀಚೆಗೆ ಅಂಟಿ-ಪೊಲ್ಯೂಶನ್ ಡೈವ್ (ಎಪಿಡಿ) ಫೌಂಡೇಶನ್ ತಮ್ಮ ಯೋಜನೆಯಾಗಿರುವ ಶುದ್ಧ ಗಾಳಿ ಎನ್ನುವ ಪ್ರಾಜೆಕ್ಟ್‌ನ ಅಡಿಯಲ್ಲಿ ಮಂಗಳೂರಿನ ವಾಯು ಗುಣಮಟ್ಟವನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಿತ್ತು ಮತ್ತು ನಗರದ ಹಲವಾರು ಪ್ರದೇಶಗಳಲ್ಲಿ ಕಳಪೆಯಾಗಿರುವ ವಾಯು ಗುಣಮಟ್ಟವನ್ನು ಗಮನಿಸಲಾಗಿತ್ತು.

ಎಪಿಡಿ ಫೌಂಡೇಶನ್ ಸಂಸ್ಥಾಪಕ ಅಬ್ದುಲ್ಲಾ ಎ.ರೆಹಮಾನ್ ಈ ಯೋಜನೆಯಲ್ಲಿ ಭಾಗವಹಿಸಿದ್ದರು.

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