सत्यमेव जयते
Ministry of Health & Family Welfare
Government of India

National Centre for Disease Control (NCDC)
Government of India
New Delhi

THE NATIONAL PROGRAM ON CLIMATE CHANGE AND HUMAN HEALTH (NPCCHH)

Training Manual
for
Community Level Training
on
Air Pollution and its Impact on Health of Traffic Police Personnel

National Centre for Disease Control (NCDC), Directorate General of Health Services (DGHS)

MINISTRY OF HEALTH AND FAMILY WELFARE
GOVERNMENT OF INDIA
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राष्ट्रीय रोग नियंत्रण केंद्र
स्वास्थ्य सेवा महानिदेशालय
स्वास्थ्य एवं परिवार कल्याण मंत्रालय भारत सरकार

National Centre for Disease Control (NCDC)
Directorate General of Health Services (DGHS)
Ministry of Health and Family Welfare
Government of India

डॉ. सुजीत कुमार सिंह
निर्देशक, राष्ट्रीय रोग नियंत्रण केंद्र

Dr Sujeet Kumar Singh
Director, NCDC

Preface

Traffic policemen, an important group of frontline workers in the COVID-19 pandemic times, play an indispensable role in managing the traffics on the roads for smooth flow of movements of all types of commuters and their safety. While on duty as outdoor professionals, they are continuously exposed to ambient air which is comparatively more polluted due to various reasons including vehicular exhausts or dusts etc. As Air Pollution is a recognized environmental health risk, traffic policemen are reported more vulnerable to Air Pollution and its negative health impacts like irritation of our external organs such as eyes and skin and also, main systems of our human body like respiratory problems, cardiovascular problems etc. Various study reports also are showing positive correlation between Air Pollution and health of the traffic policemen. Therefore, health adaptive measures need to be taken up to protect and prevent traffic police policemen from negative health effects of Air Pollution.

To address the health related issues among the traffic policemen in context of Air Pollution, the Centre for Environmental and Occupational Health, Climate Change and Health (CEOHCCH) division at National

Centre for Disease Control, Directorate General Health Services, the Ministry of Health and Family Welfare has developed recently a document on 'Training manual on Air Pollution and its health impact on Traffic Police' under the National Program on Climate Change and Human Health (NPCCHH).The programme would share the manual with the States/UTs and other relevant stakeholders to help increase the awareness level on the ill effects of Air Pollution and various adapting measures to protect and prevent the vulnerable group of traffic policemen. The traffic police departments in the States/UTs can also refer these manuals to raise awareness level among their staff members.

I extend my gratitude to all the valuable partners including, WHO India and PHFI, for their valuable contributions in shaping this vital manual.

I am sure that this training manual on "Training manual on Air Pollution and its impact on Traffic Police" will help protect and improve the health of traffic policemen who serve to regulate the road traffics and safety for all the commuters.

I laud efforts from all others who take part in making this manual an invaluable document for the programme to enable improving better health for a large number of traffic policemen across the country.

(Sujeet K. Singh)
निर्देशक
Director

Contents

About the Manual

Purpose of this document

An enlightened community is more responsive to change and action. This Training Manual is designed to inform and empower traffic police personnel as leaders with knowledge to decrease contribution to Air Pollution and protect their health from harmful effects of Air Pollution. Due to the nature of their work, traffic police personnel are exposed to high levels of Air Pollution which puts them at risk of associated health effects.

Providing timely information on Air Pollution sources that is relevant to Traffic Police personnel is necessary for behaviour change to happen. This manual should:

1. Enable trainers and members of traffic police to understand the importance of Information, Education and Communication (IEC) in promoting health behaviours
2. Serve as a guide for the trainers to share information regarding the impact of Air Pollution on health of traffic police personnel
3. Assist as a tool to ensure the consistent delivery of relevant health information during various IEC activities with traffic police personnel as key target for intervention

Role of Information, Education and Communication (IEC) activities

» To drive higher level of awareness about the problem of Air Pollution

» To disseminate relevant information to drive changes in attitude and behaviour

» To create user-friendly and stand-alone materials for the target audience that highlight useful knowledge and solutions to better their everyday lives

Guidelines on Conducting the Session

Place and medium of communication

The discussion on health effects of Air Pollution on traffic police personnels' health can be conducted at the office of the local body or at any community meeting spaces.

Time commitment of participants

The discussion can be done within an hour. It can be discussed in shorter durations, by concentrating on each concept at a time. This flipchart can be used by medical or non-health professionals. It is best to arrange a meeting beforehand and invite all traffic police personnel deployed in different locations on various duties, for a group discussion in a common area.

During the discussion, the trainer has to be respectful and be responsive to the thoughts and opinions of the participants. The proper approach for any behaviour change communication is to acknowledge different points of view and working towards a common understanding. There should be no bias per religion, caste, social class or age.

Contents include the following topics: -

» Air Pollution

» Air Pollutants

» Outdoor Air Pollution

» Indoor Air Pollution

» Air Quality Index

» Occupational Hazards

» Air Pollution and its Health Effects

» Call to Action: Protection from Air Pollution and Reduce Contribution to Air Pollution

Tips for Facilitator

1. The facilitator must ensure that everyone in the group has a chance to speak freely and participate.
2. Acknowledge their responses and encourage participation from all those attending the session. It would be best to get everyone to talk and contribute their opinion and experience. Most importantly, the participants should feel comfortable to ask their questions or clarify some doubts in their mind.
3. The facilitator must speak loudly and clearly when explaining the concepts. If there is any disagreement, it should be resolved calmly and positively. Everyone has a right to their opinions.

General Instructions for Using the Flipchart

Each flipchart page has pictures relating to a particular topic and theme on Air Pollution. The facilitator will always ask the group to describe the pictures that they see on the front page. The description will accompany these pictures on the opposite page. The structure of the discussion will be free, with the facilitator engaging all participants and asking them about their experience of Air Pollution. These pictures relate to everyday life of most traffic police personnel, however, some people may have different experiences altogether.

Learning Objectives of the Discussion on Air Pollution

- To raise the awareness of the participants about the importance of clean air
- To increase the understanding about the connection between Air Pollution and health effects
- To increase the understanding of how effects on the body are not temporary, and may lead to serious diseases later in life
- To increase awareness of how Air Pollution has a greater effect on vulnerable population including Traffic Police personnel spending more time outdoors
- To learn about measures to protect yourself and reduce your contribution to Air Pollution

Guide for Flipchart Contents

The following section introduces the Trainer to the content and use of the flipchart. Please review the whole document before starting any meetings.

Introduction

Good morning/afternoon! My name is (Insert Name), and I work as (add designation, place of work). Today, we will talk about the importance of breathing clean air for our health. We are all gathered here to share our experiences and also to think about different solutions that we can implement to protect our health from Air Pollution and reduce our contribution to Air Pollution. I hope that you can continue to think about what you hear and learn from today's discussion with other people in the community in the days to come.

Thank you for coming to this meeting.

Let's Start!

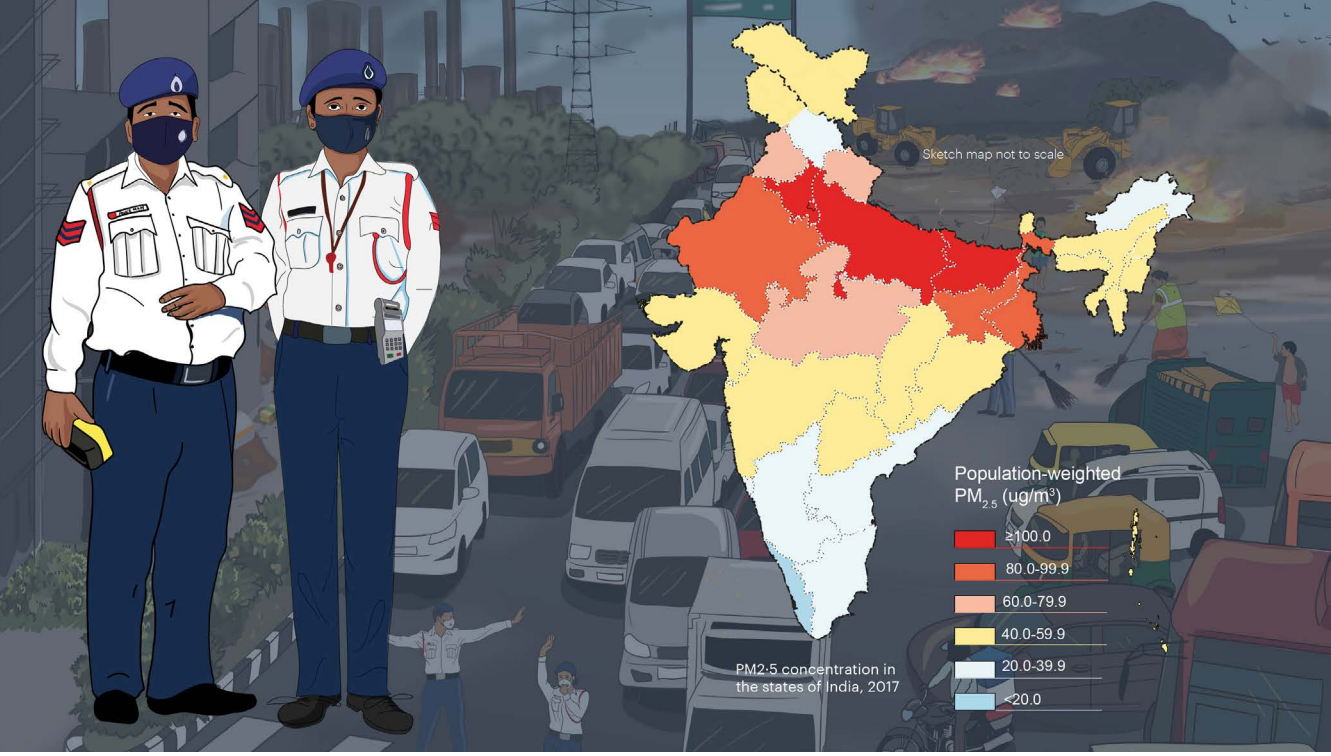
Air Pollution

Objective: To introduce participants to the basic concepts about Air Pollution and the scale of the issue in India

Prompt: How would you define Air Pollution?
Ask participants to describe the infographic on Air Pollution in the flipchart and if they see similarities to their experience of Air Pollution.

Instructions: Read out the definition of Air Pollution: Air Pollution is the contamination of the indoor or outdoor environment by any chemical, physical or biological agent that change the natural state of the atmosphere. It is caused when harmful gases, dust, smokes, odours or any toxic substance adversely affecting environment and health is introduced in the air.

- **Discuss the differences between clean and polluted air:** Clean Air is a human right. It is important for a safe environment and your health. Air Quality is strongly linked with health and wellbeing. The benefits of clean air for physical and mental health include healthier lungs, better neurocognitive status, fewer illnesses and deaths related to lung and heart diseases. Whereas, polluted air can cause a lot of severe health effects and also leads to an increase in medical costs. It also has various negative socio-economic impacts on factors such as work productivity, etc.
- Air Pollution is generally understood in two types- indoor and outdoor. These will be explained in greater detail in the next few sections.
- Ask the participants, if they knew that: Air Pollution is considered to be one of the biggest environmental health threats and is also known as the Invisible Killer.



» Use the facts mentioned in the box to explain the Map shown in the Image:

- In India, number of deaths and diseases due to Air Pollution are very high.
- In 2017, 1.24 million deaths were due to Air Pollution.
- Out of this, 51·4% were in people younger than 70 years including 0·67 million from outdoor pollution and 0·48 million from household Air Pollution.
- An average, ambient particulate matter PM2·5 in India was 89·9 µg/m3 in 2017. Most states and about 76.8% of the population of India, were exposed to PM2·5 greater than 40 µg/m3 approximately, which is the limit recommended by the National Ambient Air Quality Standards in India.

Note- Trainers/Participants are not required to memorize these facts but these facts can help to understand the scale of impact of Air Pollution on health in India. The point of these prompts is to get participants into an interactive and responsive mode, so they are more receptive. As you navigate from one point to another, be sure to note any common misconceptions that the participants discuss so that you can debunk them as you touch upon these aspects in the upcoming sections.

Air Pollutants

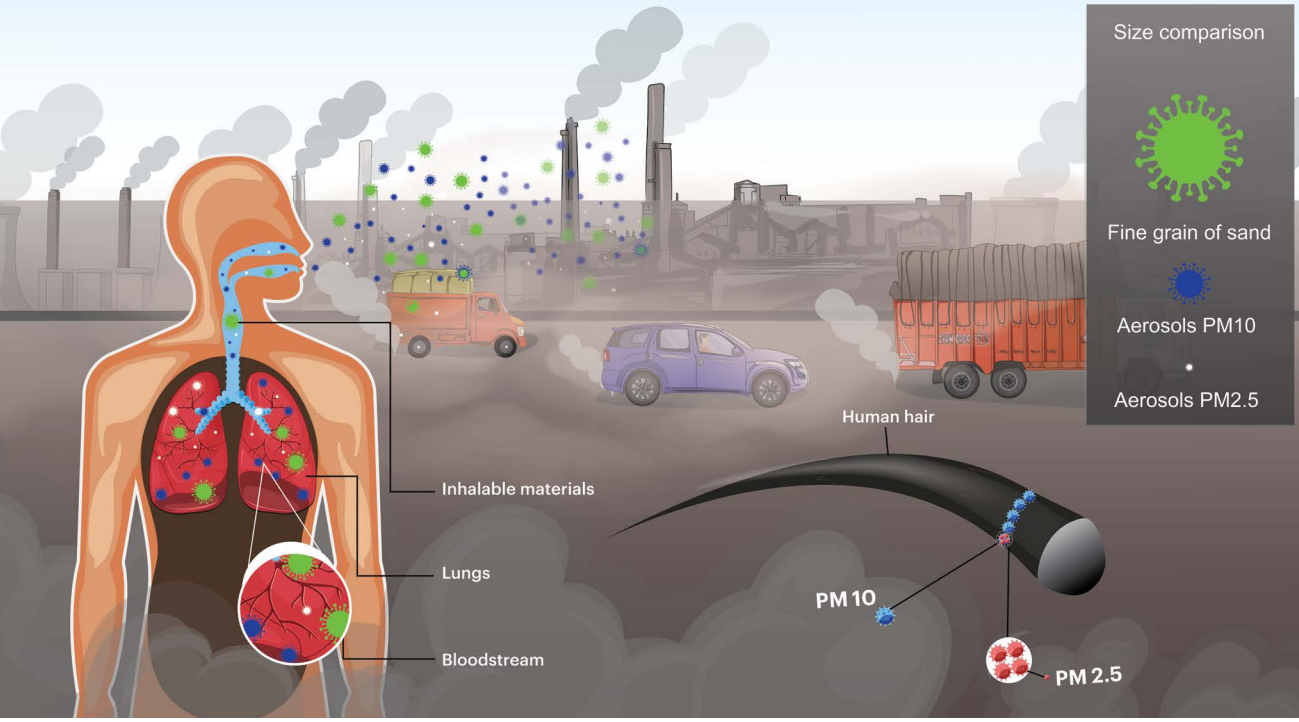
Objective: To define Air Pollutants and its types

Instructions: Read out the definition of Air pollutants: Air Pollutants are present in the air as solid particles, liquid droplets or gases. These can be natural or man-made. If the presence of such substances is high, it can affect human health and environment.

- What is Particulate Matter (PM)? : PM includes small solid or liquid matter in the earth's atmosphere.
- PM10 is particulate matter 10 micrometers or less in diameter.
- PM2.5 is particulate matter 2.5 micrometers or less in diameter.
- Refer to the image to explain the difference in the size of the particles. You can think of PM2.5 as fine particles. Human Hair is about 100 micrometres, so almost 40 fine particles could be placed on its width. (When inhaled, particles narrower than 10 micrometres can be the most hazardous as they can enter deep into your lungs, and some can also get into your blood)
- Additional Information: you may also explain the types of pollutants:

Types of Pollutants

- **Gaseous pollutants:** The natural composition of air is 78% nitrogen, 21% oxygen and 1% of mix of gases like argon, helium, carbon dioxide, methane, hydrogen etc. and water vapour. Gaseous pollutants are gases like nitrogen dioxide, Sulphur dioxide, carbon monoxide and ozone, which are normally not found concentrated in the air we breathe. However, due to burning of fossil fuels, these gases, through



direct emission or through complex chemical reaction with other elements, are increasingly found in the air we breathe and cause harmful health effects (along with environmental effects like acid rain).

» **Liquid pollutants:** Aerosols are the most commonly found liquid air pollutants. These are liquid droplets (or very fine solid particle) that are suspended in the air. Aerosols can be both man-made and naturally occurring. Natural occurring aerosols could come from fogs, geysers, or liquid emitted by plants and trees. Man-made or anthropogenic aerosols could come from paints, sprays, etc.

» **Solid pollutants:** Particulate matter and aerosols are the main solid air pollutant. These are very fine solid particles. These particles are very small in diameter and the names PM2.5 and PM10 come from the diameter of these particles which are 2.5 micrometers and 10 micrometers respectively. Due to their small diameter, they do not get filtered through our airways and thus find their way to our lungs causing severe health impacts. Naturally occurring PM come from dust, sea spray, forest/ grassland fire, dust storms etc. Anthropogenic PM comes from burning of fossil fuel.

Indoor Air Pollution

Objective: To understand Indoor Air Pollution and the sources of this type of Air Pollution

Prompt: Ask any volunteer from the participants to identify some of the sources of Air Pollution that are found in their household.

Instructions: Explain the definition of indoor Air Pollution provided below along with sources of indoor Air Pollution.

- Air Pollution can also affect us at home and not only outdoors or at our workplace. Good Indoor air quality is essential for our health as we spend time at home or indoors. Pollutants can remain in the indoor air for long periods due to pollutants arising from household activities and changes in temperature, humidity, etc.
- The air inside the home or inside buildings can become dirty or contaminated because of incomplete burning of biomass fuels or due to second-hand tobacco smoke, burning of mosquito coils, use of kerosene for lighting etc. Biomass fuels can include those used for cooking and heating (cow dung, wood, charcoal, rice husk), etc.

Sources of Indoor Air Pollution:

- Lack of proper ventilation
- Burning unclean cooking fuels including biomass, fossil fuel, wood, oil, gas, kerosene, coal, etc.
- Building materials including asbestos and presence of radon in basement or underground structure of the home.

- Tobacco Smoking
- Usage of household cleaning products
- Storage of pesticides and other chemicals at home
- Airborne particles produced from microbial, fungal, mould growth, etc.
- Microbes from organic materials, humidifiers, vaporizers, heating, ventilating, and air conditioning systems (HVAC)
- Resins, waxes, polishing materials and paints, cosmetics, binders, incense and mosquito coils, etc.
- Infectious agents produced in stagnant water, mattresses, carpets, etc.

Outdoor Air Pollution

Objective: To understand Outdoor Air Pollution and the sources of this type of Air Pollution

Prompt: Ask the participants if they find similarities in the illustration with the surroundings of their workplace.

Instructions: Explain the definition of outdoor Air Pollution provided below along with sources of outdoor Air Pollution.

- Outdoor or ambient Air Pollution is the contamination of the air outside by exhaust or smoke produced by diesel trucks, cars, factories, power plants and shops. The smoke from households can also contribute to outdoor Air Pollution.
- Ambient air quality refers to the condition or quality of air surrounding us in the outdoors. Ambient Air Quality levels can worsen due to different sources of Outdoor or Ambient Air Pollution.

Sources of Ambient Air Pollution

- Construction, building materials
- Vehicular, industrial, power plant emissions
- Agricultural practices including crop burning
- Tobacco smoking
- Waste burning
- Fossil fuel burning & use in factories, generators, etc.

- Forest fires/wildfires
- Dust storms
- Suspended dust particles
- Pollen grains
- Bursting firecrackers
- Solid waste incineration plants

Did you Know: According to WHO, this type of pollution was estimated to cause 4.2 million premature deaths worldwide in the year 2016 in both urban and rural areas. Share this fact about the number of premature deaths (early death or Death that occurs before the average age of death) worldwide to explain the severity of this issue worldwide.

Understanding and Using AQI Information

Objective: To understand Air Quality Index, importance of using the tool, sources of checking AQI and using the information for everyday life

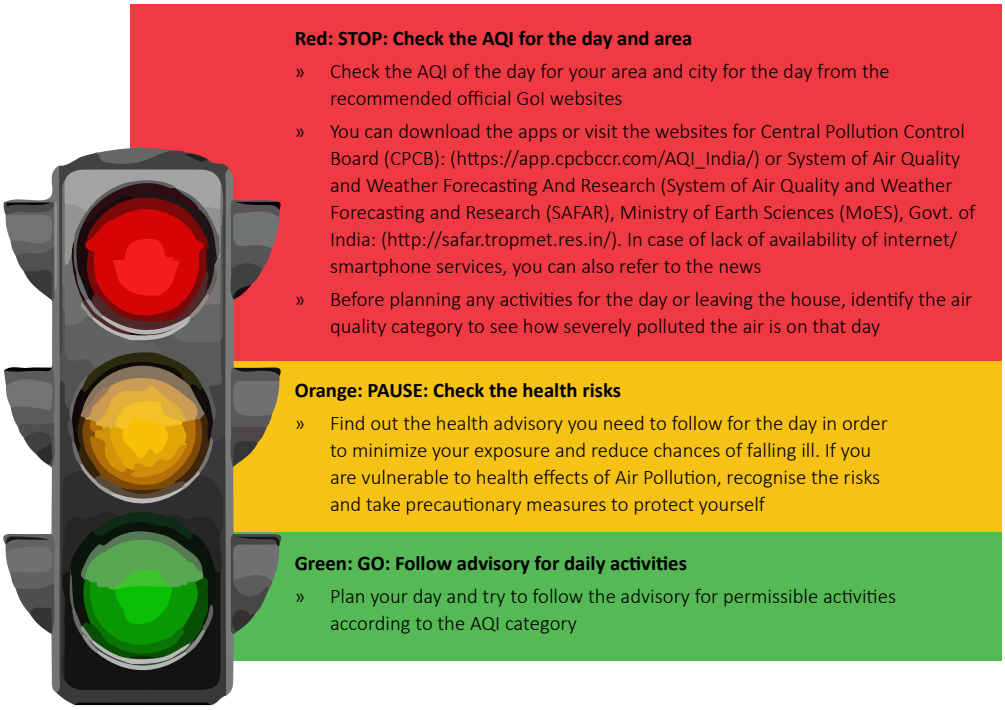
Prompt: Ask the participants if they refer to AQI of the designated area of work? If yes, what are the sources they rely on?

Instructions: Explain the definition of Air Quality Index, read out each and every element of the AQI table, use the traffic signal to explain how AQI tool can be used in daily lives, highlight where reliable AQI information can be found for future reference.

- Air quality indicates to the condition of air surrounding us. It tells us how clean the air we breathe is.
- The Air Quality Index is a helpful tool that can help you to understand the quality of air. You can use it to plan your day especially during peak pollution periods. It also explains the possible health effects of Air Pollution that may affect you according to where you live.
- This tool is especially useful for members of vulnerable population who are at high risk of harmful health effects of Air Pollution including the elderly, children under 5 years, pregnant women and people with pre-existing illnesses such as asthma and other airway or lung diseases, heart and blood vessel diseases, or any other illness aggravated or caused by Air Pollution.

How to Use the AQI Tool?

- You can imagine the AQI tool as a personal Traffic light. Before stepping out of your house, make sure to check the traffic light by following these steps: -



» Red: STOP: Check the AQI for the day and area.

» Check the AQI of the day for your Area and City for the Day before planning any activities for the day or leaving the house.

» Identify the air quality category to see how severely polluted the air is on that day.

» Orange: PAUSE: Check the health risks.

Find out the health advisory you need to follow for the day in order to minimize your exposure and reduce chances of falling ill. If you are vulnerable to health effects of Air Pollution, recognise the risks and take precautionary measures to protect yourself.

» Green: GO: Follow advisory for daily activities Plan your day and try to follow the advisory for permissible activities according to the AQI category.

Air Quality Index (AQI)# (Pollution level	Possible Health Consequences	Advice for	
		General Population	Vulnerable Population
Good (0-50)	Low risk	No special precautions	No special precautions
Satisfactory (51-100)	May cause • minor breathing discomfort in vulnerable population*	No special precautions	Do less prolonged or strenuous outdoor physical exertion
Moderate (101-200)	May cause • breathing or other health discomfort in vulnerable population*	Do less prolonged or strenuous outdoor physical exertion	Avoid prolonged or strenuous outdoor physical exertion
Poor (201-300)	May cause • breathing discomfort in healthy people on prolonged exposure breathing or other health discomfort in vulnerable population* on short exposure	Avoid outdoor physical exertion	Avoid outdoor physical activities
Very Poor (301-400)	May cause • respiratory illness in healthy people on prolonged exposure • pronounced respiratory or other illnesses in vulnerable population* on short exposure	Avoid outdoor physical activities, especially during morning and late evening hours	Remain indoors and keep activity levels low
Severe (401-500)	May cause • respiratory illness in healthy people on prolonged exposure • serious respiratory or other illnesses in vulnerable population* on short exposure	Avoid outdoor physical activities	Remain indoors and keep activity levels low

Source: Central Pollution Control Board

AQI Monitor

Check Website/App for Central Pollution Control Board (CPCB): (https://app.cpcbccr.com/AQI_India/) or System of Air Quality and Weather Forecasting And Research (System of Air Quality and Weather Forecasting and Research (SAFAR), Ministry of Earth Sciences (MoES), Govt. of India: (http://safar.tropmet.res.in/)

Where to check AQI?

» You can download the apps or visit the websites for Central Pollution Control Board (CPCB): (https://app.cpcbccr.com/ AQI_India/) or System of Air Quality and Weather Forecasting And Research (System of Air Quality and Weather Forecasting and Research (SAFAR), Ministry of Earth Sciences (MoES), Govt. of India: (http://safar.tropmet. res.in/) . Incase of lack of availability of internet/smartphone services, you can also refer to the news.

Air Quality Monitor

» To know the AQI, the government and other agencies use a device called air quality monitor. Air quality monitors are sensor-based devices that measure the level of most common air pollutants.

Occupational Hazards from Work Activities

Objective: To understand the various occupational hazards and threats from Air Pollution that participants may face at the workplace

Prompt: Initiate a discussion on identifying threats from Air Pollution in the workplace or any occupational hazards that they may have encountered

Instructions: Discuss some of the common sources of Air Pollution that can be found at their workplace and how these can be hazardous in nature

- Vehicles contribute to pollution through chemicals (carbon monoxides and oxides of nitrogen etc.) released from exhaust pipes, etc.
- Traffic jams, congestion, slow-moving traffic can lead to increase in vehicular pollution and emissions. This negatively impacts air quality and threatens health of Traffic Police personnel deployed at traffic signal or those regulating traffic, drivers, commuters and those residing next to main roads, etc.
- Older vehicles with old technology and parts, especially diesel vehicles, e.g., bigger trucks, bulldozers, etc. are more polluting.
- Diesel vehicles are likely to cause more pollution and pose hazards to health since Diesel is classified as class 1 carcinogen (cancer-causing).
- Re-suspended road dust like deposits of vehicle and industrial exhausts, particles from tyre and brake wear, dust from paved roads or potholes, construction sites, open unpaved parking spaces.
- Other climate-related risks like excessive exposure to heat and cold, heavy rain, wind, solar UV and allergenic pollens while at work.

» Common air pollutants that you may be exposed to while working outdoors are Carbon monoxide, Nitrogen dioxide, Nitric oxide, ground level Ozone, Lead, Sulphur dioxide, Benzene, Polyclic armoatic Hydrocarbons (PARs), Particulate Matter, etc.

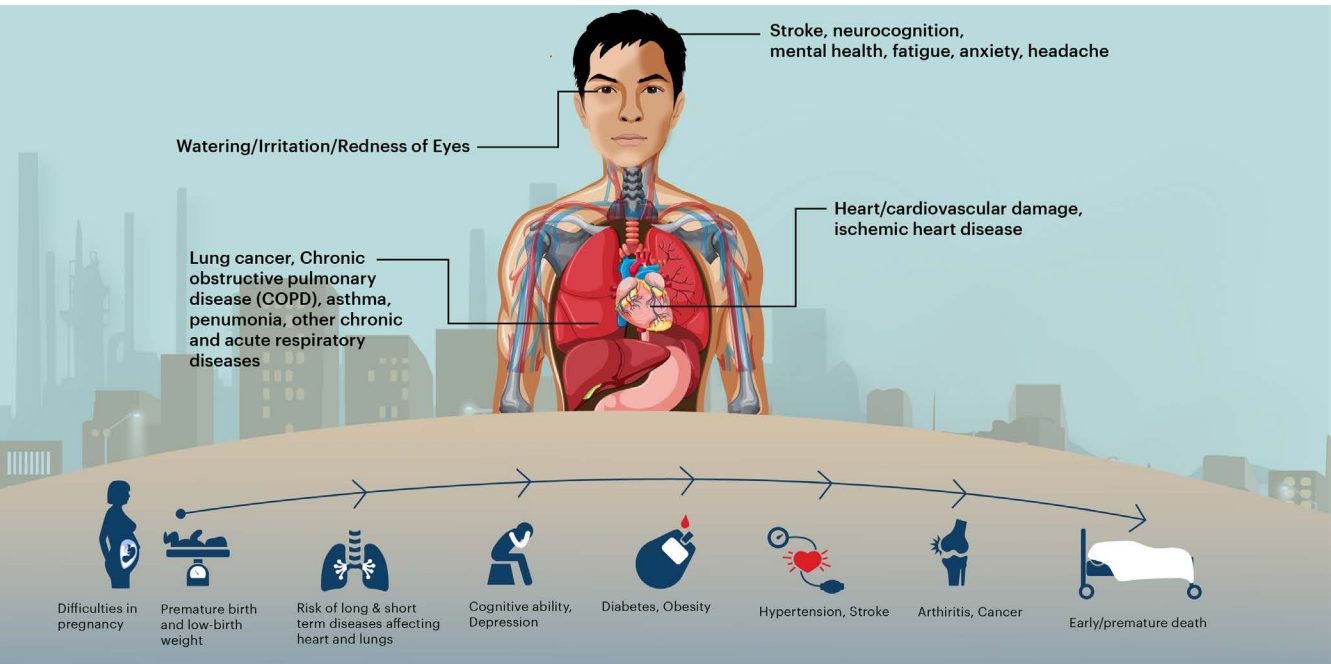
Note: Participants and Trainers are not required to remember scientific names of all pollutants mentioned, these are listed as an example of common air pollutants.

Health Effects of Air Pollution

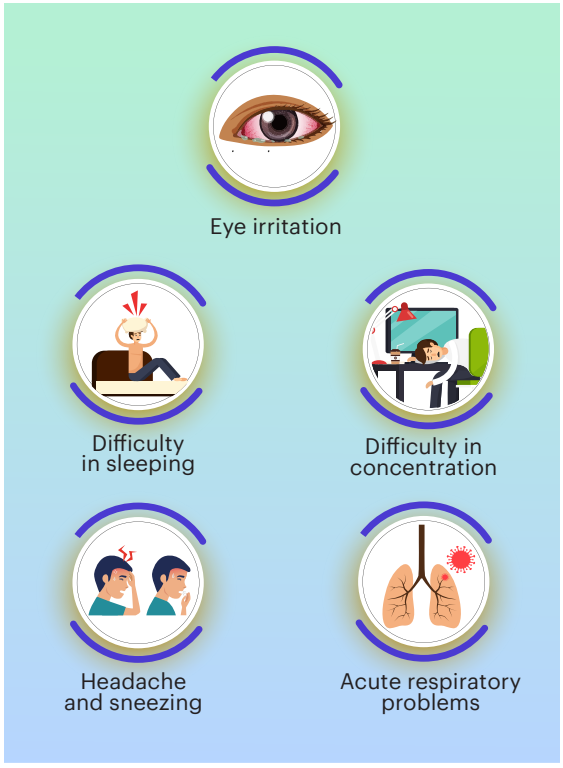
Objective: To establish the link between Air Pollution and health, highlight the possible health effects of Air Pollution across the lifecycle and symptoms experienced from Air Pollution exposure in the long as well as short term.

Prompt: Ask the participants if they or any colleague has ever experienced any health complications from excessive exposure to Air Pollution at work?

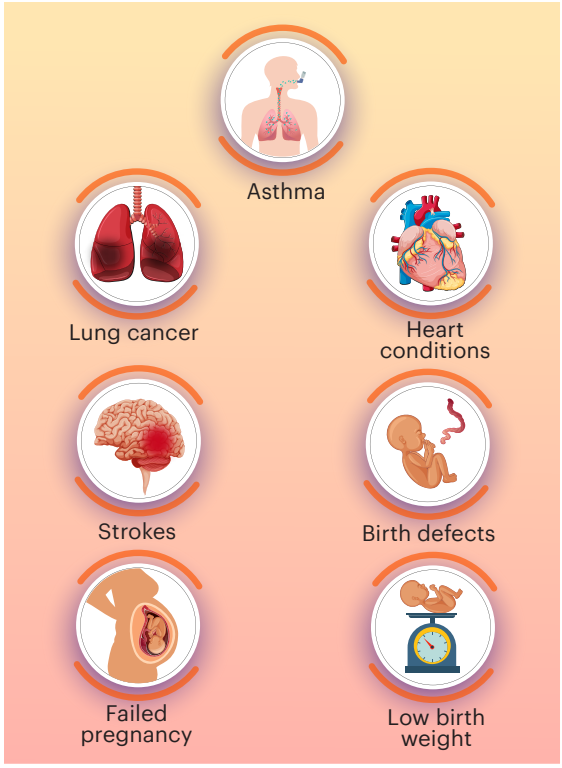
Instructions: Use the image of the human body to explain the different body parts that are impacted by Air Pollution along with the common health conditions listed. The lifecycle chart helps to highlight that Air Pollution can affect health in the short term and long term. It can not only impact the entire lifecycle of an individual but also that of future generations. Explain the short and long term effects of Air Pollution provided in the boxes. These symptoms and health conditions can be caused by exposure to high levels of Air Pollution.



SHORT-TERM EFFECTS



LONG-TERM EFFECTS



Call to Action: What Can I Do to Minimise My Exposure?

Objective:

- To promote health-seeking behaviour for short term symptoms and long terms health conditions that may arise or worsen due to Air Pollution;
- To learn the importance of wearing a mask to reduce exposure to polluted air.

Prompt:

- Has any of the participants or their colleagues visited a health practitioner/ health facility to report health conditions discussed before?
- How regularly are you able to get a medical check-up?
- Do you wear an N-95 mask at work? If yes, then share how do you use it?

Instructions: Read out these suggestions to highlight the importance of seeking medical help when experiencing any of the symptoms or health conditions mentioned in the previous section. Traffic Police personnel with pre-existing health conditions must take special caution as Air Pollution can worsen their pre-existing conditions.

- Go for medical check-ups regularly to check if you have any pre-existing health conditions or respiratory diseases, etc.
- The impact of exposure to Air Pollution can be more severe for those who have lung and heart diseases such as asthma, COPD, cardiovascular diseases (risk of heart attack and stroke). If you have such an illness, try to keep your medications available with you

- Seek medical help if you experience breathlessness, giddiness, cough, chest discomfort or pain, irritation in eyes (red or watering).

It is important for Traffic Police personnel to wear an N95 or N99 mask at work as they are exposed to higher levels of pollution due to the nature of work. Remember the following steps to use the mask correctly otherwise they may not be as effective: -

- Wear N95 or N99 masks correctly to cover nose and mouth especially during winter months and early morning working hours to protect from air pollutants, dust, etc.
- If you choose to use face mask, the disposable N95 or N99 is useful provided user instructions are followed.
- Paper and cloth masks are not as effective.
- Nose clip of the must be adjusted to fit the face. Ensure that the size is appropriate for your face and air only passes through filter attached at the front.
- Please remember to replace the mask as per the advisory on the mask.

Call to Action: What Can I Do to Minimise My Exposure?

Objective: To highlight steps to be taken to minimize personal exposure

Prompt: Are you provided with and wear proper PPE (Personal protective equipment) at work regularly?

Instructions: Share some of the suggestions for reducing exposure to the harmful effects of Air Pollution: -

Do's

- Wear personal protective equipment (PPE) during work hours including appropriate shoes, gloves, for overall body protection.
- Check AQI for place of work and try to follow health-activity advisory.
- Take more stringent actions if polluting vehicles are on the road.
- Attend any community trainings/workshops organised on Air Pollution to learn about implementing protective measures.

Do Not:

- Skip wearing PPE & masks at work during early morning and late evening hours especially during winters, peak Air Pollution season, dust storms, etc.
- Forget to emphasize the importance of pollution certificates of vehicles.
- Smoke cigarettes or consume tobacco related products.
- Mix or use PPE used at work with household clothing/items as they may have traces of toxic pollutants, etc.

If supervisors or senior officials are present, then you can discuss if the following strategies are already in place or can be implemented as measures to protect health of Traffic Police personnel:

- Yearly health screening of personnel for health conditions related to Air Pollution while maintaining health cards for recording data
- Provision of PPE (Personal protective equipment) along with N95 or N99 masks.
- Rotation/shifts to reduce duration of exposure of individuals when air quality worsens.

Call to Action: How Can We Reduce Our Contribution to Pollution?

Objective: To empower participants to be leaders in their community and spread awareness about Air Pollution and promoting community action for reducing contribution to Air Pollution

Prompt: Ask participants if they have taken or are currently taking any measures at the community level to combat Air Pollution?

Instructions: Read through some of the suggested steps to reduce contribution to Air Pollution.

Reducing Air Pollution is a collective responsibility. As discussed previously, there are various sources of Air Pollution and collective action is required from all the different sectors involved to reduce contribution to Air Pollution. The following steps can be taken at an individual, household or community level to minimise contribution to Air Pollution:

- As Traffic Police personnel, you play a leadership role to ensure smoother traffic movements, to reduce Air Pollution which is not only beneficial for you but also for people as well. Along with your professional responsibilities, you can participate in community action to reduce Air Pollution and raise awareness about harmful health effects.
- Proactively take up all possible mechanisms to reduce traffic congestions like functional traffic lights and others, etc.
- Discourage violations of traffic laws, practices such as engine idling as well as transfer of uncovered construction material, garbage, etc.
- Encourage family and friends to stop use of solid fuels, biomass, etc. and switch to using renewable energy resources and cleaner energy sources.

- Promote walking, cycling and public transport. However, avoid any strenuous exercise during peak pollution hours as this may affect your health negatively.
- Scale up green initiatives like planting of trees and preserve green surroundings especially near roads and other uncovered non-vegetated areas.

EVERY COMMUNITY ACTION COUNTS, TAKE A STEP TO REDUCE Air Pollution!

Pre-Post Survey for Facilitator

This survey should be taken before reading the manual and flipchart as well as afterwards. This will help you to judge how well understand the contents about Air Pollution discussed here. There are various statements mentioned below. Mark Yes/No against each statement.

1) Particles narrower than 10 micrometres can be the most hazardous as they can enter deep into your lungs, and some can also get into your blood. Y/N
2) Using biomass fuels is good for the environment because unlike fossil fuels they do not produce pollution. Y/N
3) Diesel vehicles are likely to cause more pollution and pose hazards to health since Diesel is classified as class 1 carcinogen Y/N
4) The air inside homes and buildings cannot be polluted. Y/N
5) Breathing polluted air is only harmful for people suffering from respiratory diseases. Y/N
6) Air Pollution adversely affects only our lungs. Y/N
7) Long exposure to Air Pollution can negatively affect mental health and cognitive ability. Y/N
8) Air Pollution can affect not only health of individuals and but also of their future generations. Y/N
9) Even if the air looks clear, it is a good practice to check the AQI before stepping out. Y/N
10) Air Pollution only has short term effects on health. Y/N

Answer Key:

1) Y	2) N	3) Y	4) N	5) N
6) N	7) Y	8) Y	9) Y	10) N

Myth Busters

Myth	Fact
If the air looks clean and then the air is safe and does not affect my health.	Visibility or how clear the air looks may not always reflect the quality of air. Even on days when you do not see any smog, the air quality can be poor. It is best to check the Air Quality Index for the day. Use the official Website/App for Central Pollution Control Board (CPCB): (https://app.cpcbccr.com/AQI_India/) or System of Air Quality and Weather Forecasting And Research (System of Air Quality and Weather Forecasting and Research (SAFAR), Ministry of Earth Sciences (MoES), Govt. of India: (http://safar.tropmet.res.in/)
Plant air purifying varieties of plants (like Devil's Ivy or pothos (Epipremnum aureum), Peace Lily (Spathiphyllum), Philodendron, Chrysanthemums (Chrysanthemum morifolium), Rubber plants (Ficus elastic)) in and around your house.	It is important to plant trees but they cannot be the only solution for cleaning the air inside the house. Reducing Air Pollution sources is the best way to curb Air Pollution. It is important, however, to plant trees, saplings in the outdoors for a cleaner and greener environment!

Myth	Fact
Air Pollution is a winter problem	We can see and breathe unclean air in the winter months, especially during the early morning and late evening hours. We must remember that air quality may also be poor during summer months when visibility is better. The emissions from industries and agricultural burning practices also contribute to Air Pollution. Hence, the effect of Air Pollution can vary depending on where you live. For e.g. in Northern India, winter weather conditions together with agricultural burning make air polluted in winters. But in Southern states, where the weather and agriculture season might be different, the pollution can come from industrial activities and vehicular emissions from the coastal regions.
Burning incense, candles etc. does not contribute to Air Pollution	These activities along with burning wood for cooking/heating activities are all source of indoor Air Pollution
It is best to exercise and ventilate homes during early morning or late evening.	It is best to ventilate (open windows for air circulation) between 12 pm to 4 pm in the afternoon as the air quality is relatively better at that time. Also, avoid physical exercise, playing etc. during the early morning or late evening hours.
If I feel giddiness, cough, sneezing, headaches etc., the reason could be the changing season and not unclean air.	You may experience these symptoms due to changing season and other reasons. But, poor air quality can also be the reason behind this! Immediately refer to a medical practitioner if you experience these symptoms as it may develop into long term diseases discussed earlier.

Myth	Fact
Wearing masks can lead to inhaling less oxygen	Although wearing masks can be uncomfortable, it does not make you breathe in less oxygen. Wear N95 or N99 masks correctly to cover nose and mouth especially during winter months and early morning working hours. If you choose to use face mask, the disposable N95 or N99 is useful provided user instructions are followed. Paper and cloth masks are not as effective. Nose clip of the must be adjusted to fit the face. Ensure that the size is appropriate for your face and air only passes through filter attached at the front.

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This training manual for Community Level Training on Air Pollution and its health effects on Traffic Police personnel will help to develop Trainers at various levels in the States/UTs under the NPCCHH programme to enable them in reaching an increase awareness level on the sources of Air Pollution to Traffic Police personnel, health impacts due to Air Pollution and better adaptation ways to protect and prevent their health effects due to Air Pollution in the States/UTs in the country.

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