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# PESHAWAR CLEAN AIR ALLIANCE ACTION PLAN



## INTRODUCTION

Peshawar city is one of the largest cities in Pakistan, with an estimated population (2017) of approximately 1.9 million. In 2018, the Pakistan Air Quality Initiative found Peshawar to be the fifth most polluted city in the country, with over 183 unhealthy air quality days.

It is difficult to be more specific about ambient air pollution in Peshawar due to the lack of air quality monitoring equipment and research into the health impacts of air pollution.

The Peshawar Clean Air Alliance (PCAA) is a volunteer association of environmental law experts, academics, civil society leaders, and development practitioners sharing a common vision of improving the air quality of Peshawar.



# VISION STATEMENT FOR THE PESHAWAR CLEAN AIR ALLIANCE

*We, the people of Peshawar, believe that clean air is a crucial indicator of sustainable development. Our shared resource is being unethically destroyed on a daily basis, and we are dismayed that the air quality in Peshawar has deteriorated over the years. We wish to see the mountains of the Peshawar Valley again, and therefore have agreed on the following vision for clean air in Peshawar:*

- 1. We believe none of our fellow citizens in Peshawar should get impacted by the effects of air pollution;*
- 2. We trust that air pollution can be tackled swiftly if there is firm political resolve to do so, and so we call upon the Government of Khyber Pakhtunkhwa and local government of Peshawar to take up air quality in Peshawar as a priority public health and environment emergency;*
- 3. We resolve to work together to improve the human quality of life by reducing air pollution-related health issues among residents. The aim is to increase the total number of clean air days in Peshawar to over 100 a year by 2025 – primarily by cutting levels of air pollution at source, while simultaneously encouraging behavioural changes within us.*



# DESCRIPTION OF CURRENT AIR QUALITY AND EMISSION SOURCES

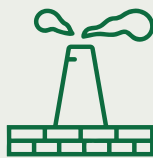
The Environmental Profile of Khyber Pakhtunkhwa published by the Environmental Protection Agency, Khyber Pakhtunkhwa (EPA, KPK) in June 2017 states the major sources of air pollution are:



**Vehicular Emissions**



**Industrial Emissions**



**Emissions from Brick Kiln Factories**



**Burning and Improper Disposal of Solid Waste**



**Domestic Burnings**

In addition to these, the following sources of air pollution in Peshawar have also been a cause for concern:



**Coal depot on Peshawar Ring Road**



**Steel mills situated next to Peshawar**



**Burning of municipal and hospital waste**

The Khyber Pakhtunkhwa Environment Protection Act, 2014 has adopted the National Environmental Quality Standard for Ambient Air issued in 2012. According to these NEQS for Ambient Air, the maximum acceptable levels of PM 2.5 are as follows:

<b>Annual Average</b>	<b>15µg/m<sup>3</sup></b>
<b>24 Hour Average</b>	<b>35µg/m<sup>3</sup></b>
<b>1 Hour Average</b>	<b>15µg/m<sup>3</sup></b>

No operational reference standard air quality monitoring device is available with the Environmental Protection Agency (EPA), KPK. There is a reference standard air quality monitor operated by the United States Consulate in Peshawar, which provides real-time Air Quality Index (AQI) measurements based on PM 2.5 readings at <http://aqicn.org/city/pakistan/peshawar/us-consulate/> and on the Air Quality Index (AQI) website.

AQI is an index used to measure air pollution and is used by different countries. The US Consulate in Peshawar uses the AQI established by the United States Environmental Protection Agency as follows:

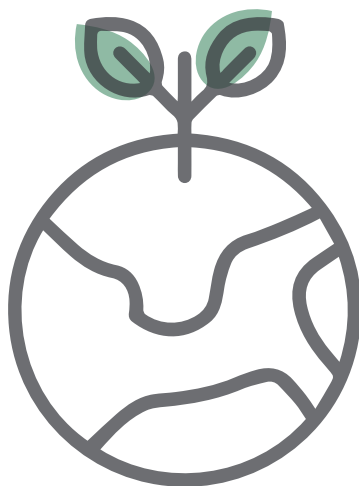
<b>Air Quality Index (AQI) Values</b>	<b>Levels of Health Concern</b>
<b>0 to 50</b>	<b>Good</b>
<b>51 to 100</b>	<b>Moderate</b>
<b>101 to 150</b>	<b>Unhealthy for Sensitive Groups</b>
<b>151 to 200</b>	<b>Unhealthy</b>
<b>201 to 250</b>	<b>Very Unhealthy</b>
<b>251 to 300</b>	<b>Hazardous</b>



## | ACTIONS TO BE IMPLEMENTED

PCAA's Vision is to increase the total number of clean air days in Peshawar to over 100 a year by 2025 – primarily by cutting levels of air pollution at source, while simultaneously encouraging behavioural changes within us.

The Peshawar Clean Air Alliance (PCAA) is aware that improving Peshawar's air quality is not possible without a better understanding of the pollutants in the air, their concentration and spatial coverage. Nor is any air pollution control policy implementable unless there is available data on how air pollution impacts the health and environment of the people of Peshawar, its flora, fauna and wildlife. Therefore, the following actions are the start of a journey towards achieving the PCAA's Vision. To do so, the Alliance has agreed to divide its work into the following Working Groups with the following roles and responsibilities:





## 1) AIR POLLUTION RESEARCH AND MONITORING

Without air pollution monitoring equipment, it is impossible to estimate or act upon air pollution. The Alliance estimates that a network of approximately 20-25 monitors may be suitable to provide some understanding of air pollution in Peshawar. However, the Alliance has agreed that, initially, air pollution monitoring will focus on PM 2.5 emissions, and as the Alliance's capacity increases, both the types of pollutants to be monitored and the number of monitoring stations will be increased. The PCAA goal is to have a complete network of air quality monitors in Peshawar operational by the end of 2022.

This working group will be responsible for rolling out an air quality monitoring network in Peshawar. This shall involve selecting air monitors, selecting sites, connecting the monitors to an online network, and planning arrangements related to the operation and maintenance of the monitors.

The purpose of this monitoring network and collection of air quality data is central to achieving the PCAA Vision. Stakeholders and decision-makers must be confronted with data about the severity and location of air pollution in Peshawar to take concrete steps to address the issue.



## 2) HEALTH IMPACT

The Alliance believes that real action on air pollution cannot take place without clear and verifiable evidence of the impact of air pollution on the health of the citizens of Peshawar. Research needs to be conducted into how air pollution impacts public health. This can take the form of studies from hospitals located in Peshawar and a survey of in-patient ailments to track the negative effects of air pollution on health. Similarly, research can also be conducted into how certain pollutants impact well-being of people. Regardless of the research question, the aim of this group and its research is to produce factual data and analysis of air pollution and its impact on public health, especially the health of children and senior citizens.



This working group will be responsible for identifying health research questions and, with the assistance of the PCAA members, carry out surveys and studies in Peshawar. This working group will also be responsible for collecting any previously conducted research on the impact of air quality on people's health in Peshawar and set up a database of relevant research.



### **3) EMISSION CONTROL**

The control of emissions in various sectors is a primary challenge for the PCAA. Anecdotal and desk-based research and observations indicate that the major contributors to air pollution in Peshawar are:

- Automobile and industrial pollutants.
- Emissions from brick kilns.
- The open burning of domestic and hospital waste.

This working group's responsibility is to analyse these individual contributors to air pollution and propose strategies to mitigate them. For example, for automobile emissions, improved fuel quality and motor vehicle testing need to be introduced. For industrial emissions, air pollution control devices must be identified and brought to the market and industry's knowledge. At the same time, renewable and clean energy sources are also to be identified, brought to market and introduced to potential industrial users. And for waste burning, municipal waste laws need to be improved and strictly enforced.

This working group will be responsible for identifying stakeholders in each contributing category and, with their collaboration, propose concrete measures and strategies to mitigate gaseous emissions to achieve the vision of increasing clean air days in Peshawar.



### **4) MEMBERSHIP, COMMUNICATION AND MEDIA**

The force and effectiveness of PCAA will be in its membership. Most cities that have improved their air quality began with a robust civil society voice and demanded action. The more members PCAA will have, the louder its call will be.

Members of this Working Group will be responsible for bringing in new individual and organisational members. Elected representatives, educational institutions, healthcare professionals, trade associations and chambers of commerce should all be invited to join the PCAA by signing on to its Vision Statement and agreeing to be a part of this Action Plan.

At the same time, this Working Group will also develop contacts with the media and ensure all PCAA events get adequate coverage in the print and electronic media. The Working Group will also operate the PCAA social media platforms and outreach efforts, which will showcase the activities and the progress of the Alliance.

The PCAA understands the limited capacity of the Environmental Protection Agency, KPK and the limitations of air quality data and information for Peshawar. The effort of the Alliance will be to leverage civil society awareness and participation to improve the air quality in Peshawar while initiating the efforts to gather air quality and health-related data to form the basis of decisive policy action.

PCAA is a self-funded initiative. The Working Plan above will be put into action either by using donated facilities of its members or raising funds to get advocacy support, equipment like air pollution monitors or launching other ways to support the Alliance's aim. SEED programme will provide operational and technical support wherever needed. Working Group members will carry out rough cost estimates of their plans and activities, and the members may be requested to donate for respective initiatives in time or resources.

## **SCHEDULE FOR IMPLEMENTING ACTION**



### **AIR POLLUTION RESEARCH:**

- Identify the places where air pollution monitors will be set up
- Identify the type of monitors to be used and their costs
- Identify hosts for the monitors
- Setting up the air pollution monitors
- Arrange for the collection and storage of air quality data
- Broadcast air quality information on all social media platforms
- Provide print and electronic media with up-to-date, real-time air quality information about Peshawar

- Collaborate with the Environmental Protection Department, KPK, to establish comprehensive and real-time air quality monitoring in Peshawar



### **HEALTH IMPACT RESEARCH:**

- Collect existing research done on the health impact of air pollution in Peshawar and establish a database
- Identify research questions to underscore the importance of the PCAA Vision Statement
- Identify hospitals, teaching hospitals and medical researchers for potential collaboration
- Collaborate with the Health Department, KPK and municipal government of Peshawar to conduct a collaborative research



### **EMISSION CONTROL:**

- Identify stakeholders in the transport, industry and waste collection sectors
- Identify pollution hot-spots for all the sectors mentioned above
- Identify air pollution control technologies for each of these sectors
- Propose improvements in fuel quality
- Propose enhanced ways for the inspection of motor vehicles
- Provide industry with information on best available air pollution prevention and control technologies
- Interact with municipal government and private housing schemes to end the practice of open burning of domestic and hospital waste



### **MEMBERSHIP, MEDIA AND COMMUNICATION:**

- Plan a membership drive to bring in new members and strengthen existing members' engagement
- To plan media coverage for PCAA events, petitions and activities
- To use social media and website as primary platforms for awareness and outreach efforts
- Develop a list of media people working or interested in covering air-quality related content



**Adam Smith**  
International

