

वायु प्रदूषण: तथ्य और कार्य

उ0प्र0 में वायु-प्रदूषण पर चिंतन एवं मंथन-जानिए/समझिए/कीजिए

दिनांक:

29 सितम्बर 2021

(बुधवार)

समय:

09:30 से 2:00 बजे तक

अनेकों पर्यावरण और स्वास्थ्य संबंधी शोध कार्यों से यह उभर कर सामने आया है कि वायु प्रदूषण से सबसे ज्यादा प्रभावित शहर उत्तर भारत में हैं। इन राज्यों में आवासित लोग प्रदूषण के कारण अपने जीवन को 9.5 वर्ष की अवधि तक खो रहे हैं। वायु प्रदूषण का छोटे बच्चों, गर्भवती महिलाओं, बुजुर्गों के स्वास्थ्य पर विशेषकर विनाशकारी प्रभाव परिलक्षित हो रहा है। लंग केयर फाउंडेशन द्वारा हाल ही में दिल्ली में किए गए एक अध्ययन में अस्थमा और एलर्जी, सांस लेने में परेशानी और मोटापे से संबंधित लक्षणों के तेजी से प्रसार को दर्शाने संबंधी चौंकाने वाले निष्कर्ष सामने आए है। अतः वायु प्रदूषण को कम करने हेतु ठोस कदम के लिए तीव्रता से काम करने की आवश्यकता है। यह आयोजन हमारे समक्ष विद्यमान चुनौतियों का समाधान करने, पूरे राज्य में स्वच्छ हवा के लिए काम करने और सार्वजनिक-निजी भागीदारी विकसित करने हेतु सभी संबंधित हितधारकों को एक मंच पर साथ लाने का प्रयास है।

स्थान -

उ0 प्र0 अभिव्यक्ति सभागार, 112 आपातकालीन सेवा भवन, 7/13, अमर शहीद पथ, गोमती नगर, लखनऊ, उत्तर प्रदेश - 226010.

आमंत्रित अतिथि -

चिंतक, हितकारक सहयोगी, राजनीतिज्ञ, लोक सेवक, सामाजशास्त्री, शिक्षाविद, चिकित्साविद, मीडिया विशेषज्ञों व अभिभावकों सहित प्रमुख दिग्दर्शक।

> कार्यक्रम निदेशक -डॉ. ए.पी.माहेश्वरी

#ACTnowUP

ध्येय

- सार्वजनिक स्वास्थ्य के प्रति वायु
 प्रदूषण से उत्पन्न खतरों के सापेक्ष
 तीव्र गति से सुधारात्मक कार्यवाही
 की आवश्यकता का बोध
- उत्तर प्रदेश में वायु प्रदूषण के खतरों को कम करने की दिशा में समाधान पर चिंतन तथा सार्वजनिक और निजी प्रयासों के संभाव्य विकल्पों के प्रति संस्तुतियां























कार्यक्रम का विवरण

09:30 से 10:00 बजे तक

पंजीयन, परस्पर परिचय एवं जलपान

10:00 से 10:15 बजे तक

स्वागत, लंग केयर फाउंडेशन (LCF) और सहयोगियों के बारे में उल्लेख -श्री राजीव खुराना - संस्थापक ट्रस्टी, LCF कार्यक्रम - रूपरेखा एवं संचालन डॉ. ए.पी.माहेश्वरी - कार्यक्रम निदेशक व संरक्षक, LCF

10:15 से 11:00 बजे तक

सार्वजनिक 'स्वास्थ्य-आपातकाल' के सापेक्ष वायु प्रदूषण के विनाशकारी प्रभावों के बारे में अध्ययन

श्री आशीष तिवारी – सचिव, उ०प्र० प्रदूषण नियंत्रण बोर्ड श्री वैलेन्टिन फोलटेस्कु - वरिष्ठ कार्यक्रम प्रबंधन अधिकारी, UNEP डॉ. (प्रोफेसर) अरविंद कुमार – संस्थापक ट्रस्टी, LCF श्रीमती श्रुति भीमसरिया - AQLI, EPIC डॉ. (प्रोफेसर) सच्चिदानन्द त्रिपाठी - IIT कानपुर एवं NCAP MOEFCC की संचालन समिति के विशेष सदस्य

11:00 से 11:45 बजे तक

'पैनल डिस्कशन'

श्री आलोक रंजन - पूर्व मुख्य सचिव, उ**0**प्र**0**

डॉ सूर्य कांत - किंग जॉर्ज मेडिकल कॉलेज

श्री सुधीर मिश्रा - नवभारत टाइम्स

श्री वैभव चौधरी - भारत प्रमुख, CAF

श्री संजय श्रीवास्तव - अपर मुख्य वन संरक्षक, CAMPA

श्री यशवंत चौहान - युवा प्रतिनिधि

11:45 से 12:05 बजे तक

जलपान

12:05 से <mark>12:55 बजे तक</mark>

सभी प्रतिभागियों के साथ विचार-विमर्श, लेफ्टिनेंट जनरल (डॉ.) बिपिन पुरी, कुलपति, केजीएमयू, लखनऊ की अध्यक्षता में

12:55 से 1:05 बजे तक

मुख्य अतिथि महोदय श्री मनोज सिंह, अतिरिक्त मुख्य सचिव, पर्यावरण, वन तथा जलवायु परिवर्तन,उत्तर प्रदेश शासन के समक्ष श्रीमती मातृश्री शेट्टी, निदेशक प्रोग्राम, LCF एवं डॉ.कार्मिन उप्पल, प्रोग्राम प्रबंधक, LCF के द्वारा संक्षिप्त प्रस्तुति

1:05 से 1:15 बजे तक

माननीय मुख्य अतिथि द्वारा उद्बोधन एवं आगे का मार्ग प्रशस्त करना

1:15 से 1:30 बजे तक

कार्यक्रम का समापन

1:30 से

दोपहर का भोजन

Air Pollution: FACTS to ACT

A ROUND TABLE
To Deliberate
Stakeholders'
Actions In UP

DATE: SEPTEMBER 29, 2021 (WEDNESDAY) TIME: 9.30 AM TO 2.00 PM

VENUE:

ABHIVYAKTI AUDITORIUM, UP EMERGENCY SERVICES BUILDING, 112, 7/13, AMAR SHAHEED PATH, GOMTI NAGAR, LUCKNOW, UTTAR PRADESH, 226010

Multiple environmental and health researches indicate that some of the worst air pollution impacted cities are in northern India with U.P. amongst the more badly affected. People living in the state lose as many as 9.5 years of their life due to exposure to high levels of air pollution. Air Pollution has devastating impact on the health of people, especially young children, expecting mothers and the elderly. A recent study by Lung Care Foundation, revealed alarming findings showing prevalence of symptoms related to asthma and airway obstruction/asthma, childhood obesity in Delhi which is indirectly attributed to the high air pollution levels in the city. It is therefore, imperative to work in full speed for concerted action to mitigate air pollution. This round table brings together the key stakeholders and thought leaders to evolve Public-Private Partnership to address some common challenges and work for cleaner air across the state.

PARTICIPANTS INVITED:

THOUGHT LEADERS,
STAKEHOLDERS AND KEY
INFLUENCERS FROM THE
DOMAIN OF POLITICS,
BUREAUCRACY, CIVIL
SOCIETY, ACADEMIA,
MEDIA, MEDICINE,
PARENTS ETC.

PROGRAMME DIRECTOR: DR. A P MAHESHWARI

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OBJECTIVES

- Recognize the need and speed to take corrective actions pertaining to the dangers of air pollution to public health
- Deliberate solutions and recommend the course of public and private actions for reducing the dangers of air pollution in UP























FLOW OF EVENTS

9:30 - 10:00 AM

Registration; Informal Networking and Tea

10:00 - 10:15 AM

Welcome, About LCF and Partners -

Mr. Rajiv Khurana, Founder - Trustee, LCF

Programme Course and Pace Setting -

Dr. A P Maheshwari, Event Director and Patron, LCF

10:15 - 11:00 AM

Research findings about Air Pollution as a public health emergency

Mr. Ashish Tiwari, Secretary, Department of

Environment, Forest & Climate Change

Mr. **Valentin Foltescu**, Senior Programme Management Officer at UN Environment Programme

Dr. (Prof.) Arvind Kumar, Founder - Trustee, LCF

Ms. Shruti Bhimsaria, AQLI, EPIC

Dr. (Prof.) Sachchida Nand Tripathi, IIT Kanpur & expert member of the Steering Committee, NCAP

11:00 - 11:45 AM

Panel discussion: The Way Forward...

Mr. Alok Ranjan, Former Chief Secretary, UP

Dr. Surya Kant, King George Medical College

Mr. Sudhir Mishra, NavBharat Times

Mr. Vaibhav Chaudhary, Country Lead, Clean Air Fund

Mr. Sanjay Shrivastava, Addl. Chief Conservator of Forests. CAMPA

Mr. Yashwant Chauhan, Youth Representative

11:45 - 12:05 AM

Tea Break

12:05 - 12:55 PM

Round-table deliberations amongst all the participants. Presided over by Lt. Gen. (Dr.) Bipin Puri, Vice-chancellor, KGMU, Lucknow

12:55 - 1:05 PM

Defining and refining the action agenda
Summary presentation by Ms. Matrushri P. Shetty,
Director - Programs & Strategy, LCF & Dr. Carmin
Uppal, Program Manager, LCF in presence of the Chief
Guest, Mr. Manoj Singh, Add. Chief Secretary,
Government of UP - Environment, Forest and Climate

1:05 - 1:15 PM

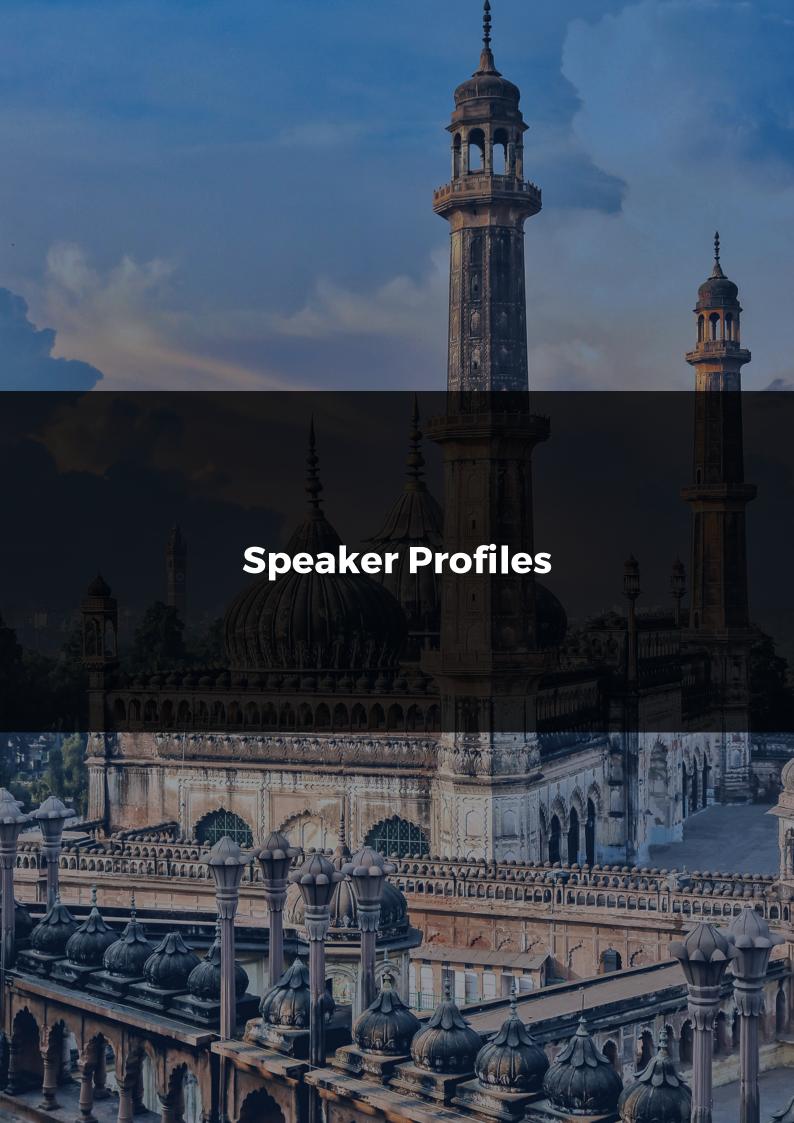
Leading the way forward... Key note by the Chief Guest

1:15 - 1:30 PM

Closing

1:30 PM

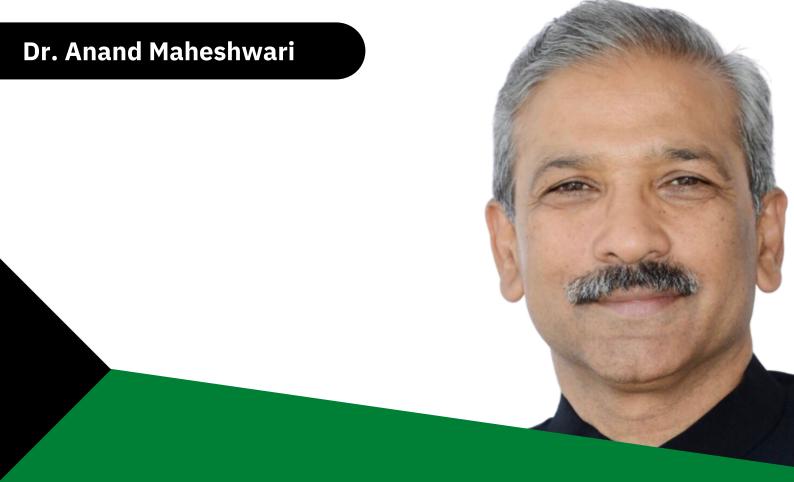
Lunch



Shri Alok Ranjan



An officer with 38 years of distinguished service. An IAS officer (U.P Cadre), M.B.A from IIM Ahmedabad and B.A. (Hons) Economics from St. Stephens College, Delhi. He retired as the Chief Secretary of Uttar Pradesh. An established leader, with extensive experience of administration cutting across a wide variety of sectors concerned with Economics, Finance & Industrial Governance. An established thought leader and public speaker who has given talks at various educational and business forums. He is the chairman of - Policy Think Tank: Advising the Government on various aspects of Policy Formulation and Implementation. He is the past President and current Member of the Executive Committee of the Lucknow Management Association. As a Chief Secretary of Uttar Pradesh, Mr. Ranjan was responsible for the overall Administration, Policy, Development and Law & Order Management of the state. Introduced a work culture of accessibility, transparency, integrity and result orientation leading to efficient and timely implementation of all development projects. He conceptualized and executed the Lucknow Metro Rail project within a record span of 26 months and completed the 302 km long Lucknow - Agra Expressway in a record time of 22 months. He implemented the largest social welfare scheme - Samajwadi Pension Scheme covering 55 lac families. Further, he launched the 'Dial 108 program', providing free ambulance service within 20 minutes, anywhere across the state. He was instrumental in revamping the complete infrastructure and operations of the 'Dial 100 program', ensuring police assistance within 15 minutes and launching the women helpline - 1090 to tackle harassment and crime against women. He ensured that the district ranked among the top 10 in the state and was awarded a gold medal for achieving targets under Family Planning and National Small Savings. He has authored two books and has also written articles for leading national publications such as Times of India, Economic Times, Business Standard, Hindustan Times and a fortnightly column for The Millennium Post.



Dr. A.P. Maheshwari (an IPS officer of 1984 batch) during his tenures in communally sensitive towns of UP, conflict ridden zones of Assam, J&K and states impacted by maoist violence while being with the CRPF & BSF, rose to head the Bureau of Police Research and Development and Internal Security Wing of Ministry of Home Affairs. He culminated his career as chief of the largest armed police force, the CRPF. He has been decorated with the 'President Medal' for distinguished services and the 'Police Medal' for gallantry. He has authored over 14 books on several poignant facts of life which have been well appreciated both in the professional as well as other eminent circles. His works have received appreciation from eminent personalities like Dr. A.P.J. Abdul Kalam, Gaurapant Shivani, Gopal Das Neeraj, Ruskin Bond and others. He has published over 40 articles and many of these have been picked up by the National Dailies and other professional journals. Dr. Maheshwari has always had an inherent sensitivity towards environmental issues right from his early days. During his posting as District Police Chief in Banda, Bahraich, Bijnor and Gorakhpur, he went all out to work for the protection of forest and wildlife by extending full cooperation to the forest officials. Even in the Central Armed Forces, he focused on waste management, plastic free zones, water conservation, tree plantation drives and green campuses. He was also associated with the Save River Mission. Internal Security Warriors in fact also often assume the role of environmental warriors. During the Covid period, the Central Forces have emerged as 'Covid Warrior' helping the community in so many ways that has also included Covid impacted 'lung care'.



Dr. Kumar is a renowned Chest Surgeon. He is presently the Chairman, Institute of Chest Surgery, Chest Onco-Surgery and Lung Transplantation & Co-Chairman, Medanta Robotic Institute, Medanta - The Medicity, Gurugram, India. He is the former Chairman, Centre for Chest Surgery & Director - Institute of Robotic Surgery, Sir Ganga Ram Hospital, New Delhi, India and Professor of Surgery, All India Institute of Medical Sciences (AIIMS), New Delhi. He has been honoured with Dr. B.C. Roy Award for "Eminent Medical Person of the Year 2014" for his contribution in the field of Medicine by the President of India.

He is also the Founder & Managing Trustee - Lung Care Foundation, a Guinness World Record Holding social impact trust, with the aim of working towards Clean Air, Climate Action and Health. He is also the Lead for Doctors for Clean Air and Climate Action Network and the Lead Investigator on a recently released research study establishing the link between air pollution and obesity, asthma and allergic diseases. He has been invited for a Keynote Address on Health Impacts of Air Pollution at the First Air Pollution and Health conference organized by WHO in Geneva and to United Nations Headquarters, in New York.

He is a very popular health voice on air pollution and climate change at various International and National climate conferences organized by UN, UNFCCC - COP 24, Skoll Foundation, World Economic Forum, Clean Air Fund, Confederation of Indian Industries...

He is the Member of the Global Future Council on Clean Air, World Economic Forum and is also a Clean Air Champion with Every Breath Matters along with the likes of Leonardo Di Caprio, Dr. Tedros Adhanom & Christiana Figueres.

Today, Dr. Arvind Kumar is a leading International Voice in Health, Air Pollution and Climate Change quoted by many Indian and International Media groups (both Print and Electronic)

Shri Ashish Tiwari



Mr. Ashish Tiwari (an IFS officer of 1995 Batch) is a highly motivated Senior Executive, with more than 25 years of proven success spanning across Policy and Planning level senior positions. He has a technical, theoretical and practical educational background from Indian Institute of Technology, Delhi and Forest Research Institute, Indira Gandhi National Forest Academy Dehradun (Deemed University). He is presently the Secretary, Environment, Forest & Climate Change, Government of Uttar Pradesh, and is leading key initiatives on climate change action and various Sustainable Development Goals. He is guiding the preparation of the State Action Plan on Climate Change (SAPCC) for the state of Uttar Pradesh covering missions related to Sustainable Agriculture, Nonrenewable energy (Solar), Energy Efficiency, Green Forestry, Water Mission, Strategic Knowledge, Sustainable Habitat, Sustainable Health & Disaster Management. He is guiding & leading the initiatives on Mainstreaming & Integration of Climate Change Action into Development Schemes / Policies & Programmes. Additionally, he is also the Director, Directorate of Environment. He overlooks the implementation of schemes related to environmental research and studies, climate change, the establishment of common waste treatment facilities, etc. He was the Head & Member Secretary of the State Pollution Control Board, Uttar Pradesh, where he guided and implemented key initiatives which helped to mitigate the adverse impact of pollution in the state. He has a demonstrated history of working in the government and also with community, local stakeholders, premier research and technological institutes of repute and international organizations like World Bank, United Nations Environment Programme, World Food Programme, etc. in the fields of Climate Change Adaptation and Mitigation, Environmental Conservation, Pollution Control, Biodiversity Conservation, Forestry, Wildlife Conservation and more. Mr. Tiwari is skilled in innovative technologies application, online monitoring systems & virtual monitoring for pollution control, pollution abatement planning, environmental compliance & awareness, climate change mitigation, and natural resource conservation.



Lt. Gen. (Dr.) Bipin Puri (Retd) PVSM, VSM, is currently the Vice Chancellor of the King George Medical University, Lucknow since August 10, 2020. He retired from the Armed Forces from the apex position of Director General Armed Forces Medical Service on October 31, 2019, an appointment equivalent to Secretary, Govt. of India. As the Director General Armed Forces Medical services he has had a versatile experience in healthcare, with focus on evolving strategies and utilizing existing resources to enhance the organization's mandate in the medical ecosystem. His role encompassed creation and modernization of more than 200 Armed Forces hospitals providing primary, secondary and tertiary level of health care to the Armed Forces personnel and their dependants with a task force of 7000 doctors, 5000 nurses, 700 dentists and nearly 65000 paramedics. During his tenure as the Director General, Armed Forces Medical Service he spearheaded the Medical Research program of the Armed Forces and brought synergy of clinical and basic research with DRDO, the research arm of the Ministry of Defence. He has been a member of the Governing Council of ICMR and National Board of Examinations and also the Chairman of the International Congress of Military Medicine and was in Chair for two years. His journey as the Chairman, War Surgery Chapter of the Association of Surgeons of India helped catapult Military Medicine in India to the next level.



Dr. Carmin Uppal is a Program Manager with Lung Care Foundation primarily looking after Doctors for Clean Air and Climate Action (DFCA) program. She is a Public Health Professional along with a trained Ayurvedic Doctor. She holds a Masters degree in Public Health from Public Health Foundation of India, Delhi, a Post Graduate Diploma in Health and Family Welfare and Bachelors in Ayurvedic Medicine and Surgery from Panjab University, Chandigarh.

She has worked in diverse clinical settings with the Government, private and civil society organizations having rich clinical and public health experience. As part of her profile as an Ayurvedic physician at a Government Model Hospital in Baddi, she had the opportunity to work with the local people on health issues caused by air pollution. During her professional career she has also conducted many awareness workshops and health camps in government and private schools of Chandigarh and Delhi on health impacts of air pollution and other non-communicable diseases.



Shri Manoj Singh (an IAS officer of 1989 Batch) is presently serving as Additional Chief Secretary, Environment Forest and Climate Change Department, Government of Uttar Pradesh. He was adorned with his excellent service in the important posts of the Government of India along with the State Government of Uttar Pradesh like District Officer Gautam Buddha Nagar, Ghaziabad, Bhadohi and Muzaffarnagar. He was also the Principal Secretary, Social Welfare. In the Government of India, he has served as the Private Secretary to the Hon'ble Union Minister and Commissioner Navodaya Vidyalaya during which he successfully fulfilled the responsibilities. Shri Manoj Singh's style of work, soft spoken and positive aspects and style of encouraging people shows his ability to take everyone along. With this ease and availability, Mr. Manoj Singh truly sets an example of an ideal officer. Easy approachability, simplicity and spontaneity of a high rank officer, is truly divine. He is a responsible and unparalleled officer.



Matrushri P. Shetty is the Director - Programs and Strategy at Lung Care Foundation. She is a development sector professional with more than 15 years of experience and has worked on diverse issues like Health, Education, Skill Building and Mental Health. She is a trained Developmental Psychologist from The Maharaja Sayajirao University of Baroda with an Advanced Diploma in Child & Adolescent Guidance and Counselling from NIPCCD, New Delhi. She has worked with organizations like Centre for Education Management and Development, Naz Foundation, Modicare Foundation, Aries Social Solutions amongst others.

Matrushri joined Lung Care Foundation (LCF) when it was still at a nascent stage. She has been instrumental in building the vision of the organization and strategic planning towards realizing it. She played a crucial role in building the network of 40 senior Doctors & 21 National Medical Associations with a total membership of more than 2,00,000 Medical Practitioners under the Doctors for Clean Air Program and in developing an active network of more than 2,500 students reaching 3,75,000+ students in their own schools through B.E.S.T. (Breathe Easy Stay Tough) Clubs to work on air pollution & health awareness across the country. She is also instrumental in planning and on-ground implementation of various other programs by Lung Care Foundation.

Shri Rajiv Khurana



Rajiv Khurana CMC, FIMC Founder - CEO: The Personnel Lab., Management Consultants (Since 1985) Co-Founder - Trustee: Lung Care Foundation. An International Management Consultant, Trainer, Executive Coach, Independent Director, Corporate Board Advisor, Venture Mentor and Social Entrepreneur by description, he is a well published thought leader, writer, author, blogger and vlogger. He has been a TV and Radio anchor besides being an inquisitive award-winning photographer and a serious poet. He has co-led his social venture, Lung Care Foundation, creating a Guinness World Record on December 23, 2017. Mr. Rajiv is a Certified Management Consultant and a Fellow of the Institute of Management Consultants of India. He has 5 years of industry and 36 years of consulting and training experience with a variety of MNCs, Indian corporates, International UN bodies, funding organizations, Non-profit organizations, colleges and schools in India. He has worked extensively in India, Asia and Africa. He is an alumnus of Shri Ram College of Commerce, Delhi University. He has done numerous degrees/courses in Law and Management. He has authored 9 books. More than 2,000 of his articles/columns have been published in English and Hindi national dailies. He has addressed over a million students, teachers and parents on careers in over 50 cities of India in person and through the virtual mode relating to Career Planning, Parenting and Innovative Teaching Methodologies, in English and Hindi. Pictures taken by him have been exhibited widely and auctioned for the benefit of various NGOs. He has been bestowed with numerous awards. He has been recognized by DAV UNITED as Pride of DAV Institutions. In brief - He is an HONER, IDEATOR and MENTOR. During the LOCKDOWN period, he dedicated himself to the cause of public health on behalf of LUNG CARE FOUNDATION. He has so far held over 100 virtual programmes reaching millions of people in India. He has also led LCF to reach medicines and equipments to over 60,000 people in rural India across 14 states.



Dr. Sachchida Nand Tripathi is a Higher Administrative Grade (Senior) Professor at the Department of Civil Engineering at IIT Kanpur. He also holds Arjun Dev Joneja Chair in Civil Engineering. He is the recipient of Shanti Swarup Bhatnagar Award (highest in science and technology given by Government of (India) and the J C Bose National Fellowship. He is an elected fellow of the Indian National Science Academy, Indian National Academy of Engineering and National Academy of Sciences of India and recipient of the Distinguished Alumnus award of Banaras Hindu University. He was a Senior Fellow at NASA Goddard Space Flight Centre. Professor Tripathi is also on the editorial board of Environmental Science and Technology Letters, Journal of Aerosol Science and Environmental Science: Atmospheres. He has made an impactful contribution to address challenges of Air Pollution and Climate Change. Prof Tripathi has built ground-breaking innovative approaches for indigenously built low-cost sensor-based network technologies for nation-wide urban air quality monitoring and Real Time Source Apportionment. His work on Taj Mahal discoloration led to policy interventions in Agra city. His pioneering work in aerosol-induced cloud invigoration effect (AlvE) and

synergy of coupling between urban land use, land cover and Cloud Condensation Nuclei-induced AIVE has contributed significantly in future urban planning to avoid flash floods. He is also the Lead Coordinator of the National Knowledge Network, formed under the National Clean Air Mission and an expert member of the Steering Committee, NCAP, MoEFCC and Member, Executive Council, Climate Change Program, Department of Science and Technology.



Shri Sanjay Shrivastava (an IFS officer from 1989 batch) is the Additional PCCF, and Chief Executive Officer, U.P CAMPA. He has done MTech from IIT Kanpur in Hydraulics and Water Resources Management. Presently, he is implementing the CAMPA Project in the State of U.P. He is a wildlife lover and has varied experience of managing Wildlife Sanctuaries and Wetlands of Uttar Pradesh. He has had rich experience in the field of ex-situ conservation during his tenure as Director Lucknow Zoo and Director Etawah Safari Park. Under the guidance of CZA, he is a pioneer in the country in coordinating the successful vaccination of Asiatic Lions against the deadly disease of Canine Distemper.

As Additional PCCF Ecodevelopment and Authorised Officer, UP State Wetland Authority, he has coordinated a mammoth task of Incorporating wetlands in land records of the State Government. He also managed data for the submission of proposals for the declaration of Ramsar Sites and with the help of Wetland International and MoEFCC 07 new Ramsar sites were declared in the state of Uttar Pradesh.



Ms. Shruti leads Research and Strategic Partnerships for EPIC India. In this role, Shruti develops research partnerships related to energy and environmental policy, forms strategic alliances for AQLI, manages research, and develops and expands EPIC-India's pipeline of applied economics research projects.

Shruti recently served as the Head of Research at Climate Vault, a non-profit founded at the University of Chicago that leverages existing carbon markets to help organizations and individuals meet their carbon reduction goals. Before this, Shruti spent several years at J-PAL South Asia, where she managed the Energy and Environment Portfolio and was notably involved in the design and launch of India's first emissions trading platform for particulate matter. She has experience working on energy access, air pollution, net-zero strategies, and carbon markets. She has also briefly dabbled in health and governance research.

Shruti recently completed her Masters in Public Policy from the University of Chicago where she served as an Irving B Harris fellow, as well as a World Bank scholar. Shruti also holds a Masters in Economics from the Gokhale Institute of Politics and Economics and a Bachelors in Economics, Maths & Statistics from Banasthali University.



Shri Sudhir Misra has wide experience in Journalism spanning more than 25 years with brands like Dainik Jagran, Dainik Bhasker, Hindustan, NBT etc. Currently, he is working as a Senior Editor in Navbharat Times handling Lucknow & NCR units. He has also worked as an Executive Editor at Dainik Bhaskar, Udaipur, Sriganganagar, Rajasthan. He has covered many UN summits between 2006 - 2017.

He is a member of BCCL Top Gun Club in recognition of his consistent high performance, potential to rise and succeed in leadership programs. He attended a special training program at Bhabha Atomic Research Center on Atomic reporting in 1999. He has conducted special research work on the homeless community of UP, India and has written more than 1000 special & exclusive news items. He has also covered special research based stories on health issues, attended many conferences, seminars & workshops on development journalism. His work also includes Child Rights & other Developmental issues with UNICEF. He has received various fellowships like the International Kaiser Health fellowship on HIV AIDS and the first CSE Media Fellowship for the South Asian Region (Climate Change in South Asia).



Dr. Surya Kant is the Professor & Head of the Department of Respiratory Medicine at King George's Medical University at Lucknow. He is the National Vice Chairman, IMA-AMS and a Governing Body Member, AIIMS Patna. He is the Clean Air Champion with the Doctors for Clean Air and Climate Action Network. He is an eminent academician, IMA Honorary Professor since 2017 and IMA CGP Honorary Professor since 2021. He has authored 17 Books, 700 Research Publications, 18 Fellowships, 10 Orations, and has 2 US Patents and 142 awards to his credit. He has supervised the research work of about 200 Medical Post Graduate and Research students and is on the Editorial / Advisory Board of 20 Journals and is a national expert of 22 committees for making Indian Guidelines on various Respiratory Diseases. Along with MBBS and MD, he is also a certificate and diploma holder of short courses in 21 subjects (including Yoga, Naturopathy, Health Education and Nutrition etc.). He is an able administrator. He has served as a professor for 16 years and Head of Department for about 10 years along with various other administrative posts at KGMU. Dr. Surya Kant has contributed widely during the COVID -19 pandemic. He is a State and National trainer for COVID -19 and disseminates education, knowledge, skills and awareness to the medical fraternity and community through webinars. He has developed a shorter and cheaper treatment protocol for rural COVID patients, which helped in saving thousands of lives. For his exemplary contribution in the field of COVID, he has been honored with many laurels. He played a pivotal role as an external expert in developing UP Government Order of Ivermectin and Doxycycline based Covid Protocol for the prevention and treatment of Covid-19.

Dr. Surya Kant is an ardent philanthropist. He is involved in charitable work through more than 20 NGOs in the field of TB, Tobacco, Cancer, COVID, Air Pollution, Eye and Divyang Relief, etc., for more than 30 years. Recently, he facilitated the donation of oxygen concentrators to KGMU with the help of the Right Walk Foundation. He also distributed free COVID Medicines to patients in rural and urban slum areas with the help of various NGOs and networks of Gram Pradhans.



Vaibhav Chowdhary is the Country Head for Clean Air Fund (CAF) in India.

Prior to joining CAF, Vaibhav worked as a Director for Policy and Development at the Energy Policy Institute at the University of Chicago (EPIC). Over the past 15 years, Vaibhav has designed and delivered various high value programs in the areas of air pollution mitigation, energy transition, climate change and power sector reform in partnership with central ministries, state governments, philanthropies, overseas development organisations, and think tanks in India and the South Asia region.

Before EPIC, Vaibhav served as the National Energy Adviser to the Government of the UK (in India) wherein he built a multi million GBP low carbon growth portfolio for India through UK Prosperity Fund and International Climate Fund (ICF). Vaibhav had also worked as a management consultant with PricewaterhouseCoopers delivering programs on energy efficiency and renewable energy. In his early years, Vaibhav worked as an instrumentation engineer at Asia's biggest metals and mining conglomerate Vedanta Resources Plc, writing codes for industrial automation.



Valentin Foltescu has been active in the field of the atmospheric environment since the 1990s, carrying out monitoring, modeling (from global to local scales), integrated assessments, air and climate policy development and implementation. Valentin Foltescu is Senior Programme Management Officer in the United Nations Environment Programme, Climate and Clean Air Coalition Secretariat. He joined UNEP in 2015. Prior to that he worked in European Union Institutions (European Environment Agency and European Commission –Joint Research Centre) and Swedish governmental institutions and universities. He holds a doctorate in Environmental Science from Gothenburg University and is a Chalmers University of Technology Associate Professor.



An Automotive Engineer from VIT University, Vellore, Yashwant started the Lucknow Chapter of Fridays For Future two years ago. Since then the youth movement has gone on to address several educational institutions on issues of climate change, assisted in creating green spaces in the city and engaged with various Governmental institutions to better understand and tackle the Climate Change crises. He is also the head of Branding and Content for Metaphor Lucknow Litfest and a part time writer.



Reading Material

Air Pollution and Climate Change is a rapidly evolving area with new facts and scientific evidence emerging everyday. This section presents the summary of the latest information and research in the field to help set the context for our work together to mitigate the problem.



Revised Air Quality Guidelines by WHO

Executive Summary

The World Health Organization released the revised air quality guidelines on September 22, 2021, 16 years after the previous update. According to WHO, air pollution is a major environmental risk to health. In 2016, 91% of the world's population was living in places where the WHO air quality guidelines levels were not met. Ambient (outdoor) air pollution in both cities and rural areas was estimated to have caused 4.2 million premature deaths worldwide in 2016. An estimated 91% of these premature deaths occurred in low and middle-income countries and a greater number of these were from the South-East Asian and Western Pacific regions. In addition to outdoor air pollution, indoor smoke is a serious health risk for some 3 billion people who use biomass, kerosene fuels and coal for cooking and heating purposes.

The revised guidelines are more stringent than the 2005 values. Here is a comparison of the WHO 2021 levels with guidelines issued in 2005.

Table 1. Recommended 2021 AQG levels compared to 2005 air quality guidelines

Pollutant	Averaging time	2005 AQGs	2021 AQG level
PM _{2.5} , μg/m ³	Annual	10	5
	24-hour ^a	25	15
PM ₁₀ , μg/m³	Annual	20	15
	24-hour ^a	50	45
O ₃ , μg/m³	Peak season ^b	-	60
	8-hour ^a	100	100
NO₂, μg/m³	Annual	40	10
	24-hour ^a	-	25
SO ₂ , μg/m ³	24-hour ^a	20	40
CO, mg/m ³	24-hour ^a	-	4

μg = microgram

Note: Annual and peak season is long-term exposure, while 24 hour and 8 hour is short-term exposure.

PM2.5 and health: There is a strong association between ambient air particulate pollution and increased incidence of non-communicable diseases. Health studies have shown a significant association between exposure to fine particles and premature mortality. Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children.

Air pollution in South Asia/ South-East Asia and the significance of the revised guidelines: South Asia is home to the most polluted countries on Earth. Bangladesh, India, Nepal and Pakistan consistently rank among the top five most polluted countries in the world, while 42 out of the 50 cities with the poorest air quality are in South Asia. Fossil Fuels – Coal, Oil, and Gas – the major drivers of climate change, are also the biggest contributor to the poor air quality in the region. Air pollution exposure is the second most important risk factor for ill-health in South Asia.

^{*99}th percentile (i.e. 3-4 exceedance days per year).

^b Average of daily maximum 8-hour mean O₃ concentration in the six consecutive months with the highest six-month runningaverage O₃ concentration.

Here is a glimpse of how some of the worst polluted countries in the world fare on their PM2.5 standards in comparison to WHO 2005 guidelines:

Table 2: Comparison of PM2.5 standards of countries with WHO 2005 and 2021 guidelines

	Annual Mean (µg/m³)	24-hour mean (μg/m³)	
WHO 2021 Guidelines PM2.5	5	15	Pollution Ranking
WHO 2005 Guidelines PM2.5	10	25	
<u>Bangladesh</u>	15	65	1
<u>Pakistan</u>	15	35	2
<u>India</u>	40	60	3
<u>Indonesia</u>	15	65	9
Nepal		50	12
<u>Sri Lanka</u>		50	30
South Korea	15	35	41
Malaysia	15	35	58
Philippines	25	50	70
Bhutan	40	60	

Management of air pollution sources, particularly those which affect territories over thousands of kilometers, require high levels of coordination and cooperation among several institutions across states and countries.



New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution

Air pollution is one of the biggest environmental threats to human health, alongside climate change.

www.who.int/news/item/22-09-2021new-who-global-air-quality-guidelinesaim-to-save-millions-of-lives-from-airpollution

Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report

Executive Summary

The Intergovernmental Panel on Climate Change's (IPCC) report on the physical science basis of climate change, was published on 9 August 2021. It comes at an important moment for global climate change action. Its findings necessitate the need for urgent action towards the impending air pollution and climate crisis at large.

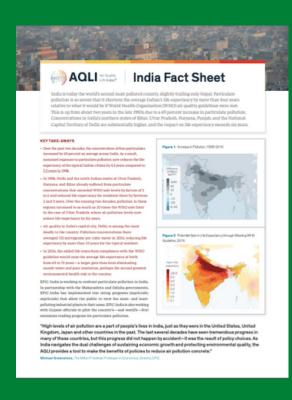
Key Highlights of the Report:

- The mounting and catastrophic impacts of climate change spotlighted by this report underscore the importance of limiting global warming to 1.5°C. The world must close any remaining ambition gap to reach this target on time, this year.
- While the 1.5°C pathway is narrow, staying under 1.5°C is achievable if the world acts quickly and decisively. The global carbon budget (the limited volumes of GHG emissions that can be released before reaching given warming thresholds), can easily be exhausted without immediate, decisive mitigation actions.
- Every fraction of a degree matters. The difference between scenarios of 1.5oC of warming and 2oC of warming is dramatic. The AR6 report underlines what we already know: climate change is happening, the effects are worsening, and it is directly attributable to human activity.
- Science shows impacts are stronger than previously predicted (sea level rise, polar ice sheet melting, forest fires, coral die-off, floods) and will get stronger, costlier, more devastating than previously thought, even under "low carbon" scenarios in the future. Many concurring factors like the overuse of resources, pollution, biodiversity decline, poverty and social inequality, impede resilience and increase catastrophic risks.
- It is clear that many of these dramatic impacts directly attributed to human-driven climate change are already locked in. The IPCC report also makes the point about the urgency of getting serious in addressing loss and damage, and drastically increasing efforts to enhance adaptation and resilience globally.
- The IPCC remains the gold standard on climate science. With every new report, including this one, our understanding of climate change and its impacts becomes more precise, as does the attribution of catastrophic events to human-induced climate change.

Energy and Policy Institute Chicago: Report on Air Quality Life Index

Key Highlights of the Report:

- India is the world's second most polluted country. Particulate pollution is so severe
 that it shortens the average Indian's life expectancy by more than four years relative
 to what it would be if World Health Organization (WHO) air quality guidelines were
 met.
- Sustained exposure to particulate pollution now reduces the life expectancy of the typical Indian citizen by 4.3 years compared to 2.2 years in 1998.
- In the last two decades, air pollution in Uttar Pradesh, Haryana and Bihar increased to as much as 10 times the WHO safe limit. In the case of Uttar Pradesh, air pollution levels now reduce life expectancy by 8.6 years.
- In Delhi, pollution concentrations averaged 113 micrograms per cubic meter in 2016, reducing life expectancy by more than 10 years for the typical resident.



For the full report go to aqli.epic.uchicago.edu/wp-content/uploads/2019/03/EPIC_IndiaFactSheet_V06-nobleeds.pdf

Lung Care Foundation: Link between Air Pollution & Obesity, Asthma & Allergic diseases - A Research Report



Key Highlights of the Report:

- The study carried out by Lung Care Foundation in partnership with Pulmocare Research and Education Foundation revealed startling evidence of how polluted air is silently affecting the health of adolescent children.
- It was quoted in the National Green Tribunal, Chennai order where the court stressed that NCAP is not only for Non Attainment Cities and the states are now required to prepare a State Action Plan on controlling Air Pollution within 2 months.
- The study included 3,157 adolescent school children across 12 randomly selected schools in Delhi, Kottayam and Mysuru.

- The primary aim of the study was to assess the respiratory health of adolescent school children studying in private schools in the city of Delhi and compare them with relatively cleaner cities in terms of particulate matter air pollution, viz: Kottayam and Mysuru.
- The prevalence of asthma and allergic symptoms (on questionnaire) were significantly higher among children from Delhi compared to Kottayam-Mysuru.
- On spirometry, children from Delhi had a significantly higher prevalence of airflow obstruction/asthma as compared to children from K-M.
- Boys were observed to have a two-fold higher prevalence of asthma than girls. This
 observation was common at all three sites.
- Among the 29.3% of children observed to have asthma on spirometry in Delhi, only 12% reported to have been diagnosed with asthma and only 3% used some form of inhalers. In contrast, among the 22.6% children observed to have asthma on spirometry in K-M, 27% reported to have been diagnosed and 8% were using some form of inhalers.
- Children from Delhi were more obese and overweight than children from K-M. (39.8% vs 16.4%).
- Children who were obese and overweight had a 79% greater chance of having asthma on spirometry across all three sites combined. However, overweight and obese children living in Delhi had 38% higher chance of spirometrically defined airflow obstruction than overweight/obese children from K-M.
- The association between obesity/overweight in children and a higher prevalence of asthma is being reported for the first time in any study from India.



For the full report go to doctorsforcleanair.org/link-between-air-pollution-and-obesity-asthma-and-allergic-diseases-a-research-report.php



अध्ययन सामग्री

वायु प्रदूषण और जलवायु परिवर्तन एक तेजी से विकसित होने वाला क्षेत्र है जिसमें प्रत्येक दिन नए तथ्य और वैज्ञानिक प्रमाण सामने आ रहे हैं। यह खंड समस्या को कम करने के लिए हमारे एक साथ काम करने के संदर्भ को व्यवस्थित करने में मदद करने के लिए इस क्षेत्र में नवीनतम जानकारी और अनुसंधान का सारांश प्रस्तुत करता है।



विश्व स्वास्थ्य संगठन द्वारा संशोधित वायु गुणवत्ता दिशानिर्देश

कार्यकारी सारांश

विश्व स्वास्थ्य संगठन द्वारा पिछले अपडेट के 16 साल के बाद 22 सितंबर, 2021, को संशोधित वायु गुणवत्ता दिशानिर्देश जारी किए गए थे। विश्व स्वास्थ्य संगठन के अनुसार, वायु प्रदूषण स्वास्थ्य के लिए एक प्रमुख पर्यावरणीय जोखिम है। 2016 में, विश्व की 91 प्रतिशत जनसंख्या उन जगहों पर रह रही थी जहां वायु गुणवत्ता दिशानिर्देश विश्व स्वास्थ्य संगठन द्वारा निर्धारित स्तर के नहीं थे। दोनों शहरों और ग्रामीण क्षेत्रों में परिवेश (बाहरी) वायु प्रदूषण का अनुमान लगाया गया और यह पाया गया कि 2016 में यह दुनिया भर में 4.2 मिलियन अकाल मृत्यु का कारण बना है। इन अकाल मृत्यु में से अनुमानित 91% निम्न और मध्यम आय वाले देशों में हुईं, और इनमें से अधिक संख्या दक्षिण-पूर्व एशियाई और पश्चिमी प्रशांत क्षेत्रों से थी। बाहरी वायु प्रदूषण के अतिरिक्त, घर के अंदर का धुआं भी लगभग 3 बिलियन लोगों के लिए एक गंभीर स्वास्थ्य जोखिम है जो खाना पकाने और तिपश पैदा करने के उद्देश्य के लिए बायोमास, मिट्टी के तेल और कोयले का उपयोग करते हैं। संशोधित दिशानिर्देश 2005 के महत्व की तुलना में अधिक कड़े हैं। 2005 में जारी दिशा-निर्देशों के साथ डब्ल्यूएचओ 2021 के स्तर की तुलना निम्नवत् है:

Table 1. Recommended 2021 AQG levels compared to 2005 air quality guidelines

Pollutant	Averaging time	2005 AQGs	2021 AQG level
PM _{2.5} , μg/m ³	Annual	10	5
	24-hour ^a	25	15
PM ₁₀ , μg/m³	Annual	20	15
	24-hour ^a	50	45
O ₃ , μg/m³	Peak season ^b	-	60
	8-hour ^a	100	100
NO₂, μg/m³	Annual	40	10
	24-hour ^a	-	25
SO ₂ , μg/m ³	24-hour ^a	20	40
CO, mg/m ³	24-hour ^a	-	4

μg = microgram

Note: Annual and peak season is long-term exposure, while 24 hour and 8 hour is short-term exposure.

PM2.5 और स्वास्थ्य: परिवेशी वायु कणों के प्रदूषण और असंक्रामक रोगों की घटनाओं में वृद्धि के बीच एक मजबूत संबंध है। स्वास्थ्य अध्ययन द्वारा सूक्ष्म कणों के संपर्क में आने और अकाल मृत्यु के बीच एक महत्वपूर्ण संबंध दिखाया गया है। सूक्ष्म कण जोखिम के प्रति विशेष रूप से संवेदनशील व्यक्तियों में वृद्ध वयस्क, हृदय और फेफड़ों की बीमारी वाले लोग और बच्चे शामिल हैं।

दक्षिण एशिया/दक्षिण-पूर्व एशिया में वायु प्रदूषण और संशोधित दिशानिर्देशों का महत्वः दक्षिण एशिया पृथ्वी पर सबसे प्रदूषित देशों का घर है। बांग्लादेश, भारत, नेपाल और पाकिस्तान लगातार दुनिया के शीर्ष पांच सबसे अधिक प्रदूषित देशों में स्थान रखते हैं, जबिक सबसे खराब वायु गुणवत्ता वाले 50 में से 42 शहर दक्षिण एशिया में हैं। इस क्षेत्र में खराब वायु गुणवत्ता के लिए जीवाश्म ईंधन - कोयला, तेल और गैस - जलवायु परिवर्तन के प्रमुख संचालक सबसे बड़े योगदानकर्ता भी हैं। दक्षिण एशिया में खराब स्वास्थ्य के लिए वायु प्रदूषण संपर्क दूसरा सबसे महत्वपूर्ण जोखिम घटक है।

^{*99}th percentile (i.e. 3-4 exceedance days per year).

b Average of daily maximum 8-hour mean O₃ concentration in the six consecutive months with the highest six-month running-average O₃ concentration.

दुनिया के कुछ सबसे प्रदूषित देशों ने विश्व स्वास्थ्य संगठन 2005 के दिशानिर्देशों की तुलना में उनके पीएम 2.5 मानकों पर कैसा प्रदर्शन किया, उसका सार निम्नवत् है:

Table 2: Comparison of PM2.5 standards of countries with WHO 2005 and 2021 guidelines

	Annual Mean (μg/m³)	24-hour mean (μg/m³)	
WHO 2021 Guidelines PM2.5	5	15	Pollution Ranking
WHO 2005 Guidelines PM2.5	10	25	
<u>Bangladesh</u>	15	65	1
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Nepal		50	12
<u>Sri Lanka</u>		50	30
South Korea	15	35	41
Malaysia	15	35	58
<u>Philippines</u>	25	50	70
Bhutan	40	60	

वायु प्रदूषण स्रोतों के प्रबंधन, विशेष रूप से जो हजारों किलोमीटर से अधिक क्षेत्रों को प्रभावित करते हैं, उन्हें राज्यों और देशों में कई संस्थानों के बीच उच्च स्तर के समन्वय और सहयोग की आवश्यकता होती है।



New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution

Air pollution is one of the biggest environmental threats to human health, alongside climate change.

www.who.int/news/item/22-09-2021new-who-global-air-quality-guidelinesaim-to-save-millions-of-lives-from-airpollution

जलवायु परिवर्तन पर अंतर सरकारी पैनल (आईपीसीसी) की छठी आकलन रिपोर्ट:

कार्यकारी सारांश

जलवायु परिवर्तन पर अंतर सरकारी पैनल (आईपीसीसी) की जलवायु परिवर्तन के भौतिक विज्ञान के आधार पर रिपोर्ट 9 अगस्त 2021 को प्रकाशित हुई थी। यह वैश्विक जलवायु परिवर्तन कार्रवाई के लिए एक महत्वपूर्ण क्षण में आई। इसके निष्कर्ष बड़े पैमाने पर आसन्न वायु प्रदूषण और जलवायु संकट की दिशा में तत्काल कार्रवाई किए जाने की आवश्यकता को इंगित करते हैं।

रिपोर्ट की मुख्य बातें:

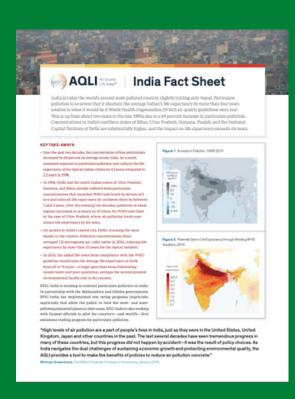
- इस रिपोर्ट में जलवायु परिवर्तन के बढ़ते और विनाशकारी प्रभावों पर प्रकाश डाला गया है और यह रिपोर्ट ग्लोबल वार्मिंग को 1.5 डिग्री सेल्सियस तक सीमित करने के महत्व को रेखांकित करती है। दुनिया को इस लक्ष्य को समय पर, इस वर्ष तक प्राप्त करने के लिए किसी भी शेष महत्वाकांक्षा की खाई को अनिवार्य रूप से बंद करना होगा।
- जबिक 1.5°C का मार्ग संकीर्ण है तथापि यदि दुनिया जल्दी और निर्णायक रूप से कार्य करती है तो 1.5°C के नीचे रहना संभव है । वैश्विक कार्बन बजट (जीएचजी उत्सर्जन की सीमित मात्रा जो दी गई वार्मिंग सीमा तक पहुंचने से पहले जारी की जा सकती है), तत्काल, निर्णायक शमन कार्यों के बिना आसानी से समाप्त हो सकती है।
- डिग्री का हर अंश मायने रखता है। वार्मिंग के 1.5 डिग्री सेल्सियस और वार्मिंग के 2 डिग्री सेल्सियस के परिदृश्यों के बीच का अंतर नाटकीय है। एआर 6 रिपोर्ट जिसे रेखांकित करती है उसे हम पहले से ही जानते हैं: जलवायु परिवर्तन हो रहा है, इसके प्रभाव बहुत बुरे हैं और यह सीधे मानवीय गतिविधि के कारण है।
- विज्ञान से पता चलता है कि इसके प्रभाव (समुद्र के स्तर में वृद्धि, ध्रुवीय बर्फ की चादर का पिघलना, जंगल की आग, जीव-जंतुओं का मरना, बाढ़ इत्यादि) पूर्व भविष्यवाणी की तुलना में अधिक प्रबल होंगे और यहां तक कि भविष्य में "कम कार्बन" परिदृश्यों के अंतर्गत भी अधिक मजबूत, महंगे और विनाशकारी होंगे । संसाधनों का अति प्रयोग, प्रदूषण, जैव विविधता में गिरावट, गरीबी और सामाजिक असमानता जैसे कई समवर्ती कारक, स्थिति-स्थापन को बाधित करते हैं और विनाशकारी जोखिमों को बढ़ाते हैं।
- यह स्पष्ट है कि इन नाटकीय प्रभावों में से कई सीधे तौर पर मानव-संचालित जलवायु परिवर्तन के कारण हैं और पहले से ही बंद हैं। आईपीसीसी रिपोर्ट नुकसान और क्षित का पता लगाने के लिए तत्काल गंभीर होने और वैश्विक स्तर पर अनुकूलन और स्थिति-स्थापन को बढ़ाने के प्रयासों में अत्यधिक वृद्धि किये जाने को भी इंगित करती है।
- आईपीसीसी जलवायु विज्ञान पर स्वर्णिम मानक बना हुआ है। इस रिपोर्ट सहित, प्रत्येक नई रिपोर्ट के साथ, जब हम विनाशकारी घटनाओं का कारण मानव-प्रेरित जलवायु परिवर्तन को मानते हैं तब जलवायु परिवर्तन और इसके प्रभावों के बारे में हमारी समझ और अधिक सटीक हो जाती है।

पूरी रिपोर्ट पढ़ने के लिए यहां जाएं <u>www.ipcc.ch</u>

ऊर्जा और नीति संस्थान शिकागो: वायु गुणवत्ता जीवन सूचकांक पर रिपोर्ट

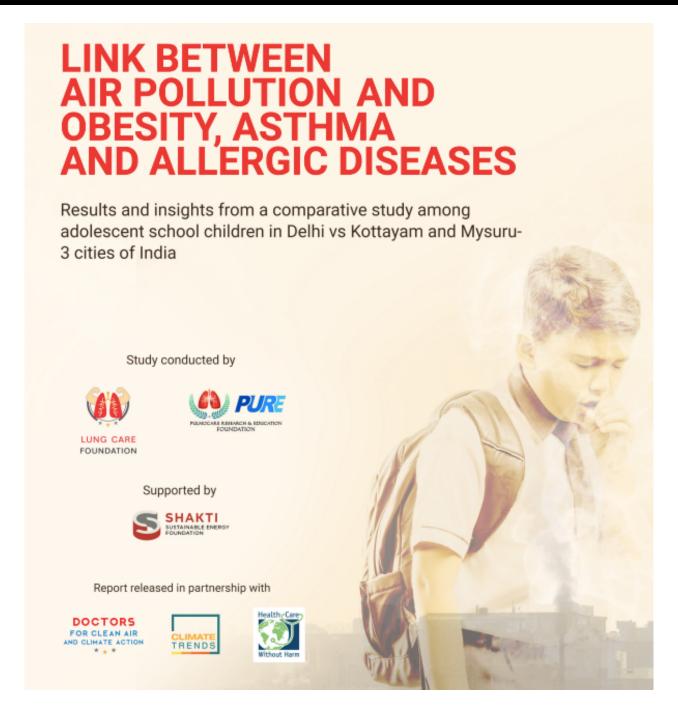
रिपोर्ट की मुख्य बातें:

- भारत दुनिया का दूसरा सबसे प्रदूषित देश है। कण प्रदूषण इतना गंभीर है कि विश्व स्वास्थ्य संगठन (डब्ल्यूएचओ) के वायु गुणवत्ता दिशानिर्देशों को पूरा करने पर जो जीवन संभाव्यता होती है उसकी अपेक्षा एक औसतन भारतीय की जीवन संभाव्यता को चार साल से भी अधिक कम कर देता है।
- कण प्रदूषण के लगातार संपर्क में आने से अब सामान्य भारतीय नागरिक की जीवन संभाव्यता 1998 में
 2.2 वर्ष की तुलना में 4.3 वर्ष कम हो गई है।
- पिछले दो दशकों में, उत्तर प्रदेश, हरियाणा और बिहार में वायु प्रदूषण डब्ल्यूएचओ की सुरक्षित सीमा से 10 गुना तक बढ़ गया है। उत्तर प्रदेश के मामले में, वायु प्रदूषण के स्तर ने अब जीवन संभाव्यता को 8.6 वर्ष कम कर दिया है।
- दिल्ली में, 2016 में प्रदूषण संकेंद्रण औसतन 113 माइक्रोग्राम प्रति घन मीटर था, जिससे सामान्य निवासी के लिए जीवन संभाव्यता 10 वर्ष से अधिक कम हो गई।



पूरी रिपोर्ट पढ़ने के लिए यहां जाएं aqli.epic.uchicago.edu/wpcontent/uploads/2019/03/EPIC_Indi aFactSheet_V06-nobleeds.pdf

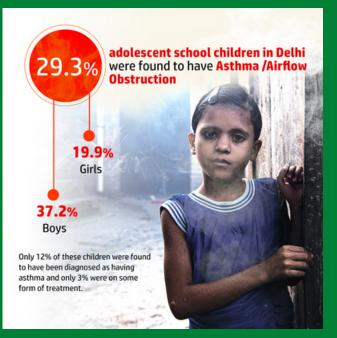
लंग केयर फाउंडेशन : वायु प्रदूषण और मोटापा, अस्थमा और एलर्जी रोगों के बीच संबंध - एक शोध रिपोर्ट



रिपोर्ट की मुख्य बातें:

- पल्मोकेयर रिसर्च एंड एजुकेशन फाउंडेशन के साथ मिलकर लंग केयर फाउंडेशन द्वारा किए गए अध्ययन से इस बात के चौंकाने वाले प्रमाण सामने आए कि प्रदूषित हवा किस तरह से किशोर बच्चों के स्वास्थ्य को चुपचाप प्रभावित कर रही है।
- राष्ट्रीय हरित प्राधिकरण (नेशनल ग्रीन ट्रिब्यूनल) चेन्नई ने अपने आदेश में चिंता व्यक्त करते हुए उद्धृत किया गया था, जहां न्यायालय ने जोर देकर कहा है कि एनसीएपी केवल नॉन-अटैन्मेंट शहरों के लिये जरूरी नहीं है बल्कि अन्य राज्यों को अब 2 महीने के भीतर वायु प्रदूषण को नियंत्रित करने के लिए एक राज्य कार्य योजना तैयार करने की आवश्यकता है।

- इस अध्ययन में दिल्ली, कोट्टायम और मैसूर के 12 अनियमित चुने गए स्कूलों के 3157 किशोर स्कूली बच्चों को शामिल किया गया।
- अध्ययन का प्राथमिक उद्देश्य दिल्ली शहर के निजी स्कूलों में पढ़ रहे किशोर स्कूली बच्चों के श्वसन स्वास्थ्य का आकलन करना और वायु प्रदूषण के मामले में अपेक्षाकृत स्वच्छ शहरों यथा कोट्टायम और मैसूर जैसे शहरों के साथ उनकी तुलना करना था।
- कोट्टायम-मैसूर की तुलना में दिल्ली के बच्चों में अस्थमा और एलर्जी के लक्षणों की व्यापकता (प्रश्नावली पर) काफी अधिक थी।
- श्वासमिति (स्पाइरोमेट्री) पर, दिल्ली के बच्चों में कोट्टायम-मैसूर के बच्चों की तुलना में वायु प्रवाह अवरोध/अस्थमा का प्रसार काफी अधिक था।
- लड़िकयों की तुलना में लड़कों में अस्थमा का प्रसार दो गुना अधिक पाया गया। यह अवलोकन तीनों स्थलों पर सामान्य था।
- दिल्ली में 29.3% बच्चों में श्वासमिति (स्पाइरोमेट्री) पर अस्थमा पाया गया, उनमें से केवल 12% ने अस्थमा से निदान होने की सूचना दी और केवल 3% ने किसी न किसी रूप में इनहेलर (श्वसनयंत्र) का उपयोग किया। इसके विपरीत, कोट्टायम-मैसूर में 22.6% बच्चों में स्पिरोमेट्री पर अस्थमा पाया गया,
 27% ने निदान किया और 8% किसी न किसी रूप में इनहेलर (श्वसनयंत्र) का उपयोग कर रहे थे।
- दिल्ली के बच्चे कोट्टायम-मैसूर के बच्चों की तुलना में क्रमश: (39.8% बनाम 16.4%) अधिक मोटे और अधिक वजन वाले थे।
- जो बच्चे मोटे और अधिक वजन वाले थे, उनमें संयुक्त रूप से तीनों स्थानों पर स्पिरोमेट्री पर अस्थमा होने की संभावना 79% अधिक थी। हालांकि, दिल्ली में रहने वाले अधिक वजन वाले और मोटे बच्चों में कोट्टायम-मैसूर से अधिक वजन वाले / मोटे बच्चों की तुलना में स्पाइरोमेट्रिक रूप से परिभाषित वायु प्रवाह अवरोध की 38% संभावना अधिक थी।
- भारत में किसी भी अध्ययन में बच्चों में मोटापे/अधिक वजन और बढ़ते अस्थमा के प्रसार के बीच पहली बार संबंध बताया गया है।



पूरी रिपोर्ट पढ़ने के लिए यहां जाएं doctorsforcleanair.org/link-between-airpollution-and-obesity-asthma-and-allergicdiseases-a-research-report.php





LUNG CARE FOUNDATION

Awareness

Research

Clinical-care

Follow us:







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Guinness World Record



BEST Clubs





Founder - Trustees

We are a Social Impact Trust working towards "Care & Cure of 2.6 Billion Lungs in India" by developing lung health services and programs and advocating for clean air by highlighting the health ill-effects of Air Pollution, Dust, Smoking and Poor Lifestyles.

LCF has organized health camps for thousands of individuals, addressed **15000+** individuals in-person at the invitation of various social and professional bodies and reached millions of individuals through videos.

Lung Care Foundation has a nationwide presence through a network of Doctors, trained and committed to advocate for Clean Air.

LCF regularly creates **Patient Education Series** for spreading the information about Lung Diseases causes and treatment.

Lung Care Foundation's initiative Asthma Management Manual for Schools has been adopted Developed an **Asthma Management Manual for Schools**, which has been adopted by Ministry of Environment, Forests and Climate Change, Government of India for implementation across over **100,000 schools**, impacting the lives of millions of students. The manual is available for free download (www.lcf.org.in/as) in 11 Indian Languages.

Launched S.P.A.R.S.H. (Support Program for Assistants & Relatives for Skills for Home-care-of-Lung Patients), a free virtual service for lung patients through a series of 4 awareness programs on COVID Patient Care on World Lung Day 2020.

Prof. (Dr.) Arvind Kumar, Leading Thoracic and Lung Cancer Surgeon; Chairman, Institute of Chest Surgery, Chest Onco-Surgery & Lung Transplantation and Chairman, Medanta Robotic Institute, Medanta Hospital, Gurugram. Formerly: Chairman, CCS, Ganga Ram Hospital New Delhi and Professor of Surgery, AIIMS.

Rajiv Khurana, International Management Consultant and Trainer, Boards Advisor, Independent Director, Author, Venture Mentor...

Dr. Belal Bin Asaf, Associate Director, Institute of Chest Surgery, Chest Onco Surgery and Lung Transplantation, Medanta Gurugam.
Abhishek Kumar, Computer Science Engineer, CEO of Lung Care Foundation.



DOCTORS

FOR CLEAN AIR AND CLIMATE ACTION





Saaf Hawa Aur Naagrik

Our Programs



Awareness
Clinical Care
Think Tank











Care and Cure of 2.6 Billion Lungs Institutions
Development sector
Enterprises
Academia



I.D.E.A.

21 National Medical Associations representing 180,000 committed to create awareness and impact across Indian cities.

An intensive multi-format programme spread across 2-years to enhance awareness about Air Pollution in Delhi and NCR. Supported by US Embassy in Delhi.

Well established and Popular Schools programme to create awareness about health illeffects of Air Pollution and promote individual and community based steps towards Clean Air.

Programme to increase awareness about Asthma and create Asthma Management Policies and initiatives in schools. Asthma Manual translated in 11 Indian languages. Free download from LCF website.

Assisting in the high cost of treatment for critical patients through the collective philanthropy of Individuals and organisations.

Brain-storming for city specific solutions and actions by multiple stakeholders and residents.

Video based Expert information on Lung Ailments by super specialist Doctors for the benefit of patients and families.

Bringing multiple stakeholders and contributors together for making impact.

Carry out need based research for the purpose of analysis, advocacy and policy formulation.











LUNG CARE FOUNDATION

Care and Cure of 2.6 Billion Lungs in India





Made a Guinness World Record for Largest Human Image of an Organ (Lungs) with more than 5000 school children to promote solutions reduce pollution air garnering Million 51 Impressions on Twitter and over 100,000 Facebook Live Views. The achievement was featured on UN India website and was appreciated by the President & the Prime Minister of the country

Click Here to view video

Have a network of 21 National Medical Associations (with a reach of over 200,000 Doctors) who engage with patients, media, local policy makers and administrators and other stakeholders to raise awareness on 'Health Impacts of Air Pollution' and guide on local solutions to the air pollution problem through the Doctors for Clean Air (DFCA) Program.

Air Pollution, Health and COVID Awareness videos released by LCF have been watched by over 72 million individuals.

Conducted 5 research studies on Health impacts of Air Pollution under led by Doctors associated with the DFCA network.

Conducted 7 hours long virtual **DFCA Conclave** with specialist doctors from 7 national medical associations & sensitized over 5000 people on Health Impacts of Air Pollution on the first International Day of Clean Air for Blue Skies.

Reached over 26,000 people & sensitized about the emerging global research on COVID-19 & Air Pollution.

Organized focused round-table discussions & reached over 2400 RWAs & community members to address the air pollution related challenges in their societies, implement solutions & assess progress on a monthly basis.

Over 2000 school teachers from 4 states were sensitized on Air pollution, how it aggravates Asthma particularly for young students and how schools can be better trained & prepared to deal with Asthma emergencies.

Running B.E.S.T. (Breathe Easy Stay Tough) School clubs in 156 schools across 7 cities — Delhi - NCR, Kanpur, Nagpur, Jalandhar & Hyderabad and have trained over 2500 students (in person) as B.E.S.T. Leaders who are now leading change campaigns in their respective schools and cities.

Sensitized and trained **over 300,000 students** from across the country through B.E.S.T (Breathe Easy Stay Tough) Talks: a series of 29 Facebook live sessions empowering students to take up Environment leadership as a path for self-development and fulfilling their social responsibility.

Organised special campaign like 'Ye Diwali Alag Nirali' promoting creative ways of celebrating a cracker free Diwali. The campaign received over 1000 entries of videos and posters.

Reached over 77,000 people through awareness programs organized under project Saaf Hawa Aur Naagrik (SHAN) from across 21 countries.

Have over 100 media appearances. Lung Care Foundation is seen as a go-to resource on any information related to Air Pollution, Lung Cancer, Coronavirus Pandemic and other lung ailments.

LCF has organized comprehensive lung-health camps for over 2000 individuals.

Organized Thought Leaders' Virtual Conclave & reached over 5000 corporate professionals to discuss the agenda reset for COVID-19, Air Pollution & Role of Corporate India in solving the crisis.

Release of CHULHA Video by Hon'ble Lt. Governor of Delhi Shri. Anil Baijal to create awareness about women impacted by household air pollution due to usage of CHULHA. Reached over 2,00,000 people through the video as a part of #ChulhaHataoSehatBachao campaign.

Reached over 60000 people from rural areas covering 15 states of India through Covid Relief Work by distributing Medical Equipments, Medicines and Protective Wearables.

www.lcf.org.in =

Lung Care Foundation - Team

Prof. (Dr.) Arvind Kumar

Founder - Trustee, Lung Care Foundation

Leading Thoracic and Lung Cancer Surgeon; Chairman, Institute of Chest Surgery, Chest Onco-Surgery & Lung Transplantation and Chairman, Medanta Robotic Institute, Medanta Hospital, Gurugram.

Rajiv Khurana

Founder - Trustee, Lung Care Foundation

International Management Consultant and Trainer, Boards Advisor, Independent Director,

Author, Venture Mentor

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Dr. Belal Bin Asaf

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Leading Thoracic and Lung Cancer Surgeon; Chairman, Institute of Chest Surgery, Chest Onco-Surgery & Lung Transplantation and Chairman, Medanta Robotic Institute, Medanta Hospital, Gurugram.

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COVID RELIEF WORK

A report on COVID relief material sent to over 60,000 people in Rural India





MEDICINAL KITS DISTRIBUTION IN BEELWADI, RAJASTHAN

YOUR SUPPORT HELPED US CREATE A DIFFERENCE FOR THE COVID RELIEF WORK!

THE IMPACT OF YOUR DONATION CONTINUES TO MATTER...

OVERVIEW

COVID RELIEF - RURAL INDIA CAMPAIGN

MAY 5 - JUNE 10, 2021

1

INITIATIVE

5

PARTNER ORGANIZATIONS

400+

DONORS
JOINED THE SUPPORT

INR 60 LAKH+

SQUAD TO PROVIDE

CSR INITIATIVES
PROVIDED ADDITIONAL SUPPORT OF
INR 60 LAKH+

LOCAL PARTNERS HELPED IN PROVIDING RELIEF TO

60000+

PEOPLE IN RURAL AREAS OF

14 STATES



AN ELDERLY MAN RECEIVING MEDICINAL KITS IN AGRA, UTAAR PRADESH



MEDICAL CARE & MEDICINES PROVIDED TO PEOPLE IN UTTARAKHAND



MEDICINAL KITS DISTRIBUTION IN ALIGARH, UP

OUR IMPACT



60000+
MEDICINAL KITS
DISTRIBUTED



1100+
FACE SHIELDS
DISTRIBUTED



15000+ FACE MASKS DISTRIBUTED



1300+
PULSE OXIMETERS
DISTRIBUTED



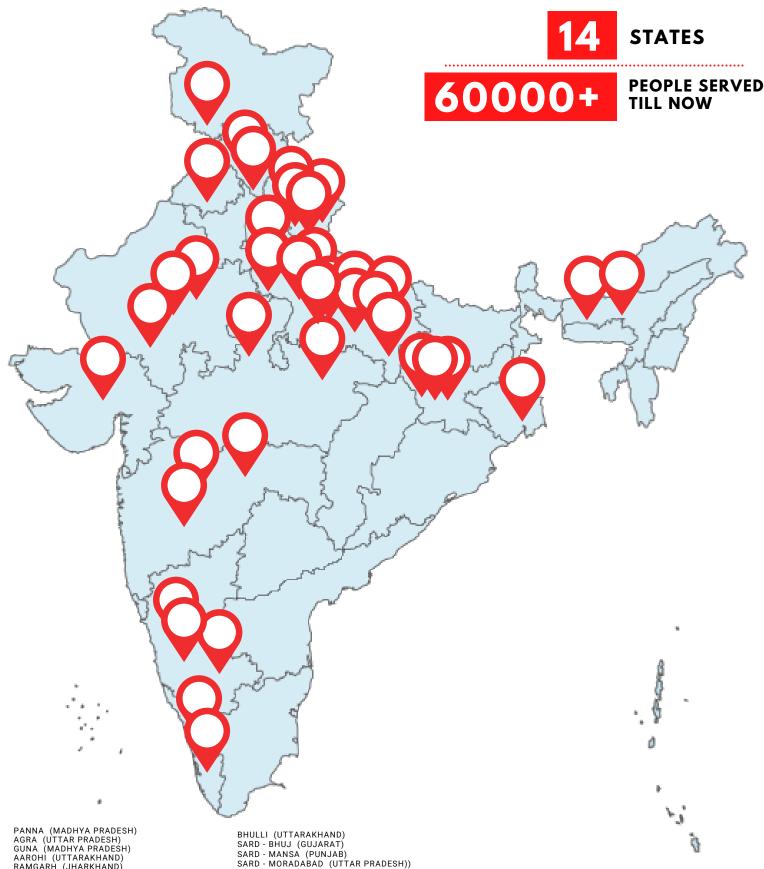
OUR FOUNDER-TRUSTEE RAJIV KHURANA FLAGGING OFF DOCTORS ON WHEELS, A MEDICALLY EQUIPPED VAN WITH DOCTORS & PARAMEDICS TO VILLAGES IN WESTERN UTTAR PRADESH TO PROVIDE ACCESS TO FREE MEDICAL CARE FOR COVID-AFFECTED RURAL INDIA

YOUR CONTRIBUTION WILL SUPPORT #DOCTORSONWHEELS IN ITS MISSION TO REACH 30 LAKH PEOPLE IN 3 MONTHS



YOUR GENEROUS CONTRIBUTION WILL GO A LONG WAY TO HELP PEOPLE OVERCOME THE SECOND WAVE OF THE PANDEMIC AND BE PREPARED FOR A POSSIBLE THIRD WAVE

COVID RELIEF WORK IN RURAL INDIA



PANNA (MADHYA PRADESH)
AGRA (UTTAR PRADESH)
GUNA (MADHYA PRADESH)
AAROHI (UTTARAKHAND)
RAMGARH (JHARKHAND)
RAMNAGAR (UTTARAKHAND)
HARIDWAR (UTTARAKHAND)
HARIDWAR (UTTARAKHAND)
HOJDA (SHAMLI) (UTTAR PRADESH)
NOIDA (SHAMLI) (UTTAR PRADESH)
NOIDA (SHAMLI) (UTTAR PRADESH)
WIRAT NAGAR (RAJASTHAN)
SAHARANPUR (UTTAR PRADESH)
BIJNOR (UTTAR PRADESH)
HAPUR (UTTAR PRADESH)
AMROHA (UTTAR PRADESH)
SAMBHAL (UTTAR PRADESH)
MERUT (UTTAR PRADESH)
MERUT (UTTAR PRADESH)
PRATAP NAGAR (RAJASTHAN)
RAMPUR (UTTAR PRADESH)
UJJAIN (MADHYA PRADESH)
KASAULI (HIMACHAL PRADESH)

BHULLI (UTTARAKHAND)
SARD - BHUJ (GUJARAT)
SARD - MANSA (PUNJAB)
SARD - MORADABAD (UTTAR PRADESH))
MEHLAN - KOTAGARH (HIMACHAL PRADESH)
WOTTARANCHAL (UTTARAKHAND)
BHIMTAL (UTTARAKHAND)
BHIMTAL (UTTARAKHAND)
WESTERN UTTAR PRADESH)
VRINDAVAN (UTTAR PRADESH)
MULTIPLE LOCATIONS (ASSAM, KERELA, KARNATAKA, MAHARASHTRA, UTTAR PRADESH)
ALIGARH (UTTAR PRADESH)
INDRAPURI, LONI, GHAZIABAD (UTTAR PRADESH)
EKAL (GARWAL)
KOLKATA (WEST BENGAL)
POONCH (JAMMU)
UDAIPUR (RAJASTHAN)
ALWAR (RAJASTHAN)

Lung Care Foundation: Links to Resources & Videos

Asthama Manual



https://lcf.org.in/asthma-management-manual-for-schools/

Lung Care Foundation Guinness World Record



https://youtu.be/KusYenDif3M

DFCA TV



https://youtube.com/playlist? PL CWrSkzkT5C5nLiSIT37HhKALFhYrvf3

COVID Resources - Videos



https://youtube.com/playlist? <u>list=PL CWrSkzkT5CBW6uQZZarJTBZiOE2pQxQ</u>

Chulha Video



https://youtu.be/U4r2Bzo2u1Y

Alphabets for Green **Actions - Video**



https://youtu.be/Zmn98fQgsIM

III-Effects of Air Pollution: **Artificial Lung Installation at Sir** Ganga Ram Hospital - Video



https://youtu.be/5uCQtUiG-bo

Health Impacts of Air Pollution on Pregnant Women & Children - Video



https://youtu.be/m4tXJI71DKQ

What Is Your Solution To Air Pollution - Video



https://youtu.be/gHRG7vaTd10



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