A study evaluating the lung health status of 3157 adolescent school children has revealed alarming findings showing high prevalence of symptoms related to asthma and allergy, airway obstruction/asthma, and childhood obesity.

Lung Care Foundation and Pulmocare Research and Education (PURE) Foundation conducted the study 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 study was funded by Shakti Sustainable Energy Foundation and got published in a leading peer-reviewed medical journal, Lung India, on 31st August 2021.

3157 adolescent school children were examined in the study to assess their lung health. All children completed a comprehensive questionnaire, that was based on a standard, validated questionnaire developed by the International Study for Asthma and Allergic Diseases in Children (ISAAC). All children also underwent on-site spirometry by certified technicians and nurses. Spirometry is the gold standard test to assess lung function.
KEY FINDINGS OF THE STUDY

Key Finding 1: Questionnaire Related: An alarmingly high number of children reported asthma and allergy related symptoms

Key Finding 2: Spirometry Data: High prevalence of air flow obstruction/asthma

Key Finding 3: Link between Obesity & Asthma: High prevalence of Obesity in Delhi children and higher incidence of Asthma in them

29.3% adolescent school children in Delhi were found to have Asthma/Airflow Obstruction

19.9% Girls

37.2% Boys

The prevalence of asthma and allergic symptoms were significantly higher among children in Delhi

Among the 29.3% 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.

39.8% school children from Delhi were obese/overweight

The prevalence of asthma and allergic symptoms were significantly higher among children in Delhi
An umbrella program SHAPE U.P (Solution for Health Air Pollution and Environment) was launched to collaborate with various stakeholders like Civil Society, Industry, Builders, Government and others to train the trainers on conducting awareness and advocacy sessions with the masses.

Under SHAPE U.P. the U.P Chapter of the National Service Scheme (NSS) in collaboration with Lung Care Foundation, launched first of a kind virtual training program for teachers on Air Pollution and Climate Change across the state.

Further, under the SHAPE umbrella, dialogues are ongoing with Lucknow University which has approximately 700 colleges affiliated with it, for planning a sensitisation program on air pollution with the students.

The event was conceived to recognize the need to take corrective actions pertaining to the dangers of air pollution to public health. It also aimed to deliberate solutions and recommend the course of individual and collective actions for reducing the dangers of air pollution in the state. The participants invited were thought leaders, stakeholders and key influencers from politics, bureaucracy, academia, civil society, media, healthcare sector, parents to name a few.

The main outcomes of this program were -

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AIR POLLUTION: FACTS TO ACT - A ROUND TABLE TO DELIBERATE STAKEHOLDERS’ ACTIONS IN GURUGRAM

The event was conceived to recognize the need to accelerate concerted efforts to mitigate air pollution. It aimed to deliberate solutions and recommend the course of actions through public private partnership for reducing the dangers of air pollution in the state. The round table gave a common platform to key stakeholders and thought leaders to evolve partnerships to address common challenges and work for cleaner air.

The main outcomes of this program were -

**Program/Policy level**
- Revised School Curriculum
- Robust Awareness Drives
- Effective, Efficient Data Capturing and Transfer
- Creating Social Entrepreneurship Models
- Promoting Renewable Energy and Sustainability
- Air Pollution management fund

**Activity level**
- Greening the Aravallis
- Increasing Green Belts across the city
- Incentives to the marginalised
- Reclaiming and widening concrete ramps
- Building a cycling network across the city
- Increasing greenery in surroundings
An awareness program led by DFCA Clean Air Champion from Indore, Dr. Salil Bhargava focussed on highlighting the role of air pollution in the increased prevalence of respiratory diseases like pneumonia in children. He also emphasized the urgent need for clean air and robust climate action to save the human race which is already in code red of the climate crisis. A pre-event activity comprised of various innovative modalities like video and poster making to spark the interest of the children. The main event involved a keynote address by Padma Shree Awardee Smt. Janak Palta. A panel discussion involving eminent medical professionals, media personnel, social workers, industry representatives and wellness professionals upheld that increasing awareness towards air pollution mitigation, building resilience and sustainable living will pave the way for a healthier future. A pledge ceremony led by children motivated everyone to work for clean air and climate action in the cleanest city of the country.
HEALTH HIGHLIGHTS OF COP 26

INTRODUCTION
Conference of Parties refers to all the countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC) and take part in all the decisions necessary for implementation of the convention. It reviews the progress made by parties in line with their commitments. COP is held every year, in any of the five regions recognized by the United Nations, apart from the secretariat in Bonn, Germany.

BRIEF HISTORY
The first meeting was held in 1995, and the historic ones, the Kyoto Protocol and the Paris Agreement were held in the year 1997 and 2015, respectively. The Kyoto Protocol lasted till 2012 and was legally binding, on developing nations, to reduce 6 major greenhouse gases to below pre1990 levels. The Paris Agreement on the other hand was not legally binding and required all the countries to limit global temperatures to 1.5 degrees Celsius above the pre-industrial levels. The targets for achieving the same is set every 5 years.

COP 26
The 26th Conference of Parties was held in Glasgow, Scotland. It was attended by representatives from 200 countries, who came together to negotiate and agree on the Glasgow Climate Pact. The pact aimed to keep alive the ambition of keeping the global temperature rise to below 1.5 degree Celsius above the pre-industrial levels, through:

- Mitigation: Over 90% of countries are covered by net zero carbon emission commitments by 2050 at the latest. Mitigation strategies include 190 countries phasing down coal power, 137 halting and reversing deforestation thereby raising carbon sinks. Countries representing 20% of global car market committed to phasing out fossil fuel cars by 2035 and speeding up switch to electric vehicles. Over 100 countries signed the global methane pledge for reducing methane emissions by 30% till 2030.

If the Glasgow pledges are fully kept, we keep below 2 degrees’ Celsius rise, precisely at 1.8. If the pledges take next decade to fall in place, we tip to 3 degrees’ Celsius rise, and if this also is not achieved, then the temperatures are set to rise by up to 6 degrees Celsius, painting all Red!
• Adaptation: It enables countries to brace themselves against the inevitable damages set to occur at the current state of climate change. 80 countries are now covered by a National Adaptation Plan to protect the most vulnerable communities from the devastations set to unleash due to climate change and more so, when they have contributed the least towards causing it. Adaptation Research Alliance (ARA), the first of its kind global network across 30 countries will work towards increasing resilience of the vulnerable countries by keeping indigenous knowledge and solutions at its core.

• Finance: Trillions of dollars from the public and the private sector were mobilized towards climate finance. Money is needed for developing renewable energy, flood defences, drought resilient crops and development of green technology, to name a few, mainly for strengthening adaptation. In 2019, developed countries agreed to finance 100 billion dollars to developing countries, the world is on track to meet this goal by 2023.

• Collaboration: An inclusive COP will facilitate an accelerated collaboration between governments, businesses and civil society organizations to deliver on climate goals, faster. Collaborative councils will foster actions and commitments in domains like energy, electric vehicles, shipping and commodities..

Prime Minister Narendra Modi announced Five Amrit Tatvas:

1. Increasing non fossil fuel capacity to 500 GW by 2030
2. By 2030, India will fulfil 50% of its energy requirements through renewable forms of energy
3. Reducing 1 billion tonnes of carbon emissions by 2030
4. Reducing carbon intensity in the economy to less than 45% by 2030
5. India will achieve net zero carbon emission status by 2070

This will be achieved by starting a global Lifestyle for Environment (LIFE) mission. India under the International Solar Alliance (ISA) has signed an MoU with UNFCCC to support countries in the implementation of national climate action like implementation of Nationally Determined Contributions (NDCs).

Under the Coalition for Disaster Resilient Infrastructure (CDRI), India along with the world leaders launched Infrastructure for Resilient Island States (IRIS) to support vulnerable nations and promote human welfare under Sustainable Development Goals (SDGs).
OUTCOMES UNIQUE TO COP26

- Health was given the centre stage at COP realising the climate crisis as a health emergency.
- For the first time in the history of COP, Fossil Fuels were recognized to be a major contributor towards increasing air pollution, global warming and causing climate change.
- Climate crisis was realised to cause extensive health harms, inequities and healthcare disruptions present at the current scenario of 1.1 degrees Celsius warming above the pre-industrial levels.
- The language of the negotiation was weakened leading to the Glasgow Climate Pact including phase down of fossil fuels instead of a much needed phase out.

CHALLENGES

Equity was regarded as the biggest stumble block in devising a workable plan of action towards neutralizing the threats that climate challenge poses to each and every creature on the Earth! The seven historical polluters US, UK, Russia, Japan, Australia, Canada and EU-27 along with China (post signing the WTO in 1990s) have been the biggest emitters of greenhouse gases leading to global warming and climate change with developing countries like India having a meagre share hovering around 4%. Talking from the lens of Equity, we have a limited carbon budget (carbon emissions left for the upcoming decade to confine the temperature rise within 1.5 degrees Celsius above pre industrial levels) and the developed world needs to provide space for the developing countries to make progress and provide finance and technological assistance. Providing blanket bans and emission reductions will not be possible, NDCs should be determined based on the development status of a country and the concept of Equity is crucial in realising this.

HEALTH CONCERNS

- COP-26 mantra to keep 1.5 degrees Celsius alive can be as critical as a difference of life and death for many people. As we witness the growing health harms caused by climate change, the Right to Health as mentioned in the Paris Agreement was realised in the 26th COP.
- It was the first COP to include a health programme in which over 50 countries committed to developing climate resilient, sustainable and low carbon health systems. A health pavilion run by the World Health Organization (WHO) hosted over 60 events for the first time in COP history to mainstream health considerations in action areas beyond the health sector.
HEALTH CONCERNS

- Reducing the greenhouse gas emissions was realised as the most important prevention strategy for climate action and increasing finance and technical support for effective protection of people and communities was realised as an important treatment strategy.

- The indicators for progress are objectively defined which include tonnes of carbon dioxide reduced, dollars invested towards adaptation planning etc.

- Two thirds of the global health workforce signed up an open letter calling for leaders and delegations to step up climate action.

- The overall success or failure of COP depends on whether people around the world continue to mobilize the support needed for the most ambitious climate action possible.

- Health professionals have the most important role to play in the climate crisis. They should continue to provide evidence, examples and their trusted voice to strengthen the narrative for a just climate action to protect the health and wellbeing of the communities they serve, without any distraction or delay.

DFCA@COP26

It is our proud privilege to share that Doctors for Clean Air and Climate Action (DFCA) Champion from Indore, Dr. Salil Bhargava was invited to deliver a talk at the COP 26 WHO Health Pavilion event about 'Air Pollution, Climate Change and Health- Connecting the dots on World Pneumonia Day'
Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey

Climate change has important implications for the health and futures of children and young people, yet they have little power to limit its harm, making them vulnerable to climate anxiety. This is the first large-scale investigation of climate anxiety in children and young people globally and its relationship with perceived government response.

The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future

The Lancet Countdown is an international collaboration that independently monitors the health consequences of a changing climate. Publishing updated, new, and improved indicators each year, the Lancet Countdown represents the consensus of leading researchers from 43 academic institutions and UN agencies. The 44 indicators of this report expose an unabated rise in the health impacts of climate change and the current health consequences of the delayed and inconsistent response of countries around the globe—providing a clear imperative for accelerated action that puts the health of people and planet above all else.
Join the largest ever alliance committed to achieving net zero carbon emissions.

Race to Zero is the UN-backed global campaign rallying non-state actors – including companies, cities, regions, financial and educational institutions – to take rigorous and immediate action to halve global emissions by 2030 and deliver a healthier, fairer zero carbon world in time.

Health Care Without Harm is the Race to Zero health care partner. Nearly 40 health care institutions representing the interests of more than 3,000 hospitals and health centers in 18 countries have joined Race to Zero with Health Care Without Harm.

By joining Race to Zero, health care institutions receive a membership in the Health Care Climate Challenge and Global Green and Healthy Hospitals. These networks provide access to a suite of tools, resources and people to assist health care institutions in reducing their carbon footprint, implementing successful sustainability projects and programs, and achieving the ambition of Race to Zero.

As the Race to Zero health care partner Health Care Without Harm is inviting health care institutions to join the Race to Zero through our Health Care Climate Challenge initiative.

You can find all the details on how a health care institution can join Race to Zero here.

ACTION AGENDA FOR DOCTORS

The purpose of this document is to:

Help Doctors educate and engage their patients, the general public, members of the medical fraternity, policymakers and media on Air Pollution and its health ill-effects.

You can read this document here.

To view all DFCA resources Click Here

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