

## **DEVELOPED IEC MATERIAL ON AWARENESS OF COVID-19 PANDEMIC: KIDS, VAAYU & CORONA COMIC BOOKLET SERIES**

A series of booklets for awareness creation while fighting with COVID-19 pandemic were developed by Dr. Suman Mor, Department of Environment Studies, Panjab University in collaboration with Dr. Ravindra Khaiwal, Department of Community Medicine and School of Public Health, PGIMER, Chandigarh. Two booklets were adopted by Ministry of Health and Family Welfare, Government of India and one by Ministry of Environment, Forest and Climate Change (MoEFCC), India. These awareness booklets were adopted by more than 10 countries internationally including World Health Organization Eswatini, UNICEF, UNFPA and published in English, Hindi, Punjabi, Gujrati, French, Arabic, Dutch, Malay, Karen, Eswatini and highly circulated in social media like twitter, Facebook, WhatsApp etc globally.

The details are as below:

### **1. KIDS, VAAYU & CORONA: Who wins the fight? (A comic series for COVID-19 awareness)**

Comic book for children to provide correct information about COVID-19, released by Ministry of Health and Family Welfare, Government of India. There is a growing concern and perceived threat about the Coronavirus among common citizens. The population of all ages are making use of available media such as newspapers, social media, and television to make themselves aware. From adults to children, most of the discussion these days are centering around the Coronavirus. But for children, especially those below the age of 12 years, Coronavirus has become a cause of concern as they are not able to comprehend the talks and getting worried. The parents should talk to them and resolve their queries so that they do not panic. Sometimes parents might be busy, and they might not be able to resolve their queries. Considering this Panjab University, Chandigarh and PGIMER Chandigarh created a comic to make children aware about the threat of Coronavirus and how to remain safe through simple precautionary steps. This comic is created to learn, along with fun, and motivate children to be a hero of prevention by defeating Corona. Vaayu is a global citizen who lives in the foothills of Himalayas, India. He is a superhero, who work for the better public health and environment. He has been called to fight against global threat of Coronavirus and to protect children from sudden panic and fear.

← Tweet

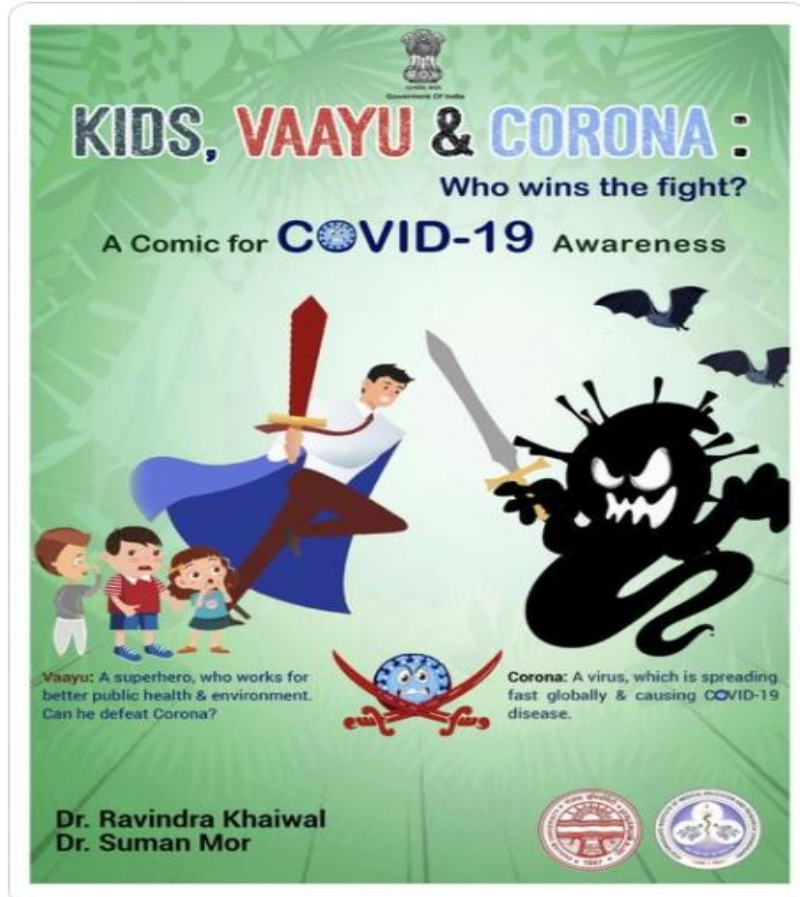


Ministry of Health ✓  
@MoHFW\_INDIA

...

"Kids, Vayu and #Corona: Who wins the right".  
Information on #Covid19 made easy for children. It can  
be seen here too:  
[mohfw.gov.in/Corona\\_comic\\_P...](https://mohfw.gov.in/Corona_comic_P...)

#SwasthaBharat  
#coronavirusinindia




PMO India and 8 others

...



# Kids, **Vaayu** & **Corona** : Wie Wint de Strijd?

 Een strip voor COVID-19 Awareness



Vaayu: Een superheld, die werkt voor een betere volksgezondheid en milieu. Kan hij Corona verslaan?



Corona: een virus dat zich wereldwijd snel verspreidt en de ziekte COVID-19 veroorzaakt.

Dr.Ravindra\_Khaiwal  
Dr.Suman\_Mor



Home > News > IN THE NEWS - HCWH PARTNER IN INDIA | An  Like 0

educative online comic book on COVID-19, up on the CBSE website, is getting attention from across the globe

## IN THE NEWS - HCWH PARTNER IN INDIA | An educative online comic book on COVID-19, up on the CBSE website, is getting attention from across the globe

News posted by hcwhasia on March 23, 2020

Asia Tags: coronavirus, INDIA, health

By Prabalika M. Borah, The Hindu

### Virus vs Vaayu, a corona tale for kids

Even though most of us seem to be talking about COVID-19 all the time, there is a lot of confusion among the general public. Especially children.

While schools declared holidays, netizens shared how some students seemed to be owing the holiday to 'Corona tyohar (festival)'. In times like these, Ravindra Khaiwal, additional professor of environmental health, Department of Community Medicine and School of Public Health PGIMER along with Suman Mor, Department of Environment studies Panjab University, Chandigarh brought out *Kids, Vaayu and Corona: who wins the fight?*. It is a comic, aimed at COVID-19 awareness.

In the 22-page online comic, Vaayu is a superhero. Dressed in white shirt and blue cape, he is also the narrator of the comic. He doesn't just explain children about the virus but also tells them how one can protect themselves from it.

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KINGDOM OF ESWATINI

# Ngungu helps kids fight coronavirus

A Comic for COVID-19 Awareness



**WHO WINS THE FIGHT?**

Adapted from: Kids, Vaayu and Corona- who wins the fight by Dr Ravindra Khaiwal and Dr Suman Mor

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# ANAK-ANAK, **VAAYU** & CORONA

Siapakah yang menang dalam pertarungan?

## Komik Kesedaran **COVID-19**



### **VAAYU:**

Wira Kesehatan Awam dan Alam Sekitar.  
Bolehkah dia mengalahkan Corona?



### **Corona:**

Virus asas penyakit COVID-19 yang  
merebak dengan cepat di dunia

**Dr. Ravindra Khaiwal**  
**Dr. Suman Mor**





# ဖိသပ်သုတ်, တံဝါယူဒီးခိရိနါ

ပုၤမၤနၢၤတၢ်ဒုး

A Comic for **COVID-19** Awareness

COVID-19 တၢ်ဟ့ၣ်ပီညါကးတိ



တံဝါယူ-ပုၤဒုပုၤထီၤ, ပုၤလၢမၤတၢ်လၢ  
တၢ်အိၣ်ဆူၣ်အိၣ်ချ့ ဒီးမိၣ်ယၢန့ၣ်ဆၢၣ်,  
မ့ၢ်အမၤနၢၤမိၢ်ရိနါခါ



မိရိနါ-မ့ၢ်တၢ်ဆါသၢ် လၢ  
အသလၢၣ်လီၤသးချ့ ဒီးဒုးကဲထီၣ်  
မိဝံး ၁၉ တၢ်ဆါ

Dr. Ravindra Khaiwal  
Dr. Suman Mor








ਬੱਚੇ, ਵਾਯੂ ਅਤੇ ਕੋਰੋਨਾ :

: ਕੌਣ ਲੜਾਈ ਜਿੱਤਦਾ ਹੈ?

 ਕੋਵਿਡ-19 ਪ੍ਰਤੀ ਜਾਗਰੂਕਤਾ ਲਈ ਇੱਕ ਕੌਮਿਕ



ਵਾਯੂ : ਇੱਕ ਸੁਪਰ ਹੀਰੋ, ਜਿਹੜਾ ਜਨਤਕ ਸਿਹਤ ਅਤੇ ਵਾਤਾਵਰਣ ਲਈ ਕੰਮ ਕਰਦਾ ਹੈ। ਕੀ ਉਹ ਕੋਰੋਨਾ ਨੂੰ ਹਰਾ ਸਕਦਾ ਹੈ?



ਕੋਰੋਨਾ : ਇੱਕ ਵਾਇਰਸ, ਜਿਹੜਾ ਪ੍ਰਤੀ ਦੁਨੀਆ ਵਿੱਚ ਤੇਜ਼ੀ ਨਾਲ ਫੈਲ ਰਿਹਾ ਹੈ ਅਤੇ ਕੋਵਿਡ-19 ਬਿਮਾਰੀ ਦਾ ਕਾਰਨ ਹੈ।

ਡਾ. ਰਵਿੰਦਰ ਖੈਵਾਲ  
ਡਾ. ਸੁਮਨ ਮੋਰ





# فايو و كورونا : من سيربح المعركة؟



قصة للتوعية بفيروس كورونا



فايو : بطل يعمل لحماية الصحة و المحيط  
هل يستطيع التغلب على كورونا؟



كورونا: فيروس ينتشر بسرعة  
في العالم و يسبب الأمراض

Dr. Ravindra Khaiwal  
Dr. Suman Mor



# Panjab: PU-PGI team produces comic book to explain coronavirus to children

At the heart of the effort are two young children, 9-year-old Aaditya Khaiwal and 14-year-old Lakshya Khaiwal, whose parents — Dr Ravindra Khaiwal from PGIMER and his wife Dr Suman Mor, Assistant Professor at PU Department of Environmental Science — are behind the concept, script and idea for the comic.

Written by [Chahat Rana](#) | Chandigarh |  
March 10, 2020 1:45:48 am



"It was truly a family effort, consisting of me, my wife and two children, as well as a team of young scholars from PU who have been associated with the work I am already producing in my department on public health issues," says Dr Ravindra.

A team consisting of researchers from Panjab University (PU) and the Post-Graduate Institute of Medical Education and Research (PGIMER) have produced a 22-page-long comic book to explain the coronavirus pandemic to young children. The comic

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## 2. KIDS, VAAYU & CORONA 2: Can We Defeat pandemic (A comic series for COVID-19 awareness)

Comic book for children to provide correct information about COVID-19 - Part 2, released by Ministry of Health and Family Welfare, Government of India Weblink: <https://www.mohfw.gov.in/pdf/CoronaComic2PGIPU22Mar20.pdf>





# Vaayu en Corona2 voor kinderen: Kunnen we de pandemie verslaan? (Een stripreeks voor COVID-19-preventie)



**Pandemie:** wereldwijde verspreiding van een nieuwe ziekte waarvoor mensen geen immuniteit hebben.

**Preventie:** eenvoudige stappen om veilig te blijven, infectieziekten zoals COVID-19 voorkomen.

**Dr. Ravindra Khaiwal**  
**Dr. Suman Mor**





# Chicos, Vaayu y Corona : podremos derrotar la pandemia?

(Una serie de cómic para prevención COVID-19)



**Pandemia:** en todo el mundo la propagación de nuevas enfermedades para las cuales las personas no tienen inmunidad.

**Prevención:** pasos sencillos para permanecer seguro, prevenir enfermedades infecciosas como COVID-19.

**Dr. Ravindra Khaiwal**  
**Dr. Suman Mor**



3. Public Health Shield for Corona Prevention, released by Ministry of Health and Family Welfare, Government of India.

Weblink: <https://www.care4cleanair.com/awarnessmaterial>



#### 4. Document on Educative Comic Series for COVID Awareness released in booklet as “Efforts from Science Ministries, Departments & Scientific Organisations”

Weblink: <https://vigyanprasar.gov.in/wp-content/uploads/vp-Covid-Newsletter-21may2020.pdf>

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## SCIENCE OUTREACH & POPULARISATION EFFORTS

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Ministry of Science and Technology (MoST), Government of India, is striving continuously for reaching to the common people. Since the eruption of COVID-19 pandemic, the Ministry has supported numerous research projects and technology interventions through its various Departments, Autonomous Organisations, Professional Bodies, Statutory Bodies, and Laboratories. In the expedition of science outreach and popularisation, a number of knowledge and information products have been generated and released.

### Efforts from Science Ministries, Departments & Scientific Organisations

#### Kids, Vaayu & Corona, PGIMER-Chandigarh and Panjab University produce an Educative Comic Series for COVID Awareness

COVID has become a nightmare for most of the people around the world. And while some of the adults are busy and could gather data from the common platforms like newspaper, for kids, it really becomes incomprehensive to understand the talks, advisories and other scientific information. To overcome the challenge, Postgraduate Institute of Medical Education and Research (PGIMER, Chandigarh) and Panjab University (PU), have created an educative comic series titled 'Kids, Vaayu & Corona,' for children to make them aware about the threats of Coronavirus and ways to remain safe by taking simple precautionary steps for prevention and control of spread of the infection.



#### 5. Kids, Vaayu & Corona: Heroes of Lockdown: A comic to unlock kids potential during COVID-19 pandemic released by Governor of Punjab and Administrator of UT Chandigarh.



# KIDS, VAAYU & CORONA

## Part 3: Heroes of Lockdown

(A comic to unlock kids potential during COVID-19 pandemic)



Dr. Ravindra Khaiwal  
Dr. Suman Mor



Home / Cities / Chandigarh News / Chandigarh administrator releases comic by Panjab Unive...

## CHANDIGARH NEWS

### Chandigarh administrator releases comic by Panjab University, PGIMER to unlock potential of children

While releasing the comic, Bandore said that in the current scenario, concerns of children should be addressed on time to avoid any panic among them

**HT** Hindustan Times, Chandigarh | By HT Correspondent, Chandigarh  
PUBLISHED ON JUN 08, 2020 08:46 PM IST



Chandigarh administrator VP Singh Badnore (centre) during the release of comic book, Heroes of Lockdown, made by PU, PGIMER.(HT PHOTO)

A comic aimed towards unlocking the potential of children during the Covid-19 lockdown, made by faculty members of Panjab University and PGIMER, was released by Chandigarh administrator VP Singh Badnore on Monday.

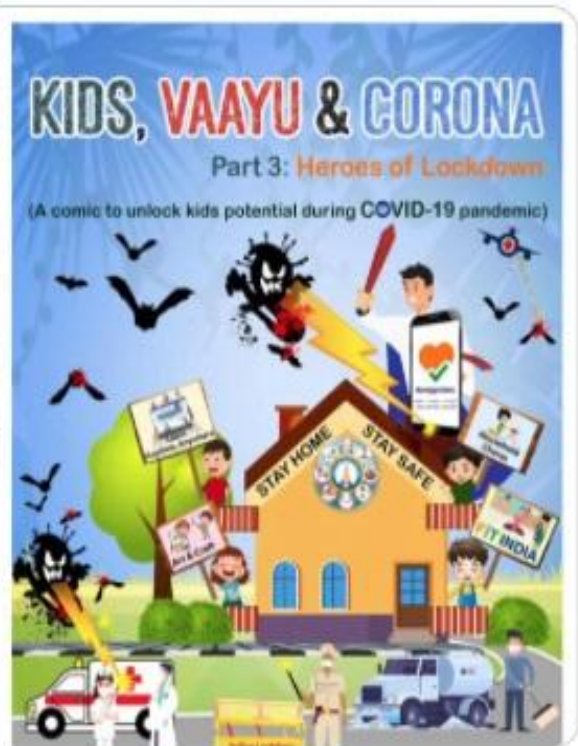
← **Tweet**



**V P Singh Badnore** ✓  
@vpsbadnore



Glad to release KIDS VAAYU&CORONA3:Heroes of Lockdown written by Prof Dr.Suman Mor @OfficialPU &Dr. Ravindra Khairwal #PGIMERChandigarh Excellent workdone by the authors to motivate kids to learn,explore more through Govt Apps& enhance their creativity especially during #COVID19



👤 Ravindra Khairwal and 2 others

6:21 PM · Jun 8, 2020 from Chandigarh, India · Twitter for Android

**6. Pictorial Guidebook: ‘COVID-19 Pandemic: Returning to Normal Life – A guide to New Normal: Living with COVID-19’ Governor of Punjab and Administrator of UT Chandigarh**

Weblink: <https://www.care4cleanair.com/awarnessmaterial>

# COVID-19 PANDEMIC: A GUIDE TO NEW NORMAL : LIVING WITH COVID-19



**Dr. Ravindra Khaiwal**  
**Dr. Suman Mor**



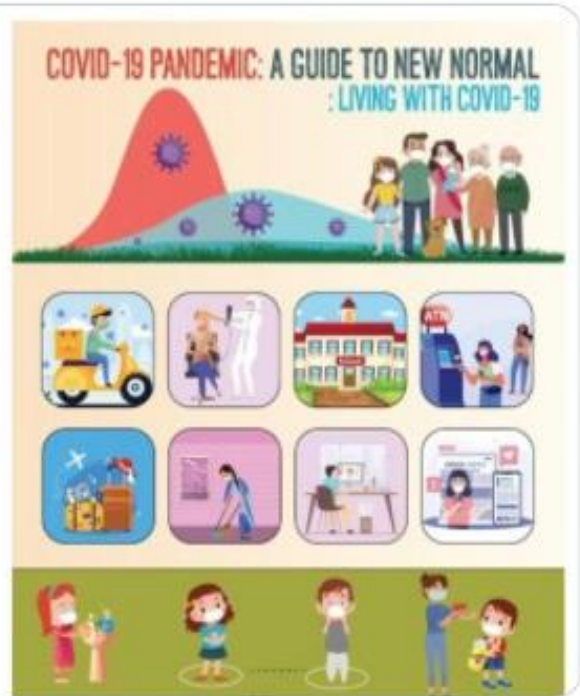
← **Tweet**



**V P Singh Badnore** ✓  
@vpsbadnore



Released a Pictorial Booklet for easy understanding of New Normal ; living with COVID 19. Commend Dr. Khaiwal @RavindraKhaiwal #PGIMER &Dr.Mor @OfficialPU for this extensive work.We will defeat #COVID19India if we truly follow the prescribed protocol of health and hygiene.



Hosp Admn, PGIMER and 2 others

6:25 PM · Jun 8, 2020 · Twitter for Android



*Shri V.P. Singh Badnore, Governor Punjab and Chandigarh Administrator releasing Pictorial Guidebook: 'COVID-19 Pandemic: Returning to Normal Life – A guide to New Normal: Living with COVID-19'*

**7. 'KIDS, VAAYU & CORONA: COVID Appropriate Behaviour' to guide children a normal and healthy life during COVID-19 pandemic released by Dr. Ramesh Pokhriyal Nishank, Union Minister of Education (MHRD), New Delhi.**

There is growing concern & perceived threat about the Coronavirus among the general public. The population of all ages is making use of available media such as newspapers, social media & television to make themselves aware. From adults to children, most of the discussions these days are centering around the Coronavirus. Coronavirus has become a cause of concern for kids as they are not able to comprehend the new changes & getting worried. Parents should talk to them & resolve their queries, so they do not feel panic. We recommend 'Kids, Vaayu & Corona' comic part 1, part 2 & part 3 for their help.

Since the unlocking of lockdown started by allowing social and economic activities hence, there is a need to sensitize the public and children about the COVID appropriate behaviour to contain the disease. Considering this Panjab University, Chandigarh & PGIMER, Chandigarh (India) prepared the fourth part of the comic to educate them about new behaviour norms to ensure safety of all and to restrict the spread of COVID-19 disease. This comic is created to motivate children to adopt new norms of COVID appropriate behavior & to be a hero of prevention.

Weblink: <https://www.care4cleanair.com/awarnessmaterial>

← Thread

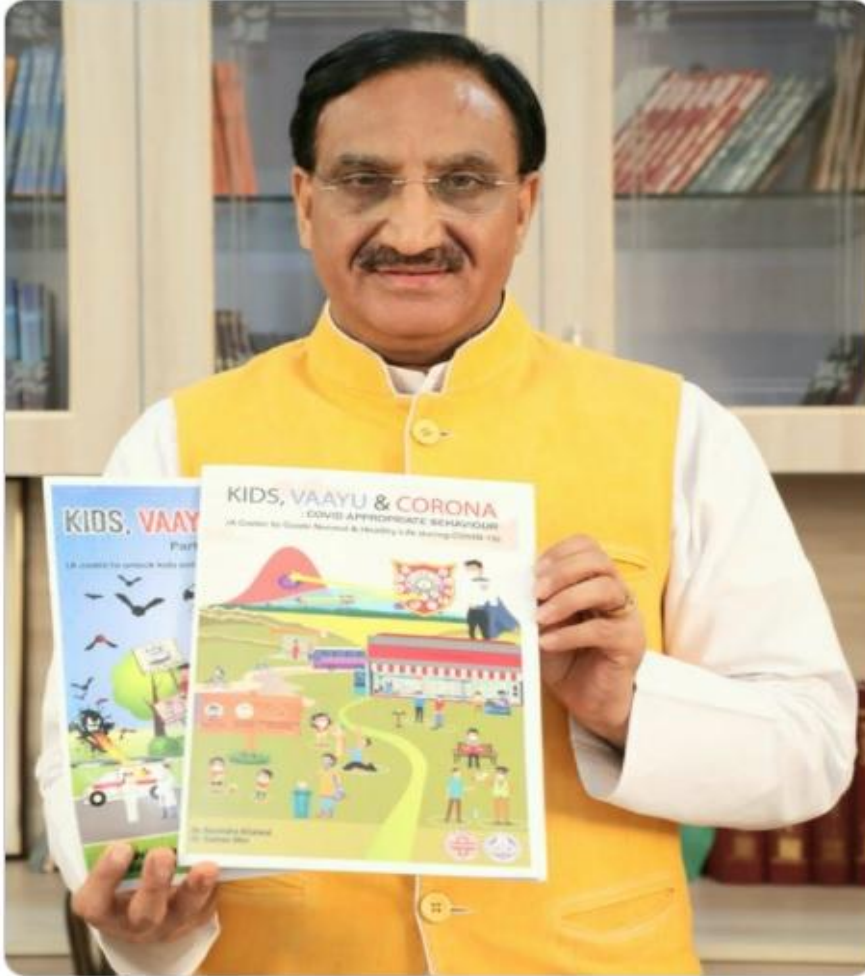


Dr. Ramesh Pokhriyal Nishank

@DrRPNishank

Replying to @DrRPNishank

इसी क्रम में पंजाब विश्वविद्यालय एवं पीजीआईएमईआर चंडीगढ़ द्वारा संयुक्त रूप से लिखित "Kids, Vaayu and Corona : COVID-appropriate behaviour : A comic to guide normal and healthy life during covid-19" पुस्तक के विमोचन के दौरान मैंने लेखकों के गंभीर प्रयासों का अनुभव किया।



Suman Mor and 3 others

4:29 PM · Aug 23, 2020 · Twitter for Android

*Dr. Ramesh Pokhriyal Nishank, Union Minister of Education (MHRD), New Delhi releasing booklet 'KIDS, VAAYU & CORONA: COVID Appropriate Behaviour' to guide children a normal and healthy life during COVID-19 pandemic*

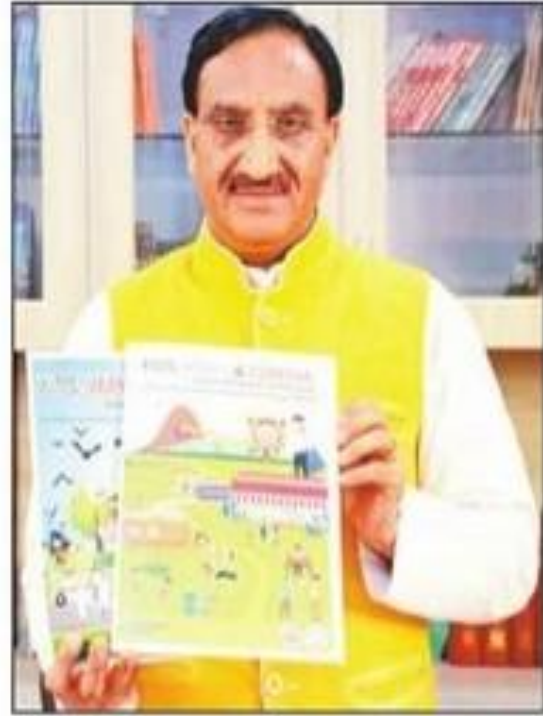


# लोगों को महामारी से बचाएगा किड्स वायु कोरोना कॉमिक्स केंद्रीय शिक्षा मंत्री ने किया चौथे संस्करण का विमोचन

माई सिटी रिपोर्टर

चंडीगढ़। कोरोना को लेकर बच्चों के साथ ही हर आयु वर्ग के लिए जागरूकता का माध्यम बनने वाले 'किड्स वायु कोरोना कॉमिक्स' के चौथे संस्करण का विमोचन केंद्रीय शिक्षा मंत्री रमेश पोखरियाल ने बुधवार को दिल्ली में किया। उन्होंने इस कॉमिक्स को कोरोना से बचाव के लिए एक बेहतर माध्यम बताया।

उनका कहना है कि यह बच्चों के साथ ही हर आयु वर्ग के लिए बेहद उपयोगी साबित हो रही है। इसमें दी गई जानकारी कोरोना काल में रोजमर्रा की चुनौतियों से बचाव में बहुत ही उपयोगी है। इसके माध्यम से बच्चों के व्यवहार को नियंत्रित करने में काफी सफलता मिलेगी। वहीं पंजाब यूनिवर्सिटी के एनवायरमेंटल

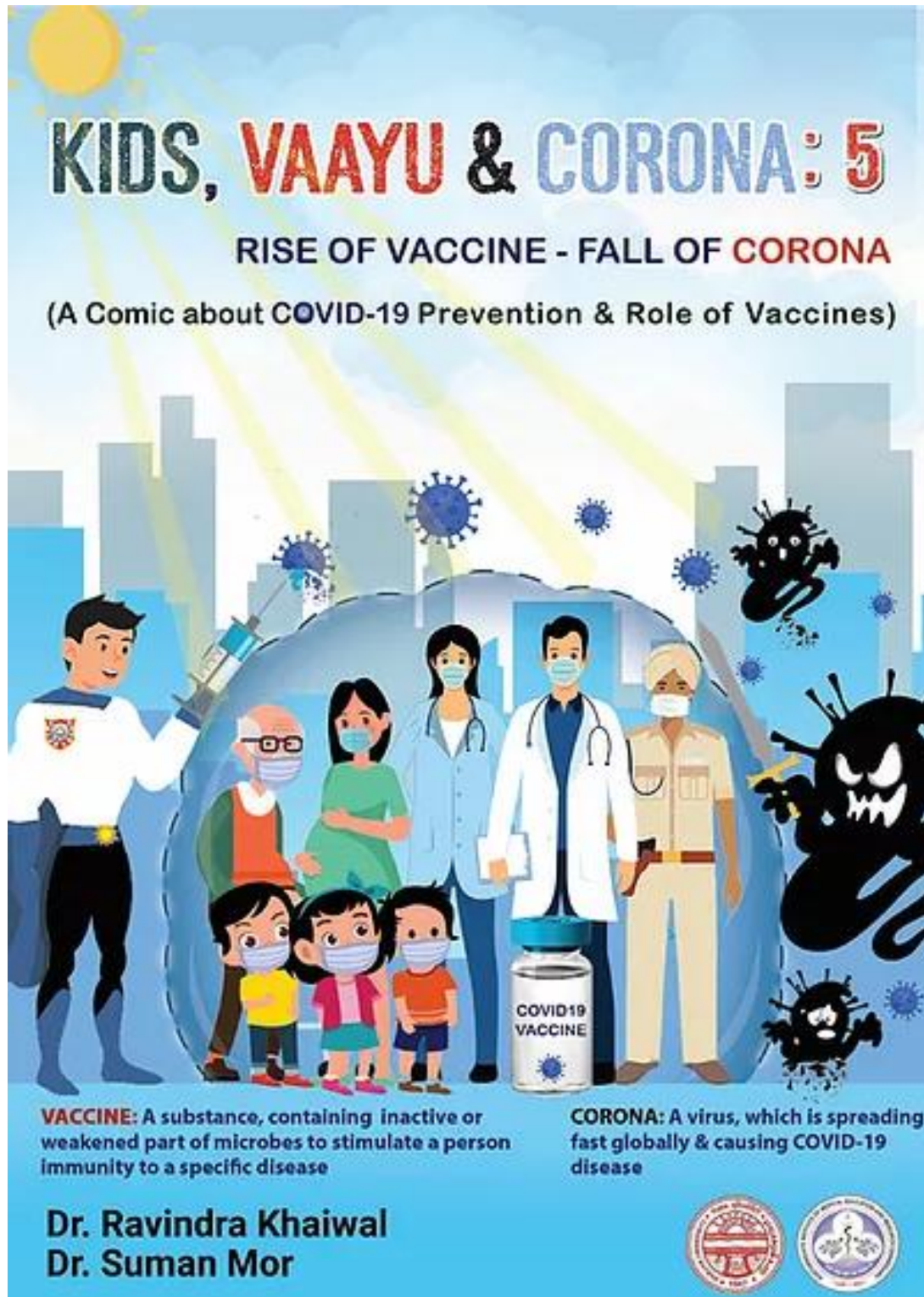


विमोचन करते रमेश पोखरियाल।

स्टडीज की प्रोफेसर सुमन मोर और पीजीआई कम्युनिटी मेडिसिन के असिस्टेंट प्रोफेसर रविंद्र का कहना है कि इस कॉमिक्स के माध्यम से कोरोना से बचाव के साथ ही महामारी के इस दौर की जटिलता को सामान्य करना है।

8. 'KIDS, VAAYU & CORONA: 5 Rise of Vaccine- Fall of Corona A comic to about COVID-19 prevention and role of vaccines released by Prof. (Dr.) Vinod K. Paul, Member, NITI Aayog

Weblink: <https://www.care4cleanair.com/awarnessmaterial>



Globally, we have made significant progress towards the development of the COVID-19 vaccines. Indeed, few vaccines are approved for human uses after rigorous human trials & regulatory

procedures. Despite that, there are many myths about vaccines, which may lead to vaccines refusal despite the availability of vaccination services. Considering this, Panjab University-Chandigarh, and Post Graduate Institute of Medical Education & Research (PGIMER)-Chandigarh, India created the fifth part of the comic to educate kids & the general public about vaccine development, including how it will be safely delivered to them. Comic also aims to clear the doubts about vaccines to enhance their acceptance for the prevention & control of COVID-19.

The image is a screenshot of a tweet from NITI Aayog (@NITIAayog) posted 27 minutes ago. The tweet text is in Hindi and mentions COVID-19 prevention methods like masks, cleanliness, and vaccines. It also promotes a comic titled 'बच्चे, वायु और कोरोना: 5' (Children, Air, and Corona: 5) which addresses vaccine myths and facts. The tweet includes two photographs: one showing a group of people holding copies of the comic, and another showing three individuals, including a man in a suit, also holding the comic. The tweet has 2 replies, 5 retweets, and 30 likes.

**NITI Aayog** @NITIAayog · 27m  
#COVID19 से लड़ाई के हथियार तीन - मास्क 🧤, स्वच्छता एवं वैक्सिन 💉

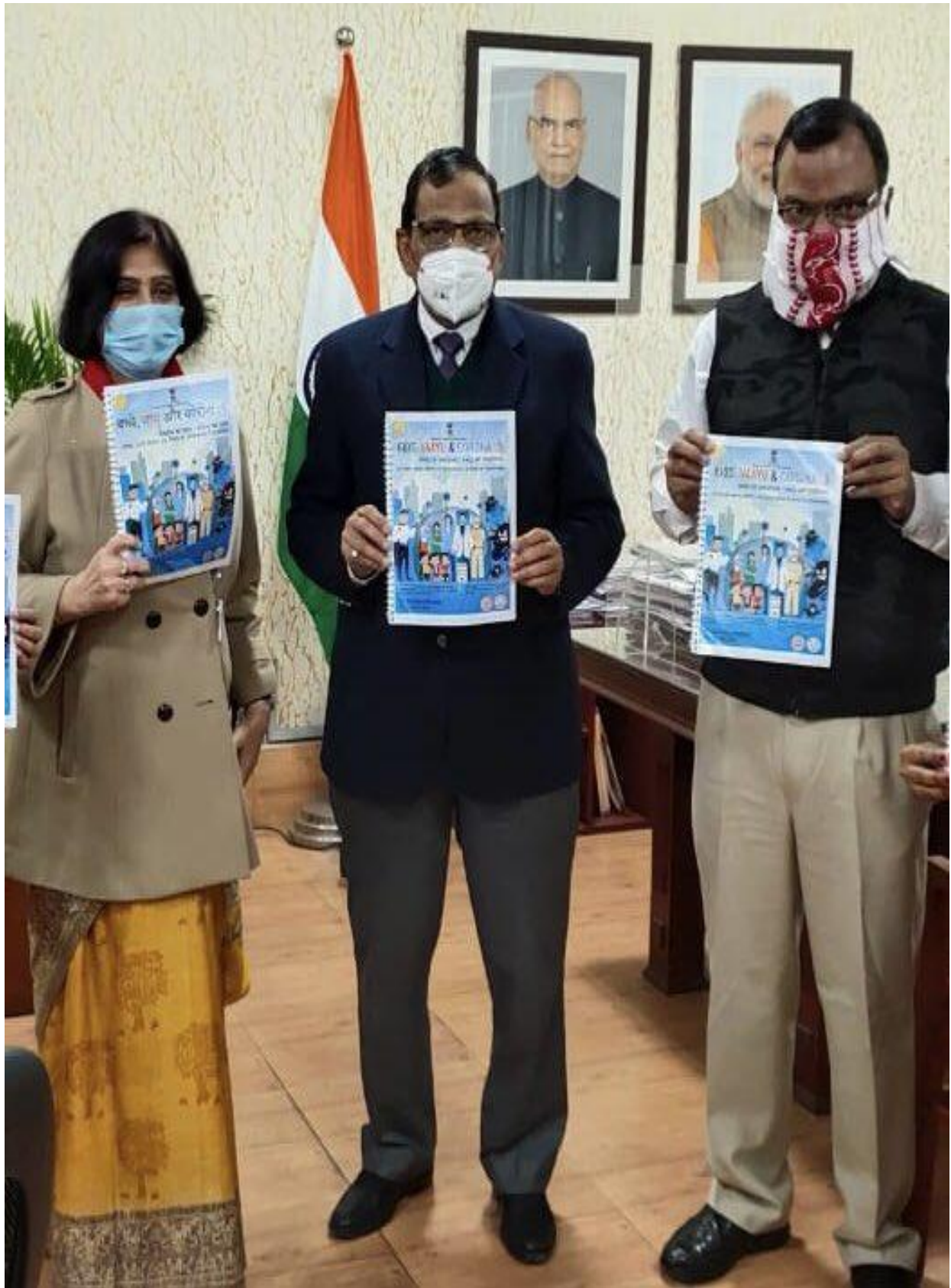
पढ़ें किड्स वायु और कोरोना कोमिक - जाने क्यों जरूरी है वैक्सिन।  
डॉ विनोद पाल, सदस्य, #NITIAayog द्वारा विमोचित।

**बच्चे, वायु और कोरोना: 5**  
वैक्सिन का उदय - कोरोना का पतन  
(कोविड - 19 के रोकथाम और वैक्सिन की पुष्टि के बारे में एक कॉमिक)

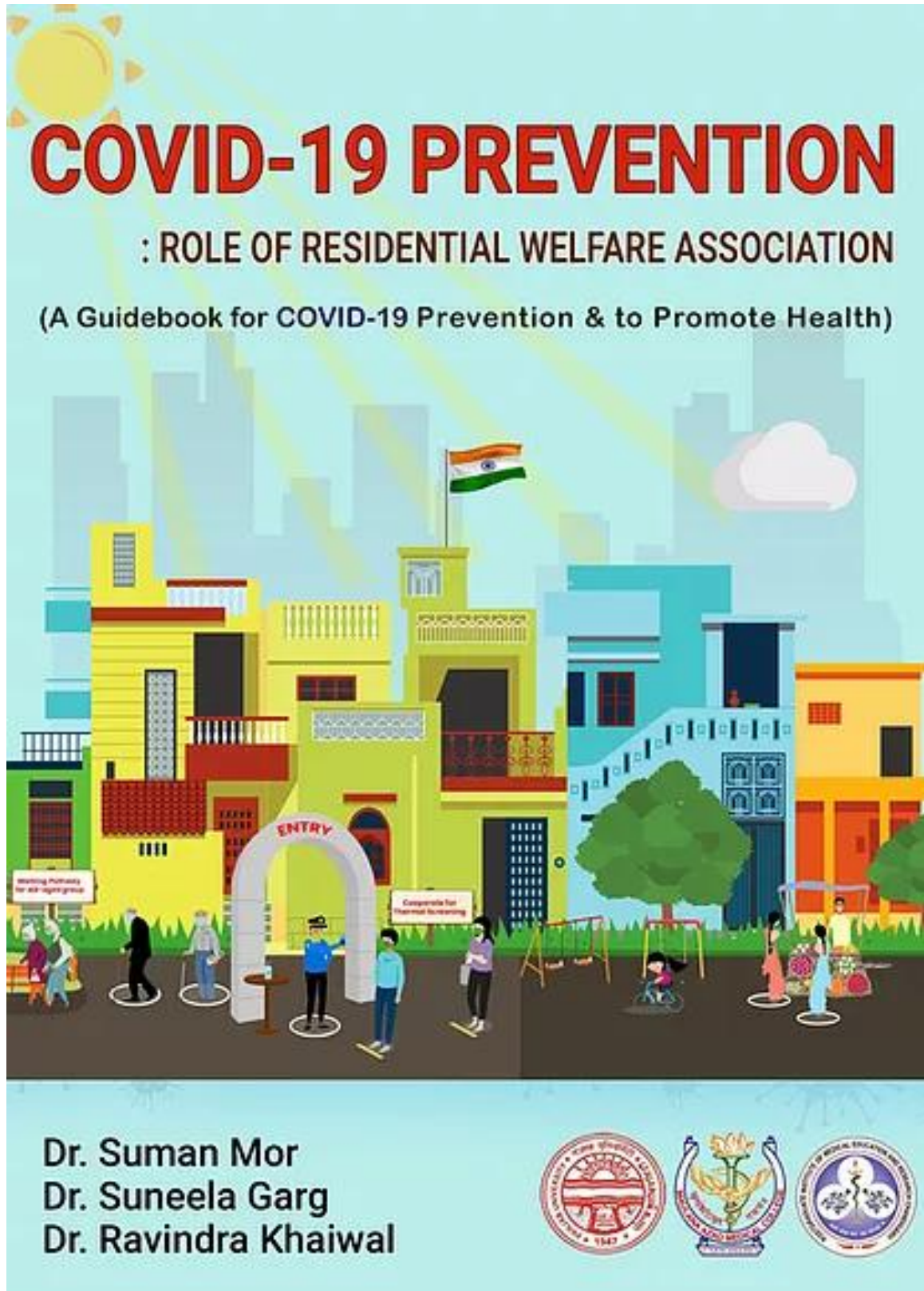
| MYTHS   | TRUE FACTS                                      |
|---|---|
| वैक्सिन को ठीक से लेना हमें वायरस से बचाव देगा। | वैक्सिन को ठीक से लेना हमें वायरस से बचाव देगा। |
| वैक्सिन को लेना हमें वायरस से बचाव देगा।        | वैक्सिन को लेना हमें वायरस से बचाव देगा।        |
| वैक्सिन को लेना हमें वायरस से बचाव देगा।        | वैक्सिन को लेना हमें वायरस से बचाव देगा।        |
| वैक्सिन को लेना हमें वायरस से बचाव देगा।        | वैक्सिन को लेना हमें वायरस से बचाव देगा।        |

PMO India and 7 others

2 5 30



**9. COVID-19 PREVENTION: Role of residential welfare societies. Released by Prof. (Dr.) Vinod K. Paul, Member, NITI Aayog**



Hundreds of families are residing together in a gated society or complex. For the welfare of society residents, it is essential to have a body of elected members from within the community. So, each residential society or complex has its own Residential Welfare Association (RWA). RWA is a non-governmental organization & is an integral part of a gated society that helps maintain the interest of people of society, resolving residents' problems & managing the facilities & ensuring a safe & secure environment in the complexes. The residents select members of RWA from within the society through an election. This membership is open to any person of the community who is interested in the development of society and includes the key position such as President, Vice- President, secretary, & treasurer, etc.

During COVID-19, the RWA members primary objective is to make aware society about the best practices of COVID-19 prevention. RWA can play a significant role by advising members to follow precautionary measures such as frequent hand washing, sanitization through posters, social-media network, meetings, etc. RWA could ensure that society residents have an adequate supply of sanitizers, soap, hand wash, etc. RWA has a major role in encouraging members to self-report their symptoms, quarantine those exposed to infected persons. They should ask the RAW members not to hide the COVID-19 symptoms & report them immediately to get timely medical care.

Raw can address the stigma & discrimination of COVID-19 patients and corona warriors. RWA & its member can provide counselling & support to COVID-19 affected families & specifically the vulnerable members. Further, RAW has a major role to play to address the issue of vaccine hesitancy, providing the correct information about vaccine & clearing the myths. Panjab University, Chandigarh, Maulana Azad Medical College, New Delhi & Post Graduate Institute of Medical Education & Research, Chandigarh bring out the booklet on 'COVID-19 Prevention: Role of Residential Welfare Association' to guide the housing societies to prevent & fight against COVID-19 & to promote health wellbeing. Together, we will fight COVID-19.

**10. KIDS, VAAYU & CORONA: Covid Variants vs. Vaccine Warriors, A comic to aware parents and children about the COVID-19 vaccine and immunization. Released by Shri Anil Vij, Home and Health Minister of Haryana.**

COVID-19 vaccines are safely being administered to the adult population after rigorous human trials & regulatory procedures. Some countries have also approved covid vaccine for children & in India,

vaccine trials are under process. This comic is an effort to guide them scientifically about the vaccines, clear their doubts & concern. Panjab University-Chandigarh and PGIMER-Chandigarh, India, India has created the 6th part of the comic to educate about the COVID-19 vaccine for children, including routine immunization, which saves millions of lives every year. Children are our heroes as they follow covid-appropriate behavior. They can better guide & convince their family & parents about the vaccines to enhance their acceptance for the prevention & control of COVID-19 disease.

This comic is a joint publication from Panjab University, Chandigarh and PGIMER, Chandigarh. Shri Anil Vij, Home and Health Minister of Haryana, highlighted that routine immunization saves millions of lives every year through vaccines. He stressed that this comic will raise awareness about the vaccine and how they work by enhancing the body's natural defense and providing protection against over 20 life-threatening diseases such as Measles, Diphtheria, Pertussis & Influenza. He mentioned that the IEC Comic will clear the doubts of children and their parents about the clinical trials of the COVID-19 vaccine for children. He further added that children could play a key role in motivating their parents about COVID-appropriate behavior and addressing vaccine hesitancy. These pictorial comics are conceptualized and developed by Dr. Ravindra Khaiwal, Additional Professor, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh, and Dr. Suman Mor, Chairperson and Associate Professor, Department of Environment Studies, Panjab University, Chandigarh. The authors mentioned that children communicate more effectively and can be our heroes to create awareness about COVID-19 prevention and the role of the vaccine in disease control.

# KIDS, VAAYU & CORONA 6

COVID VARANTS Vs VACCINE WARRIORS

(A Comic to Aware Children & Parents about COVID-19 Vaccine & Immunization)



Dr. Ravindra Khaiwal  
Dr. Suman Mor







Dated:- 15/06/2021

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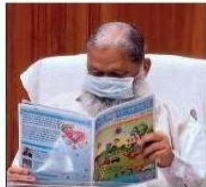
OF INDIA

## Hry health minister releases comic on Covid vaccination

TIMES NEWS NETWORK

**Chandigarh:** Haryana health minister Anil Vij on Monday released IEC comic 'KIDS, Vaayu and Corona: Virus Variants vs Vaccine Warriors' to educate parents and children about the Covid vaccination. This is a joint publication of Panjab University and the PGIMER.

Vij, highlighted that routine immunisation saved millions of lives every year. He hoped this comic will raise awareness about the vaccines and how these work by enhancing the body's natural defence against 20 life-threatening diseases such as measles, diphtheria, pertussis and influenza.

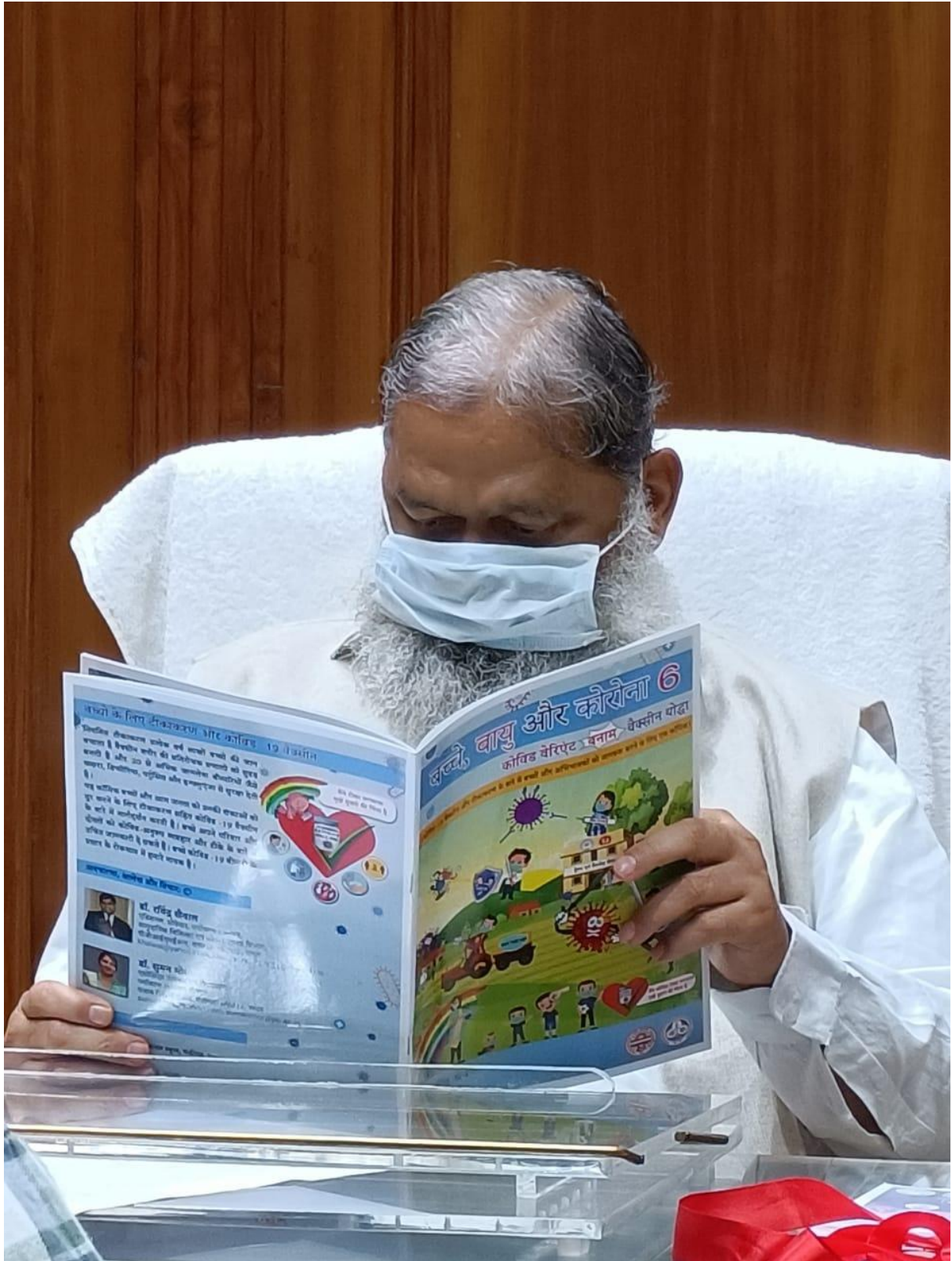


Anil Vij with the comic

He said the comic will clear the doubts of children and their parents about the clinical trials of the Covid vaccine for children. He added that children could play a key role in motivating their parents to adopt Covid-appropriate behavior and shed vac-

cine hesitancy. These pictorial comics are conceptualised and developed by Dr Ravindra Khadwal, additional professor in the Department of Community Medicine and School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh, and Dr Suman Mor, chairperson and associate professor in the Department of Environment Studies, Panjab University, Chandigarh.

The authors mentioned that children could communicate more effectively and could be our heroes in the efforts to create awareness about Covid-19 prevention and the role of the vaccine in disease control.



## **11. DEVELOPMENT OF IEC MATERIAL AWARENESS MATERIAL ON SAFE DISPOSAL OF MASKS AND GLOVES IN COVID-19 PANDEMIC**

Department of Environment Studies, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education and Research, Chandigarh Panjab University and Chandigarh Pollution Control Committee jointly released an IEC material on safe disposal of face masks, wipes and gloves by general public during COVID-19 pandemic. Sh. T.C. Nautiyal, IFS, Member Secretary, CPCC, Chandigarh released the IEC material. The leaflet was jointly designed by Dr. Suman Mor, Chairperson, Department of Environment Studies, Panjab University and Dr. Ravindra Khaiwal, Additional Professor of Environment Health, Post Graduate Institute of Medical Education and Research, Chandigarh following the latest guidelines to aware the general public to follow the safe disposal practices. On the occasion Sh. T.C. Nautiyal specify that masks, wipes and gloves used by general public and coming from home should be first collected in polybag and stored for 3 days and thereafter only be handover to waste collectors safely. This will help to restrict the spread of COVID-19 infection.

Dr. Suman Mor, Chairperson, Department of Environment Studies, Panjab University, highlighted that face masks, face covers and gloves are part of new normal life and people should know how to dispose them safely. She mentioned that only through public participation we can restrict the COVID-19 and each citizen should understand their responsibility in disposal of used mask and gloves safely. Dr. Ravindra Khaiwal, Additional Professor of Environment Health, PGIMER highlighted the rational use of mask and urge general public to make use of homemade masks as triple layer or N95 masks are normally required for special settings such as hospitals. On this occasion Sh. Vivek Pandey (Scientist-D) and Sh. Sushil Dogra (Scientist-B) were also present. They mentioned that these IEC leaflet should be placed at prominent places for mass awareness. These IEC activities are undertaken under Nation Knowledge Network under National Clean air Programme from which Dr. Suman Mor, Chairperson from Panjab University is member.



*Shri T.C. Nautiyal, IFS, Members Secretary, Chandigarh Pollution Control Committee, Chandigarh relaesring awareness material on safe disposal of masks and gloves in COVID-19 pandemic*

## **12. AWARENESS BOOKLET ON AIR POLLUTION & COVID-19 MITIGATION STRATEGIES**

Ministry of Environment, Forest and Climate Change, New Delhi, released the public awareness booklet 'Air Pollution & COVID19 Mitigation Strategies' by a tweet. The booklet is conceptualized and developed by Dr. Suman Mor, Chairperson, Department of Environment Studies, Panjab University, Chandigarh; and Dr. Ravindra Khaiwal, Additional Professor, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh, India.

Shri RP Gupta, Secretary, Ministry of Environment, Forest and Climate Change, New Delhi, mentioned that bringing awareness about air pollution sources (indoor and ambient) and associated health impacts in COVID-19 times has become of utmost importance. He added that addressing the issue of air pollution will help and lead to a decline in morbidity and mortality as well decline in respirable related illnesses like the COVID-19 pandemic. Shri Gupta highlighted that the infographic booklet would help to create awareness among the public to minimize the adverse health impact of air pollution & COVID-19.

Dr. Ravindra Khaiwal, Additional Professor of Environmental Health, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh, mentioned that we need to adopt new normal to protect our health and environment as COVID19 has made us realize. Dr. Suman Mor, Chairperson, Department of Environment Studies, Panjab University, Chandigarh, mentioned that the booklet highlights simple steps to prevent COVID19 and protect our ecosystem to ensure environmental sustainability for future generations.



सत्यमेव जयते

Government of India

Ministry of Environment, Forest and Climate Change

# AIR POLLUTION & COVID-19 MITIGATION STRATEGIES

LET'S BE PART OF THE SOLUTION



**Dr. Suman Mor**  
**Dr. Ravindra Khaiwal**



← Thread



MoEF&CC   
@moefcc

...

COVID-19 & Air Pollution could be a risky combination & we need to be alert & prepared. Pleased to release a booklet on Air Pollution & COVID19 Mitigation measures to create awareness among the public & reduce their adverse impacts. #BeAlertBePrepared



Prakash Javadekar and 3 others

1:49 PM · Mar 11, 2021 · Twitter Web App

53 Retweets 7 Quote Tweets 99 Likes





MoEF&CC @moefcc · Mar 11

Replying to @moefcc

Congratulations on excellent work @SumanMor\_PU @RavindraKhaiwal @OfficialPU @DrJagatpgi



Prakash Javadekar and 3 others



1



14



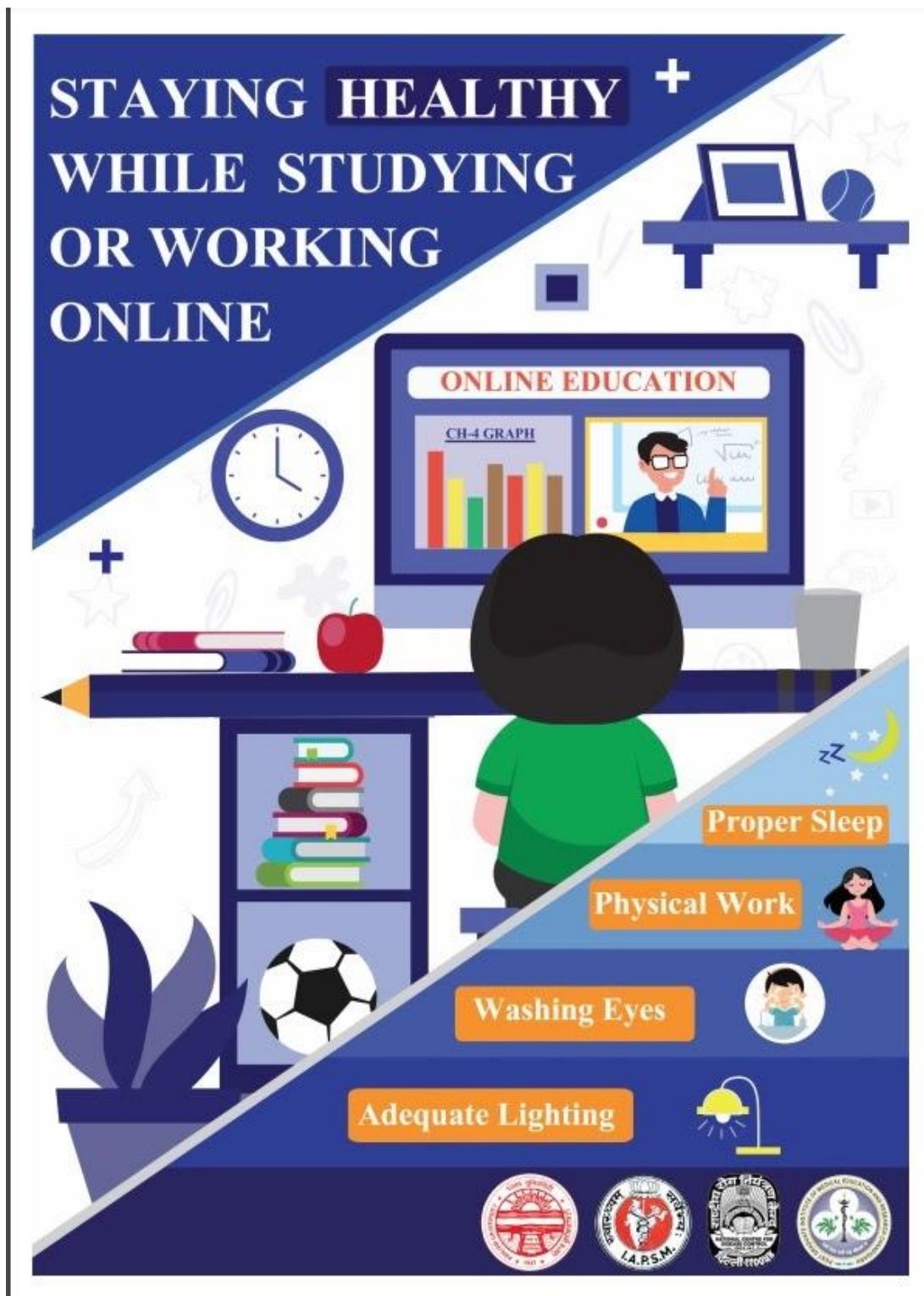
31



- <https://twitter.com/moefcc/status/1369925974180069377?s=20>
- <https://www.care4cleanair.com/awarnessmaterial>
- <http://www.uniindia.com/environment-ministry-secretary-releases-awareness-booklet-on-air-pollution/north/news/2341634.html>



**13. STAYING HEALTHY, WHILE STUDYING OR WORKING ONLINE: PICTORIAL GUIDEBOOK RELEASED BY SHRI ASHWINI KUMAR CHOUBEY, UNION MINISTER OF STATE HEALTH**



Screen-based technologies are fast evolving & youth, especially children are engaged in exploring diverse content on different types of screens. These screens in form of computers, television, smart phones, or in theatres, are an integral part of our daily life. We are unavoidably exposed to digital

media from early life & for longer hours, whereas children with affluent homes & an internet-connected device spend more than 2 hours a day on these screens. With time there is growing concern about electronics exposure which may have negative effects on the development & growth of children. Today, many evidences exist which shown association between screen time with obesity because of reduction in physical activity & this results in reduction in metabolic rate. Impact on sleep can be another negative effect, as due to excessive screen time, the sleep quality & sleep time get affected & this can consequently result in cardiovascular diseases, high blood pressure, low cholesterol levels. Also, there are effects on the eyesight, & possible consequences of excessive screen time are tendency to develop depression & suicidal thoughts, decrease in bone density, & attention deficit hyperactivity disorder (ADHD). The aim of this infographic booklet is to make public aware about the Pragayata guidelines, Manodarpan portal & effects of electronic exposure on human behaviour, which could provide scientific grounds to the control of digital screen time & usage of electronics. The pictorial booklet 'Staying Healthy While Studying or Working Online' is a valuable tool to educate everyone in simple, easy-to-grasp pictures about importance of proper lightening, & short exercises to reduce the strain while working online & other effects of screen time on human health. Shri Ashwini Kumar Choubey, Union Minister of State for Health and Family Welfare congratulate the authors Dr. Ravindra Khaiwal from the Post Graduate Institute of Medical Education & Research, Chandigarh & Dr. Suman Mor from Punjab University, Chandigarh, for developing this excellent infographic booklet.

Shri Ashwini Kumar Choubey, Union Minister of State for Health and Family Welfare, released the pictorial guidebook - 'Staying Healthy While Studying or Working Online' through a tweet. A team of young authors Lakshya Khaiwal from Chitkara International School, Chandigarh and Aaditya from Ankur School, Chandigarh along with public health expert Dr. Suman Mor, Panjab University, Chandigarh, and Dr. Ravindra Khaiwal from Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh developed the booklet.

Expressing his appreciation, Shri Choubey congratulated the institutions involved in designing the pictorial guidebook and mentioned that the COVID-19 pandemic has affected our daily activities and we are adopting new normal. He added that to prevent the spread of COVID-19 brought the widespread adoption of work-from-home and online teaching/education using digital technology and virtual platforms, which has unavoidably exposed us to long hours of screen times. This raises the concern about the exposure to electronic gadgets and associated adverse health issues as we remain attached to them without much physical activity or social connect stated the Union Minister of State for Health. Shri Choubey further added that taking small steps such as ensuring adequate lighting, a

comfortable workplace, proper sleep and doing short exercises while working on screen can keep us mentally & physically fit.

Dr. Suman Mor, Chairperson and Associate Professor, Department of Environment Studies, Panjab University, Chandigarh, highlighted that child are spending more time on digital screen due to home schooling, socializing with friends, or playing games as outdoor activities are restricted to limit the spread of COVID-19. She further stated that this has made us and especially the children and young population vulnerable to the harms associated with excessive screen time.

Dr. Ravindra Khaiwal, Additional Professor of Environmental Health, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh, mentioned that excessive screen time adversely affecting the development and growth of children. He added that excessive screen time has been linked to obesity due to a reduction in physical activities and also affects the sleeping pattern, disturbing the sleep quality and sleep time, which consequently could lead to cardiovascular diseases and high blood pressure, etc. Excessive screen time also affects the eyesight and has been associated with depression and suicidal thoughts, decrease in bone density, and attention deficit hyperactivity disorder mentioned by Dr.Khaiwal.The booklet was also technically supported by the National Centre for Disease Control, New Delhi, India and the Indian Association of Preventive and Social Medicine (IAPSM), India.

### **Media coverage**

1. [https://timesofindia.indiatimes.com/city/chandigarh/covid-can-use-pollen-to-transmit-faster-study/articleshow/82155420.cms?utm\\_source=Google\\_Newsstand&utm\\_campaign=RSS\\_Feed&utm\\_medium=Referral](https://timesofindia.indiatimes.com/city/chandigarh/covid-can-use-pollen-to-transmit-faster-study/articleshow/82155420.cms?utm_source=Google_Newsstand&utm_campaign=RSS_Feed&utm_medium=Referral)
2. <https://indianexpress.com/article/cities/chandigarh/study-by-pu-pgi-pollen-may-lead-to-increased-immune-activation-offer-protection-against-covid-19-7278428/>
3. <https://www.youtube.com/watch?v=2Xsy9zyjWM0>
4. <https://twitter.com/vpsbadnore/status/1376233477062811650>
5. [https://fb.watch/50RSTrZ\\_0a/](https://fb.watch/50RSTrZ_0a/)

← Tweet

↳ Ravindra Khaiwal Retweeted



Ashwini Kr. Choubey  
@AshwiniKChoubey

मानसिक व शारीरिक रूप से फिट रहने के लिए उचित नींद, पर्याप्त प्रकाश, आरामदायक कार्यस्थल व थोड़ी कसरत सुनिश्चित करना ज़रूरी है। मैं COVID-19 महामारी के दौरान जागरूकता पुस्तिका "स्वस्थ कैसे रहे ?ऑनलाइन अध्ययन या काम करते समय" लाने के लिए पीजीआई व पीयू के प्रयासों की सराहना करता हूँ।

[Translate Tweet](#)



8:11 PM · Apr 10, 2021 · Twitter for Android

16 Retweets · 1 Quote Tweet · 81 Likes

# “COVID-19 & GUIDANCE FOR OXYGEN SELF-USE DURING HOMECARE

Released by Prof. (Dr.) Jagat Ram, Director PGIMER, Chandigarh



Oxygen is one of the medicines which is used for patients suffering from hypoxemia. It is required for severe pneumonia diseases like COVID-19, chronic pulmonary diseases & emergency surgeries,

& cardiovascular diseases. The COVID-19 pandemic has caused some issues of procuring requiring oxygen & it is not readily available. Health care systems at all levels are under pressure to deal with the supply shortage of this vital resource. Hence, it is crucial to understand when to use oxygen & minimize its wastes. The oxygen should be used only after consulting a medical professional, following their instructions. We should also avoid unnecessary hoardings of oxygen cylinders, which adds to the current oxygen scarcity.

The infographic booklet 'COVID-19 & Guidance for Oxygen Self-use during Homecare' aims to explain the oxygen uses during homecare & avoid wastages. As explained in the booklet, safety precautions must be followed when using an oxygen cylinder as it helps in burning.

#### **14. RELEASE OF GUIDEBOOK "SAFE AND ECO-FRIENDLY DIWALI: PROMOTES KHUSHHALI" (A GUIDEBOOK FOR POLLUTION-FREE & HEALTHY DIWALI CELEBRATION) FOR AWARENESS ON POLLUTION FREE DIWALI**

In the purview of increasing air pollution and ongoing COVID-19 pandemic & festival season, an effort is made by Dr. Suman Mor, Department of Environment Studies, Panjab University, Chandigarh & Dr. Ravindra Khaiwal, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh to create awareness among the public by developing an awareness guidebook about the importance of pollution-free and eco-friendly Diwali under national clean air program.

Honorable Justice Shri Adarsh Kumar Goel, Chairperson of National Green Tribunal, released the infographic booklet 'Safe and Eco- friendly Diwali: Promotes Khushhali'. The event was also graced by Justice Jasbir Singh, Justice Pritam Pal, Smt. Urvashi Gulati (IAS), Shri Subodh Aggarwal (IAS) and Prof R.K. Singla, DUI, Panjab University, Chandigarh. Justice Shri Adarsh Kumar Goel, during the release, commended the Panjab University and PGIMER, Chandigarh, for timely bringing out the awareness booklet. He emphasized that the Diwali celebration is to spread happiness in his keynote address and not for creating pollution. He mentioned that environmental pollution affects the health of the citizen by adversely affecting the environment. He appraised the booklet content, which focuses on firecrackers pollution and health concern along with tips for celebrating green and eco-friendly Diwali.

Justice Goel emphasized that having clean air is a fundamental right of every citizen and urged citizens to celebrate the festival of lights so that it doesn't harm others' lives. Justice Goel also suggested that in times of COVID-19 pandemic, states could also take initiatives to ban firecrackers in moderately polluted areas for better health and environment. He urged various authorities to circulate this e-booklet at a national scale to create awareness among the general public and motivate them for positive behavior change for clean air rather than enforcement by law. Justice Jasbir Singh apprised the initiative and stressed that we need to celebrate our festivals in traditional ways as we used to do earlier by taking care of all sections of society and the environment. He highlighted that demanding clean air is an integral part of the fundamental right enshrined in article 21 of India's Constitution. He added that we should refrain from being a part of events that increase air pollutants beyond prescribed limits”.

Justice Pritam Pal mentioned the various initiatives taken by NGT to control air pollution and urge that citizens should come forwards and take responsibility to reduce air pollution. Prof R.K. Singla, DUI, Panjab University, Chandigarh, mentioned that booklet will motivate many citizens across the country to support eco-friendly ways to celebrate Diwali.

Dr. Suman Mor, Chairperson, Department of Environment Science, Panjab University, Chandigarh, emphasized the adverse health impacts of bursting firecrackers, especially for vulnerable populations including the elderly, diseased children, pregnant women, who are at a greater risk. She also raised concern over environmental pollution, impacts on pets/birds/animals, and the risks involved in making and bursting firecrackers. Dr. Ravindra Khaiwal, Department of Community Medicine & School of Public Health, PGIMER, Chandigarh, mentioned that this infographic booklet aims to generate awareness among people about the various health effects associated with the bursting of firecrackers, noise pollution, adulterated foods and sweets. He highlighted these steps are being initiated to promote sustainable behavior practice for better health and environment.

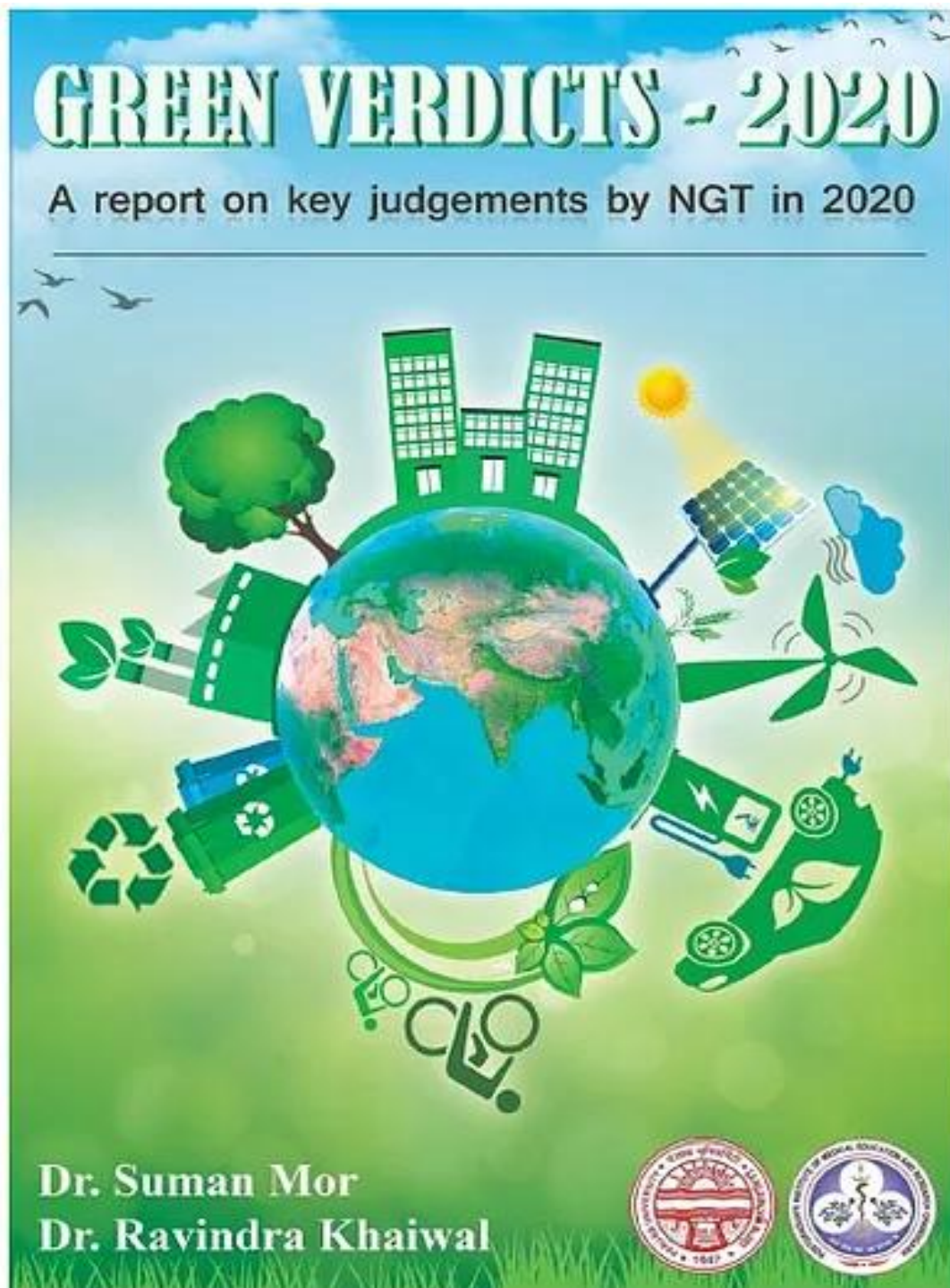


*Awareness booklet on Safe and eco-friendly Diwali released by Hon'ble Justice Shri Adarsh Kumar Goel, Chairperson of National Green Tribunal*



## 15. GREEN VERDICTS-2020: A REPORT ON KEY JUDGEMENTS BY NGT IN 2020

Released by Hon'ble Justice Shri Adarsh Kumar Goel, Chairperson of National Green Tribunal





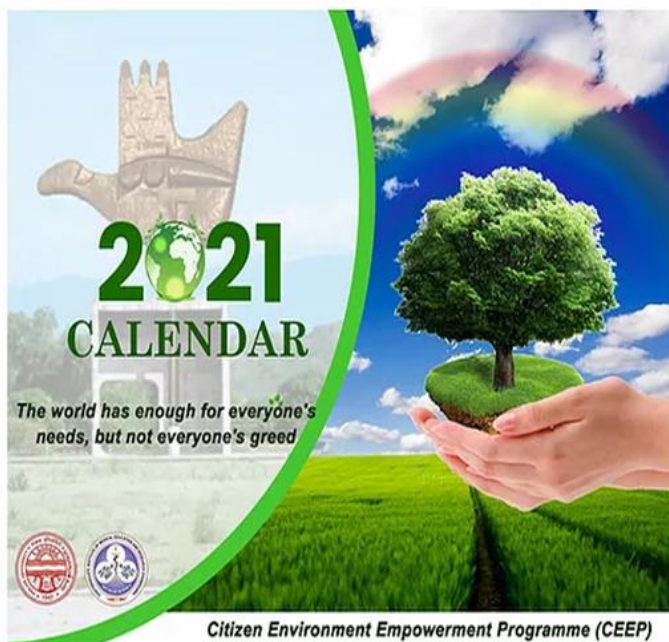
## 16. AN ECO-CALENDAR TO GENERATE AWARENESS

An Eco-Calendar was released by Department of Environment Studies, Panjab University in collaboration with PGIMER-Chandigarh has developed an Eco-Calendar, highlighting the important days related to the environment and public health. The Eco-Calendar's purpose is to generate awareness about the environment and public health days and to emphasize on creating mass awareness. This Eco-Calendar will remind us about the important days well in advance so that various activities can be organized to celebrate and engage the public towards a better environment and public health.

The Calendar was released by Prof. (Dr.) Jagat Ram, Director PGIMER, Chandigarh. Speaking on the occasion, he stated, “Community engagement is imperative for ecological balance and Eco-Health calendar is an interesting way to raise awareness about the important days marked to improve public health and environmental protection.” The Director further highlighted that bringing human well-being and ecological conservation together is a step forward towards ‘One Health’ as it would promote multi-sectoral cooperation, minimizing the risk of emerging threats such as COVID-19 in the near future. Prof. Raj Kumar, Vice-Chancellor, Panjab University, Chandigarh, congratulated the team from both the institutes and mentioned that public health is closely connected with the state of their environment. He further stressed that the Eco-Health calendar development by the environment and public

health team shows that they cooperate and build a partnership to address the critical public health issues. The Eco-Calendar was distributed in all the colleges and school in Chandigarh city to remind them about the important days well in advance so that various activities can be organized to teach students about the need of better environment and public health.

This calendar includes a short description, and this year's theme of the specific day to be celebrated, where applicable. Some of these days have been proclaimed by international agencies, or county, of Ministry of Environment Forest and Climate Change, and spread outward. Some are rooted in tradition or history, and some have come from grassroots organizers to promote a cause. Eco-Calendar can be used by general public to Raise awareness for the efforts towards sustainable future, start their own local campaign, find events they can support in their own community and also to get variety of new ideas for how to take action in future.



*Prof. (Dr.) Jagat Ram, Director, PGIMER, Chandigarh, releasing the ECO-Calendar*

## **17. DEVELOPED WEBSITE FOR AIR POLLUTION AWARENESS**

A dedicated website is created for air pollution awareness and related IEC material. The website (<https://www.care4cleanair.com/>) was created to dissemination of information to public.

## **18. CEEP (CITIZEN ENVIRONMENT ENGAGEMENT PROGRAM)**

CEEP (Citizen Environment Engagement Program) has been started on World Environment Day i.e. 5th June 2020 for the engagement of citizen of Chandigarh in air pollution awareness and advocacy. CEEP is currently active on social media platforms i.e. Facebook, twitter and WhatsApp. The group includes children, parents from Chandigarh city and actively participated in in online paintings and slogan writings on the theme of environment and nature conservation.

## **19. TV AND MEDIA COVERAGE ON AIR POLLUTION AWARENESS**

Dr. Suman Mor and Dr. Ravindra Khaiwal were actively engaged in the making awareness at various platform like newspapers, tv debates and online webinars. As a result, Amarujala newspaper Chandigarh has started the initiative of placing the AQI of Chandigarh on front page of Chandigarh edition of newspaper.

## **20. DEVELOPMENT OF IEC ON AWARENESS OF AIR POLLUTION AND ITS HEALTH IMPACT**

A set of materials and to educate general public on the adverse health impacts of air pollution, its connection to climate change and solutions that for the betterment of public health.

# AQI

## AIR QUALITY INDEX



AQI?

**Air Quality Index is a tool for effective communication of air quality status to general public. It transforms complex air quality data of various pollutants into a single number and colour.**

### DO YOU KNOW ?

In India AQI is based on six air quality categories ranging from 0-500

AQI categories are based on concentration of ambient air pollutants and their likely health impacts (known as health breakpoints).

| AQI Range              | 0-50  | 51-100       | 101-200  | 201-300 | 301-400   | 401-500  |
|------------------------|-------|--------------|----------|---------|-----------|----------|
| Air Quality Conditions | Good  | Satisfactory | Moderate | Poor    | Very Poor | Severe   |
| Color Code             | Green | Light Green  | Yellow   | Orange  | Red       | Dark Red |

Currently, Air Quality Index is developed for 8 air pollutants namely PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, CO, O<sub>3</sub>, NH<sub>3</sub> and Pb for which short-term (upto 24-hours) National Ambient Air Quality Standards are there.

### Where to check AQI of your city?

Sameer App, CPCB Go to-[https://app.cpcbcr.com/AQI\\_India/](https://app.cpcbcr.com/AQI_India/)




#### Locations in Chandigarh


- Sector-17
- Railway Station
- Panjab University
- PGI
- CPCCC, Sector -19 B
- Sukhna Lake
- ISBT, Sector 43


### Possible Health Impacts

|                          |   |
|--------------------------|---|
| 0 - 50<br>Good           | Minimal impact  |
| 51 - 100<br>Satisfactory | Minor breathing discomfort to sensitive people                            |
| 101 - 200<br>Moderate    | Breathing discomfort to the people with asthma, lungs and heart diseases  |
| 201 - 300<br>Poor        | Breathing discomfort to most people on prolonged exposure                 |
| 301 - 400<br>Very Poor   | Respiratory illness on prolonged exposure                                 |
| 401 - 500<br>Severe      | Affects healthy people and seriously impacts those with existing diseases |

### Health Advisory

| Healthy People                      | Elderly, pregnant women, children  | Person with chronic lung & her diseases  |
|-------------------------------------|--|--|
| Good day to be active outside.      | Poses little or no health risk.  | Poses little or no health risk.  |
| No precautions required             | Reduce prolonged or heavy exertion.  | Reduce prolonged or heavy exertion.  |
| Limit Outdoor Activities.           | Reduce prolonged or heavy exertion.  | People with heart diseases avoid sources of PM, carbon monoxide, such as heavy traffic. Reduce prolonged or heavy exertion.            |
| Reduce prolonged or heavy exertion. | Children & outdoors active people should avoid prolonged or heavy exertion.                          | People with heart disease, such as angina should avoid air pollution source such as heavy traffic. Avoid prolonged or heavy exertion.  |
| Avoid prolonged or heavy exertion.  | Avoid all physical activities outdoors and should avoid air pollution sources such as heavy traffic. | People with heart or lung disease avoid all physical activities outdoors and should avoid air pollution sources such as heavy traffic. |
| Serious health effects.             | Serious health effects.  | Serious health effects.  |





Reference- CPCB, INDIA and US-EPA

*Awareness pamphlet describing Air quality index (AQI) and its importance*

# PUC

Pollution Under Control  
Certificate



- PUC is a certification mark that is provided to vehicle that undergoes pollution check test successfully.
- Pollution check monitors quantity of pollutants emitted from vehicle such as CO, CO<sub>2</sub> & hydrocarbons.



### Is PUC Mandatory ?

According to Motor Vehicle (Amendment) Act 2019, violation of PUC norm now invites a penalty of ₹ 10,000.

### PUC Certification!

#### Required For?

All vehicles



#### Required When?

After one year of purchase of new vehicle

### Validity & price of PUC certificate

A PUC certificate is valid for 6 months. Test Price varies between ₹ 60 and ₹ 100 depending on the vehicle to be tested and fuel type of the vehicle.

### Where PUC is conducted ?

- Authorised PUC center.
- Most of the petrol pumps.



### Environment

Controlled emissions of gases like CO, CO<sub>2</sub> etc. helps in preventing environmental pollution

### Benefits of PUC

### Vehicle

Improved vehicle life  
Less Fuel consumption

|               | Test Method  | Test Procedure  | Limits/Validity   |
|---------------|--------------|---|---|
| <b>Petrol</b> | Gas Analyzer | <ul style="list-style-type: none"> <li>● Engine kept idle</li> <li>● 1<sup>st</sup> reading is final reading</li> </ul> | <ul style="list-style-type: none"> <li>&lt; 1.5% of norms = 6 month</li> <li>1.5% to 2.5% = 4 month</li> <li>2.5% to 3% = 2 month</li> </ul>                |
| <b>Diesel</b> | Smoke Meter  | <ul style="list-style-type: none"> <li>● Press accelerator continuously</li> <li>● Average of 5 readings</li> </ul>     | <ul style="list-style-type: none"> <li>&lt; 50 SM*= 6 month</li> <li>50 to 60 SM= 4 month</li> <li>60 to 65 SM= 2 month</li> <li>*SM=Smoke Units</li> </ul> |



Awareness pamphlet describing Pollution Under Control (PUC) certificate and its importance

## 21. ECOSYSTEM RESTORATION- KNOW YOUR CITY. “KNOW YOUR CITY” INITIATIVE

Dr. Suman Mor, Department of Environment Studies, Panjab University, Chandigarh in collaboration with PGIMER Chandigarh and media partner Amar Ujala started an initiative for **Ecosystem Restoration- Know Your City**. “Know Your City” initiative aim to connect citizens with rich natural diversity around them. This initiative is the great step in right direction from the green capital of India.

The initiative engaged the citizen of Chandigarh to know and share key conservation or ecological sites of a city to admire nature. 🌐CONNECT 🌱CONSERVE 🐾CARE.

← **Tweet**

 **Panjab University** ✓  
@OfficialPU

PU\_AA\_PGI started an initiative for Ecosystem Restoration- Know Your City. Sharing key conservation or ecological sites of a city to admire nature. 🌐  
CONNECT 🌱 CONSERVE 🐾 CARE  
[@vpsbadnore](#)  
[@ddifs99](#) [@AmarUjalaNews](#) [@moefcc](#) [@sumanmor\\_PU](#)  
[@ROBChandigarh](#) [@ravindrakhaiwal](#) [@PIBChandigarh](#)



6:30 PM · Jun 5, 2021 · Twitter for Android

8 Retweets 1 Quote Tweet 79 Likes



# ECOSYSTEM RESTORATION

KNOW YOUR CITY - CHANDIGARH



**NAGAR VAN-CITY FOREST**—which is established under Nagar Van Udyan Yojana, is an urban forestry scheme of the Ministry of Environment, Forests and Climate Change near Sukhna lake. It was inaugurated on 24th April 2018 and known for Nature Trail, Ecofriendly Benches, Interpretative Signages, Rain Shelters and Meditation Huts, etc.



**Hibiscus garden** is situated in sector 36 adjoining Dakshin Marg is spread in 8 acres. This acts as a perfect place to visit with family and friends weekend enjoyments and picnic. This garden is famous for its hibiscus shrubs and has more than 40 varieties of hibiscus flowers.

**Japanese Garden** was opened for the public in 2014 and spreads across 13 acres of land and is the garden exhibits various aspects of Japanese culture and tradition. This Zen garden is peaceful and has a meditation hut, ponds and a pagoda tower, where tourists can indulge in a variety of activities in the garden.



**Peacock Park** is spread across 5.7 acres of green area. The area is full of vegetation and a promising habitat for peafowls and is fenced from all sides to provide an appropriate place for resting and breeding of our National Bird.



**Sukhna Wildlife Sanctuary** spreads over an area of 2600 hectares and is situated at 1 kilometer in the North-East of Sukhna Lake. It is part of the Sukhna lake catchment area and provides healthy and good ecological diversity with the least disturbance. The people need to be sensitized about the flora and fauna of Chandigarh, and they should be motivated to organize trekking in these areas.



**Rock Garden** consists of the art object, fashioned from industrial and urban waste. It is situated between the capital complex and Sukhna lake in Sector 1. It is situated amidst 20 acres of woods in the form of an open-air exhibition hall, theatre and a miniature maze all rolled into one vast fantasy land of art and landscape.

**Butterfly Park** has been spread over an area of 7 acres. The park appropriate design and is facilitated to give an ideal environment for the breeding of butterflies.



**Botanical Garden** has a green trail and different types of plants are grown and displayed for research and education. This garden is spread over 176 acres and consists of 15 Botanical Sections. The primary aim of setting up of Botanical Garden is to promote research, education, ex-situ conservation and to spread awareness about our floral heritage. Further, the garden will help promote eco-tourism in Chandigarh.



**Sukhna Lake** is a beautiful man-made lake in India and is a reservoir at the foothills of the Shivalik range of the Himalayas. It is spread over 3 km<sup>2</sup> and is a rainfed lake created in 1958 by damming the Sukhna Choe which is a seasonal stream coming down from the Shivalik Hills. The lake acts as a natural paradise for people of all ages and even fitness enthusiasts in fast-moving cosmopolitan life.



**Zakir Hussain Rose Garden** situated in Sector - 16, is a botanical garden in Chandigarh, India and spread over 30 acres, with 50,000 rose-bushes of 1600 different species. The garden has the distinction of being Asia's largest rose garden.

**Shivalik Arboretum** is situated near the Transport Light in Sector-26, Chandigarh. This beautiful place is spreading over an area of 11.11 acres. Shivalik Arboretum has got a collection of prominent species of plants found in the Shivalik region like Bael, Siris, Khair, Kachnar, Kikar, Amaltash, Kadam, Neem, Amla, etc.



**Leisure Valley** Chandigarh, situated in sector 10, is a grouping of several gardens which attract people of all age groups and provide them with a lovely ambiance and breath of fresh air. It serves as a retreat for everyone living in the city. Also known as the Chandigarh city's lungs and is one of many gardens which helps keep the city air pollution-free.



These 12 attractions are just a glimpse of Chandigarh's beauty and ecological places to admire and connect with nature. The way Chandigarh is designed shows a perfect example of how a city can be planned by taking along nature hand in hand.

Panjab University along with the Post Graduate Institute of Medical Education and Research and Amar Ujala as media partners happy to start the initiative 'ECOSYSTEM RESTORATION - Know Your City'. The objective is to let the public know key conservation or ecological sites of a city to admire nature.

CONNECT

CONSERVE

CARE



अमर उजाला  
जीरो! सच का!





## **A NETWORK OF ECO-CLUBS IN SCHOOLS & COLLEGES**

A wide network of schools was built to engage with the Principals and the representatives of their Eco-clubs which would continue to promote environment and climate literacy and motivate learners to become champions for environmental sustainability. It is hoped that Eco-Club members would advocate, participate in grass-root movements to take actions to sustain water and encourage students to adopt eco-friendly practices to save the planet. The activity was planned to engage youth of school, colleges and university and train them as volunteers and then engaged for extensive mass awareness campaigns. Further, this training and capacity building can be extended to University, NGOs, NSS, NCC, Media, Eco-Clubs for enhancing the scope of mass awareness and outreach programmes. Eco-Clubs are, thus, being viewed as a platform for the achievement of Sustainable Development Goals.

This network can act as a forum through which students can reach out to influence, engage their parents and neighbourhood communities to promote sound environmental behaviour. It will empower students to explore environmental concepts and actions beyond the confines of a syllabus or curriculum. While everyone, everywhere, asserts the importance of 'learning to live sustainably,' environment remains a peripheral issue in the formal schooling system.

## **22. GREEN VERDICTS-2021: A REPORT ON KEY JUDGEMENTS BY NGT IN 2021**

Released by Hon'ble Justice Shri Adarsh Kumar Goel, Chairperson of National Green Tribunal

The booklet has been conceptualised and designed by Dr Ravindra Khaiwal, Professor, Department of Community Medicine and School of Public Health; and Dr Suman Mor, Chairperson, Department of Environment Studies, Panjab University, to create awareness about the major judgment in simple languages to strengthen action for a sustainable future for all.

A clean environment was a foremost requirement to sustain a healthy planet and human lives and was a fundamental right of citizens. It is the need of the hour to monitor compliances appropriately to meet the environmental challenges in the fast-developing world, act on time to minimise the death and disease and to conserve

natural resources and biodiversity. “Green Verdict 2021” would be helpful in creating awareness and strengthening action for a sustainable future for all, including the future generation.

This booklet was aimed at strengthening the public’s legal rights and ensuring environmental sustainability. He emphasized that due to people’s increasing needs, they had polluted air, water and soil. Hence, there was a need to learn to live with nature by playing their role to protect this planet and their health. This booklet would be a valuable tool for effectively implementing rules and regulations by active engagement of regulatory bodies and policymakers. She stressed there was a need to focus more on green recovery to minimize the emerging threat related to environmental degradation and climate change.

# GREEN VERDICTS-2021

A report on key judgements by NGT in 2021

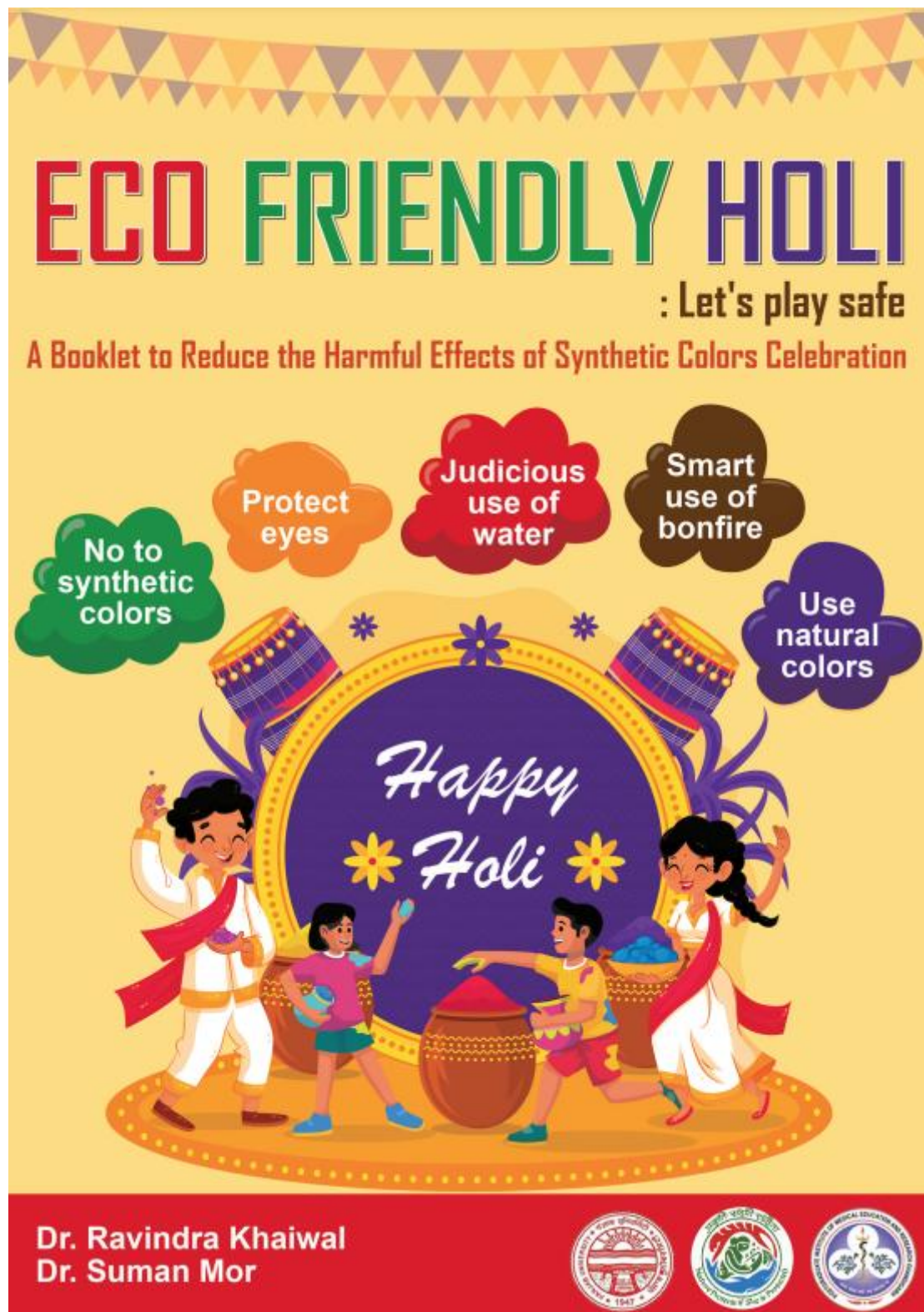


Dr. Suman Mor  
Dr. Ravindra Khaiwal



23. ECO-FRIENDLY HOLI: LET'S PLAY SAFE (A BOOKLET TO REDUCE THE HARMFUL EFFECTS OF SYNTHETIC COLORS CELEBRATION)

Released by Hon'ble Justice Shri Adarsh Kumar Goel, Chairperson of National Green Tribunal



## 24. ECO-HEALTH CALENDAR 2022

The Eco-Calendar's purpose is to generate awareness about the environment and public health days and to emphasize on creating mass awareness. This Eco-Calendar will remind us about the important days well in advance so that various activities can be organized to celebrate and engage the public towards a better environment and public health.



25. BOOKLET ON POST COVID COMPLICATIONS: PERSISTING SYMPTOMS AND BEYOND

## POST COVID COMPLICATIONS

# POST COVID COMPLICATIONS

: PERSISTING SYMPTOMS & BEYOND



Contact Info:

Email:

### NEUROLOGIC

Brain Fog-MOST COMMON  
Persistent Loss of Smell/Taste  
Encephalopathy & Stroke

### PSYCHIATRIC

Depression &  
Post Traumatic Stress Disorder  
Anxiety  
Social Isolation

### PULMONARY

Dsypnea & Cough-MOST  
COMMON  
Chest Pain  
Post-COVID ILD

### CARDIO-VASCULAR

Palpitations-MOST COMMON  
Myocarditis & Pericarditis  
Heart Failure

### CUTANEOUS

Erythematous Rash  
Urticarial Rash  
Persistent COVID Toes

### GENERAL

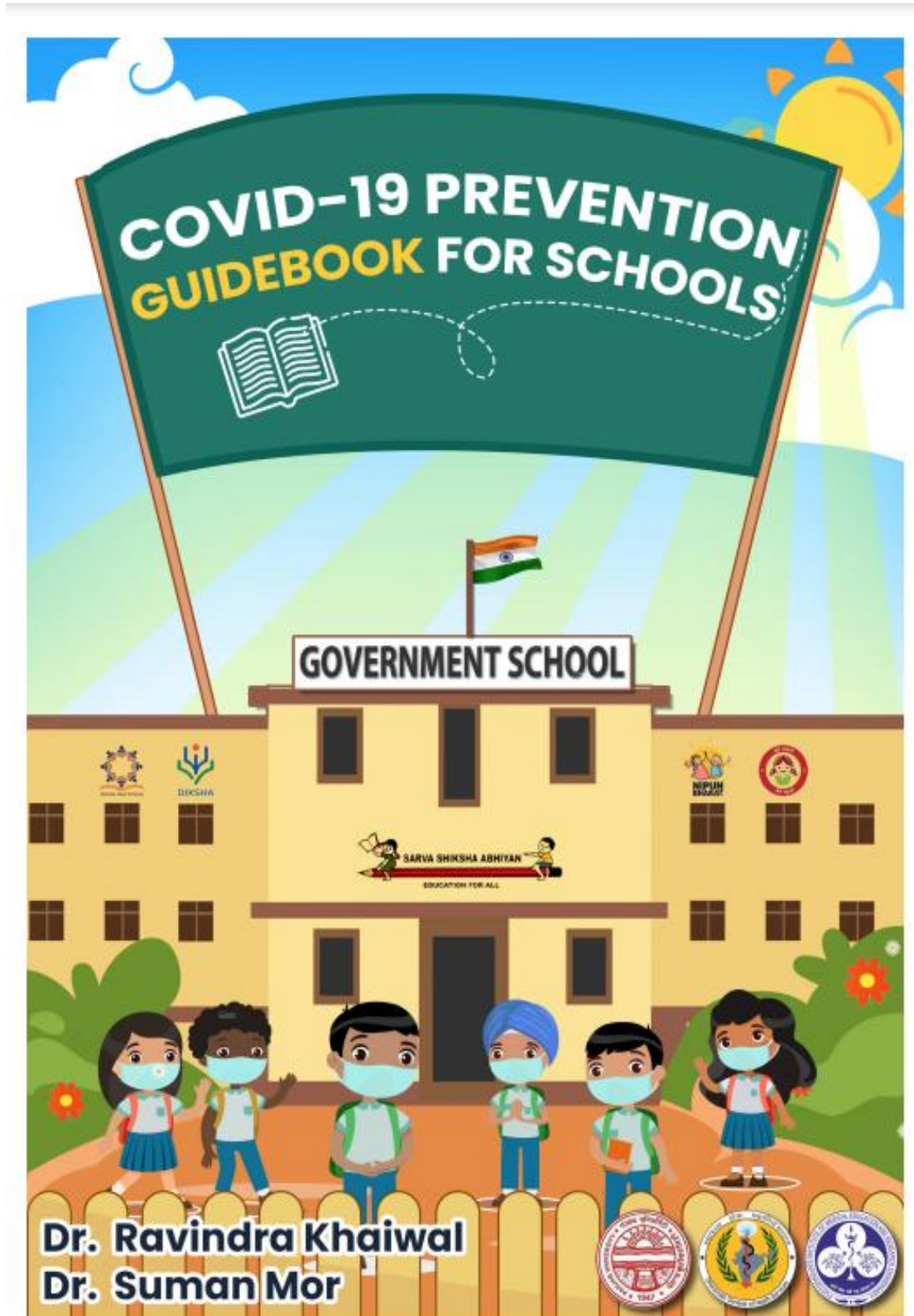
Fatigue & Myalgia-MOST COMMON  
Joint Pains  
Peripheral Neuropathy  
Peripheral Limb Ischemia



WHAT IS POST COVID / LONG COVID SYNDROME

## 26. BOOKLET ON COVID-19 PREVENTION GUIDEBOOK FOR SCHOOLS

This will be valuable tool for effectively plan and implementation the COVID-19 mitigation strategies by active engagement of school's authorities, parents, teachers and students. Released by Prof. (Dr.) Sunil Kumar, Director General of Health Services, Ministry of Health & Family Welfare, Government of India, New Delhi.



## 27. BOOKLET ON POST-COVID MANAGEMENT (YOUR GUIDE TO LONG COVID-19 CARE)

Released by Prof. (Dr.) Sunil Kumar, Director General of Health Services, Ministry of Health & Family Welfare, Government of India, New Delhi along with Dr. Kanwar Sen, Additional Director General, Ministry of Health & Family Welfare, Government of India, New Delhi.





## 28. BOOKLET ON HEALTH SECTOR PREPAREDNESS FOR AIR POLLUTION: MINIMIZING THE HEALTH IMPACT

Released by Shri Mansukh L. Mandaviya, Minister of Health and Family Welfare, India

Air pollution is recognized as an important environmental risk factor to human health and also, an avoidable cause of death and disability. It disproportionately affects the people's health, particularly to the children, women, the elderly, and those who are economically disadvantaged and the marginalized groups of people in the country.

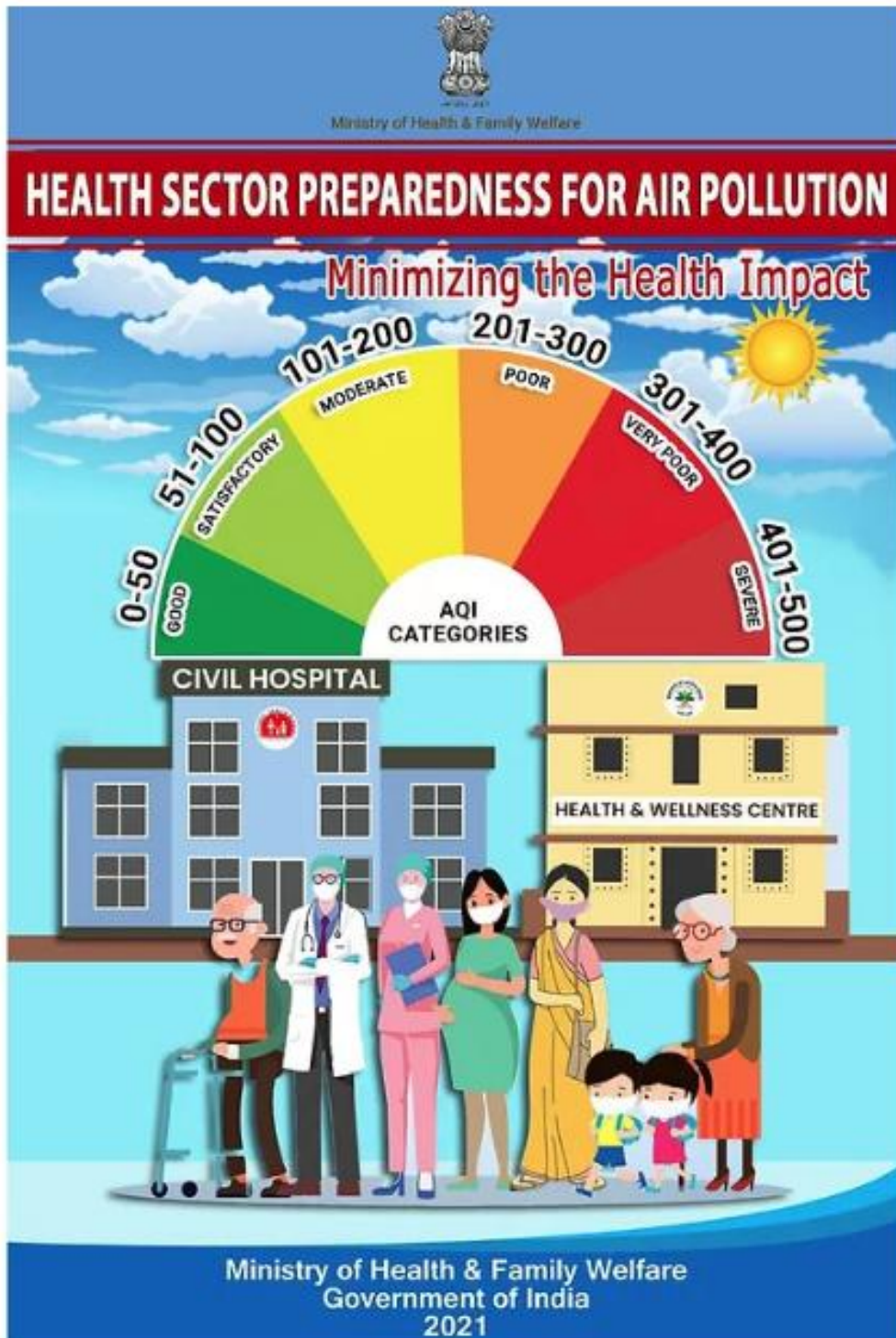
The NPCCHH programme under the MoHFW along with the PGIMER and Panjab University have developed this 'Health Sector Preparedness for Air pollution' booklet. This infographic booklet will provide guidance to the programme officers under the NPCCHH programme to help strengthen the preparedness on health responses to issues arising due to air pollution in the State/UTs. It will also make the concepts easily clear while understanding the health-related issues and implementation of the mitigation measures in the health sector.



The booklet was supervised and monitored under the guidance of Lav Agarwal, Joint Secretary, MoHFW. The NPCCHH programme division at NCDC undertook the task under Dr Sujeet K. Singh, Director NCDC and the full support and supervision to the NPCCHH team working on the document. The NPCCHH programme highly acknowledges the efforts and contributions from the Post Graduate Institute of Medical Educational Research (PGIMER), a designated 'Centre of Excellence on Air Pollution related Illness' under the National Programme on Climate Change and Human Health. The programme sincerely acknowledges Dr. Ravindra Khaiwal, Additional Professor from the PGIMER,

Chandigarh, who is the nodal officer of the above climate-sensitive disease and Dr. Suman Mor from Pan jab University, also a nodal officer of 'Institute of Repute - NCAP' under the Ministry of Environment, Forest, and Climate Change in conceptualizing, designing and developing the present handbook.

It is highly commended to all efforts of those who were involved in making this infographic booklet a much valuable handbook of an urgent need to tackle the air pollution-related matters in the present times.



## **29. BOOKLET ON HANDBOOK FOR HEALTH PROFESSIONALS ON AIR POLLUTION AND ITS IMPACT ON HEALTH**

Released by Shri Mansukh L. Mandaviya, Minister of Health and Family Welfare, India

Air pollution is recognized as an important environmental risk factor to human health and also, an avoidable cause of death and disability. It disproportionately affects the people's health, particularly children, women, the elderly and those who are economically disadvantaged and the marginalized groups of people in the country in both rural and urban India.

To deal with the health issues arising in the context of air pollution, the NPCCHH programme under the MoHFW along with the PGIMER and Panjab University have developed the 'Handbook for Health Professionals on Air pollution and its Impact on Health'. This pictorial booklet will provide guidance to the health professionals and workers in the state on ways to protect, prevent, control the people's health and to manage the health issues arising due to exposure to air pollution.

The handbook was shaped under the guidance of Lav Agarwal, Joint Secretary, MoHFW. The NPCCHH programme division at NCDC undertook the task under the direction of Dr. Sujeet K. Singh, Director NCDC and the full support and supervision to the NPCCHH team working on the document.

The NPCCHH programme highly acknowledges the efforts and contributions from the Post Graduate Institute of Medical Educational Research (PGIMER), a designated 'Centre of Excellence on Air Pollution related Illness' under the National Programme on Climate Change and Human Health. The programme sincerely acknowledges Dr. Ravindra Khaiwal, Additional Professor from the PGIMER, Chandigarh, who is the nodal officer of the above climate-sensitive disease and Dr. Suman Mor from Panjab University, also a nodal officer of 'Institute of Repute - NACP' under the Ministry of Environment, Forest, and Climate Change in conceptualizing, designing and developing the present handbook.

All those who contributed to make this pictorial booklet a much valuable handbook of an urgent need to minimize the adverse impact of air pollution in the present times are highly applauded.



Ministry of Health & Family Welfare

# Handbook for Health Professionals on Air Pollution & its Impact on Health

National Programme on Climate Change & Human Health



Ministry of Health & Family Welfare  
Government of India, 2021

### 30. PREVENT HEARING LOSS: LET HEARING LOSS NOT LIMIT YOU

Released by Shri Harsh Vardhan, Minister of Health and Family Welfare, India





### **31. NO VACCINE FOR CLIMATE CHANGE: COMMUNICATION GUIDEBOOK FOR HEALTHCARE PROFESSIONALS**

In an online event hosted by Healthy Energy Initiative India in partnership with various health organization, including Panjab University and Post Graduate Institute of Medical Education Research Chandigarh, released a first of its kind guidance document - “No Vaccine for Climate Change – A Communication Guide on Climate and Health for the Healthcare Professionals in India”. The event was chaired by *Dr. Maria Neira, Director, Public Health, Environment and Social Determinants of Health Department, WHO* and she mentioned that communications guide - “No Vaccine for Climate Change” is designed to prepare health and care workers for various conversations around climate change, and its impacts on the health of their patients and their community. She further added that health professionals are both trusted communicators and important actors when it comes to protecting public health. It is only fitting, then, that they are equipped with the necessary knowledge and tools to tackle the biggest health challenge of the 21st century, climate change.

The key speaker of the launch event were Dr Ravikant Singh, Founder, Doctors For You; – Dr Arvind Kumar, Founder Trustee, Lung Care Foundation, Dr. Mauli Mehta, President of Medical Student Association of India and Mr. Sanjay Vashist, Director, Climate Action Network South Asia. Dr. Ravindra Khaiwal, Additional Professor, Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education & Research, Chandigarh and key contributor, mentioned that we need to communicate about climate change and its impact for better tomorrow for all. The Ministry of Health and Family Welfare, Government of India, is very keen to engage the health sector and they launched a national program on climate change and human

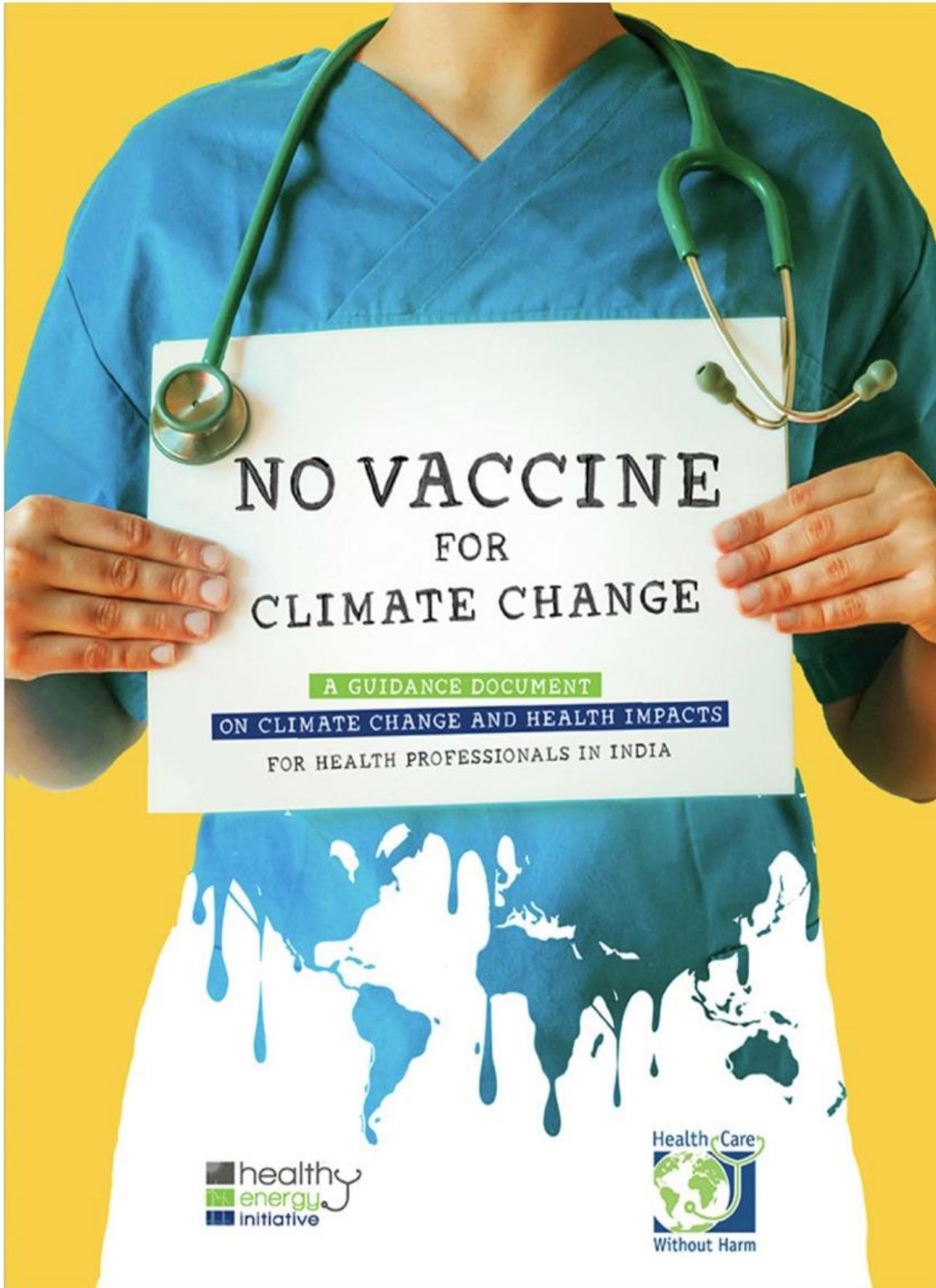
health. He added that the Post Graduate Institute of Medical Education & Research has been identified as Centre of Excellence for Air pollution-related illnesses and in this regard, a health adaption plan is already submitted to the ministry.

Dr. Suman Mor, Chairperson and Associate Professor, Department of Environment Studies, Panjab University, Chandigarh, who also contributed to the document, mentioned that there is a need for collective action to better understand the impact of climate change and invest in preparedness to minimize the immediate and future risks. She highlighted that this could only be achieved through multistakeholder partnership and the health sector can play a major role in minimizing the negative impact of climate change on human health and the environment.

No Vaccine for Climate Change is comprehensive documents and various subject experts from state health departments of Chhattisgarh and Kerala, State Health Resource Center, Chhattisgarh, Post Graduate Institute of Medical Education Research Chandigarh, Punjab University, Health Care Without Harm, Lung Care Foundation, Doctors For You, Medical Students Association of India, Climate Trends, Climate Action Network South Asia and Azim Premji University have contributed to the document. Download the document here: <http://www.healthyenergyinitiative.org/no-vaccine/>



*Released by dr. Maria Neira, Director, Public Health, Environment and Social Determinants of Health Department, WHO*



# NO VACCINE FOR CLIMATE CHANGE

A GUIDANCE DOCUMENT

ON CLIMATE CHANGE AND HEALTH IMPACTS

FOR HEALTH PROFESSIONALS IN INDIA

healthy  
energy  
initiative

Health Care  
  
Without Harm



## SOME HIGHLIGHTS OF MEDIA COVERAGE

- **Air pollution and COVID-19 Awareness**
- <https://www.aa.com.tr/en/asia-pacific/blue-skies-gone-pollution-returns-to-indian-capital/2004360>
- [https://m.facebook.com/story.php?story\\_fbid=357512845467168&id=368685383311961&sfnsn=wiwspwa&d=w&vh=e](https://m.facebook.com/story.php?story_fbid=357512845467168&id=368685383311961&sfnsn=wiwspwa&d=w&vh=e)
- <https://www.newindianexpress.com/cities/delhi/2020/oct/16/pollution-in-delhi-ncr-could-worsen-covid-19-impact-in-winter-experts-2211179.html>
- <https://www.tribuneindia.com/news/health/pollution-could-worsen-covid-19-impact-in-winter-experts-156644>
- <https://theprint.in/health/delhi-to-get-more-smog-towers-to-fight-pollution-but-experts-say-it-will-be-waste-of-money/523820/>
- <https://theprint.in/india/early-spurt-in-farm-fires-could-give-delhi-relief-from-toxic-smog-this-winter-cpcb-says/524993/>
- <https://twitter.com/ravindrakhaiwal/status/1317129050599641088?s=12>
- <https://www.facebook.com/ZeePHH/videos/vb.471846349612604/2733430263652010/?type=2&theater>
- <http://www.face2news.com/news/66855-.aspx>
- <https://www.facebook.com/224941601293628/posts/1022746268179820/>
- [https://punjabupdate.com/pu-pgi-team-unlock-the-sources-of-air-pollution-during-covid-19-lockdown-in-chandigarh.html?utm\\_campaign=shareaholic&utm\\_medium=whatsapp&utm\\_source=im](https://punjabupdate.com/pu-pgi-team-unlock-the-sources-of-air-pollution-during-covid-19-lockdown-in-chandigarh.html?utm_campaign=shareaholic&utm_medium=whatsapp&utm_source=im)
- <http://www.indianewscalling.com/news/98689-news-from-pu-chandigarh.aspx>
- <https://twitter.com/vpsbadnore/status/1277976189814992897?s=19>
- [https://twitter.com/CPCB\\_OFFICIAL/status/1280769074478280705?s=19](https://twitter.com/CPCB_OFFICIAL/status/1280769074478280705?s=19)
- [https://m.hindustantimes.com/india-news/kids-exposed-to-indoor-pollution-from-burning-of-solid-biomass-fuel-have-lower-iq-study/story-eYaGrxjRyccCPP2GA2MuEI\\_amp.html](https://m.hindustantimes.com/india-news/kids-exposed-to-indoor-pollution-from-burning-of-solid-biomass-fuel-have-lower-iq-study/story-eYaGrxjRyccCPP2GA2MuEI_amp.html)
- [https://www.amarujala.com/amp/chandigarh/the-air-of-chandigarh-is-the-cleanest-in-the-country?\\_twitter\\_impression=true](https://www.amarujala.com/amp/chandigarh/the-air-of-chandigarh-is-the-cleanest-in-the-country?_twitter_impression=true)
- <https://www.thehindu.com/sci-tech/science/study-finds-heat-wave-like-conditions-in-cars/article31543108.ece>
- <https://www.etvbharat.com/punjabi/punjab/city/chandigarh-1/interview-with-pgi-doctor-about-burning-of-wheat-stalks/pb20200522125036531>

- [https://www.amarujala.com/amp/chandigarh/the-air-of-chandigarh-is-the-cleanest-in-the-country?\\_twitter\\_impression=true](https://www.amarujala.com/amp/chandigarh/the-air-of-chandigarh-is-the-cleanest-in-the-country?_twitter_impression=true)
- <https://www.etvbharat.com/hindi/haryana/city/chandigarh/dengue-symptoms-and-prevention/haryana20200519212631636>
- **Awareness on COVID-19 and Myth busters**
  - [https://m.facebook.com/story.php?story\\_fbid=551660692160082&id=368685383311961\\_sfn=wiwspwa&d=w&vh=e&extid=eKD3EKsXqF3WQmIg&d=w&vh=e](https://m.facebook.com/story.php?story_fbid=551660692160082&id=368685383311961_sfn=wiwspwa&d=w&vh=e&extid=eKD3EKsXqF3WQmIg&d=w&vh=e)
  - <https://www.youtube.com/watch?v=OnmQOfSxwII&feature=youtu.be>
  - <https://www.etvbharat.com/hindi/haryana/city/chandigarh/myths-about-coronavirus/haryana20200415163910419>
  - [https://m.facebook.com/story.php?story\\_fbid=2650583211877681&id=1449282782007736&sfn=scwspwa&d=w&vh=e&funlid=UsBNxivhYcqH5bc](https://m.facebook.com/story.php?story_fbid=2650583211877681&id=1449282782007736&sfn=scwspwa&d=w&vh=e&funlid=UsBNxivhYcqH5bc)
  - <https://www.facebook.com/ZeePHH/videos/vb.471846349612604/1352504384940543/?type=2&theater>
  - [https://m.facebook.com/story.php?story\\_fbid=139094580951227&id=100659068128112&sfn=wiwspwa&extid=Vt9CDofpGfJDv2kR&d=w&vh=e](https://m.facebook.com/story.php?story_fbid=139094580951227&id=100659068128112&sfn=wiwspwa&extid=Vt9CDofpGfJDv2kR&d=w&vh=e)
- **Awareness on COVID-19 through Comic, Media and TV**
  - <https://www.facebook.com/ptcnewsonline/videos/2283208988649038/?t=20>
  - <https://indianexpress.com/article/cities/chandigarh/panjab-pu-pgi-team-produces-comic-book-to-explain-coronavirus-to-children-6307398/>
  - [http://cbse.nic.in/newsite/attach/Corona\\_comic\\_PGI\\_final9March20.pdf](http://cbse.nic.in/newsite/attach/Corona_comic_PGI_final9March20.pdf)
  - [https://m.facebook.com/story.php?story\\_fbid=249791499501888&id=263971474168721?sfn=wiwspwa&d=w&vh=e&extid=F9aZzQvb9OhgV8Nm&d=w&vh=e](https://m.facebook.com/story.php?story_fbid=249791499501888&id=263971474168721?sfn=wiwspwa&d=w&vh=e&extid=F9aZzQvb9OhgV8Nm&d=w&vh=e)
  - <https://www.etvbharat.com/hindi/haryana/state/chandigarh-ha/chandigarh-pgi-doctor-wrote-comic-book-to-make-children-aware-about-corona/haryana20200414204420128>
  - <https://www.youtube.com/watch?v=0j1azO0mXvE&feature=youtu.be>
  - <https://www.thehindu.com/news/cities/Hyderabad/kids-vaayu-corona-who-wins-the-fight-dr-ravindra-khaiwal-dr-suman-mor-corona-virus-covid-19-ministry-of-health-cbse/article31090315.ece/amp/>

- <https://www.facebook.com/BabushahiDotCom/videos/vb.133072560195802/652427145507363/?type=2&theater>
- [https://www.facebook.com/watch/live/?v=189202695712000&ref=watch\\_permalink](https://www.facebook.com/watch/live/?v=189202695712000&ref=watch_permalink)
- <https://www.youtube.com/watch?v=GN1afqHr2XY&feature=youtu.be>
- <https://www.youtube.com/watch?v=cDzyrB2DSqY&feature=youtu.be>
- <https://www.etvbharat.com/punjabi/punjab/city/chandigarh-1/covid-19-an-interesting-way-to-teach-kids-through-comic/pb20200312215039892>
- [https://m.facebook.com/story.php?story\\_fbid=1776903085823510&id=368685383311961](https://m.facebook.com/story.php?story_fbid=1776903085823510&id=368685383311961)
- <https://www.youtube.com/watch?v=hLYzUyDGS4U&feature=youtu.be>
- [https://www.youtube.com/watch?v=iPgIS\\_qW9Vk&feature=youtu.be](https://www.youtube.com/watch?v=iPgIS_qW9Vk&feature=youtu.be)
- <https://www.facebook.com/News18Haryana/videos/vb.1746963362246393/2536983876574856/?type=2&theater>
- <https://www.etvbharat.com/punjabi/punjab/state/chandigarh-pb/corona-virus-pgi-releases-batch-of-namaste-sat-sri-akal-habit/pb20200321092241107>
- <https://noharm-asia.org/articles/news/asia/news-hcwh-partner-india-educative-online-comic-book-covid-19-cbse-website-getting>
- <http://face2news.com/news/62244-.aspx>
- <https://www.bhaskar.com/amp/local/chandigarh/news/chandigarh-coronavirus-preparation-air-quality-index-good-127049166.html>
- <https://www.youtube.com/watch?reload=9&v=OnmQOfSxwII&feature=youtu.be>
- <https://www.etvbharat.com/hindi/haryana/city/chandigarh/dengue-symptoms-and-prevention/haryana20200519212631636>
- <https://www.facebook.com/watch/?v=675312379931447>
- <https://www.facebook.com/livingindianewsharyana/videos/vb.263971474168721/273435937177548/?type=2&theater>
- <https://www.facebook.com/ZeePHH/videos/861623930991974/?v=861623930991974>
- <https://www.facebook.com/dailypostpunjabi/videos/1921142234688022/?v=1921142234688022>
- <https://www.facebook.com/News18Haryana/videos/vb.1746963362246393/254462619196072/?type=2&theater>

- <https://www.facebook.com/livingindianewsharyana/videos/vb.263971474168721/273435937177548/?type=2&theater>
- [https://www.youtube.com/watch?v=UD\\_Je4BRFBs](https://www.youtube.com/watch?v=UD_Je4BRFBs)
- [https://m.facebook.com/story.php?story\\_fbid=1878912132289271&id=368685383311961?sfnsn=wiwspwa&extid=WVBMR69FXcKeIQi1&d=w&vh=e](https://m.facebook.com/story.php?story_fbid=1878912132289271&id=368685383311961?sfnsn=wiwspwa&extid=WVBMR69FXcKeIQi1&d=w&vh=e)
- <https://www.hindustantimes.com/chandigarh/chandigarh-administrator-releases-comic-by-panjab-university-pgimer-to-unlock-potential-of-children/story-JOr2RKvSVg4Z2XXcqEigxN.html>
- <https://www.etvbharat.com/punjabi/punjab/city/chandigarh-1/etv-bharat-interview-with-dr-suman-mor-and-ravindra-khaiwal/pb20200611155858290>
- <https://www.etvbharat.com/punjabi/punjab/videos/city/the-book-living-with-covid-19-teaches-living-with-corona/pb20200610233321485>
- <https://twitter.com/PunjabGovtIndia/status/1270919334794342401>
- <https://www.facebook.com/LivingIndiaNewschannel/videos/vb.368685383311961/863989820756160/?type=2&theate>
- <https://www.facebook.com/ZeePHH/videos/1666283533510175/?v=1666283533510175>

# उत्तर भारत में चंडीगढ़ ही ऐसा शहर जहां प्रदूषण का असर कम

जासं, चंडीगढ़ : पिछले दो दिनों में पड़ोसी राज्यों के अंदर पाराली जलाने की घटनाएं बढ़ी हैं। इससे वायु प्रदूषण का स्तर चंडीगढ़ में भी दूसरे शहरों की तरह बढ़ने लगा है। सोमवार को चंडीगढ़ का एयर क्वालिटी इंडेक्स भी 290 तक पहुंच गया, जबकि रविवार को यह 259 दर्ज हुआ था।

अभी तक चंडीगढ़ में प्रदूषण का स्तर उत्तर भारत के सभी दूसरे शहरों से ठीक है। यहां हवा दूसरे शहरों जितनी खराब नहीं हुई है। अभी भी सिटी ब्यूटीफुल की स्थिति दिल्ली एक्सोआर और पंजाब-हरियाणा के शहरों से काफी बेहतर है। एक ओर जहां सोमवार को नई दिल्ली का एक््यूआइ 376, नोएडा का 400, लखनऊ का 447 दर्ज किया गया। ऐसे में चंडीगढ़ की हवा अब भी इन शहरों जितनी जहरीली नहीं हुई है। चंडीगढ़ अकेला ऐसा शहर है जिसका एक््यूआइ 300 के आस-पास रहा है। इन शहरों का पार्टिक्युलेट मटर 900 से भी अधिक रह चुका है।

चंडीगढ़ की ग्रीनरी और हवा का रुख दूसरी साइड होने से मिल रहा फायदा, दिल्ली का एक््यूआइ 376 तो चंडीगढ़ का भी खराब श्रेणी में ही

## ग्रीनरी मुख्य वजह

चंडीगढ़ के कुल परिया कब 40 फीसद हिस्सा ग्रीन कवर है। इस वायु प्रदूषण में ग्रीन कवर शहर को प्रोटेक्शन दे रहा है। ग्रीन कवर पार्टिक्युलेट मटर को सोखता है। यह वजह भी चंडीगढ़ में प्रदूषण का स्तर अभी तक बेहतर होने की रह सकती है। इसके अलावा दूसरा बड़ा कारण हवा के रुख का भी बताया जा रहा है। हवा जिस रुख में बहती है यह पार्टिक्युलेट मटर उतर ही मूक करती है।



देत के कई शहर इन दिनों स्मॉग की शेट में है। चंडीगढ़ में भी इसका असर है। सेक्टर-22-23 की डिवाइजिंग रोड पर छाप स्मॉग के बीच मुजरते वाहन का जवाहर



टंड की वजह से बाउंड्री वॉल बन जाती है। इसमें एक कवर को लेकर होती है और एक नीचे बंध-नीचे की लेकर है जिससे पार्टिक्युलेट मटर ऊपर नहीं निकल पाते और प्रदूषण बढ़ रहा है। यह ठीक वैसा ही है जैसे एक बाल्टी में रोड से गर्म पानी करती है तो कई बार नीचे पानी टंडा और ऊपर गर्म रह जाता है। जब तक यह मिश्रण नहीं होता बराबर नहीं होता। यही हाल प्रदूषण का भी है। बरसात के बाद ही यह कम नीचे बैठेगी। हरियाणा ग्रीन कवर प्रोटेक्शन देती है। इससे भी पैड़ गैस और सड़क किनारे वास लगाई जाती है। यह पार्टिक्युलेट मटर और डस्ट को सोखती है।

— डॉ. सुमन मोर, चारपर्सन ऑफ अंवरिस्टेट प्रो. पर्यावरण विभाग, पंजाब यूनिवर्सिटी

| प्रमुख शहरों में वायु प्रदूषण की स्थिति | नोएडा | 400      | करनाल | 332     |     |
|---|-------|----------|-------|---------|-----|
| चंडीगढ़                                 | 290   | कानपुर   | 447   | जीर     | 410 |
| पंचकुला                                 | 202   | लुधियाना | 194   | अंबाला  | 396 |
| नई दिल्ली                               | 376   | जालंधर   | 298   | पटियाला | 399 |
|   |       |          |       | करनाल   | 472 |

| प्रदूषण का एक््यूआइ मानक |                  |
|--------------------------|------------------|
| 0-50                     | अच्छा            |
| 51-100                   | संतोषजनक         |
| 101-200                  | मंजूर            |
| 201-300                  | खराब             |
| 301-400                  | बैरद खराब        |
| 401-500                  | बैरद ज्यादा खराब |

# PU-PGI team unlocks sources of air pollution during lockdown in city

PUNJAB EXPRESS BUREAU Chandigarh, August 22

The impact of COVID-19 lockdown on ambient air quality of Chandigarh was studied by the Department of Environment Studies, Panjab University along with Department of Community Medicine & School of Public Health, Post Graduate Institute of Medical Education and Research, Chandigarh and Chandigarh Pollution Control Committee.

The study recently published in the journal *Chemosphere* entitled 'Impact of COVID-19 lockdown on air quality in Chandigarh, India: Understanding the emission sources during controlled anthropogenic activities' examined the trend of 14 air pollutants, including particulate matter (PM10, PM2.5), trace



atmospheric gases (NO2, NO, NOx, SO2, Ozone, NH3, CO) and Volatile Organic Compounds (benzene, toluene, o-xylene, m,p-xylene, ethylbenzene) along with six meteorological parameters before and during the COVID-19 lockdown.

The study duration was divided into four parts, i.e., a) 21 days of before lockdown b) 21 days of the first phase of lockdown c) 19 days of the second phase of

lockdown d) 14 days of the third phase of lockdown. The results showed a significant reduction in all the major pollutants during the first and second phases of lockdown. However, the concentrations of SO2, Ozone, and m,p-xylene kept on increasing throughout the study period, except for benzene, which continuously decreased.

Dr. Suman Mor, Chairperson, Department of Environment Studies, PU and the lead investigator of the study, highlighted that vehicular pollution contributes as a primary source of air pollution during different stages of lockdown. Further, she added that regional atmospheric transfer of pollutants from coal-burning and stubble burning were identified as secondary sources of air pollution.

# PU-PGI team unlock sources of air pollution during lockdown in Chandigarh

by our Reporter

**Chandigarh:** The impact of COVID-19 lockdown on ambient air quality of Chandigarh was studied by the Department of Environment Studies, Panjab University with Department of Community Medicine & School of Public Health, PGIMER, Chandigarh and Chandigarh Pollution Control Committee.

The study recently published in the journal *Chemosphere* examined the trend of 14 air pollutants, including particulate matter (PM10, PM2.5), trace atmospheric gases (NO<sub>2</sub>, NO, NO<sub>x</sub>, SO<sub>2</sub>, Ozone, NH<sub>3</sub>, CO) and Volatile Organic Compounds (benzene, toluene, o-xylene, m,p-xylene, ethylbenzene) along with six meteorological parameters before and during the COVID-19 lockdown.

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She added that regional atmospheric transfer of pollutants from

coal-burning and stubble burning were identified as secondary sources of air pollution.

Dr. Ravindra Khaiwal, Additional Professor, PGIMER, who coordinated this study, mentioned that reduction in air pollution is linked to the decline in local emissions and frequent rainfall. He also highlighted that the increase in Ozone concentration seems to be associated with intense solar radiation and high temperature, which enhances the atmospheric reactivity during COVID-19 lockdown, leading to a rise in Ozone concentration not only in Chandigarh but many cities in India.

The percentage decrease in the concentrations during 1, 2 and 3 lockdown periods were 28.8 %, 23.4 % and 1.1 % for PM<sub>2.5</sub> and 36.8 %, 22.8 % and 2.4 % for PM<sub>10</sub>, respectively. NO<sub>2</sub> concentration was



reduced by 23 %, 16.5 %, and 6.1 % in lockdown 1, 2, and 3, respectively, as compared to the average concentrations before the lockdown

## लॉकडाउन इफेक्ट • पीयू, पीजीआई और सीपीसीसी ने की ज्वाइंट रिसर्च, एल्सवेयर में की गई प्रकाशित पहलें में 23%, दूसरे में 16.5 और तीसरे 6.1 घटी NO<sub>2</sub>

• पहले और दूसरे लॉकडाउन में पॉल्यूशन बहुत घटा, तीसरे में फिर बढ़ा

एजुकेशन रिपोर्ट | चंडीगढ़

पहले लॉकडाउन में शहर की हवा में नाइट्रोजन डाइऑक्साइड का मात्रा 23 फीसदी तक घटी, दूसरे में 16.5 और तीसरे में यह प्रतिशत 6.1 फीसदी रह गया। ये नतीजे हैं पंजाब यूनिवर्सिटी (पीयू) के डिपार्टमेंट ऑफ एनवायरनमेंटल स्टडीज, पीजीआईएमएचआर के डिपार्टमेंट ऑफ कम्युनिटी मेडिसन एंड स्कूल ऑफ पब्लिक हेल्थ और चंडीगढ़ पॉल्यूशन कंट्रोल कमेटी (सीपीसीसी) की ओर से की गई

स्टडी का। इस स्टडी को एल्सवेयर के रिसर्च जनरल में जगह मिली है। एनवायरनमेंटल स्टडीज की चेयरपर्सन और स्टडी को लीड कर रही डॉ. सुमन मोड़ ने बताया कि जब लॉक डाउन के पीरियड में सब कुछ बंद था तो पर्यावरण की सुरत में बदलाव को देखते हुए इस स्टडी को प्लान किया था। डॉ. मोड़ आगामी सीनेट इलेक्शन में असिस्टेंट प्रोफेसर कम रीडर कास्ट्रियुट्यूसी से एक कैडिडेट भी हैं।

डॉ. मोड़ ने बताया कि उन दिनों वातावरण का निखार भी स्पष्ट था। इसलिए लॉकडाउन के पहले के 21 दिनों का रिकॉर्ड निकाला गया, इसके बाद पहले लॉक डाउन के 21

दिन, दूसरे लॉक डाउन के 21 दिन और तीसरे लॉक डाउन के 19 दिनों की स्टडी की गई। जब इंटरडिप्ट खल गई, वाहन चलने लगे और सब कुछ लगभग सामान्य हो गया था। एयर क्वालिटी पर हुए इस सर्वे के दौरान पार्टिकुलेट मैटर (पीएम) यानि हवा में मौजूद प्रदूषण के कण जिनका साइज 10 माइक्रोन या 2.5 से कम वाले माइक्रोन साइज को स्टडी किया। वातावरण में मौजूद गैसेज जिनमें नाइट्रोजन डाइऑक्साइड, नाइट्रोजन ऑक्साइड, ऑक्साइज ऑफ नाइट्रोजन, सल्फर डाईऑक्साइड, ओजोन, अमोनिया, कार्बन मोनोऑक्साइड और वॉलेटाइज ऑर्गेनिक कंपाउंड को चेक किया

गया जो मैन मेड है। ये वाहनों के आवागमन, लैंडफिल, सॉलिड वेस्ट जलाने आदि से पैदा होते हैं जिसमें बेंजीन, टॉल्विन, ओजोहलीन, एम एंड पी जाइलीन, एथाइल बेंजीन को स्टडी किया गया। ये रिसर्च कोमोस्फेयर नामक जर्नल में 'इफेक्ट ऑफ कोविड 19 लॉक डाउन ऑन एयर क्वालिटी इन चंडीगढ़, इंडिया : अंडरस्टैंडिंग दि एमिशन सोर्स ड्यूरिंग कंट्रोलड एंथ्रोप्रोजेनिक एक्टिविज' में प्रकाशित हुई है। पहले और दूसरे लॉक डाउन में सल्फर डाईऑक्साइड, ओजोन और एम एंड पी जाइलीन का स्तर तो सामान्य तरीके से बढ़ता रहा लेकिन बेंजीन का स्तर लगातार घटता रहा।

• पहले लॉकडाउन से तीसरे तक रहा डाउन...

| प्रदूषण के प्रकार            | पहले में | दूसरे में | तीसरे में |
|------------------------------|----------|-----------|-----------|
| पार्टिकुलेट मैटर 2.5 का स्तर | 28.8     | 23.4      | 1.1 फीसदी |
| पार्टिकुलेट मैटर 10 का स्तर  | 36.8     | 22.8      | 2.4 फीसदी |
| नाइट्रोजन डाइऑक्साइड         | 23       | 16.5      | 6.1 फीसदी |

(आम दिनों की औसत में कमी, फीसदी में)

**सिर्फ चंडीगढ़ ही नहीं बाकी जगह भी ओजोन का स्तर इस पीरियड में बढ़ा...** डॉ. मोड़ ने बताया कि थर्मल प्लांट शुरू थे और पराली जलाना भी रोजनल स्तर पर पॉल्यूशन के कारण रहे। पीजीआईएमएचआर में एनवायरनमेंटल हेल्थ के एडिशनल प्रोफेसर डॉ. रविंद्र खईवाल ने बताया कि प्रदूषण के घटने की वजह लोकल आवागमन में कमी रही। ओजोन के बढ़ने का कारण इंटेंस सोलर रेडिएशन और हाई टेम्पेचर हो सकता है जिससे एटमोस्फेरिक रिएक्टिविटी बढ़ी। सिर्फ चंडीगढ़ ही नहीं बाकी जगह भी ओजोन का स्तर इस पीरियड में बढ़ा है।



चंडीगढ़: पंजाब राजभवन में कोरोना के साथ कैसे जिया जाए यह बताने वाली बुकलेट लांच करते प्रशासक वीपी सिंह बदनोर

## जागरूक करने के लिए कॉमिक लांच

जासं, चंडीगढ़: किड्स वायु एंड कोरोना कॉमिक के पार्ट-3 को प्रशासक वीपी सिंह बदनोर ने सोमवार को पंजाब राजभवन में लांच किया। कोविड-19 में बच्चों की क्षमता को अनलॉक करने के लिए इस कॉमिक को पंजाब यूनिवर्सिटी के एनवायरनमेंट स्टडीज डिपार्टमेंट की डॉ. सुमन मोर और पीजीआई एनवायरनमेंट हेल्थ के एडिशनल

पंजाब राजभवन में सोमवार को किड्स वायु एंड कोरोना कॉमिक के पार्ट-3 को प्रशासक वीपी सिंह बदनोर ने किया लांच

प्रोफेसर डॉ. रविंद्र खांडवाल ने संयुक्त तौर पर इसे तैयार किया है। प्रशासक बदनोर ने कहा कि कोरोना महामारी में बच्चों को देखभाल के प्रति सजग होना चाहिए। उन्होंने डॉ. मोर और

डॉ. खांडवाल के प्रयास की सराहना की। डीसी मनदीप सिंह बराड़ ने इस मौके पर कहा कि वर्तमान में बच्चों को जागरूक करने का कॉमिक एक अनूठी पहल है। डॉ. सुमन मोर ने कहा कि पार्ट-3 में बच्चों की क्षमता और टैलेंट पर फोकस किया गया है। इसमें बच्चों को फ्रेस क्वार, फिजिकल डिस्टेंसिंग जैसी बातों से जागरूक किया जाएगा।

Punjab Kesari

### 'किड्स वायु एंड कोरोना पार्ट 3' का विमोचन

चंडीगढ़, 9 जून (बि.सं.) प्रशासक वीपी सिंह बदनोर ने सोमवार को पंजाब यूनिवर्सिटी की प्रोफेसर डॉ. सुमन मोर और उनके पति व पीजीआई के पर्यावरण हेल्थ में एडीशनल प्रोफेसर रविंद्र खांडवाल ने बच्चों के लिए तैयार की गई इन्फॉर्मेशन एजुकेशन एंड कम्युनिकेशन कॉमिक सीरीज किड्स वायु एंड कोरोना पार्ट-3 का विमोचन किया। उन्होंने प्रो. मोर व प्रो. खांडवाल के प्रयासों की सराहना की। डी.सी. मनदीप बराड़ और कमिश्नर नगर निगम के.के. यादव ने कहा कि बच्चों को ऐसी सुव्यवस्थित जानकारी उपलब्ध करवाना एक सराहनीय कदम है। किड्स वायु एंड कोरोना पार्ट-3 में मुख्य तौर पर हैंडवाशिंग, घर में बने कपड़े के मास्क, टीचिंग, सोशल डिस्टेंसिंग और बच्चों को मोटीवेट करने वाली कई गतिविधियां समाहित की गई हैं।



Aaj Samaj

### कॉमिक सीरीज, वायु, के तीसरे संस्करण का किया विमोचन

चंडीगढ़। पंजाब के राज्यपाल वीपी सिंह बदनोर ने कॉमिक सीरीज, वायु, के तीसरे संस्करण का सोमवार को विमोचन किया। भाग 3 में लोकवाहन के नायको, कोविड-19 महामारी के बारे में बताया गया है। इसे पीयू के पर्यावरण अध्ययन विभाग की डॉ. सुमन मोर, और डॉ. रवींद्र खांडवाल, पीजीआई द्वारा संयुक्त रूप से तैयार किया है। राज्यपाल ने इस प्रयास की सराहना की। मौके पर मौजूद चंडीगढ़ के डिप्टी कमिश्नर मनदीप सिंह बराड़ ने कहा कि कॉमिक के रूप में बच्चों को जानकारी देना एक अच्छा कदम है। केके यादव नगर आयुक्त ने भी बच्चों को शिक्षित करने के लिए लेखकों के इस अभिनव प्रयास की सराहना की।

**कॉमिक में इन विषयों को किया गया है शामिल:** उचित हैंडवाशिंग वरग, होममेड क्लॉथ मास्क का उपयोग, सोशल डिस्टेंसिंग, बच्चों के लिए प्रेरणा, यानी, लोकवाहन (खाना पकाने, संगीत, कला आदि) के दौरान गतिविधियां, ऑनलाइन अध्ययन की प्रक्रिया और जाने स्कूल टाइम और मछर नियंत्रण रणनीतियों के साथ एमरचआरटी के ई रिवा साहित्य उपयोगी लिंक साझा किए गए हैं।



कॉमिक सीरीज, वायु, के तीसरे संस्करण का विमोचन करते हुए वीपी सिंह बदनोर व अन्य अधिकारी। 05

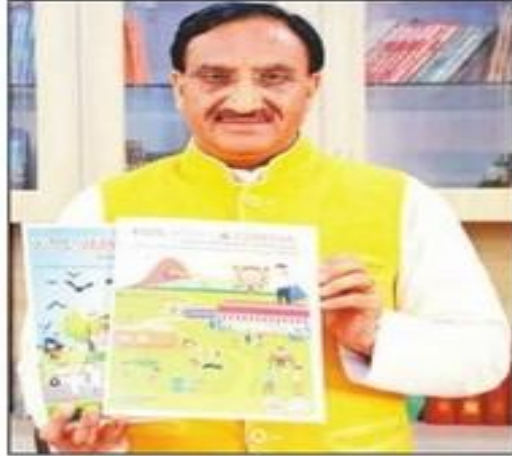
# लोगों को महामारी से बचाएगा किड्स वायु कोरोना कॉमिक्स

केंद्रीय शिक्षा मंत्री ने किया चौथे संस्करण का विमोचन

माई सिटी रिपोर्टर

चंडीगढ़। कोरोना को लेकर बच्चों के साथ ही हर आयु वर्ग के लिए जागरूकता का माध्यम बनने वाले 'किड्स वायु कोरोना कॉमिक्स' के चौथे संस्करण का विमोचन केंद्रीय शिक्षा मंत्री रमेश पोखरियाल ने बुधवार को दिल्ली में किया। उन्होंने इस कॉमिक्स को कोरोना से बचाव के लिए एक बेहतर माध्यम बताया।

उनका कहना है कि यह बच्चों के साथ ही हर आयु वर्ग के लिए बेहद उपयोगी साबित हो रही है। इसमें दी गई जानकारी कोरोना काल में रोजमर्रा की चुनौतियों से बचाव में बहुत ही उपयोगी है। इसके माध्यम से बच्चों के व्यवहार को नियंत्रित करने में काफी सफलता मिलेगी। वहीं पंजाब यूनिवर्सिटी के एनवायरमेंटल



विमोचन करते रमेश पोखरियाल।

स्टडीज की प्रोफेसर सुमन मोर और पीजीआई कम्युनिटी मेडिसिन के असिस्टेंट प्रोफेसर रविंद्र का कहना है कि इस कॉमिक्स के माध्यम से कोरोना से बचाव के साथ ही महामारी के इस दौर की जटिलता को सामान्य करना है।

## जागरूकता

पीयू के पर्यावरण विभाग और पीजीआई ने बनाई कॉमिक्स, पीयू की डॉ. सुमन और पीजीआई के डॉक्टर रविंद्र ने डिजाइन और तैयार की

# शिक्षामंत्री ने ट्वीट कर सराही दंपती द्वारा बनाई कोविड कॉमिक्स

जसवंत बंशीगढ़ : कोरोना वायरस से बचने के लिए केंद्र और राज्य सरकार की ओर से कई जागरूकता अभियान चलाए जा रहे हैं। टीवी चैनलों, अखबारों और रेडियों के माध्यम से लोगों को कोरोना से बचने के टिप्स दिए जा रहे हैं। इसी कड़ी में पंजाब यूनिवर्सिटी के पर्यावरण विभाग और पीजीआई ने एक कॉमिक्स बनाई है, जिसका नाम किड्स वायु और कोरोना है। इसके द्वारा लोगों को कोविड-19 से बचने के लिए जागरूक किया जा रहा है। इस कॉमिक्स को यूटी प्रशासक वीपी सिंह बदनौर ने लॉन्च किया। कॉमिक्स की उपलब्धि यह रही कि इसे कोविड-19 के हालात को देखते हुए सबसे महत्वपूर्ण जागरूकता का

## कार्टून कैरेक्टर करते हैं ज्यादा आकर्षित :- डॉ. सुमन मोर

डॉ. सुमन मोर ने बताया कि उन्हें कॉमिक्स बनाने का आइडिया बहुत पहले आ गया था। हमारा लक्ष्य था कि कॉमिक्स में कार्टून को इस तरह से डिजाइन किए जाए कि वह आकर्षित हो। इसके लिए पीजीआई के कम्युनिटी मेडिसिन एंड स्कूल ऑफ पब्लिक हेल्थ विभाग के एडिजिटल प्रोफेसर ऑफ एनवायरमेंट हेल्थ डॉ. रविंद्र खेवाल ने उनका साथ दिया।

साधन माना जा रहा है। केंद्रीय शिक्षा मंत्री ने ट्वीट

## बच्चों पर ज्यादा फोकस

डॉ. रविंद्र ने बताया कि कोरोना का सबसे ज्यादा खतरा बच्चों और बुजुर्गों को है। डॉ. रविंद्र खेवाल। बच्चों में समझ नहीं है कि उन्हें क्या करना है, इसलिए कॉमिक्स बच्चों के कार्टून बनाकर बताया गया है कि उन्हें क्या करना है। इस कॉमिक्स में एमएचए की हर गाइडलाइंस को कार्टून द्वारा बताया गया है जो बच्चों आसानी से फेक्टर कर लेंगे।

कर दी बधाई : किड्स वायु और कोरोना कॉमिक्स की तारीफ देश

के शिक्षामंत्री डॉ. रमेश पोखरियाल निशंक ने भी की। निशंक ने ट्वीट कर दोनों को बधाई देते हुए कहा कि यह आज के समय में लोगों बच्चों के साथ साथ बड़ों को भी जागरूक करने का अच्छा साधन है। उन्होंने दोनों लेखकों को इस प्रयास के लिए बधाई दी है।

हर बात को किया गया कवर : कॉमिक्स में न केवल कोरोना बल्कि प्रदूषण, साफ सफाई जैसी रोजमर्रा की बातों को भी कवर किया गया है। कॉमिक्स में यह भी बताया गया है कि सरकार द्वारा अब देश में धीरे धीरे सब कुछ खोला जा रहा है जिसको ध्यान में रखते हुए कॉमिक्स में बच्चों को किन चीजों से दूर रहना है उसकी जानकारी दी गई है।



कॉमिक्स पर केंद्रीय शिक्षा मंत्री डॉ. रमेश पोखरियाल निशंक ने ट्वीट कर माध्यम से उन्हें बधाई दी।



# चंडीगढ़ में कोविड-19 लॉकडाउन के दौरान पीयू-पीजीआई टीम ने वायु प्रदूषण के स्रोतों को अनलॉक किया

(फास्ट मीडिया) विनोद कुमार, चंडीगढ़। चंडीगढ़ के परिवेशी वायु गुणवत्ता पर कोविड-19 लॉकडाउन का प्रभाव, पर्यावरण अध्ययन विभाग, पंजाब विश्वविद्यालय के साथ सामुदायिक चिकित्सा और स्कूल ऑफ पब्लिक हेल्थ, पोस्ट ग्रेजुएट इंस्टीट्यूट ऑफ मेडिकल एजुकेशन एंड रिसर्च, चंडीगढ़ और चंडीगढ़ प्रदूषण नियंत्रण समिति द्वारा अध्ययन किया गया।

चंडीगढ़, भारत में वायु गुणवत्ता पर कोविड-19 लॉकडाउन का प्रभाव शीर्षक से हाल ही में केमोस्फेयर नामक पत्रिका में प्रकाशित अध्ययन, नियंत्रित मानवजनित गतिविधियों के दौरान उत्सर्जन स्रोतों को समझना 14 वायु प्रदूषकों की प्रवृत्ति की जांच की गई, जिसमें ट्रंक्यूलेट मैटर शामिल हैं। पर्यावरण अध्ययन विभाग, पीयू और अध्ययन के प्रमुख अन्वेषक, डॉ. सुमन मोर ने कहा कि लॉकडाउन के विभिन्न चरणों के दौरान वाहन प्रदूषण वायु प्रदूषण के प्राथमिक स्रोत के रूप में योगदान देता है।

डॉ. रवींद्र खाईवाल, पर्यावरण



स्वास्थ्य के अतिरिक्त प्रोफेसर, सामुदायिक चिकित्सा विभाग और स्कूल ऑफ पब्लिक हेल्थ, पीजीआईएमईआर, जिन्होंने इस अध्ययन का समन्वय किया, ने उल्लेख किया कि वायु प्रदूषण में कमी स्थानीय उत्सर्जन में गिरावट और लगातार बारिश से जुड़ी है। उन्होंने यह भी कहा कि ओजोन एकाग्रता में वृद्धि तीव्र सौर विकिरण और उच्च तापमान से जुड़ी हुई है, जो कोविड-19 लॉकडाउन के दौरान वायुमंडलीय प्रतिक्रिया को बढ़ाता है, जिससे न केवल चंडीगढ़ बल्कि भारत के कई शहरों में ओजोन एकाग्रता में वृद्धि हुई है।

**Awards received by the Institution, its teachers and students from Government /Government recognized bodies in recognition of the extension activities carried out during the last five years.**

| <b>Name of the activity</b>   | <b>Name of the Award/recognition</b>                  | <b>Name of the Awarding government/government recognized bodies</b> | <b>Year of award</b> |
|---|---|---|----------------------|
| National Award for Outstanding Efforts in Science & Technology Communication through Innovative and Traditional methods | NATIONAL AWARD FOR SCIENCE & TECHNOLOGY COMMUNICATION | DST, Ministry of Science and Technology, Government of India        | 2021-22              |

**Extension and outreach programmes conducted by the institution including those through NSS/NCC/Red cross/YRC etc. ( including Government initiated programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs) during the last five years.**

| <b>Department Name</b>                                | <b>Name of the activity</b>  | <b>Organising unit/agency/collaborating agency</b>  | <b>Name of the scheme</b> | <b>Year of the activity</b> | <b>Number of students participated in such activities</b> |
|---|--|---|---------------------------|-----------------------------|---|
| Department of Environment Studies (Panjab University) | Workshop For Ncap Knowledge Network In The Indo-Gangetic Plain States With The Support Of World Bank | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh)                  |                           | 2nd -3rd December 2019      | 60  |
| Department of Environment Studies (Panjab University) | Children & Young Environmentalist Conference On Environmental Protection (Coep-2020)                 | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh)                  |                           | 2020                        | 350   |
| Department of Environment Studies (Panjab University) | Workshop On Indoor & Outdoor Air Pollution, Standards & Impacts On Human Health: Case Studies        | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh), CPCC Chandigarh | -                         | 4th to 6th December 2019    | -   |

|   |  |  |   |  |     |
|---|--|--|---|--|-----|
| Department of Environment Studies (Panjab University) | Workshop On "Health Risk Assessment"- 48th Annual National Conference of Indian Association of Preventive and Social Medicine (IAPSMCON2021) | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh) | - | 2020   | 100 |
| Department of Environment Studies (Panjab University) | Capacity Building Of Students - visits to Continuous Ambient Air Quality Monitoring Station (CAAQMS)   | Department of Environment Studies (Panjab University)  | - | -  | -   |
| Department of Environment Studies (Panjab University) | Awareness Campaign "Clean Air For Chandigarh"- Panjab University Rose Festival   | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh) |   | 8 <sup>th</sup> to 10 <sup>th</sup> February 2019              |     |
| Department of Environment Studies (Panjab University) | Awareness Campaign "Clean Air For Chandigarh"- Panjab University Rose Festival   | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh) |   | 7th to 9th February 2020                                       |     |
| Department of Environment Studies (Panjab University) | Awareness Campaign "Clean Air For Chandigarh"- Chandigarh Rose Festival  | Department of Environment Studies (Panjab University), Department of Community Medicine and School of Public Health (PGIMER, Chandigarh) |   | 28 <sup>th</sup> February, 2020 to 1 <sup>st</sup> March, 2020 |     |



# Experts dwell upon air pollution

**TRIBUNE NEWS SERVICE**

**CHANDIGARH, DECEMBER 3**

The two-day workshop on 'Knowledge sharing and capacity-building for NCAP knowledge network in the Indo-Gangetic plain states' began here today.

Participants from various educational institutes, pollution control boards of different states are attending the workshop, which has been organised by the World Bank, Department of Environment

Studies, PU, and the Department of Community Medicine and School of Public Health, PGIMER.

Knowledge on relevant AQM practices and technologies that have enabled other countries to tackle their challenge of air pollution would also be shared as part of the training programme. Dr SS Marwaha, Chairman of the Punjab Pollution Control Board, laid emphasis on the necessity to identify solutions of

working across states. Dabinder Dalai, IFS, Director, Environment, Chandigarh Administration, highlighted the need for addressing air quality issues by engaging academicians, and research scholars and relevant stakeholders to identify sustainable solutions. Karin Shephardson, Lead Environment Specialist, World Bank, mentioned that they are committed to strengthening knowledge exchange.

**Chandigarh Tribune**

Wed, 04 December 2019

<https://epaper.tribuneindia.com/c/465>



*Media coverage of Air quality management workshop for Nation Clean Air Programme (NCAP) knowledge network of Indo-Gangetic Plain States held at Panjab University on 2<sup>nd</sup> -3<sup>rd</sup> December 2019*

Source: <https://www.tribuneindia.com/news/experts-dwell-uponair-pollution/869848.html>

## 350 kids take part in first its kind conference on environment for children

PUNJAB EXPRESS BUREAU  
Chandigarh, June 8

Children & Young Environmentalist Conference on Environmental Protection (CoEP 2020) was organized jointly by Department of Environment Studies, Panjab University, Chandigarh and Department of Community Medicine and

School of Public Health, PGIMER, Chandigarh, Ankur School, Chandigarh, Chandigarh Pollution Control Committee (CPC- Chandigarh), Ministry of Environment, Forest and Climate Change (MoEFCC), North region, Chandigarh, Health Care Without Harm and Lung Care Foundation. This conference provided a

platform to engage eminent scientists, students and children together to build a sustainable society, which cares for our common future. This event is first-of-its-kind focusing on children and youth with an aim to create awareness and sensitize them about the environment.

Focusing on the theme

of World Environment Day 'Celebrating Biodiversity,' and considering the current global situation due to COVID19 an online opportunity session was arranged for the school children under which various competitions were held. More than 350 participants registered for the event.

In the morning session,

class wise performance of school children were done on the themes including making a family tree with a message on Save Environment (Class 1-2); Slogan writing on Tree Plantation (Class 3-4); Pot painting (Class 5-6); making paper bags along with slogans (Class 7-8) and creating best out of waste (Class 9-12).

*Media coverage of Children & Young Environmentalist Conference on Environmental Protection (CoEP-2020) organized by Department of Environment Studies, Panjab University, Chandigarh on World Environment Day 2020*



*Eminent scientist and other resource person interacting with participants during three-day residential training programme on the "Indoor & Outdoor Air Pollution, Standards & Impacts on Human Health: Case Studies" held on 4<sup>th</sup> to 6<sup>th</sup> December 2019 at Panjab University*

# IAPSMCON2021

## CME on Basics of Health Risk Assessment

**Organizers:** Department of Community Medicine & School of Public Health, PGIMER & Department of Environment Studies, Panjab University

### GUEST OF HONOURS



### CHIEF GUEST

### CHAIRS



### SPEAKERS



### COURSE DIRECTORS



**In Partnership with:** Healthy Energy Initiative India & Climate Trends

| March 2021 |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|
| M          | T  | W  | T  | F  | S  | S  |
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| 8          | 9  | 10 | 11 | 12 | 13 | 14 |
| 15         | 16 | 17 | 18 | 19 | 20 | 21 |
| 22         | 23 | 24 | 25 | 26 | 27 | 28 |
| 29         | 30 | 31 |    |    |    |    |



*Media coverage of three-day residential training programme on the “Indoor & Outdoor Air Pollution, Standards & Impacts on Human Health: Case Studies” held on 4<sup>th</sup> to 6<sup>th</sup> December 2019 at Panjab University*

## **WORKSHOP ON “HEALTH RISK ASSESSMENT”.**

As a part of the 48th Annual National Conference of Indian Association of Preventive and Social Medicine (IAPSMCON2021), Department of Community Medicine and School of Public Health, PGIMER, Chandigarh, in collaboration with the Department of Environment Studies, Panjab University, Chandigarh, organized a workshop on “Health Risk Assessment”. Dr. Ravindra Khaiwal, Additional Professor of Environment Health, Department of Community Medicine and School of Public Health, PGIMER, Chandigarh and Dr. Suman Mor, Chairperson, Department of Environment Studies, Panjab University, Chandigarh, coordinated the program.

Ms. Payden, Deputy, World Health Organisation (WHO) representative to India and Dr. Sujeet Kumar Singh, Director National Centre for Disease Control (NCDC), New Delhi were the chief guests of the inaugural ceremony. In his message, Dr. Sujeet Singh highlighted that the government is committed to minimizing the adverse impacts of environmental pollution under the national programme of climate change and human health. Ms. Payden from WHO highlighted that environmental pollution and degradation have a huge impact on people's lives, and most of these problems could be averted through proper planning and implementation.

Dr. R.S. Dhaliwal, Head, Division of Non-Communicable Diseases, Indian Council of Medical Research, India and Prof V.R. Sinha were guests of honor of the valedictory session. Dr. Dhaliwal stressed that there is a need to strengthen the efforts on post monitoring of industrial pollutants and regulatory compliance to avoid public health risks. Dr. Sinha highlighted the need for multi-stakeholder partnerships to strengthen pollution monitoring for environmental risk reduction.

The workshop focuses on basic of environmental and health impact assessment, epidemiological study design to understand the effects of environmental pollution, hands-on exercise on various risk assessment tools, including case studies from India, Japan and the United States of America. During the workshop, the key observation was that long-term studies on exposure to air pollutants and health effects are missing from India. There is a need to strengthen the monitoring network, including

remote sensing data, to complement the ground-based monitoring data.

The workshop includes extensive lectures from Dr. Shankar Prinja, Dr. Ravindra Khaiwal, Dr. PVM Lakshmi from PGIMER, Chandigarh. Dr. Tanbir Singh and Dr. Suman Mor from Panjab University, Chandigarh. Dr. Harshal Salve from AIIMS, New Delhi, Dr. Sreekanth from CSTEP, Bengaluru. The various sessions of the health risk workshop were chaired by Dr. Shikha Vardhan and Dr. Meera Dhuria from National Centre for Disease Control (NCDC), New Delhi; Dr. Adithya Pradyumna from Azim Premji University, Bengaluru and Dr. Manjeet Saluja, from World Health Organization (WHO), India.

The international speakers and chairs included Dr. Maninder Kaur from Canada; Dr. Pallavi Pant from Health Effect Institute, USA; Prof. Peter Orris from the University of Illinois, Chicago, USA and Dr. George Thurston from New York University School of Medicine, USA and Dr. Kayo Uedo, Kyoto University from Japan. The workshop was attended by over 100 participants from India representing 20 states, including international participation and was organized in partnership with Healthy Energy Initiative, India and Climate Trends, India.



# IAPSMCON2021

## CME on Basics of Health Risk Assessment

**Organizers:** Department of Community Medicine & School of Public Health, PGIMER & Department of Environment Studies, Panjab University

### GUEST OF HONOURS



**Ms. Payden**  
Deputy WHO Representative to India



**Prof. VR Sinha**  
DUI, Panjab University, Chandigarh



**Dr. Sujeet Singh**  
Director, NCDC, New Delhi



**Dr. RS Dhaliwal**  
Head, Division of Non-Communicable Diseases ICMR, New Delhi

### CHAIRS



**Dr. Meera D Duria**  
Epidemiologist, NCDC, New Delhi



**Dr. Sudheer Chintalapati**  
Additional Director, Ministry of Environment, Forest and Climate Change, India



**Dr. Ashutosh Aggarwal**  
Professor and Head, Department of Pulmonary Medicine PGIMER, Chandigarh, India



**Dr. Adithya Pradyumna**  
Faculty, School of Development, Azim Premji University, Bengaluru, India



**Dr. Shikha Varadan**  
Deputy Director, Centre for Environmental Health, Climate Change & Health, NCDC



**Dr. Manjeet Singh Soluja**  
National Professional Officer, Environment, Climate Change & Public Health, WHO



**Dr. Pallavi Pant**  
Senior Staff Scientist, Health Effects Institute



**Dr. Vikas Singh**  
Scientist-SE, National Atmospheric Research Laboratory, Department of Space, Gandhinagar



**Dr. Peter Orris**  
Chief, Occupational & Environmental Medicine, U Health, UK



**Dr. JK Chakma**  
Public Health Specialist & Epidemiologist, Scientist at ICMR

### SPEAKERS



**Prof. PVM Lakshmi**  
Epidemiology, DCM & SPH, PGIMER, Chandigarh, India



**Dr. Shankar Prinja**  
Additional Professor of Health Economics, DCM & SPH, PGIMER, Chandigarh, India



**Tanbir Singh (Ph.D.)**  
Department of Environment Studies, Panjab University, Chandigarh



**Dr. Mohinder Kaur**  
Ex-Senior Demonstrator, Environmental Health, DCM & SPH, Chandigarh, India



**Dr. Harshal Salve**  
Assistant Professor, Centre for Community Medicine, AIIMS, New Delhi



**Dr. V. Sreekanth**  
Senior Research Scientist, CSTSP, Bengaluru



**Dr. Kayo Ueda**  
Environmental Health Science, University Graduate School of Global Environmental Studies



**Dr. George D. Thurston**  
Professor, Environmental Medicine & Population Health, Department of Environmental Medicine, NYU School of Medicine, USA

### COURSE DIRECTORS



**Dr. Ravindra Khaiwal**  
Additional Professor, Department of Community Medicine and School of Public Health, PGIMER, Chandigarh



**Dr. Suman Mor**  
Chairperson, Department of Environment Studies, Panjab University, Chandigarh

**In Partnership with:** Healthy Energy Initiative India & Climate Trends

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# CAPACITY BUILDING PROGRAMME

## CAPACITY BUILDING OF STUDENTS

Students of university were being taken for visits to Continuous Ambient Air Quality Monitoring Station (CAAQMS) stationed in Panjab University, and SAFAR van invited in the Panjab university campus to create awareness on air quality and air pollution.



*Field visit of Panjab University students to Continuous Ambient Air Quality Monitoring Station (CAAQMS) stationed in Panjab University, and SAFAR van invited in the Panjab university campus to create awareness on air pollution*

The practical demonstration of air pollution monitoring and the working principles of various air quality monitoring instruments will help in building the

capacity of the students so that they can further work in field of air pollution. System of Air Quality Forecasting and Research (SAFAR) mobile van laboratory on vehicles do the simultaneous and continuous measurement of various air pollutants and meteorological parameters. The measured air pollutants include particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub> and PM<sub>1</sub>), Black Carbon (BC), carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), Ozone (O<sub>3</sub>), oxides of nitrogen (NO, NO<sub>2</sub>, NO<sub>x</sub>), ammonia (NH<sub>3</sub>), benzene, ethylbenzene, m-, p-xylene, o-Xylene and toluene. The meteorological parameters monitored were temperature, rain, relative humidity, wind speed wind direction, and ultraviolet radiation (UV).

अच्छी खबर..

'स्वच्छ वायु कार्यक्रम' प्रोग्राम के तहत किया जाएगा प्रशिक्षित, पर्यावरण मंत्रालय ने वर्ष 2019 में पीयू के साथ किया था करार

## चंडीगढ़ की आबोहवा कैसे होगी शुद्ध, जानेंगे पीयू के विद्यार्थी

अभिषेक वाजपेयी

चंडीगढ़। सिटी ब्यूटीफुल की हवा कैसे शुद्ध होगी, इसको लेकर पंजाब यूनिवर्सिटी के छात्र छात्राएं जानकारी लेंगे। 'स्वच्छ वायु कार्यक्रम' के तहत यूनिवर्सिटी में जल्द ही जागरूकता कार्यक्रम शुरू किया जाएगा। इसके लिए प्रदूषण कंट्रोल बोर्ड द्वारा 30 लाख रुपए स्वीकृत किए गए हैं। इसकी पहली किस्त 15 लाख रुपये जारी हो गई है।

गौरतलब है कि वर्ष 2019 के जनवरी में देश के 102 शहरों में स्वच्छ वायु कार्यक्रम की शुरुआत की गई थी। इन शहरों में सिटी ब्यूटीफुल को भी शामिल किया गया था। इसके लिए पर्यावरण मंत्रालय ने वर्ष 2019 में पीयू

के साथ करार भी किया था। कार्यक्रम में मंत्रालय के द्वारा जारी की गई दिशा निर्देशिका में युवाओं को जोड़ने पर भी जोर दिया गया था। इसी के तहत चंडीगढ़ प्रदूषण नियंत्रण बोर्ड ने पीयू में स्वच्छ हवा को लेकर जागरूकता कार्यक्रम आयोजित किए जाने को लेकर 30 लाख रुपये स्वीकृत किए थे। अब बोर्ड के द्वारा विश्वविद्यालय को स्वीकृत हुए रुपयों की पहली किस्त 15 लाख रुपये जारी कर दी है। अब छात्र छात्राओं को पर्यावरण विशेषज्ञों के द्वारा यह बताया जाएगा कि किन किन कारणों से प्रदूषण फैल रहा है और इससे कैसे कम किया जा सकता है। इसके अतिरिक्त कई कार्यक्रमों में युवाओं को इसके लिए खास प्रशिक्षण भी दिया जाएगा।

30

लाख रुपये पर्यावरण विभाग से स्वीकृत

15

लाख रुपये की पहली किस्त जारी

क्या है स्वच्छ वायु कार्यक्रम

इस कार्यक्रम का मुख्य उद्देश्य पूरे देश में चयनित हुए चंडीगढ़ सहित 102 शहरों में वायु प्रदूषण को कम किया जा सके। इसको लेकर बेहतर कार्य योजना बनाई जा सके। साथ ही वायु की गुणवत्ता के लिए गहन निगरानी के साथ ही वायु को बेहतर बनाने के लिए विकल्पों पर विचार किया जाए। कार्यक्रम के तहत लोगों को वायु प्रदूषण को लेकर जागरूक करना भी शामिल है।

इसलिए सिटी ब्यूटीफुल का हुआ चयन

पर्यावरण मंत्रालय ने डब्ल्यूएचओ और वायु गुणवत्ता डाटा के आधार पर चंडीगढ़ का चयन किया गया है। वर्ष 2016, 17, 18 और 19 में देखा गया है कि पीएम 2.5 और पीएम 10 की मात्रा तय लिमिट से ज्यादा दर्ज की जा रही थी, जो एक बड़े खतरे की ओर संकेत दे रहे थे। जल्द ही इस पर ध्यान नहीं दिया जाता तो चंडीगढ़ का हाल भी दिल्ली जैसा ही हो जाता।

प्रदूषकों के स्तर में 30 प्रतिशत तक लाएं कम

स्वच्छ वायु कार्यक्रम का संकल्प यह रखा गया है कि वर्ष 2024 तक हवा में पीएम 2.5 और पीएम 10 प्रदूषकों के स्तर में 20 से 30 प्रतिशत तक की कमी लाई जाए। इस कार्यक्रम के तहत चंडीगढ़ सहित पंजाब के भी नौ शहरों को शामिल किया गया है।

किसी भी कार्यक्रम को सफल बनाने के लिए युवाओं का जागरूक होना जरूरी है। इसी के तहत स्वच्छ वायु कार्यक्रम में भी युवाओं को जोड़ा गया है। पीयू के छात्र छात्राओं को जागरूकता कार्यक्रम में शामिल करना भी कार्यक्रम की कार्य योजना का हिस्सा है। -टीसी नौटियाल, मैबर सेक्रेटरी, प्रदूषण कंट्रोल बोर्ड, चंडीगढ़

Media coverage of field visit of Panjab University students to Continuous Ambient Air Quality Monitoring Station (CAAQMS) stationed in Panjab University to create awareness on air pollution

## **AWARENESS AND OUTREACH ACTIVITIES**

### **AWARENESS CAMPAIGN “CLEAN AIR FOR CHANDIGARH”- PANJAB UNIVERSITY ROSE FESTIVAL**

A massive awareness campaign on Clean air quality is being organised in Panjab University Rose Festival by Department of Environment Studies, Panjab University and Department of Community Medicine & School of Public Health, PGIMER Chandigarh from 7<sup>th</sup> to 9<sup>th</sup> February 2020. The awareness campaign is being supported by Health Care without Harm, USA and Chandigarh Pollution Control Committee (CPCC).

A special stall having theme ‘Clean Air for Chandigarh’ was inaugurated by the Prof. Raj Kumar, Vice Chancellor, Panjab University. The guest of the honour of the event were Shri Debendra Dalai, IFS, Director, Department of Environment, Chandigarh and Shri T.C. Nautiyal, IFS, Members Secretary, Chandigarh Pollution Control Committee, Chandigarh. The clean air stall attracted the attention of hundreds of visitors and they have learned how to contribute in air pollution reduction through fun games and other interactive activities.

Vice Chancellor Prof. Raj Kumar appreciated the “Clean Air for Chandigarh’ initiative and stated that community engagement is the key for environmental protection. Shri Debendra Dalai, IFS, stated that youth can play a major role by becoming the ambassador for awareness and clean environment. Further, he mentioned that awareness on air pollution and adoption of small steps to minimise the air pollution can reduce the exposure and its adverse human health impacts.

Shri T.C. Nautiyal, IFS, highlighted that glory of clean and green city can only be preserved through citizen engagement and their active participation. He stressed that city aim to reduce air pollution over 20% in next few years. Dr. Suman Mor, Panjab University, Chandigarh and Dr. Ravindra Khaiwal, PGIMER coordinated the ‘Clean Air for Chandigarh’ campaign. The campaign had various activities and games to engage students and visitors on environment protection and air pollution reduction. There were several models and posters on sources and health effects of air pollution, air pollution reduction including ‘know your air quality index (AQI).



*Vice Chancellor Prof. Raj Kumar during inauguration of special stall on 'Clean Air for Chandigarh' during Panjab University Rose Festival on 7<sup>th</sup> to 9<sup>th</sup> February 2020*

The campaign also organised special session on slogan writing, on the spot painting and debate to engage the school students for their role in air pollution reduction. The main attraction of the stalls was selfie points where participants pledge to be a clean air ambassador.

### **Clean Air Ambassadors and Selfie point**

During the event a special selfie point was installed where the students, visitors and other delegates pledge to make the city air clean and become a clean air ambassador and thereafter click their photographs. This activity was mainly focused on making people being aware regarding air pollution and taking pledge for curbing the menace of air pollution. More than 1000 people participated in his activity along with the reputed dignitaries of university and Chandigarh city.



*Shri T.C. Nautiyal, IFS, Members Secretary, Chandigarh Pollution Control Committee, Chandigarh at 'Clean Air for Chandigarh' stall during Panjab University Rose Festival*



*Shri Debendra Dalai, IFS, Director, Department of Environment, Chandigarh at our pledge taking selfie point after becoming clean air ambassador during Panjab University Rose Festival*

The school children of all age groups were made aware about air pollution in this amusing way where they have participated with great enthusiasm and pledge for

young clean air ambassador



*Children taking pledge as young clean air ambassadors during Panjab University Rose Festival*

In another event held at Panjab University Hon'ble Mr. Justice Adarsh Kumar Goel, Chairperson National Green Tribunal, India along with other senior judges visited our "Clean Air for Chandigarh" selfie point for mass awareness.



*Hon'ble Mr. Justice Adarsh Kumar Goel, Chairperson National Green Tribunal, India along with other senior judges visited our "Clean Air for Chandigarh" awareness point during an event in Panjab University.*

### **Poster section**

Different posters and brochures on air pollution theme including topics like Air Quality Index (AQI), Pollution Under Control (PUC), indoor air pollution, impact on pregnant women's health, open burning of waste impacts. This section was majorly



focusing on communicating maximum knowledge and awareness in minimum time. This section drew the attention of youth, parents as well as elders. They found it very knowledgeable and informative. They also gave their valuable suggestions and feedback for the same. The prime goal of campaign was to aware the public about the sources of air pollution, its harmful impacts and the preventive measures one can take to reduce such impacts.



*Shri Debendra Dalai, IFS, Director Department of Environment, Chandigarh at air pollution awareness poster display site during Panjab University Rose Festival*



Visitors at air pollution awareness poster site during Panjab University Rose Festival

## Model on Air Pollution

In this activity the live demonstration of air pollution smoke model and how air pollution impacts on lungs was given to visitors to aware the them about air pollution and its health impacts. The aim of displaying this model was to aware the public about how different sources that are contributing to air pollution including industries, vehicles, burning of fuel wood impact their health. Public was keen to know about that models and they were also contributing by giving their suggestions (carpooling, use of public transport) and asking different questions on air pollution like how firewood burning is affecting their health.



*Live demonstration of air pollution smoke model to aware the public about air pollution and its health impacts Panjab University Rose festival*

### **Best Out of Waste Material**

By reusing the different waste material, we had prepared paper bags out of newspapers, flowers out of used clothes, wall hangings, flower pots with the ropes, pen stands with the used boxes\plastic bottles\cans. This activity was set to draw the attention of all children, since they were also asking their parents to reuse the waste (newspaper, plastic bottles, parcel boxes etc.) in the same effective

manner. Public participating in slogan writing competition on air pollution awareness theme during Panjab University Rose festival. Keeping the idea of reducing waste was also an objective where we displayed various 'best out of waste' material models based on the theme of air pollution to encourage the public on the 3R Strategy i.e. Reduce, Reuse and Recycle of waste management.



### Promotion of Cycle

During the event the promotion for the use cycle was done and the benefits of using the bicycle were communicated to public like it will help in reducing air pollution,

help in body fitness etc. Shri T.C. Nautiyal, IFS, Members Secretary, Chandigarh Pollution Control Committee, Chandigarh appreciated the effort and highlighted this will add on to Chandigarh administration initiative off promoting bicycle for making city clean and congestion free.



*Dr. Suman Mor during the event aware public including children about the benefits of bicycle use*

### Riddle Competition and word scrambling

Different activities were conducted during the awareness drive of three days including word scrambling and riddles competitions. The activities were focused to make public aware of words and terms related to air pollution and how these things are important in one's life. The riddles were also based on the theme of environment and how the air, water and soil are important for human life.



*Students participating in slogan writing competition on air pollution awareness theme during Panjab University Rose festival*

### Drawing Competition and Slogan writing competition

A special activity of drawing competition and slogan writing competition were organised on the theme of air pollution and climate change and more than school 100 school children participated in the activity. The students found it very interesting as on the spot topics were given and they actively participated in this event. The three winners from each category were selected and facilitated at the end of the event.



*School children participating in poster making competition during Panjab University Rose festival*



*Small kid participating in drawing competition during Panjab University Rose festival*



*Dr. Suman Mor facilitating winner of poster making competition during Panjab University Rose festival*

**AWARENESS CAMPAIGN "CLEAN AIR FOR CHANDIGARH"- CHANDIGARH ROSE FESTIVAL**



The 48<sup>th</sup> Rose Festival Chandigarh, 2020 was held on 28<sup>th</sup> February, 2020 to 1<sup>st</sup> March, 2020. From many years this Festival has been the centre of attraction for lakhs of people from different cultures and places. Panjab University has taken an initiative towards spreading public awareness on Air Pollution during that event.

A massive awareness campaign on Clean air quality was organised in Chandigarh Rose Festival by Department of Environment Studies, Panjab University and Department of Community Medicine & School of Public Health, PGIMER Chandigarh. The awareness campaign is being supported by Health Care without Harm, USA and Chandigarh Pollution Control Committee (CPCC). Air Pollution is a growing issue in Chandigarh which needs public attention and awareness both. The prime focus of the awareness drive was on the theme of “Chandigarh For Clean Air”.



*“Chandigarh for Clean Air” stall for air pollution awareness under NCAP in 48<sup>th</sup> Rose Festival Chandigarh, 2020*



*Public visiting “Chandigarh for Clean Air” stall for air pollution awareness during 48<sup>th</sup> Rose Festival Chandigarh, 2020*

A special stall having theme ‘Chandigarh for Clean Air’ was inaugurated by Shri T.C. Nautiyal, IFS, Members Secretary, Chandigarh Pollution Control Committee, Chandigarh. The clean air stall is attracting the attention of thousands of visitors and they learned how to contribute in air pollution reduction through fun games and other interactive activities.

Shri T.C. Nautiyal, IFS, highlighted citizen engagement and their active participation can play a major role by becoming the ambassador for awareness and clean environment. He addressed that city aim to reduce air pollution over 20% in next few years. Dr. Suman Mor Panjab University, Chandigarh and Dr. Ravindra Khaiwal, PGIMER coordinated the ‘Chandigarh for Clean Air’ campaign. The campaign includes various activities and games to engage students and visitors on environment protection and air pollution reduction. There were several models and posters on sources / health effects of air pollution, air pollution reduction. The main attraction of the stalls are selfie points where participants pledge to be a clean air ambassador.



*Volunteers along with organisers at air pollution awareness stall in 48<sup>th</sup> Rose Festival Chandigarh, 2020*



*Shri Debendra Dalai, IFS, Director, Department of Environment, Chandigarh during his visit air pollution awareness campaign in 48<sup>th</sup> Rose Festival Chandigarh, 2020*

During this awareness drive different activities including riddles, Nukadnatak, Air Quality Index dart board, put the waste in the right bin were conducted and which drawn the attraction to kids and many more. The prime goal was to aware the public about the sources of air pollution, its harmful impacts and the preventive measures one can take to reduce them. The theme of word scrambling game was to check the knowledge of students regarding air pollution and the very environment around,

where they have to pick out certain stones having alphabets imprinted on them, and they have to make five words out of them in given time. The game was full of attraction towards the residential school children and campus students.



*Media interacting about the awareness campaign "Mobilizing community for clean air quality in Chandigarh" during 48<sup>th</sup> Rose Festival Chandigarh, 2020*

As planned the selfie corner attracted the attention of thousands of people and they were asked to follow the twitter page called "Care4CleanAir" on which different awareness videos and photographs from the rose festival and other knowledgeable information on air pollution was posted. Different posters and brochures on air pollution theme including topics like ambient and indoor air pollution its impact on pregnant women's health, Pollution Under Control (PUC), Air Quality Index (AQI), impact of open burning of waste were displayed. These activities received valuable suggestions and feedback from the visitors. Put the waste in the right bin was aimed to provide the knowledge regarding waste segregation at the ground level. NUKAD NATAK performance by the students, based on the theme – PLANTATION OF

**MORE TREES** to save our environment from climate change and **STOP IDLING VEHICLES** to reduce air pollution.

### **Source segregation of waste**

A special stall was installed during 48th Rose Festival Chandigarh, 2020 to make aware the general public about the importance of source segregation of waste. The knowledge was communicated as fun based games in which the different balls named with different type of waste has to be put in right kind of waste bin. The participants learned and shared that previously they don't know which kind of waste needed to be put in which waste bin. They assured that they will start doing the source segregation of organic, inorganic and hazardous waste in their homes. This will also help in fulfilling the aim of Swachh Bharat Abhiyan (SBA), or Clean India Mission and also help in ranking Chandigarh city in top places.



*Dr. Suman mor demonstrating the public about the source segregation of waste during 48<sup>th</sup> Rose Festival Chandigarh, 2020*

## **Awareness on AQI**

A stall of awareness on Air Quality Index was placed in event and public was made aware about what is AQI, what is its importance and how they can check air quality of Chandigarh on Sameer App or at displays installed by Chandigarh Pollution Control Committee at different locations in Chandigarh such air bus stand railway station, Sector 17- Sukhna lake etc. The public was made aware that when AQI was in poor or very poor category they have to act accordingly and avoid going outside.



*Air quality models displayed during the 48th Rose Festival Chandigarh, 2020*

## **Nukadnatak for public awareness**

In this event again with the support from Chandigarh Pollution Control Committee, Chandigarh Nukadnatak were conducted for three days in the rose festival where the public were made aware about the importance of tree plantation, impact of air pollution on human health and climate change by playing and performing different short skits. It attracts lot of visitors in the festival and they also pledge to make the environment clean and healthy.



Public awareness about ill impacts of air pollution through Nukadnatak during 48th Rose Festival Chandigarh, 2020

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**Good example made by student of MSc Environment Studies.**

**Creating awareness on source segregation of waste and use of bins in PU campus.**



