How might we ensure that everyone living in areas with poor air quality is guaranteed their right to clean air?
**How might we ensure that everyone living in areas with poor air quality are guaranteed their right to clean air?**

**Background**

- If you are reading this from a city in a high-income country, there is approximately a 50 percent chance that you are breathing in air that exceeds World Health Organization guidelines for particulate matter pollution. If you are reading it from a city in a low or middle-income country, your chances are even worse; 97 percent of cities in these countries do not meet air quality guidelines. According to the UN Special Rapporteur on human rights and the environment, clean air should be considered a human right. However, over 90 percent of the world’s population is exposed to toxic levels of particulate matter (PM) on a daily basis.

- Air pollution is the world’s number one environmental health risk, with links to more than seven million deaths every year, of which 600,000 are children. According to the World Bank, air pollution is estimated to cost countries with the highest greenhouse gas emissions more than four percent of their GDP in health impacts.

- Air pollution is a global challenge. Pollution easily crosses city and national boundaries – even moving across oceans and hemispheres. In a world of far-flung supply chains, consumption choices in one place can drive production and pollution in others. The impacts of worsening air pollution are systemic, exacerbating climate change and affecting the water cycles, energy and food production.

- The sources of pollution can vary depending on context. Burning things - fossil fuels for cars, electricity, and industrial production, agricultural waste, or rubbish – is perhaps the most well-known contributor; but agriculture, land use choices, industrial processes, and other sources also contribute significantly.

- Although the Covid-19 pandemic initially precipitated a drop in air pollution around the world, these gains have reversed to pre-Covid levels in many areas as countries reopen from lockdown.

- However, we are beginning to see some positive action. Around the world there are initiatives that advocate and act for cleaner air. There are three broad, emergent types of approaches, these are:
  - Preventive: for example, farming equipment for better management of manure, traffic regulations, or bike-sharing schemes.
  - Reactive: algae walls in cities, or photocatalytic solutions for roads and pavements, sensors and filters embedded in street infrastructure, or affordable air purifying kits.
  - Futures generations oriented: ideas that harness circular design principles and citizen-driven initiatives and campaigns that influence policy such as the ‘Getting From PM2.5 to Zero’ campaign to establish the first citizen-driven Clean Air Act in Asia.

- Technology can also play an important role in combatting poor air quality. AI is being put to use to gather data that can help people choose where they decide to live, or where to go for a walk. It can also help businesses and governments to integrate effective environmental solutions at all levels of their operation.

**How to approach the brief**

- Be open-minded, creative and inquisitive. Your intervention could be a piece of speculative design, a product, a system, a policy proposal, a campaign, a service or any combination of these.

- Identify a specific area of focus within this brief and think about who the audience is. For example, we know that lack of access to clean air disproportionately affects vulnerable communities, such as those living in poverty. We also know the hardest hit countries are found mostly within Asia, and the rapidly growing cities of Africa. You should also think about how the local context could impact on your solution, eg how does your proposal respond and relate to cultural values and dynamics, local economies etc?

- Consider the system: air pollution is a complex challenge that requires collective action from citizens, governments and the private sector. Understand both the local and the global factors and actors that impact on your chosen area.
For the purposes of illustration only, viable responses could include:

- A design for a building, or street furniture, or transportation that can positively impact on air pollution.
- A community-based air quality monitoring service.
- An action-oriented education campaign to build grassroots policy change at the national level.

... and many more are possible.

**Partner Information:**

**Circular Design Lab**
The Circular Design Lab launched in Bangkok early 2019 as a self-organised, volunteer and citizen-driven project focused on prototyping and delivering solutions to humanity’s big challenges. Last year, teams used systemic design as a process to work on systems change to reduce air pollution, waste management and unsustainable fast fashion. Today, the Lab team is running a ‘Getting from 2.5PM to Zero’ roadshow designed to raise awareness and support the coalition effort to pass the first Clean Air Act of Thailand, and one of the first in Asia. You can find out more at www.circulardesignlab.org and right2cleanair.com.

**NCR Corporation**
NCR Corporation (NYSE: NCR) is a leading software and services led enterprise provider in the financial, retail and hospitality industries. NCR is headquartered in Atlanta, Ga., with 34,000 employees globally. Since 2002, NCR has provided regular support for the RSA Student Design Awards and, again, are providing a paid placement with the User Centred Design (UCD) team located in the R&D centre in Dundee, Scotland. This multidisciplinary UCD team provides industrial and interaction design, usability and accessibility leadership for all of NCR’s industry areas. The winning student will be working alongside the award-winning design team on a future orientated and commercially relevant project brief.

**Placement Awards Details**
12 based in Dundee, Scotland. Remuneration: £4,600 (£3,600 as wage and £1,000 living away from home allowance). See page 34 for further information.

**WRI Ross Center for Sustainable Cities**
WRI Ross Center for Sustainable Cities helps create accessible, equitable, healthy and resilient urban areas for people, businesses and the environment to thrive. Together with partners, it enables more connected, compact and coordinated cities. The Center expands the transport and urban development expertise of the EMBARQ network to catalyze innovative solutions in other sectors, including air quality, water, buildings, land use and energy. It combines the research excellence of WRI with 15 years of on-the-ground impact through a network of more than 300 experts working from Brazil, China, Ethiopia, India, Mexico, Turkey and the United States to make cities around the world better places to live. More information at www.wrirosscities.org.

**Judging Criteria**

Your entry should demonstrate a design thinking approach to the brief and clearly communicate the following principles:

**Social and environmental impact:** How does your proposal make a positive difference for people and/or the natural world in your chosen context? How is your approach empowering people? Have you considered effective use of resources including materials and processes? Have you considered diversity and inclusion in your proposal?

**Rigorous research and compelling insights:** How have you combined your own first-hand research with a review of existing research and wider trends? How can you show a clear path between your key insights and your proposal? How are your insights grounded in people’s needs and desires? How did you get feedback and incorporate new ideas through prototyping and iterating?

**Systems thinking:** What’s the bigger picture? How have you considered the root causes of the challenge you’re exploring? How does your idea connect to a wider set of issues? What might be some unintended consequences of your proposal?

**Viability:** Have you considered potential models for how your proposal could work in the real world? How could it be funded and sustained financially? What are potential barriers? How would you measure success?

**Creativity and innovation:** How is your idea different from existing interventions? Are there unexpected or surprising elements in your proposal?
Open Briefs
The competition will open for entries via sda.thersa.org, on 25 January 2021, and the final deadline for entries is 10 March 2021 at 4.00pm GMT.

Online Entry
If you are unable to submit online, please contact us by email at sdaenquiries@rsa.org.uk. As you prepare your submission, please ensure that:

• You do NOT include your name, university/college or other identifying marks anywhere on your submission.
• None of your submission files exceed 10MB – this is the maximum size for each individual file/board when you submit online.

Submission Requirements
For all briefs EXCEPT the Moving Pictures brief, the submission requirements are:

1 x A3 PDF hero image with a 1 sentence description – a singular ‘poster image’ that conveys the essence of your project and includes your project title plus a 1 sentence description. For example: ‘Bare technology: a product and service design proposal to convert old computers (e-waste) into simpler, more straightforward, accessible computers for older people’. Your hero image should aim to bring your concept to life – make sure it is vibrant and engaging. Your 1 sentence description is very important, make sure you take some time to craft an impactful message.

1 x A3 written summary – a single A3 PDF page that summarises your big idea using the following format:

• Problem (50 words max). What is the specific problem you identified within the brief topic? Who experiences this problem, and how does it impact them?
• Process (75 words max). How did you investigate this issue and what were your key insights? What journey did you go through to get to your final proposal?

• Proposal (50 words max). What is your proposed intervention? How will it address the problem?

4 x A3 PDF boards outlining your proposal – 4 pages describing your proposal and responding to the 5 sections of the judging criteria. Number each board in the top right-hand corner, in the order they should be viewed by the judges. You may include relevant hyperlinks in your boards however we cannot guarantee this will be viewed by the panel.

For details on the submission requirements for the Moving Pictures brief, please see the Moving Pictures entry requirements and guidelines. Please note that late submissions will not be accepted, and all entrants are encouraged to submit their work in good time before the deadline.
Competition Timeline

26/08/20

**Briefs Soft Launch**
The 2020-21 RSA Student Design Awards Competition briefs go live on [sda.thersa.org](http://sda.thersa.org)

6-15/10/20

**Online Launch Events**
Sign up to our newsletter to learn about our in-depth brief launch sessions held by our partners and the SDA Team

25/01/21

**Submissions Open**
Go to [sda.thersa.org](http://sda.thersa.org) to submit your proposal

10/02/21

**Early Bird Deadline**
Submit by 4pm GMT on 10 February 2021 for a reduced entry rate of £25

10/03/21

**Final Deadline**
Submit by 4pm GMT on 10 March 2021

March-May

**Judging**
Entries will be evaluated in a two-stage process: shortlisting and interviews

28/05/21

**Winners Announced**
Stay tuned for the big announcement!

29/06/21

**Awards Ceremony**
Join us to celebrate the 2020-21 RSA SDA Winners!