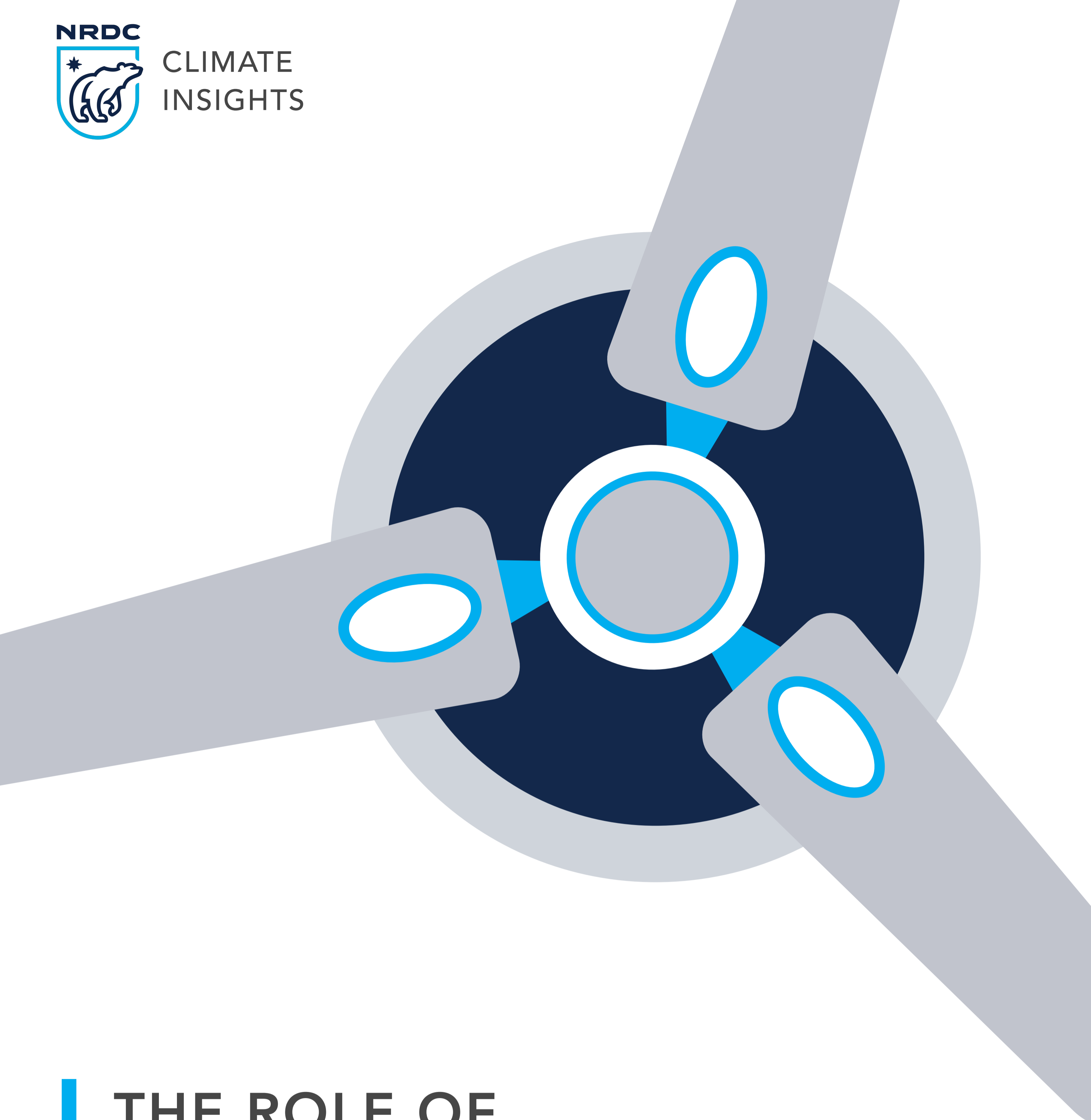




CLIMATE  
INSIGHTS

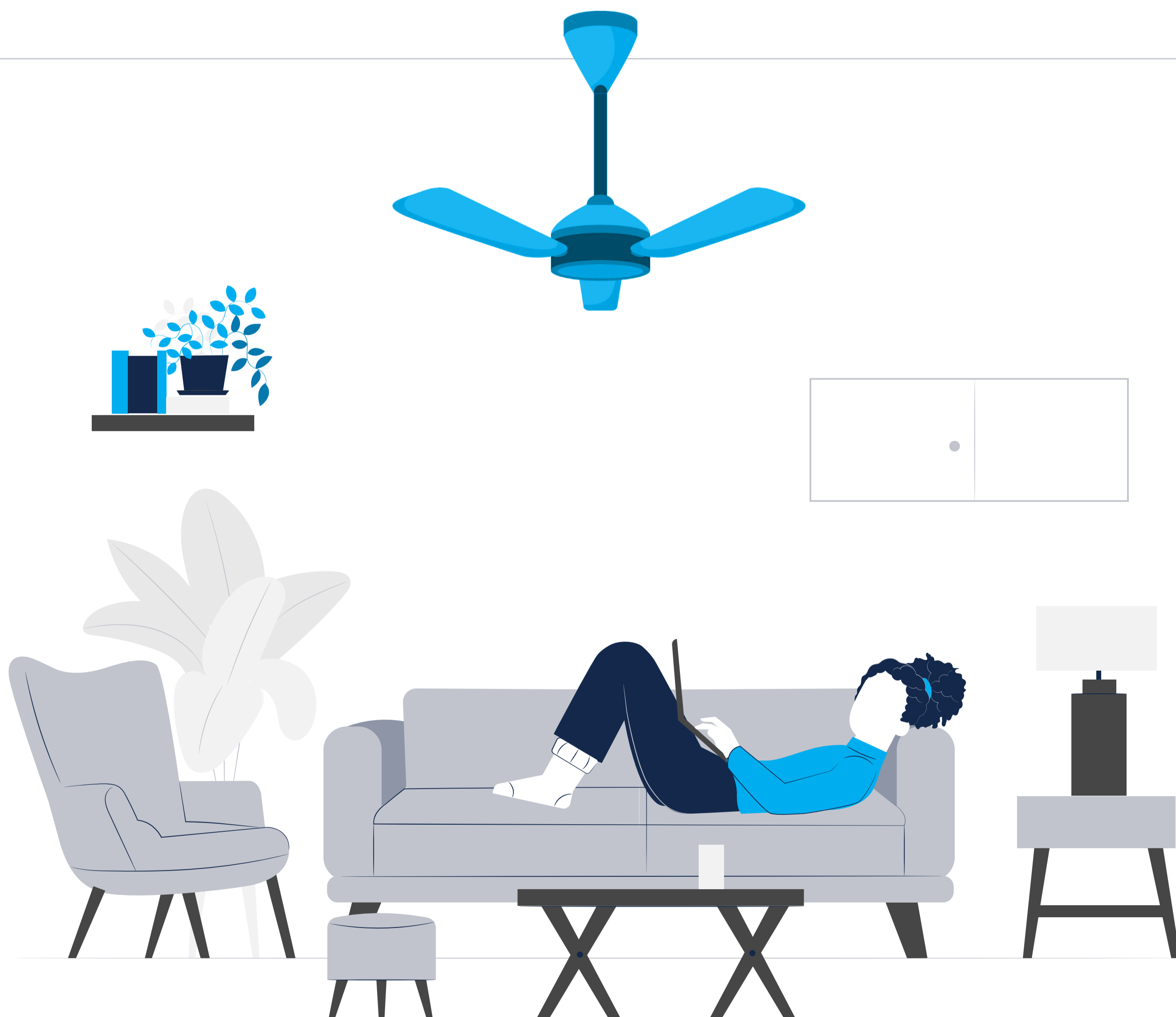


THE ROLE OF  
**CEILING FANS**  
IN ADVANCING  
CLIMATE ACTION



Almost **90% of Indian households use a ceiling fan**. As the world continues to heat up, ceiling fans remain a necessity for people who cannot afford the more expensive air conditioner.

Source: India Energy Outlook 2021. Page 27, Figure 1.7  
[https://iea.blob.core.windows.net/assets/1de6d91e-e23f-4e02-b1fb-51fdd6283b22/India\\_Energy\\_Outlook\\_2021.pdf](https://iea.blob.core.windows.net/assets/1de6d91e-e23f-4e02-b1fb-51fdd6283b22/India_Energy_Outlook_2021.pdf).



India's ceiling fan stock is expected to **more than double** from 450 million in 2017-18 to 950 million by 2037-38.

Source: Ministry of Environment, Forest & Climate Change, Government of India. 2019. "India Cooling Action Plan". New Delhi.  
<https://ozonecell.nic.in/wp-content/uploads/2019/03/INDIA-COOLING-ACTION-PLAN-e-circulation-version080319.pdf>

## PROJECTED GROWTH OF CEILING FANS

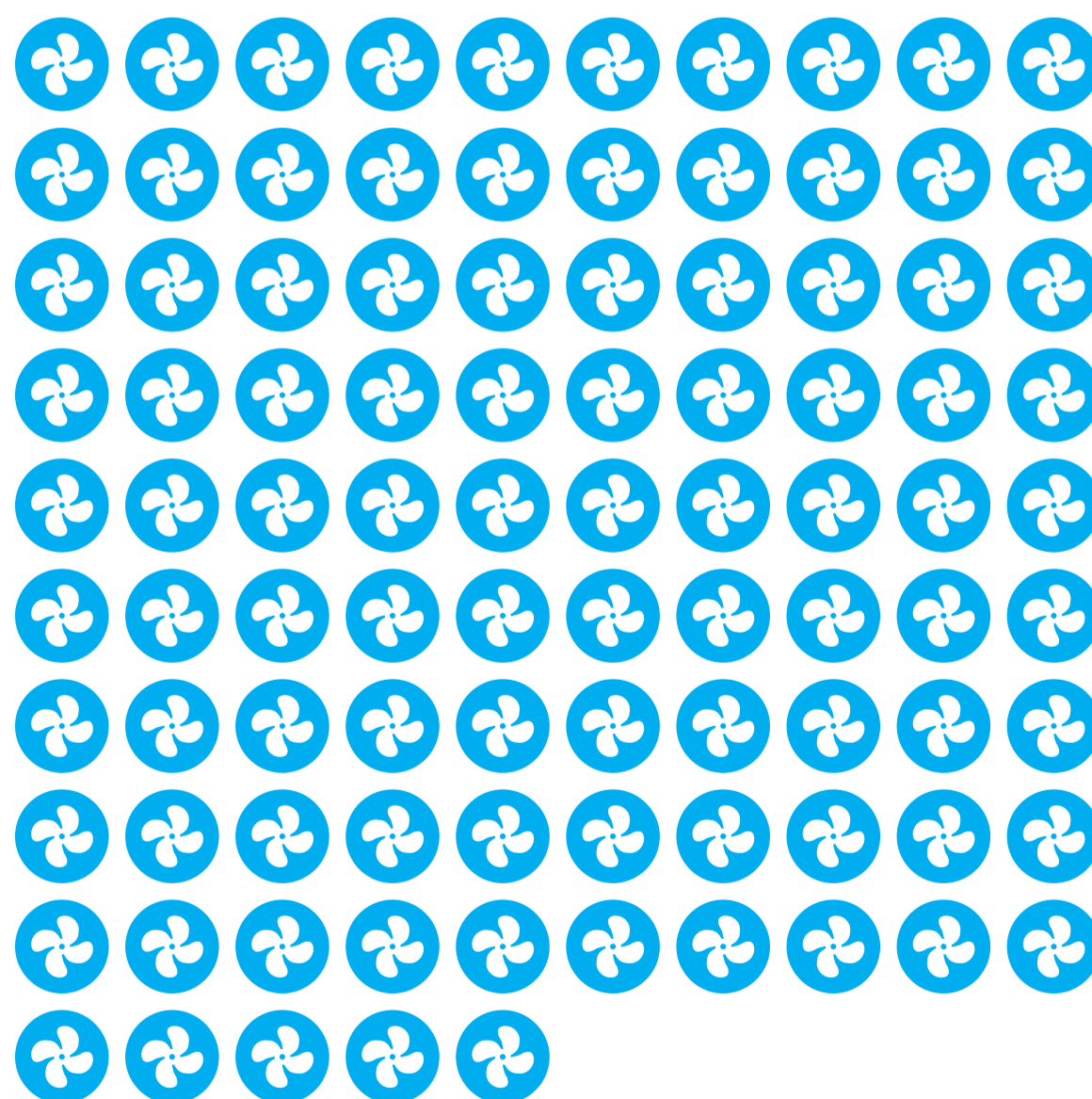
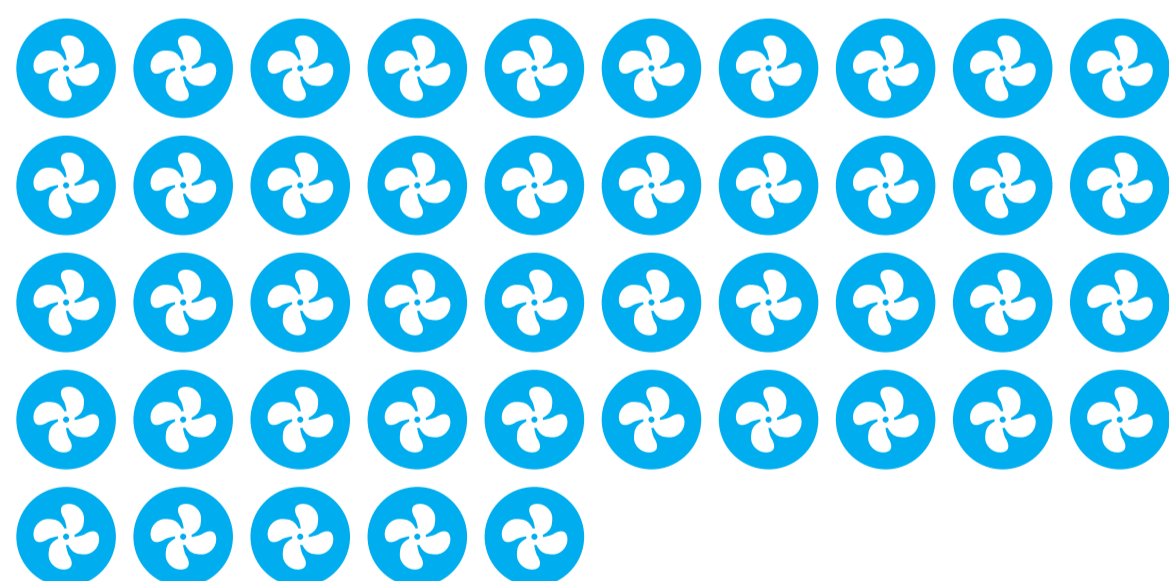
2017-18

**450 Million**



2037-38

**950 Million**



= 10 MILLION FANS

As **cooling demand continues to skyrocket**, mainstreaming super-efficient ceiling fans in the Indian market can lead to 20 terawatt-hours (TWh) of annual energy savings in 2037-38, which is equivalent to **INR 11,000 crores** of monetary savings...

Source: Ministry of Environment, Forest & Climate Change, Government of India. 2019. "India Cooling Action Plan". New Delhi. <https://ozonecell.nic.in/wp-content/uploads/2019/03/INDIA-COOLING-ACTION-PLAN-e-circulation-version080319.pdf>  
Source: India's Climate and Energy Dashboard. NITI Aayog. <https://iced.niti.gov.in/energy/electricity/distribution>



**20**

TERRAWATT-HOURS  
Energy savings per year

=



**11,000**

CRORE INR  
Monetary savings per year

**1 kWh = Rs 5.88**

(A super-efficient ceiling fan uses 30-35 W compared to regular 50-75 W fans)

National Green Hydrogen Mission Budget  
**19,744 CRORES INR**



...and almost equivalent to the **total electricity consumption** of countries like as Azerbaijan (23.8 TWh), Jordan (19.6 TWh), and Iceland (19.2 TWh).

Source 1: Electricity Consumption by Country 2024. World Population Review. <https://worldpopulationreview.com/country-rankings/electricity-consumption-by-country>  
 Source 2: Electricity Net Consumption. EIA. <https://www.eia.gov/international/data/world/electricity/electricity-consumption>



Mainstreaming super-efficient ceiling fans can also help India avoid **16 million metric tons of annual carbon dioxide** equivalent in 2037-38 (assuming a constant grid emission factor).

## HOW MUCH IS 16 MILLION METRIC TONS OF CARBON DIOXIDE EQUIVALENT?



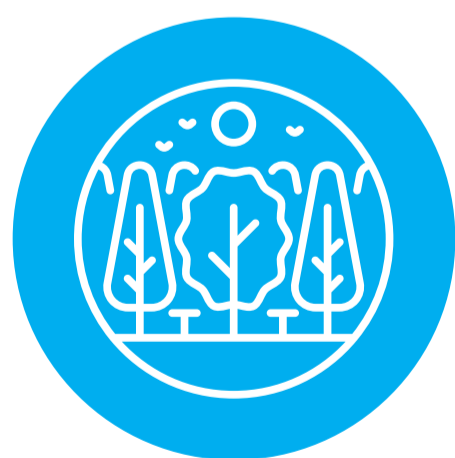
**10 Million**  
passenger cars

OFF THE ROAD FOR A YEAR



**20 Million**  
households

OFF THE GRID FOR A YEAR



**640 Million**  
Neem trees

SEQUESTERING CO<sub>2</sub> FOR A YEAR



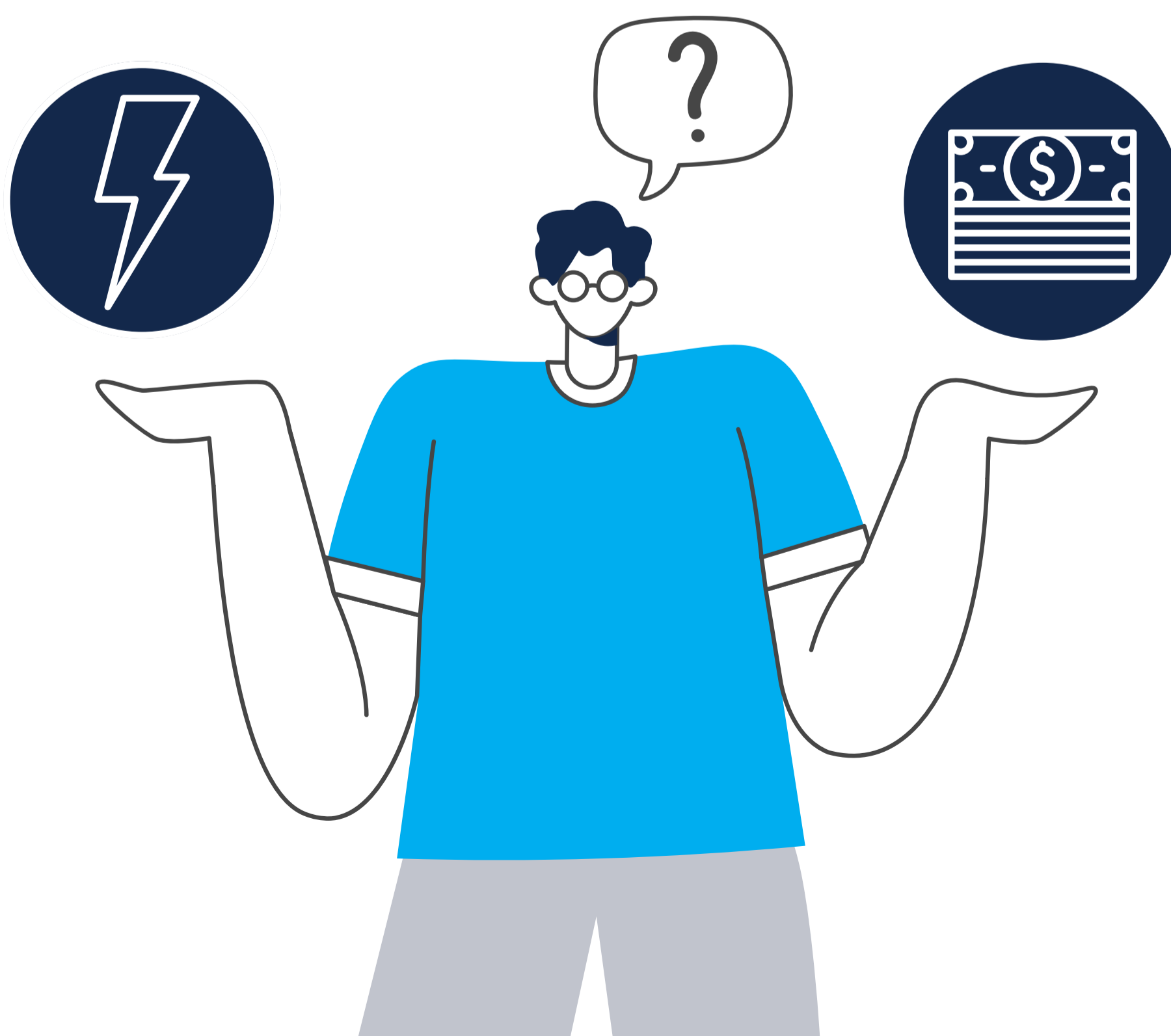
**04 Thermal**  
power plants

SHUT DOWN FOR A YEAR

The supply of super-efficient ceiling fans is steadily increasing, but ceiling fans remain expensive, and consumers lean towards more budget-friendly, less-efficient options.

The key to bringing down the price of super-efficient ceiling fans is to develop a robust end-to-end domestic manufacturing in India. Building a more resilient and localized supply chain would enable the most basic form of cooling to become **affordable and available to all.**

CHOICE IS BETWEEN PRICE AND ENERGY EFFICIENCY





Collaborative R&D efforts within the ceiling fan industry have the potential to further technology advancements and more energy-efficient products. Well-defined and industry-endorsed levels of target wattage will be crucial to spur such R&D efforts and drive innovation.



COLLABORATIVE R&D



TECHNOLOGY ADVANCEMENTS



ENERGY EFFICIENT  
PRODUCTS



More affordable super-efficient ceiling fans could lead the **next energy efficiency revolution** in India, similar to the **LED light bulb transformation**, and contribute significantly towards doubling the rate of energy efficiency by 2030.



As temperatures continue to rise and demand for cooling increases around the world, India is poised to lead on manufacturing **affordable, super-efficient ceiling fans** and take it to the rest of the Global South



50%



As of 2024, India contains half of the world's ceiling fans



Read more to understand where India stands on its climate commitments and the key issues for discussion at COP29.

