

How India is choking indoors

Indoor air pollution is as much a health hazard as outdoor pollution, and women bear the brunt of it

DEBASIS BARIK

The mistaken belief that pollution-related illnesses can be controlled mainly by controlling outdoor air pollution, has led us to ignore the serious challenges posed by indoor air pollution. People spend a large portion of their time in homes, where solid fuels are burnt in open stoves, leading to indoor concentration levels that probably account for a larger total exposure than outdoor sources in the region.

The World Health Organization estimates that 4 million people die each year from pneumonia and other diseases caused by household air pollution.

There is growing scientific evidence to support the numerous anecdotal accounts that relate high biomass smoke levels to important health effects. These are, principally, acute respiratory illnesses in children, COPD (chronic obstructive pulmonary disease), adverse pregnancy outcomes, and lung cancer in women.

Kalpana Balakrishnan, Professor of Biophysics, Sri Ramachandra University, Chennai, terms burning of biomass in households as the

single largest cause of air pollution deaths in India, followed by coal combustion and crop burning. Women, children, and the elderly are at the greatest risk from toxic emissions.

Kirk R Smith, an environmental scientist from the University of California at Berkeley, and also a member of the Intergovernmental Panel on Climate Change which received the 2007 Nobel Peace Prize, argues, "The impact of household air pollution is on a scale with any other major health risk in developing countries, including exposure to HIV, mosquitoes or dirty water."

The causes

Firewood is the main source of fuel, used for cooking and heating in large parts of the country. Additionally, people use cow dung, crop residue, and charcoal for heating and cooking. Although many hundreds of separate chemical agents have been identified in biofuel smoke, the four most emphasised pollutants are particulates, carbon monoxide, polycyclic organic matter, and formaldehyde.

Burning wood and other biomass fuels indoors increases the concentration of PM_{2.5} particles. According to the latest National Family



LPG use among the poor is still low

Health Survey (2019-21) report, 56 per cent of the rural households still use solid wood, and 11 per cent use grass, crop residue, or dung cake for cooking. While urban households have better access to cleaner fuels, their living conditions increase their vulnerability. Poor ventilation, cooking inside the living areas, asbestos roofing, and gaseous pollutants like formaldehyde, volatile organic compounds released from paints, etc., compound the challenge.

Recognising the public health hazards created by indoor air pollution, the government launched the Pradhan Mantri Ujjwala Yojana (PMUY) in 2016. The provision of free LPG connection to BPL households under the scheme boosted the access to clean fuel among

these households as evident from the NFHS data. Usage of clean cooking fuel among rural households has increased from 24 per cent during NFHS 4 to 43 per cent during NFHS 5.

However, biomass fuels still form the backbone of major cooking activities. LPG is used for small and quicker cooking like the preparation of tea, heating cooked food, etc. Income loss due to the coronavirus pandemic and gradual increase in LPG price have added more hurdles to refilling of cylinders for subsequent rounds. The refill consumption remained pretty low (3.08 cylinders in the 12 months preceding September 2019) among the beneficiary households compared to the national average of 6.25 cylinders (14.2 kg).

To encourage refills, the government recently announced a subsidy of ₹200 per cylinder to eligible households. However, considering the high price of the cylinders (more than ₹1,000 each), a majority of these poor households might find it difficult to obtain refills.

Traditionally, cooking is regarded as the duty of the female members of the household. Since men are primary earners, any investment in clean fuel or chimney/ventilation in

the kitchen becomes a low-priority affair. Research by Pallavi Choudhuri and Sonalde Desai finds that an increase in women's incomes is associated with greater use of clean fuels, in contrast, an increase in men's earnings is associated with consumable items like automobiles or vehicles, which increase pollution. They also argue that access to clean fuel increases the time available to women to participate in wage work and helps increase maternal time investments in child care and supervision of children's education.

As India takes over the presidency of the G-20, it would be an ideal opportunity to bring developing world sensibility to the climate commitments.

At present, much of the discourse on reducing carbon footprint emphasises vehicle emissions and fossil fuel use in the production of electricity, but much less attention is paid to the use of clean cooking fuel. Increasing the use of clean fuel will be a win-win situation for the environment as well as for women and families.

The writer is a Fellow at NCAER National Data Innovation Centre. Views are personal

Welspun CEO says Oil & Gas Cos Focusing on Capex Again

Investments slowed down as spotlight was on renewable energy

Kalpana.Pathak
@timesgroup.com

Mumbai: The oil and gas sector, which had seen capital expenditure taper off over the past three-four years as companies focussed on renewable energy, is attracting investments again, said the chief executive of Welspun Corp.

“Every exploration and production company in the world wanted to go green and move to renewables. But the harsh reality is that while renewables is definitely the way forward, they are not yet to replace fossil,” said Vipul Mathur, who is also its managing director. Companies and countries did not invest in pipelines and development of oil and gas assets, which are coming back into play, he added.

Welspun Corp is the second largest manufacturer of large-diameter pipes in the world and the flagship company of the \$3 billion Welspun Group. Its order book across India, Saudi Arabia, and the US was 925 KMTPA (thousand tonnes per annum), valued at ₹12,250 crore, at the end of fiscal 2022. The company is expanding the ambit of its businesses to make them more consumer-centric, said Mathur.

Welspun has placed a bid to acquire Sintex Prefab & Infra, as part of the Sintex Group’s ongoing bankruptcy resolution process in the National Company Law Tribunal.

Greener Pastures

- ▶ **Welspun has order book of 925 KMTPA valued at ₹12,250 cr**
- ▶ **Co focussing on consumer-centric businesses**
- ▶ **Has bid for Sintex Prefab & Infra Ltd and Sintex BAPL**

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Sintex Prefab makes prefabricated plastic structures for industrial and housing projects.

Also, this May, Welspun Corp took over half the debt of KKR-backed Sintex BAPL, paving the way for its acquisition.

Welspun is offering ₹1,127 crore to acquire Sintex, a manufacturer of plastic components for the automotive industry.

“It’s a very significant brand. It has a strong brand and a pan-India presence. The market seems to be growing,” Mathur said, adding that it would also help the company enter the B2C segment, “which has been one of our objectives”.

To strengthen its steel business, last year Welspun Corp acquired Welspun Steel, which is engaged in the manufacturing of BIS-certified

steel billets and direct reduced iron, specialty steel and thermo-mechanical treatment bars.

The company is bullish on the government’s Har Ghar Nal Se Jal scheme for its pipes, both small and large diameter, business. In the budget for this fiscal year, the government has allocated ₹60,000 crore to cover 38 million households under the piped-water connection programme.

Last month, Welspun partnered with Tata Steel to develop the framework for, and subsequently manufacture, pipes for the transportation of pure hydrogen and natural gas-blended hydrogen.

“Hydrogen is the future. But today transporting hydrogen is a big challenge. It’s a lighter but volatile molecule,” said Mathur.



SIAM seeks reduction in prices of CNG



SOCIETY OF INDIAN Automobile Manufacturers (SIAM) has sought a reduction in CNG prices in order to achieve sustainable mobility goals. It said on Friday the right kind of interventions and support would help achieve sustainable mobility and SDG 2030 goals.