

CLEAN FACTS.

On UN Convention on Biological Biodiversity



Goals for 2050 adopted at the Montreal Convention



The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems.

Human induced extinction of threatened species is halted, and genetic diversity of wild and domesticated species is maintained.

The monetary and non-monetary benefits from genetic resources, digital sequence information and traditional knowledge are shared equitably with indigenous people and local communities.



Equal access of financial resources, capacity-building, technical and scientific cooperation to all countries for implementing the global biodiversity framework.

THEY SAID IT.

“Our economy has to operate within nature. Nature is not a line item on societies’ balance sheet”.



RACHEL KYTE Dean of Fletcher School of Law and Diplomacy, former World Bank Vice President and Special Envoy for Climate Change

# How to build a circular economy in 2023

TURNING RAGS INTO RICHES. Industry experts suggest ways to maximise recycling in the country

Preeti Mehra

Lip service to recycling comes from every corner of the industry spectrum — be it plastic, electronic, manufacturing or packaging.

But the situation on the ground in India tells you another story. The country generates 62 million tonnes (mt) of waste each year, of which around 43 mt is collected and only 12 mt is treated. A shocking 31 mt is dumped in landfills, telling us the harsh truth.

Though the Government has formulated policies to “transition from a linear to a circular economy” and notified rules in waste management of plastics, e-waste, metals, construction and demolition, we are simply not moving fast enough in deploying our waste in a manner that it can become a resource. So, what can be done in the coming year to expedite the process and save our landfills from ma-



HANGING FIRE. Despite policies in place to ‘transition from a linear to a circular economy’, we are not moving fast enough to deploy waste in a manner that it can become a resource. GETTY IMAGES/STOCKPHOTO

terials that could create both cash and jobs.

businessline asked a few industry experts in different streams of waste management to recommend the best way forward. Here’s what they say:

**‘IMPROVE SUPPLY CHAIN’**  
Ajay Mishra, Founder of Biocruix India, one of the earliest movers who developed the reverse

vending machine to recycle used plastic bottles at source, talks about two aspects of recycling waste—convenience and economy. He says we need to see waste as raw material that feeds a recycling plant, and to enhance recycling, segregated waste needs to be sent to a plant. Hence, source segregation is of utmost importance. “Recently, India lifted the import ban on

recycled raw material due to shortages. This is a huge set back. With mountains of waste at our disposal, we are allowing import of processed wastes,” he rues.

Mishra points out that economy of scale and viability is a key challenge in recycling. To bring the cost of recycled material closer to virgin material the supply chain must be im-

proved, as this contributes to about 80 per cent of the total cost.

One of the largest battery and e-waste recyclers, Attero Recycling bets on science and technology to take recycling forward. Having developed 34 global patents, co-founder and CEO Nitin Gupta emphasises the need for incentivising innovations. He feels two things will make the difference—the draft policy for a circular economy in electronics and electrical sector becoming a law, and 2022 e-waste policy to be operational by April 2023, in which the EPR regulations were expanded to 300 products.

**REFURBISHING**  
Ravi Neeladri, CEO, Cerebra Green also dwells on upcoming e-waste rules. He is specifically happy about how they will impact refurbishing of products. “Regeneration rather than just recycling helps create a more sustainable environment. By refurbishing, the life of a device can be extended, thus eliminat-

ing the need to mine metals and other resources for manufacturing new devices,” he says.

Moreover, the new rules require every refurbished electronic device to meet standards set by Bureau of Indian Standards.

Targets and stringent laws are urgently needed for industrial waste recycling as well. Ananya Agarwal, Co-founder, Runaya Refining feels that government and decision-makers must ensure that industries understand recycling and its resulting benefits. He says technology intervention in turning waste into wealth has been the game changer.

**MECHANISATION IS KEY**  
For Jeevaraj Pillai, Joint President of UFlex Ltd, mechanisation is the key, including AI-enabled sorting of waste. That is what will give scale and maximise recycling. But for this a policy to encourage investments has to be put in place – a thought echoed by all others.

## This battery technology may have an upper hand

The Lithium Iron Phosphate battery could accelerate EV adoption in the low and mid-priced e-vehicle segment

V Rishi Kumar

As the India automotive sector braces itself for the steadily evolving electric vehicle (EV) market, new and cost-effective battery chemistry technologies are set to make a difference to the industry adoption.

Lithium Iron Phosphate (LFP) is one such battery tech reshaping the battery segment as it is a safer, cheaper and is an environment-friendly alternative to nickel, manganese and cobalt (NMC) batteries. Experts are of the view that the new technology has the potential to accelerate EV adoption in the low to mid-

priced e-vehicle segment, more so in two-wheelers.

**SUPERIOR TECHNOLOGY**  
“LFP chemistry is definitely the safer bet when it comes to EV batteries today. It will eradicate the risk of EV fires due to their thermal stability. Their higher energy density will guarantee longer run time. Their raw materials are available abundantly and will not be affected much by supply chain issues,” said Samrath Kochar, Founder and CEO, Trontek Electronics.

This not only reduces the manufacturing cost, he added, but also has an impact on the battery pack prices,

thus reducing the cost of purchase of E2Ws. The LFP batteries have better thermal and structural stability and the ability to withstand extreme climatic conditions along with offering longer life and longer range. Apart from faster charging and discharging, these batteries suffer less degradation even at higher temperature.

They are less prone to thermal runaway, with efficient heat dissipation ensuring that the battery pack in the EV stays cool by evenly distributing heat and optimum thermal exchange with the environment.

Manufactured with lithium iron phosphate as the cathode material and graphite carbon electrode with



**SAFER BET.** LFP batteries will eradicate the risk of EV fires due to their thermal stability

metallic backing as anode material, LFP works efficiently like other lithium family batteries. Significantly, phosphate used in the battery is non-toxic as against cobalt oxide or man-

ganese oxide used in some others.

The cathode of the LFP battery has lithium carbonate and iron phosphates, which are cheaper alternatives to lithium hydroxide in NMC batteries. The ready availability of battery materials and immune to surge pricing also gives LFP an upper hand.

As an E2W and E3W battery manufacturer, Trontek has launched its range of LFP batteries.

“We are burning the midnight oil in incorporating all design changes and running extensive tests and screenings to clear the second round of the AIS-156 battery safety mandates,” states Kochar.

## Healthcare solutions in small packages

BY INVITATION

YOGESH AGARWAL

The impact of Covid-19 in India, and across the world, has caused many to suffer – be it loss of health, wealth or life itself. And yet, we cannot stop planning with hope for the coming year, with attention on challenges in healthcare that remain unsolved.

Even today, 330 million employees in India are uncovered with employee benefits. And in today’s context, it is imperative for every employee to have the right health benefits for themselves and their families.

Inspired by the concept of “sachetisation”, many businesses have adopted this mechanism to offer compact products and services to their target audience. This helps in impacting more lives in a shorter span of time. Sachetisation of healthcare, for example, has far-fetched benefits when it comes to easy consumption and accessibility for the masses.

**UNDERSERVED**  
As of today, 55 per cent of new employment in India is generated through gig workers working in companies – across both blue-collar and white-collar sectors.

Many members of the MSME (micro, small and medium enterprises) workforce do not have formal employment opportunities. These on-contract or off-payroll employees, gig-workers etc, work as hard or sometimes more than their full-time co-workers. This is a huge segment which is underserved and will keep growing.

Womenpreneurs who are now taking up opportunities to suit their schedule, have created a pool of demand



**SACHETISATION.** Small mediclaim packs allow masses to access healthcare

with other startups to access platforms with capabilities that extend healthcare to their underserved employees.

**EMPLOYER AWARENESS**  
A big challenge here is employer awareness. Many are not aware of the offerings by new-age healthcare companies, offering health coverage to this ‘undeserved’ segment. A start-up with as few as three members can also be eligible to provide its team with health benefits along with complete group health insurance. This covers employees, gig-workers, their siblings, parents, spouse’s parents and live-in partners.

In 2023, the Indian Insurtech (where technology is used to deliver insurance benefits) sector is expected to see continued growth and innovation. With increasing demand for the need of better healthcare coverage, the cost of these wellness benefits has reduced by nearly 50 percent, which is highly in favour of MSMEs.

The New Year is one of fresh hope for healthcare in India and businesses must strive to realise their vision, while also taking care of employee well-being through tailor-made solutions from healthcare start-ups.

The writer is the Founder and CEO of Onsurety, a health-tech company providing healthcare solutions to MSMEs. Views are personal.

## Nurses need a seat at the table, their voices must be heard

LEFT BEHIND With more stress for less recognition and pay, many are choosing to leave the field

PT Jyothi Datta

Claps don’t pay the bills,” reads a placard at a nurses strike in the United Kingdom. The unprecedented strike at UK’s healthcare backbone, the NHS is for better pay, a call that resonates with the global nursing fraternity.

Three years into the Covid-19 pandemic, the nursing fraternity is in need of much attention, in terms of better pay, working conditions or just sheer respect. And it’s an ask that health administrators will ignore at their peril, as the world stares at a global shortage of 5.9 million nurses, according to World Health Organization’s State of World’s Nursing report (2020).

**AN IGNORED LOT**  
A recent poignant observation by WHO’s executive director (Health Emergencies Programme) Dr Mike Ryan explains it, in a sense. “As the economic crisis hit, they (healthcare workers) were left behind and they are now looking at the stark future of less pay for more work. More stress for less recognition and many are choosing to leave the field.”

Closer home, nurse unions are fighting to be heard in policy changes that would frame their working conditions. Nurses recall how they worked through the peak of Covid-19, often having to rely on the hospitality of others, in the absence of basic amenities like changing rooms and places to stay, during the relentless onslaught of the SARS-CoV-2 virus and its multiple waves.



**BITING THE BULLET.** Nurses service sick and dying patients and it puts them under tremendous emotional stress, says a medical expert. GETTY IMAGES

As hospitals emerge from the workload of the pandemic, a key challenge they face is the shortage of nurses. And industry insiders say, countries are relaxing their rules to make it easier for nursing staff from India to join them.

**TO BETTER PASTURES**  
Gautam Khanna, Chair, FICCI health services committee, and Chief Executive at Mumbai’s PD Hinduja Hospital, agrees that availability of nurses is an issue. The attrition of nurses, that was about 20 percent annually is now about 30 percent at the hospital, and about 40 percent at an industry-level, he says.

Nursing colleges are seeing empty seats and trained nurses are moving abroad, as they see a better career pathway, he observes. Nursing as a profession needs to be made alluring, he adds.

President of United Nurses Association (UNA) Maharashtra state, Jibin TC, says that nurses are available, but hospitals were unwilling to pay market prices. Nurses get about ₹20,000 a month in private institutions he says, adding that Government packages are better, but come with tremendous workload. Comparatively, a nursing job overseas pays about ₹2.5 lakh a month, he says.

The profession needs more respect, he says, point-

ing to even nursing departments being headed by doctors. Nurses and doctors are independent professionals, working with each other, he says, adding that their job profiles need to be well defined.

**CORE OF PATIENT CARE**  
Having seen the healthcare landscape evolve over the last 30 years in India and abroad is Dr Santy Sajjan, who has risen from being a bedside nurse to be part of top hospital management at multiple hospitals. She is Group Chief Operating Officer with Paras Healthcare.

“Nursing is a core and integral part of patient care,” says Dr Santy. Empowering a

nurse is not only good for patient care and satisfaction, but also for the organisation, she says, adding, that they are unfortunately the weakest link today. Overseas, nurses are respected members of the core team, she says, adding, “There, it is what value you add to patient care.”

**‘THEY NEED RESPECT’**  
It’s not just about the money, says Dr Santy, who calls for greater respect and responsibility to be given to nurses. “They need a seat at the table and their voices need to be heard,” she says.

Dr Santy uses the battlefield analogy to explain how nurses are like the soldiers who bite the bullet. They are with sick and dying patients, and it puts them under tremendous emotional stress, she says. The world faces a huge challenge, as the requirement for and of nurses increases, with a growing ageing population, and with the profession going high-tech. The shortage will continue, unless the profession is not seen as one that will help the individual grow, she says.

Nurses should be encouraged to improve their skills, study further and in the hospital. They need to be given more responsibilities in handling patients, possibly with a small team of trained and certified practical nurses, who operate under clear protocols, she explains. Education needs to be rigorous, but with bedside orientation, says Dr Santy, herself a Phd. Clearly, a role-model for nurses wanting to up their game. But also an indication that hospitals can be part of change, to build the nursing profession.

## pulse • bl

MY FIVE.



Amit Relan  
Co-Producer, Woot Factor – Brand Architects

Inspirational podcasts & high happiness quotient

- 1 Play a sport:** A huge sports fan, I play cricket and golf – it keeps me motivated and healthy
- 2 Running is key:** I love to run in the morning, it gives me time to myself. An early riser, I run 3 to 4 km every day; I hope to be a marathoner.
- 3 No to sugar:** I quit sugar, years ago; I stay away from sweets and have adapted this into my routine.
- 4 Podcasts:** We struggle with mental health in today’s fast-paced world. I listen to podcasts and audiobooks that offer life lessons and inspire.
- 5 Keeping friends and family close:** I take breaks and schedule get-togethers with friends and family to keep my happiness quotient high

## COMING UP.

Year 2023

International health administrators are hopeful, the New Year sees the end of public health challenges, Covid-19, mpox (monkeypox) and Ebola. Though, childhood immunisation, needs ramping up. As the World Health Organization marks its 75<sup>th</sup> birthday, it will face newer challenges, like the impact of climate change on health, among others.