

STARTUPS HELPING INDIA GO GREEN

INDIA'S GREEN ECONOMY - AN INTRODUCTION

In recent years, India's new age start-up companies have increased their focus on environmental awareness and are going beyond advocacy for plastic-free or paper-free workplaces. The latest agenda is to drive initiatives centred on responsibility towards sustainability. Nearly all companies have begun adopting greener practices to reduce their carbon footprint- it refers to the amount of greenhouse gases produced by a single entity and is measured as tonnes of CO₂ emitted per year. The following are some examples of companies attempting to change their carbon equation.

WASTE MANAGEMENT - A PROBLEM IN INDIA



According to experts, millennials in India are largely responsible for this shift towards eco-friendly practices. India’s demographic profile heavily leans in the favour of the youth who are driving awareness and change. “The youth of today is extremely conscious of prevalent issues that plague the environment, most particularly waste management. This interest has been driven partly by what they see around them, but also in large part by companies mandating work hours to be spent on community projects—employees now want to get involved at the ground level,” said Manvel Alur, the CEO of ENSYDE during an interview with Economic Times. ENSYDE provides design solutions on energy, water and waste management.

In India, >75% of the waste generated is recyclable, but ~30% is recycled. Waste management is becoming a critical concern in the country and simply cannot be ignored any longer. Recent estimates state that at the current rate of recycling, India will need several landfills as large as the city of Bengaluru by 2030 to dump all the generated waste. According to the Central Pollution Control Board, <15% of the municipal solid waste generated is processed or treated. In India, efficient waste management is plagued by various issues ranging from lack of proper guidelines, planning on the part of authorities, poor waste collection, and treatment system to poor awareness among citizens about waste segregation. Though there have been numerous attempts from both urban local bodies and private stakeholders to increase awareness about waste segregation among people, the impact has been minimal simply because efforts were limited to only a few regions.

START-UPS ADDRESSING THIS CONCERN

To solve India’s waste miseries, several start-ups are getting involved and making a difference. The following are some companies offering innovative, efficient solutions for waste management and repurposing waste for goods with commercial value.

EcoBuddy manufactures environment-friendly products and is driven by the idea of encouraging people to reduce the use of non-biodegradable products in daily life. The company offers alternate options for daily consumables such as bamboo toothbrushes, cotton grocery bags and organic detergents for dishes and laundry. Founder of EcoBuddy is a Pune-based engineer Suraj Said shared with The



Better India that he launched this initiative because “There were quite a few recycling units in the city, and yet there was so much waste. I wondered if it had something to do with people’s lack of knowledge about waste and waste segregation.” Initially, the organisation was involved in awareness campaigns but as its outreach hit critical masses, it began manufacturing zero-waste products for everyday needs.

Beco is another example of a consumer goods start-up, which manufactures sustainable alternatives to single-use paper and plastic products. The company produces household items such as facial tissues, toilet paper rolls and kitchen rolls made from bamboo pulp and corn starch. These products are 100% biodegradable and do not deplete natural resources such as trees and water.



Bare Necessities takes a cradle-to-cradle approach for each product by using all natural, locally sourced ingredients that have no harmful impacts on health or the environment. It is a zero-waste company, hoping to change the narrative of waste in India. The company offers a large variety of zero-waste lifestyle products ranging from home care, personal care, dental care, hair care to stationary, mobile phone cases and bags.



Sutrakaar Creations is a project initiated by Neerja Palisetty and offers solution to recycle paper waste anchored by the idea of zero-waste. The start-up has invented an eco-friendly process to recycle paper into textiles and is providing a source of livelihood for many unemployed women. It uses discarded newspapers and all kinds of paper waste to weave yarn from paper. The goal is to promote sustainable livelihoods in tandem with environmental conservation.



Bluecat Paper, founded by Kavya Madappa, produces paper using secondary agro and industrial waste such as cotton rags, flax, lemon grass, mulberry, rice stubble, coffee husk, banana stumps, coconut husk and elephant faeces. To make tree-free paper, the company collects ~20 tonnes of secondary wastes from ~100 farmers and five factories every month and produces savings of 30 tonnes of wood per month. In comparison with the traditional approach, this innovative method of manufacturing paper saves upwards of 55,000 litres of waters a day.



Founded by Shagun Singh, **Geeli Mitti Foundation** builds cool, durable homes using mud, bamboo, cow dung and lime in villages. The organisation vouches for sustainability by creating spaces and structure that abide by the most natural form of living. The project aims to provide alternative housing in villages, along with creating awareness on reusing waste materials for productive uses. A former marketing executive turned environmentalist, Singh uses scientific knowledge in her architectural design. In conversation with She The People, she highlights that, “the earth bag technique is extremely important. It is highly beneficial for earthquake-prone areas. Many people do not know that during the Nepal earthquake, in one area, only one building kept standing while the others



collapsed. It was because of the earth-bag technique that it was built with.”

Hasit Ganatra, an engineer, founded ReMaterials in 2013 to provide alternate roofing solutions to villages. The start-up repurposes plastic and agricultural waste to produce roofing tiles using innovative technology. The company’s goal is to provide better roofing solutions than the traditional and metal cement sheets currently available in the market.

Photoprint is a Pune-based enterprise that upcycles plastic waste into filaments for 3D printing using proprietary technology. The company aims to reduce the plastic waste that remains uncollected and littered in the country. According to statistics published by the government, >15,000 tonnes of plastic waste is generated daily; of this, ~6,000 tonnes ends up in dump sites or littered. It partners with waste pickers to gather raw material for manufacturing. This plastic raw material is converted into flakes, then melted and extruded to produce HDPE filaments for 3D printing.

GPS Renewables is a waste-to-energy company that has pioneered clean and low-cost technology for biowaste management. It produces biogas and high-methane-containing bio CNG (compressed natural gas) in the process. These fuels can be used for power generation and cooking purposes. This start-up was founded in 2012 by IIM-B alumni, Sreekrishna Sankar and Mainak Chakraborty. The company’s biogas units are compact, prefabricated systems requiring minimal space and installation efforts. The company is tapping urban establishments to install the biogas units and uses its patented remote monitoring technology to maintain and manage odour and operational efficiency by using IoT technology to ensure minimum downtime for clients. The total waste handling capacity of these units is 30-50 tonnes a day for 40 units, preventing thousands of tonnes greenhouse gas emissions.



Chakr Innovation is a creative venture that converts pollutants to ink by setting up ‘soot catcher’ devices. These devices have been specially developed to convert soot spewed by diesel generators and engines into ink. The company’s main goal is to help businesses can meet their regulatory compliance standards on pollution and improve air quality in their region. At client site, it places the device close to the exhaust of the diesel generator to capture all particulate matter. This matter is then converted into ink, which has commercial value and is supplied to local ink manufacturers. This method/technique reduces the company’s carbon footprint and ensures compliance on industrial emissions.

Apro Green Tech, founded by Abhijeet Sirkar in Mumbai, provides assistance to businesses and government bodies on corporate social responsibility and green technology initiatives. The company also helps them in planning rural/urban development projects and integrating green technology in infrastructure. It has been credited for developing innovative uses to recycle plastic waste. One of its main accomplishments is the ‘SUSLOO’ model, which is a sustainable sanitation solution for public spaces. It constructs specialised toilets by applying Apro’s



patented ‘Bottle Brick Innovation’ technology using plastic and glass bottles, recycled milk and juice cartons to avoid the use of natural wood. Other sustainable sanitation innovations include bio-toilets, dual-flush systems, eco-blocks, sensors for water tap in basins to reduce water consumption and diverting basin-used water for toilet flushes. The start-up has another patent ‘Hemptech’ under its belt. Hemptech is a technology to produce Hempcrete, which is a biocomposite made of the inner woody core of the hemp plant. This gives a lightweight cement-like insulating material, weighing about a seventh or eighth of the weight of a concrete. Hempcrete provide a more sustainable alternative to construction material cement concrete, which is a known source of heavy greenhouse gas emissions.

This For That is a peer-to-peer, mobile-app based, fashion swapping platform for women. This start-up was among the first of its kind to champion the cause of reducing fashion waste with wallets. Their message appealed to consumers across the spectrum of cost savings, free shopping using barter system and being environmentally friendly.



Their business model functions on the consumer need to regularly refresh their closet without financial outlays. The app enables buyers to post items from their closet for a credit value and exchange it for a different item of similar credit value with another member in the swap community. The aggregator platform ensures all quality control mechanisms are functioning well to ensure smooth transactions and high customer service. Textile waste makes up >10% of waste in landfills, This For That wants to tackle this problem by providing an alternative to fashion pieces. Through their efforts, they hope that each item of clothing can have a longer shelf life.

Proklean Technologies is helping industries reduce the harmful effects of industrial effluents on water bodies. These effluents are responsible for the bulk of water pollution and extinction of marine life. Proklean has developed a unique, high performance and probiotics-based solution that replaces soaping agents and chemical surfactants used by manufacturing plants across industries. This solution is natural, non-toxic and fully biodegradable. The company caters to the largest waste producing sectors such as textiles, leather and hospitality. Co-founder and CEO, S. Sivaram Pillai, explained his innovative technology to Business Today, "for the first-time, a unique combination of naturally occurring probiotic microbes (good bacteria, in layman's terms) and certain other natural ingredients are being used to develop these products. We use a proprietary fermentation and formulation process. Besides pollution control, there are other advantages also, such as 20% water saving."



Swajal, a technology start-up, has flourished in keeping with the country’s sustainability agenda. The company employs IoT technology to provide clean drinking water vending systems powered by solar energy. Co-founder Advait Kumar, in an interview with YourStory, said, “these machines are 80% cheaper than reverse osmosis systems or water coolers.” Most companies nowadays rely on solar energy, partly or



wholly, to power their offices and related infrastructure. Kumar believes his products are a natural extension of the ongoing transformation in solar energy applications.

Boss Lady is a natural, vegan, cruelty-free make-up brand founded by Kajol Mahendra Bafna in 2019. Most make-up brands resort to cruel product testing on animals. This brand was found in Mumbai with a desire to have humane and responsible make-up products in the market. The company's products are made using ingredients such as jojoba oil, sunflower wax, almond oil and calendula wax. Since the company began its operations, Boss Lady has launched ~15 products that comprise different shades of lipsticks, eyeliners and highlighters that provide cruelty-free make-up alternatives to women.



Ecoplore is a green marketing firm, which aims to encourage people to explore nature in an eco-friendly manner and promote healthier lifestyles. The start-up was nominated among the top start-ups for 'Smart Fifty' by IIM Calcutta Innovation Park for its unique take on the tourism and hospitality sector. The founder and CEO, Prerna Prasad's



description of her venture with She The People is "Ecoplore is an endeavour to protect the environment. Through our venture, we promote hotels that are at least 30% green inside their boundary and are made of non-concrete material. The idea is to protect whatever serene environment we are left with."

Antara Chatterjee founded Little Local to change the way Indians take vacations. She introduced the concept of volunteering while taking a break. In an interview with She The People, Chatterjee shared that, "I became obsessed with the idea of merging travel, community impact and unique experiences." Little Local's community impact and volunteering activities largely centre on environmental conservation, with slight variations in activities across communities based on their needs.

Dinesh Parikh, Sachin Sharma and Aditya Parikh founded Delhi-based GEM Enviro Management in 2013. GEM collects pre- and post-consumer packaging waste from factories, offices, hotels, motels and institutes. The waste is then recycled into products such as T-shirts, caps and bags, which are then sold under its brand 'Being Responsible'. The company also organises various programmes to raise awareness about environmental sustainability and the importance of recycling in corporates, universities and institutes.

ZunRoof is a home-tech start-up introducing smart and clean energy choices to homeowners. The company helps generate electricity through solar energy by using unutilised rooftops. Founded in 2016 by Pranesh Chaudhary and Sushant Sachan, the Gurugram-based start-up is aiming



to become the largest solar rooftop provider in India. It claims to have assessed over 150,000 homes, made designs for 17,000 homes and has installed solar rooftops in over 5000 homes. In conversation with YourStory, Pranesh talks about how environmentally conscious their office is, “We ensure our employees always follow the best environment practices. As a result, the last person leaving the room switches off any electronic appliance that is



not in use in the office. There is absolutely zero food wastage and employees water the potted plants on their desk daily.” Apart from this, ZunRoof does not use any paper in the office for printing, and ensures it takes full advantage of the fact that it is a tech start-up and opts for communication via technology. “Technology is a key differentiator for home-tech start-ups such as ours. Going paperless is not something we have enforced, but was rather inevitable as it supports easy collaboration within and across teams, ensures confidentiality, maintains a historical record and keeps our employees connected irrespective of where they are working from,” said Pranesh. Speaking about their other eco-friendly initiatives, he shared, “Our office is well lit with natural lighting and we do not use any artificial lights till 7:00 pm, and only energy efficient LED lights are installed in the office. We have a strict no-plastic policy within the company, as a result of which all employees have been provided with metal water bottles and only reusable mugs and plates are used. All customer-facing processes are also digitised and executed through our mobile app”.

Gurugram-based **The Man Company** is a male grooming start-up that was launched in 2015 by Bhisham Bhateja. According to the company, besides giving customer products that are beneficial to their aesthetic improvement, it is meticulous about ingredients used in products. The company’s entire product range is free from harmful chemicals and infused with essential oils. Bhisham told YourStory, “We use 100% natural essential oils that are extracted from herbs, flowers, seeds and fruits. The manufacturing of sodium lauryl sulphate (SLS) has a drastic effect on the environment and using products containing sulphates pollutes groundwater and results in bio-accumulation. All our products are free of this harmful chemical and parabens. We are also strictly against animal testing and our containers are recyclable.” The start-up also refrains from using plastics as much as possible in its office space and all packaging products are recyclable. Speaking about being eco-friendly, and how other start-ups can do the same, Bhisham said, “Eco-friendly for us means reducing the impact we have on the environment as much as possible. While we do have certain practices in place, the key one being not using any SLS or parabens, we know there is still a long way to go in this regard. Each company can decide the process for themselves, and what best suits their values and ethos. As long as we stay honest, authentic and true to the values and commitment to our customers, we will see success.”



THE MAN COMPANY

Glass2Sand was founded as a zero-waste company to address the growing menace of glass waste in Delhi. Founder Udit Singhal has been named by the United Nations to the 2020 cohort of young leaders for ‘Sustainable Development Goals’, the highest-profile recognition opportunity at the world body for youngsters who are leading efforts to combat the world’s most pressing issues. Through his initiative, empty glass bottles are



prevented from being dumped into landfills. These glass bottles, if left unattended, do not decompose for a million years. His venture collects and crushes them into commercially valuable sand. Glass2Sand has stopped over 8,000 bottles from being dumped in landfills and produced 4,815 kilograms of high-grade silica sand.

Ahmedabad-based **EcoRight** sells eco-friendly bags with an **ecoright** emphasis on design to attract customers. Founded in 2017 by Udit Sood and Nikita Barmecha, who launched the brand in India and the US via Amazon, the start-up has expanded into other countries, including Europe, Australia and Canada. The start-up sells eco-friendly jute bags and promotes an environmentally conscious mindset in the office space as well. Employees do not use any plastics in the office space and instead use biodegradable bags. The company also practices rainwater harvesting at their offices and runs entirely on solar power. It segregates the daily waste into dry and wet waste. The excess fabric used in its products is sent from the factory for recycling. Apart from this, it has reusable utensils in the office so that employees avoid using disposable cutlery that comes along with food orders. The company's efforts are aimed at making India plastic-free. It claims that each EcoRight bag will in turn replace the use of 50-100 plastic bags. Having sold over one lakh eco-friendly bags, EcoRight has prevented the use of ~5,000,000 plastic bags.

GOVERNMENT INITIATIVES PROVIDING THRUST TO PRIVATE PLAYERS

Government policies and corporate initiatives are helping India forge ahead with its sustainability agenda. The government's support—in the form of regulations and commitments to amplify the use of clean energy resources and promote clean energy concepts—has been vital in driving growth. Also, the authorities have been undertaking several large-scale sustainable power projects to achieve the country's targets as per the Paris Agreement. India plans to have 175 GW of renewable energy capacity by 2022.

The '**National Solar Mission**' was launched in 2010, which aims to promote ecologically sustainable growth as well as address India's energy security challenge. In June 2015, India's Prime Minister, Shri Narendra Modi agreed to raise the country's solar power capacity target under the National Solar Mission is to reach 100 GW by 2022. Under this mission, various incentives such as zero import duty on capital investments and raw materials and low-interest rates and priority lending sector have been set up for 2022.

Skill development in solar and wind energy sectors in India is expected to create over 0.3 million jobs by 2022. To meet the rising demand for trained manpower, a





target of 50,000 ‘*Suryamitras*’ of skilled manpower in the solar energy sector was set for 2019-2020.

The ‘*Green Energy Corridor Project*’ in India has received a Rs. 75.26 billion (US\$ 1.05 billion) soft loan from the German Development Bank. This project aims to improve the sector framework and conditions for grid integration of renewable energies with conventional power grids. Through this soft loan, 40% of intrastate and 70% of interstate transmission schemes will be funded.

Distributing decentralised solar power and providing electricity to all has become a major action point for the government of India. The programme includes all households, urban villages and slums, which are currently not a part of the grid or centralised distribution. However, there are a few cleantech companies that offer standardised packages that enable people living in slums to switch from kerosene to solar power. For example, Pollinate Energy sells renewable energy lanterns and stoves on a five-week, interest-free payment plan to families, with bare-minimum necessities, living in the slums of Bengaluru.

The government is making efforts to boost funding for start-ups working in the sector by extending the capital gains exemption for investments by a year i.e. till March 31, 2022. The government has also decided to extend the eligibility for claiming tax holidays for start-ups by a year to March 31, 2022 as an incentive. In addition to these extensions, the Ms Nirmala Sitharaman, Minister for Finance also announced that the government plans to incentivise the incorporation of One Person Companies (OPCs) by allowing them to grow without any restrictions on paid-up capital and turnover, and convert into any other type of company at any time. All these initiatives are tied together with a common thread of building sustainability within the business model. A sustainable business is any organisation that participates in eco-friendly or green activities to ensure that all processes, products and manufacturing activities adequately address current environmental concerns, while maintaining a profit. In other words, it is a business that ‘meets the needs of the present world without compromising the ability of future generations to meet their own needs.’ The Brundtland Report emphasised that sustainability is a three-legged stool of people, planet and profit. Sustainable businesses try to balance all the three parameters through the triple bottom line concept across their supply chain-using sustainable development and sustainable distribution to affect the environment, business growth and society.

Sustainability goals are met by following the tenets of carbon offsetting, which is a way to compensate for emissions by funding an equivalent carbon dioxide saving elsewhere. Carbon offsetting projects help combat global climate change as well as care for local communities. In many instances providing much needed employment, health improvement, biodiversity, reforestation and broad social benefits to developing countries. Carbon offsetting is done by a stepwise approach of calculating emissions, setting targets for reduction, implementing reduction programmes, tracking success of carbon offset and communicating carbon offset efforts, all the while meeting national and international regulations.

India is the world’s third-largest emitter of greenhouse gases, after China and the

US. During the Paris Agreement, India pledged to reduce its intensity of emissions by 33-35% by 2030, compared with the emission levels in 2005. India has also committed to reach 40% of its installed electricity capacity to be supplied by renewable or nuclear sources by 2030. In line with its commitments fuelled by the nationwide lockdown for COVID-19, India is on track to decrease its emissions. According to Carbon Brief estimates, CO2 emissions fell by 30m tonnes of CO2 (MtCO2, 1.4%) in the fiscal year ending March 2020. This is the first decline recorded in India in four decades. Furthermore, emissions fell by 15% y-o-y in March and by 30% in April 2020.

ECOSYSTEM FOR SUSTAINABILITY

Climate change and global warming have been rising concerns in recent years. The nationwide lockdown's drastic impact on improving air quality in the country was widely discussed - both in shock and awe. This has increased awareness among consumers and led to the realisation that efforts on an individual level can have an exponential impact to the whole. As a result, the country is recording a shift in consumer preferences impacting daily habits and routines to even purchase behaviour and brand loyalty. The following are some of the key shifts in consumer habits impacting the growth of this sector:

Building Plastic-free Kits

Consumers are becoming more planned and thoughtful in their use of disposables and single-use plastics. Practices such as travelling with a bag to go shopping, bringing a coffee mug to the workplace, carrying a water bottle and having a handy kit of cutlery and metal straws have become commonplace.



Incorporating Plant-based Green Meals

Consumers are slowly shifting towards plant-based meals, while some are adopting entirely vegan lifestyles. The knowledge that breeding livestock produces significant greenhouse gases and consumes exorbitant amounts of water is causing this shift in lifestyles. Author and activist Michael Pollan describes the new lifestyle as “if it came from a plant, eat it; if it was made in a plant, don't” in his book ‘In Defense of Food: An Eater’s Manifesto.’



Offset Travel Footprint

Travelling by air, rail or road burns important fossil fuels and causes pollution. To balance the damage done by their travels, consumers have sought alternative methods to offset their footprint. Some alternatives include picking a direct flight over a hopping flight and using the carbon offset programme with the airline. These programmes financially support green projects and initiatives that reduce pollution. Given that travel is one of the fastest-growing sectors in India and ranks high on its carbon footprint; this trend is likely to have persistent consumer demand in the future.

Electronic Waste Management

Digital adoption in India is happening at a lightning pace, but this is giving rise to

billions of devices that cannot be repaired or resurrected. Only 5% of these devices are recycled or disposed of responsibly by consumers. According to the Global E-Waste Monitor, India generated >20 lakh tonnes of e-waste in 2017; that number was expected to grow by 500% in 2018. However, in recent times, electronics stores such as Croma have begun featuring e-waste drop off kiosks for consumers. This move can meet the demand for proper disposal of dead electronics/devices and the rising consciousness among consumers.



Waste Composting

Start-ups such as TrustBasket and DailyDump are paving the way for India’s waste composting movement. These companies have developed compact home composting products that can turn food and kitchen waste into fertiliser. Vinita, the lead researcher at DailyDump shared with Vogue India that, “at least 60% of the waste generated at home is organic waste that does not need to go to the landfill.”

Zero-Waste Stores

Buyers are adopting zero-waste lifestyles and championing the cause for zero-waste stores. Simply replacing a plastic bag with a cloth bag while shopping is no longer enough to undo the damage done in packaging and delivery. Shoppers are flocking to zero-waste stores that encourage buyers to bring their own boxes and containers while shopping for pantry provisions. Brands and stores that reuse and refill or use plantable packaging are on the rise.

One Green Investment

Forward-thinking consumers are pledging to make one green investment per year. For some, this means reducing their emissions on food consumption by building a vegetable garden for their kitchens. For others, it may imply rethinking their power consumption and straining scarce fossil fuels by installing a solar-powered roof.



Reduce or Recycle

Consumers are championing the twin causes of sustainability—reduction and recycling. In the pecking order of the green movement, refuse precedes everything. If it can be refused, it does not need to be reduced, reused, repaired, repurposed or recycled. Purchasing hybrid automobiles and electric vehicles is also a popular choice among consumers wanting to elevate their green quotient.

Pre-Owned Goods

Purchasing or exchanging second-hand goods for similar goods of equal value is gaining traction. The age-old barter system, coupled with modern aggregator technology, is enabling numerous consumers to congregate and conduct ‘swap’ transactions in seconds. Driven by the idea of mindful consumption and knowledge that fashion is among the highest waste producers, clothing swap applications and events are witnessing record attendance by shoppers. Start-ups such as Exchange Room, This For That and Swap are leading the charge in transforming mindsets and plugging the consumer demand gap.

Brand Loyalty

Stark shift in consumer preferences towards brands with recyclable packaging and refillable programmes has been observed, especially in the fast-moving consumer goods segment. Environmentally conscious brands whose products are free of sulphates, parabens and carcinogens, and have been produced using a net zero carbon emission approach are gaining popularity. sOn a personal level, we can all aim to reduce our own footprint with a diet that involves less import, and by reducing consumption, reusing whenever possible, mending what is broken and engaging in a shared economy by renting or swapping. It is to say, shop if you must, but boycott blind consumerism—it doesn’t make the world a happier place,” suggests designer activist, Céline Semaan, in an interview with Vogue India. She is the founder of Slow Factory, a sustainability-focussed design lab.

Do-It-Yourself Natural Alternatives

Consumers are privy to the unintended pollution cause by microplastics in packaged cleaning and personal hygiene products such as detergents and shampoos. They are preferring soap nuts over shower gels and shampoos or purchasing soap starter kits to make their own chemical-free soaps from scratch. For cleaning products, consumers are preparing solutions of baking soda and vinegar for a chemical and pollutant-free alternative.



Go Paperless

Paper-free transactions in banking, insurance, purchase receipts and government paperwork are a rising trend across the country. As India is adopting and adapting digital modalities across its products and services, consumers can hope to attain a 100% paper-free lifestyle in the future.



Awareness against Greenwashing

There is one downside of sustainability becoming a buzzword, companies and brands may make unsubstantiated claims of being environment friendly as marketing tactics. According to industry expert and founder of Slow Factory Foundation, Celine Semaan Vernon, there is a high margin for unscrupulous behaviour. She told Vogue India that, “the problem with the fashion industry’s solution to turning plastic into thread, and later, a fleece or polyester item is that once washed, these items release microplastics into the water. So are taking a visible plastic bottle and returning it into the ocean as invisible particles.” The awareness about this issue has consumers demanding detailed information on product development, raw materials sourcing, conservation and recycling efforts in production and distribution.

The consumer demand for sustainable energy and technology solutions has boosted the Indian cleantech industry in the last few years. The country, with its

aim to secure energy consumption and reduce pollution, is now seen as a desirable destination and has a big market for clean technology with huge FDI investments. The country is expected to grow its renewable energy capacity to 192.1 GW by 2023.

The 2015-18 economic boom was a key driver in the proliferation of clean technologies in the market. During this period, India was one of the fastest-growing economies in the world. The accelerated economic growth, coupled with the demand for clean power and government’s support, made India an attractive choice for eco-friendly investors.

Investments in clean technology and the renewable energy sector are being driven by rapid urbanisation, depletion of non-renewable resources and effects of climate change. The world’s largest solar park ‘Shakti Sthala’ is an example of one such investment. It was launched in March 2018 in Karnataka with an installed capacity of 2,000 MW by an investment outlay of Rs. 65 billion (US\$ 2.3 billion). In addition, private equity investments in wind and solar power increased to Rs. 60,000 million (US\$ 836 million) in 2017.

Regardless of all growth factors, this sectoral shift is obstructed by a few systemic challenges. Renewable sources such as wind and solar are unreliable across seasons and regions and cannot be trusted to generate large amounts of energy without the ability to store surplus quantities for later use. Furthermore, these resources have limited capacity to scale in line with the rising demand for power. Another crucial challenge for the sector is the financial outlay for installation and maintenance. As harnessing solar and wind energy entails proper system planning and integration, which requires additional costs of research and technological intervention.

Conclusion

Innovations by Indian start-ups are a testament of technological progress and positive impact rendered from having an environmentally conscious approach to business. Global climate, government support and private investments have created a healthy ecosystem for start-ups to experiment and develop solutions suited for India. Simultaneously, rapid development across India in the past few decades, especially in mobility, infrastructure and urbanisation has changed the balance of the environment unfavourably. The country needs to take leaps and bounds towards being more environment friendly. Being environment friendly is about taking the necessary steps and making conscious efforts to change lifestyles and conserve resources. The effort to go green has been felt by many industries, as companies are beginning to realise how their operations impact the environment. From using recycled or renewable resources to reducing energy consumption and waste, there seems to be a universal effort by companies and start-ups in India to protect our planet and prevent climate change.

