

Magazine



LITERARY REVIEW

Gyan Chaturvedi's novel *Alipura* sparkles with hyperbolic wit, satire and farcical comedy p4



SATIRE

'Our efforts to transform Katta into a freshwater god using Bisleri bottles and Aquaguard pipes did not hold water' p6



BOOKEND

Imagination remains humanity's most unique trait, the source of our subjectivities and fantasies p7



BACK PAGE

Scientific disciplines have become siloed. They are not accessible to the public: Jahnvi Phalkey p8



COVER

Turning the tide

Meet the 18 young Indian activists chosen by the UN for its global climate campaign p3



Changemakers Garvita Gulhati; Soumya Ranjan Biswal; Kriti Tula; Ganesh Kumar Subramanian; Medha Priya; Sanju Soman; Neha Shivaji Naikwade; Sneha Shahi; Heeta Lakhani; Aditya Mukarji; Archana Soreng; Berjis Driver; Akhilesh Anil Kumar; Varsha Raikwar; Nidhi Pant; Siddhartha Sharma; Hina Saifi; and Sarath K.R.



ENVIRONMENT

The climate crusaders

These are the stories of 18 young environmental activists chosen by the UN for its global climate change campaign

Bindu Gopal Rao & Divya Gandhi

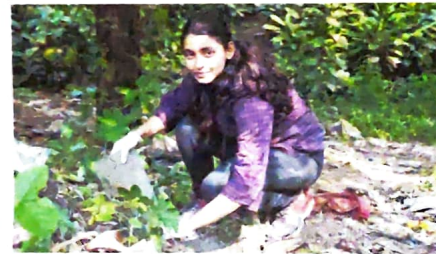
As the spectre of global warming looms over us, with changing climate systems displacing millions and exterminating wildlife, India, the world's third largest carbon emitter, has a pledge to keep its total carbon footprint by 33.35% from the 2005 levels in nine years, that is, by 2030, in accordance with the Paris climate agreement.

Rising to the challenge but working quietly under the radar is a legion of India's young people. In the run-up to the ongoing COP 26 UN Climate Change Conference in Glasgow, 18 young men and women have been selected for their pioneering work in India by the United Nations for a climate campaign called 'We the Change'. These people, aged between 18 and 33, have been chosen for their work in areas ranging from conserving water in restaurants to saving olive ridley turtles from trawlers, from turning factory waste to fashion to using community radio to spread awareness in local dialects. Here are their stories.

Water wars

In 2015, India was facing one of its worst-ever droughts. Garvita Gulhati was 15. Around this time, the Bengaluru-based student leader of a staggering figure: every year the world's restaurants waste no less than 14 million litres of water, left over in drinking glasses at tables. "When I saw that figure against the backdrop of women walking kilometres every day for just one pot of water, it moved me," she says. Gulhati, 22, launched 'Why Waste?' a campaign to create a water positive environment and change attitudes towards the resource. She popularised the #GlassHalfFull concept in which place-cards encourage customers to fill only half their glasses or use only as much as they need. Today, Gulhati, called the 'Water Girl of India', has conserved over 10 million litres of water across five lakh restaurants through her six-year campaign.

Nala means drain. But when Sneha Shahi decided to study the Bhiku nala running through her college campus, the Maharaja Sayajirao University of Baroda in Gujarat, she realised the drain was, in fact, a natural stream clogged with plastic. Shahi, 24, who is affiliated to UNEP's Plastic Tide Turner Campaign, galvanised 300 volunteers to remove nearly 700 kilos of solid waste from the Bhiku stream and its banks: thermocol, plastic bottles, chips packets, industrial and construction waste. The results were more rewarding than she could have anticipated. Turtles and crocodiles



Showing the way (Clockwise from above) Sneha Shahi, who galvanised 300 volunteers to remove nearly 700 kilos of solid waste from the Bhiku stream in Vadodra. Chennai engineer Ganesh Kumar Subramanian works with scrap shops to decentralise waste management. Urban planner Berjis Driver conducting a mapping exercise with fishermen in Mumbai, a rally in Milan, Italy, during the Youth for Climate summit last month, and radio reporter Varsha Faikwar, whose messages on climate change reach more than 200 villages in Bundelkhand

returned to the stream, and plants grew new shoots in its banks. Inspired by the success, Shahi worked with a team of students to map urban streams, however small, in Vadodra where she lives. Shahi then launched an outreach programme in multiple languages so "people are more aware of water bodies and how they are linked to each other," says the youngster.

Waste not

Factory waste. That is what apparel designer Kruti Tula, based in Delhi, uses as her material. Tula, 33, the creative director of sustainable fashion label Dwellage that adopts a no-waste philosophy, upcycles and repairs fabric waste from man-made garments to make new clothes. Tula finds waste for ever-staying, discarded cloth scraps, end of the line fabrics, and defective scraps. She also uses furrows, scrap fabric and extra fabric to encourage sustainable fibres. "Considering the enormous environmental cost of fast fashion — from water-guzzling cotton crops to unsustainable levels of cloth production — this can make a great difference," says Tula. In fact, upcycling and recycling are rooted in India, believes Tula, where old garments always get a new life, a trend that is alas on the wane.

Ganesh Kumar Subramanian, 30, is an engineer and co-founder of Kabadwalla Connect, a Chennai-based social enterprise that uses informal sector workers to provide decentralised waste management solutions. The organisation leverages waste pickers and scrap shops to divert paper, plastic, glass and metal waste from landfills to the recycling supply chain. As part of its project, the organisation has set up smart bins that ping the scrap shops

when full. The waste-pickers then collect, segregate and resell the waste to the scrap shop. "Our idea is to integrate the informal sector into the formal waste management system to improve recycling rates while improving the lives of the marginalised stakeholders," says Subramanian.

The last straw

When he was just 16, Delhi-based student Aditya Mukarji decided to make it his mission to go door-to-door, campaigning against what he describes as "one of the most dangerous inventions by man": single-use plastic. In the two years that followed, Mukarji, now 18, has stopped the use of over 26 million single-use plastic items — plastic straws, plastic cutlery and stirrers — in hotels and restaurants. He says he began with the hospitality industry and then expanded to corporate firms and cinema halls. "For instance, for customers who insist on straws, I organise environment friendly straws made of

paper, bamboo and metal," says Mukarji. He even ensures that the establishments he works with give him an inventory of the single-use plastic items they have stopped buying.

Now living in Jaipur, Maharashtra, Neeta Shrivastava, 22, is the co-founder of Parvash, a youth cell that looks at zero-waste initiatives. She starts with her own household, says Naikwade, where 10% of the waste generated is processed and the rest is used to renewable energy sources. "To keep global warming under 1.5 degrees, every sector of the global economy needs to transform in just over two business cycles," says the young activist. Climate Collective Foundation, where she works, one of the programmes she is now leading is the UNDP Youth Co-Lab, which supports 50 young climate entrepreneurs in waste management, sustainable transport, tourism and food technology.

In the wild

A large part of Soumya Karan Biswal's time is spent patrolling the beach, picking up trash along the olive ridley turtle nesting site at the Devi river estuary in Odisha, something he has been doing since he was 10. Now 24, Biswal is committed to protecting the turtles that turn up in their hundreds to nest here every year, roping in the local community to help reduce trawling during the nesting season. "I collect mortality numbers, find the cause of death, and share real-time updates in forums," says Biswal. Happily, there has been a considerable reduction in illegal trawler activity, he says. Biswal's work extends to protecting the biodiversity in Astaranga village in Puri district where he has organised over 200 beach cleaning activities that have cleared the coast of tonnes of plastic waste and discarded fishing nets.

One of environmental activist Ashish Anil Kumar's first projects was to work on trash along the beach. During an internship at a startup, he realised that a major cause of erosion was an international sector coming up in the area. Kumar, 21, the founder of Bring Back Green Foundation, also worked in the team that created an innovative proposal for the Blue Economy Implementation Kerala, covering coastal community rejuvenation, prevention of marine oil spill risks, marine ecology disaster warnings, and marine aquaculture pollution controls. "We were happy to know that the suggestions or objections raised by our team on the blue economy were included by the state government in their draft to the Centre," says Kumar.

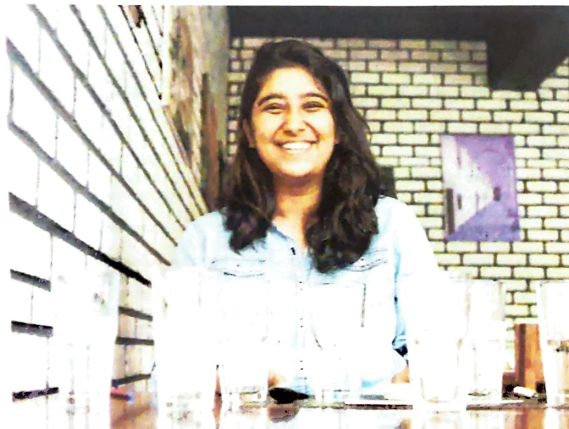
Also in Kerala, Sanju Soman, 29, began his career popularising rainwater harvesting. More recently, Soman created the first model 'wetland village' along with the Ashoka Trust for Research in Ecology and the Environment. He roped in the local community to conserve the Vembanad lake and helped promote sustainable fishing and clam collection. The lake, a Ramsar site, has been threatened by increasing tourism, agricultural runoff, and the reclamation of agricultural land. "Community led participatory conservation is the best way to protect critical ecosystems," says Soman. "The scientific community and governments have to just provide the necessary tools."

Human habitats

Mumbai-based urban planner Berjis Driver, 27, works towards strengthening the relationship between people, buildings and the environment. He has chalked out reports and recommendations for a public open space in Mumbai and for the urban design of the Andhra Pradesh Capital Region Development Authority. This year, as an urban consultant, he was involved in data analysis and documentation for the Kandla SEZ in Gujarat, the first green SEZ to achieve the IGB, Green Cities Platinum Rating for Existing Cities, which recognises environmental sustainability in cities.

Medha Priva, 26, is a Jaipur-based architect and interaction designer. She works on the physical interaction between people and built spaces, and the digital interaction between people and screens. One of her projects dealt with a green building certification for garment factories in Dibaak. As a sustainability consultant, Medha reviewed these buildings for the quality of construction, adequate ventilation, green spaces, and adherence to construction codes. "These strategies would help create a safer work environment, especially for women, who constitute much of the workforce," she says.

"We visit the river with the children and let them observe. They cross a polluted river, come back and play games, share their observations, visit government offices, and take up role-play," says Sarath K.R.



Pathbreakers
(Clockwise from left) Nidhi Pant's solar dryer helps farmers process their perishable produce; Hina Saifi champions clean energy projects in U.P.; youngsters at a 2019 Fridays for Future march in New Delhi; and Garvita Gulhati, who has helped restaurants conserve millions of litres of water.

• IMAGES COURTESY WE THE CHANGE & AAPP



The climate crusaders

■ Continued from Page 3

Medha was part of the team that designed the 200-acre college campus of IIM Visakhapatnam, that aspires to achieve GRIHA certification, the highest rating for green buildings in India.

Change in the air

A climate educator from Mumbai, Heeta Lakhani, 30, says her turning point came when she attended COP21 in Paris in 2015. She has since worked with school students and YOUNGO, the official youth constituency of the United Nations Framework Convention on Climate Change (UNFCCC). For the past two years, she has been working towards formulating a global youth statement that will be presented to the UNFCCC.

"We are working towards getting a delegation of young people to COP26," says Lakhani. "It will be the largest

ever delegation of members under the age of 35 to be part of this space where the negotiations are taking place." Four years ago, Lakhani launched Green Warriors, which aims to educate school students on climate change.

As a school girl in Meerut, Hina Saifi was inspired to take up environmental activism while attending science classes. Saifi, 20, now hopes to "inspire people in Uttar Pradesh to adopt clean energy, which can increase employment as well as reduce energy costs and pollution." Through the Suraj Se Samridhi campaign, Saifi creates awareness about the benefits of solar power – solar pumps or rooftop solar installations – using public meetings, pamphlet distribution, and door-to-door visits. She is now associated with En Bloc: On Way to Humanity, an NGO committed to highlighting the issues of marginalised communities, whether education, gender or labour rights.

Storytelling, through community

radio, is the means through which Varsha Kaikwar – the first woman in her family in a non-farming activity – creates climate awareness among people in the Bundelkhand region of Madhya Pradesh. "As a radio reporter at Radio Bundelkhand 90.4 FM, which broadcasts to more than 200 villages in four drought-affected districts of Bundelkhand, I talk about how people who are most affected by climate change can also make an impact by adopting practices of sustainability," says the 27-year-old. A show, centred around a character called Bairo Bhaui, talks about issues around environment protection using the hyper-local dialect and lighthearted anecdotes.

We the people

Archana Soreng, 26, from Odisha's Kharia tribe, has been chosen as one of seven members of the UN Secretary General's Youth Advisory Group on Climate Change. Soreng has been working with tribal communities and

forest dwellers and has also been part of an initiative called Adivasi Drishyam that creates videos on indigenous songs and medicines. "We firmly believe that it is important to document these practices, and to do so in different formats, so they are accessible to people who have not received formal education," says Soreng.

A folk arts enthusiast, Sarath K.R., 27, works with the Yavali Folklore group, a community-led initiative that has been involved in several activities, including the rejuvenation of river Bharathapuzha in Kerala, which had shrunk to a trickle. At Alter-School, an arm of Yavali that Sarath co-founded, a camp was organised for local children to create awareness about the need to keep Bharathapuzha clean. "We visit the river with the children and let them observe. They cross a polluted river, they come back and play games, share their observations, visit government offices as a part of the drama assignment, and take up role-play," he says.

Siddhartha Sharma's first introduction to the concept of climate change was in college. Sharma, now 27, focuses on the hydrology of the Brahmaputra. Mahabahu, the flagship project of Global Shapers Guwahati Hub, which he founded, helps flood-affected people in Morigaon, Barpeta and Kamrup districts of Assam. "At the peak of the Assam floods in 2020, the project took shape and has so far supported over 12,000 people," says Sharma. "Because of the pandemic, logistics were a big challenge but our partner NGOs, the local communities, and the district administrations were very supportive."

In 2013, a severe drought created untold misfortune in Nidhi Pant's hometown, forcing even her family to migrate. It decided her career. The chemical engineer-turned-farmer-turned-entrepreneur, now 27, co-founded the Mumbai-based S4S (Science for Society) Technologies, which works with low-income, climate-threatened communities and helps them with machines and technology to dehydrate and sell produce that would otherwise be spoiled. They have, for example, energy-efficient machines to dry ginger, turmeric and cassava, another for vegetable chips. "S4S transforms the lives of women farmers by ensuring food security, increasing incomes, and creating jobs," says Pant.



Bindu is a freelance writer and