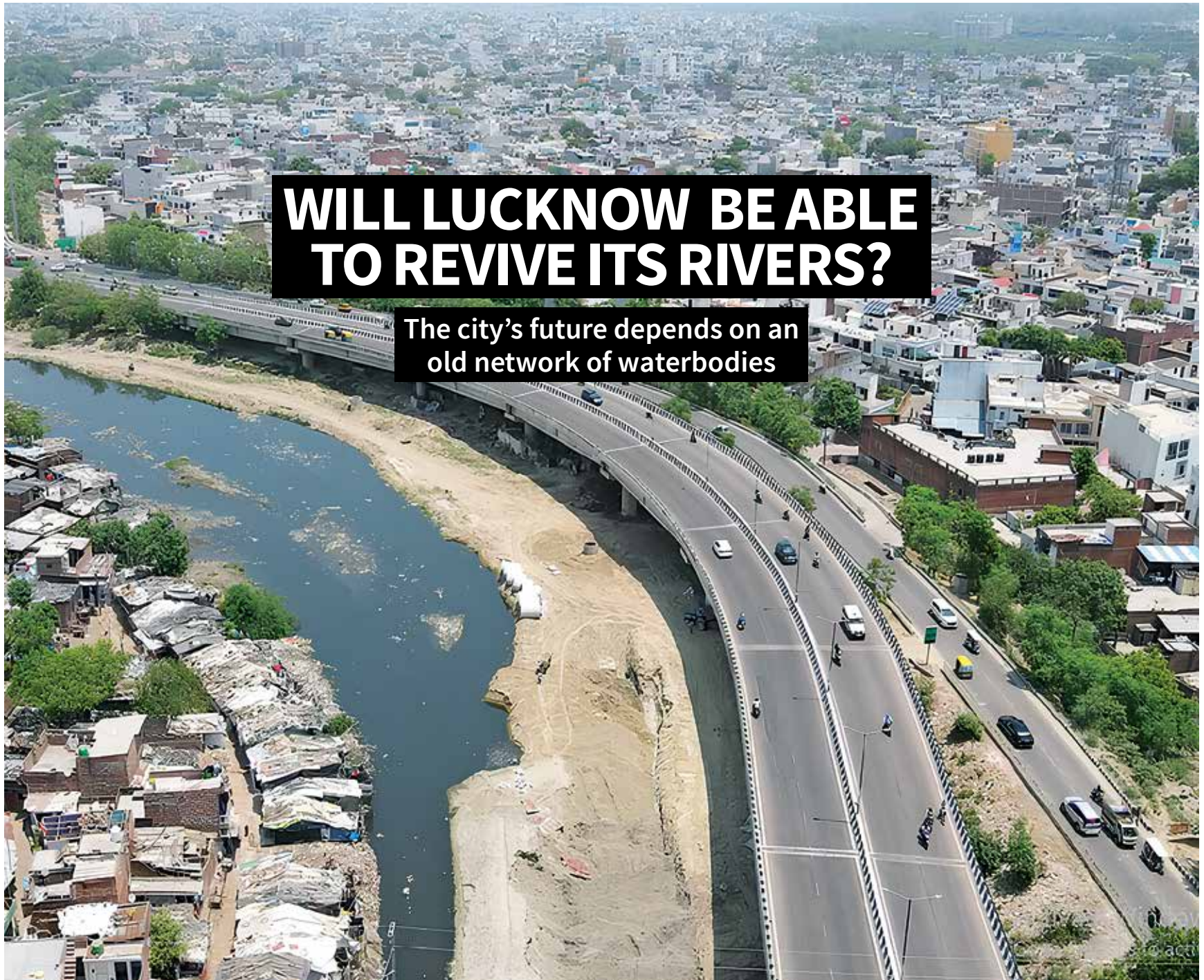


# Civil Society



**WILL LUCKNOW BE ABLE TO REVIVE ITS RIVERS?**

The city's future depends on an old network of waterbodies

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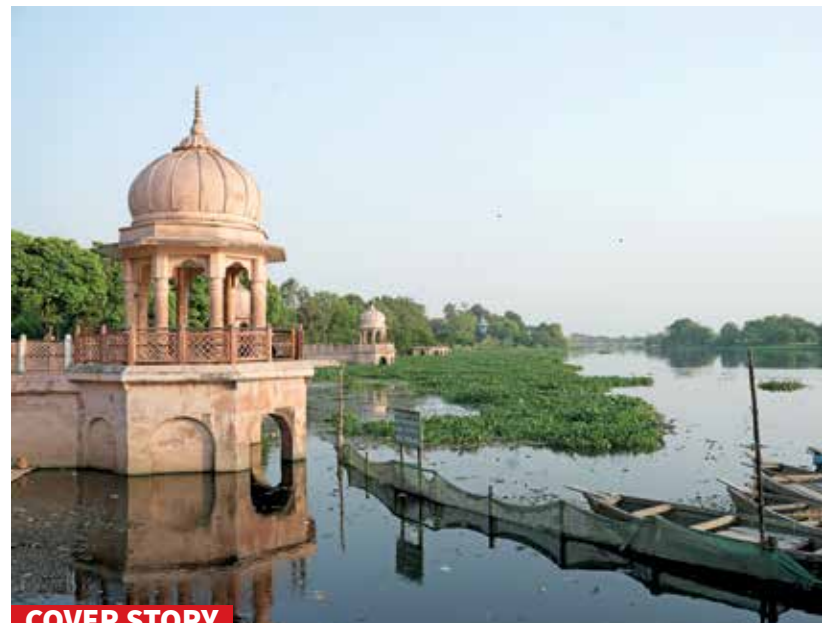


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## Cities and water



COVER STORY

### CAN LUCKNOW GET BACK ITS RIVERS?

Plans are being discussed to revive the rivers and wetlands on which Lucknow once depended. Bringing them back will make the city more sustainable in terms of its renewable sources.

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COVER PICTURE: The Kukrail river diminished by encroachments in Lucknow

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**P**OLITICIANS don't think water except to give it away free. In the absence of political interest, administrators go on as though nothing needs to be done. Whether village or city, a tough situation is either upon people or ominously up ahead. Invariably, there is adequate, if not plenty, of water locally available. It just isn't accessed properly. There is little respect for rainfall, rivers, ponds and lakes. An understanding of their value would not only reduce shortages but also make cities more ecologically sustainable.

In the cover story he has done for us on special request, Venkatesh Dutta has shown how Lucknow's water needs can be better met now and in the future by reviving the Gomti, Kukrail and a jigsaw of rivulets and wetlands.

Dr Dutta has been proposing the rights of Indian rivers and a freeing up of their floodplains. Decades of shoddy governance have led to encroachments of one kind or the other, which the courts have said must go. But, having caused the problem in the first place, politicians shy away from owning responsibility. And when they do roll up their sleeves to get things done, the challenges are daunting.

An accompanying piece by S. Vishwanath in Bengaluru lists five simple measures any city should take. Vishwanath, who drives a large rainwater harvesting programme, has been working with the Bengaluru administration to put improved systems in place.

A whole social movement is needed to change the way people use and conserve water. It must begin with politicians accepting this reality themselves and reaching out to their constituencies.

Artificial Intelligence (AI) is doing things to our lives like we never imagined. What will it do to healthcare? Are algorithms going to be replacing physicians? The patient-physician equation is already a troubled one for various reasons. With AI, the chances are it will get more complicated. There is the question of how AI will influence diagnostics. For sure, it will speed up many functions, but will it enter uncharted terrain?

For our interview of the month, we spoke with Dr Raju Sharma at AIIMS. Using AI well will mean making it useful to the physician and hospital administrations. The physician staying in control is important. But the experience so far is that AI, once unleashed, is difficult to contain. India needs to be ready for what's coming up.

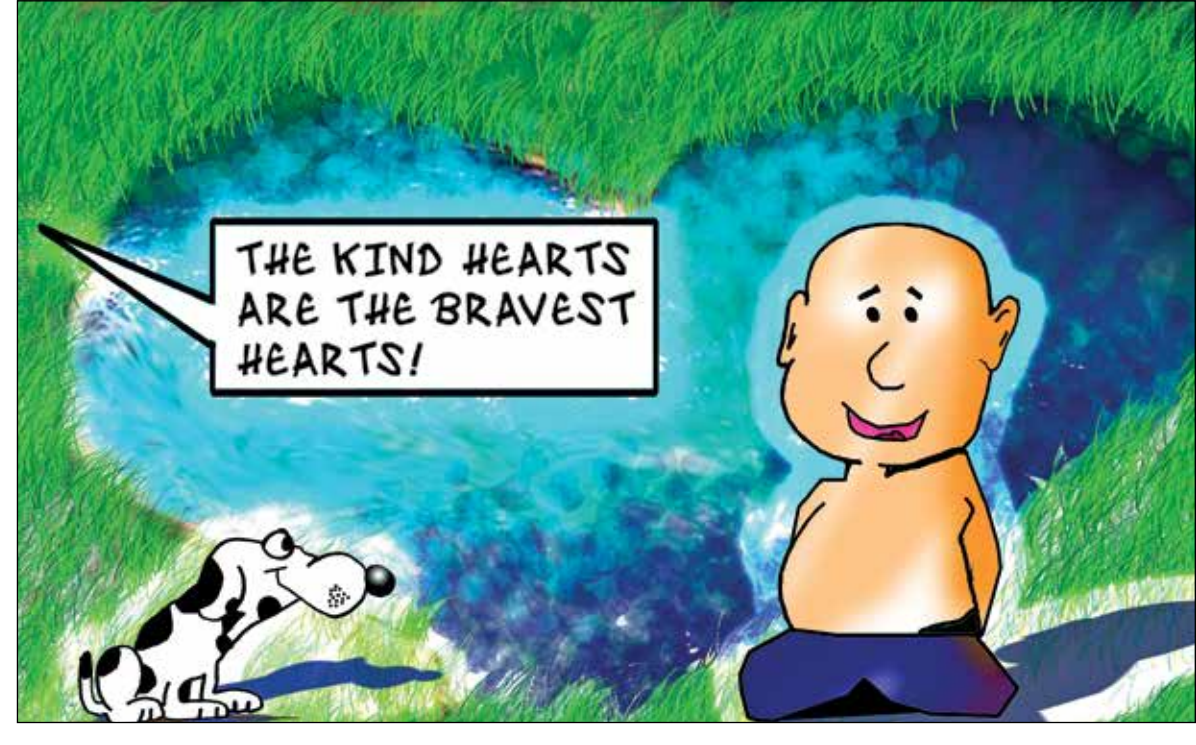
We also take you to two protests held by citizens, in Delhi and Doon — one on dog bites and the other on the felling of trees. We bring you Meghalaya's brilliant turmeric in our Living section together with the joys of a Telugu meal.

<p><b>Publisher</b> Umesh Anand</p> <p><b>Editor</b> Rita Anand</p> <p><b>News Network</b> Shree Padre, Saibal Chatterjee, Derek Almeida, Jehangir Rashid, Susheela Nair, Kavita Charanji</p> <p><b>Desk &amp; Reporting</b> Sukanya Sharma</p>	<p><b>Layout &amp; Design</b> Virender Chauhan</p> <p><b>Photographer</b> Ashoke Chakrabarty</p> <p><b>Write to Civil Society at:</b> A-16 (West Side), 1st Floor, South Extension Part 2, New Delhi -110049. Phone: 011-46033825, 9811787772 Printed and published by Umesh Anand on behalf of Rita Anand, owner of the title, from A-53 D, First Floor,</p>	<p>Panchsheel Vihar, Malviya Nagar, New Delhi -110017. Printed at Samrat Offset Pvt. Ltd., B-88, Okhla Phase II, New Delhi -110020</p> <p>Postal Registration No. DL(S)-17/3255/2024-26. Registered to post without pre-payment U(SE)-10/2024-25 at Lodi Road HPO New Delhi - 110003 RNI No.: DELENG/2003/11607 Total no of pages: 36</p>	<p><b>Advisory Board</b></p> <p>R. A. MASHELKAR ARUNA ROY NASSER MUNJEE ARUN MAIRA DARSHAN SHANKAR HARIVANSH JUG SURAIYA UPENDRA KAUL</p>	<p>Get your copy of <b>Civil Society</b></p> <p>Have Civil Society delivered to you or your friends. Write to us for current and back issues at <a href="mailto:response@civilsocietyonline.com">response@civilsocietyonline.com</a>.</p> <p>Also track us online, register and get newsletters  <a href="http://www.civilsocietyonline.com">www.civilsocietyonline.com</a></p>
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IN THE LIGHT

SAMITA RATHOR



LETTERS



Truth to power

Sanjaya Baru's piece, 'Small media, big impact', made its point very clearly. Big media has lost all credibility and social influencers have stepped in to fill the void that's been created. Incompetence, blatant partiality combined with lack of ethics and utter arrogance have cost big media its reputation.

**Bappu**

Large corporate media houses are out and small media is in. There is no way truth can be throttled after the last general election. In fact, the masters of fake news may themselves have to seek the shelter of truth when they are cornered by their fate.

**Col Jasjit Singh Gill**

As someone who is fond of reading news on media platforms such as X and Instagram, I do think we have more honest journalism there. TV news is just a farce now.

**Lokesh Jain**

Women artisans

Sumita Ghose puts it well in her article, 'The power of the collective'. Indeed, collectives are the only hope to achieve enhanced empowerment of rural women.

**Vaibhav Bhamoriya**

Beautifully written. Sumita Ghose has not just talked about but also lived a life of commitment to women artisans. More power to you and these strong, talented women.

**Elizabeth**

Incorporating handmade items into daily life and making wiser choices is not so tough to do. We, the middle class, can be the change, as Sumita Ghose suggests. Bringing home handmade gems can support genuine craft expertise and the artisans that this nation is teeming with.

**Shireen Javed**

An effective government is one that supports its artisans, craftspeople and women. These issues are hardly brought into the limelight. But the craft sector is important since it concerns livelihoods. Crafts are our roots. And women are the heart of our society.

**Benu Marwa**

Teaching teachers

Dileep Ranjekar has put forth such an insightful set of

suggestions. Especially the one that says we must have 100 teacher-educators in each district. What a novel thought which is so important to implement. If a teacher is not equipped and trained well enough, how could he or she shape citizens of the future?

**Sunaina Katyal**

I am a student of B.Ed and could not agree more. Our training is poor, we do not know how to deal with challenges and we are just thrown into a sea of jobs where we are suddenly faced with the task of handling children in the classroom. Imparting knowledge is only possible in a meaningful way if one is equipped to do so.

**Kashish Dua**

Thank you for building a conversation around teacher education. This should be our first step in tackling the challenges of Indian education. The suggestion about making early childhood education compulsory is also well thought-out and would make a huge difference if implemented.

**Bhavna Tiwari**

The writer's viewpoint, which pointed out the gaps and inequity between students in public schools and those in private schools, was very insightful. This gap has widened. I believe the Centre should definitely help

states who fall short of money in their budget for education. Education deserves greater attention in our country.

**Satya**

City upgrade

V. Ravichandar's article, 'For urban renewal let power flow to the local level', was very thought-provoking. He asked relevant questions, answered some of them, and provided solutions which need to be implemented. The author should head a pilot project based on his suggestions.

Most of our local issues are handled at city or county level in the US. In India, as in Thailand, disaster management is an issue in cities especially due to flooding as concrete and cement construction results in loss of green space for water absorption.

**Porus Dadabhoy**

If we implement even half of Ravichandar's recommendations, we can leapfrog into being a country that looks after its cities and citizens.

**Latika K.**

Public spaces play a positive role in improving the quality of life in our cities. My grandparents are healthier ever since they began to walk in their well-kept colony park. Despite having moved to a larger city, they seem happy because of these little details. So, reading about the importance of public spaces, as one of the points V. Ravichandar makes in his article, 'For urban renewal let power and funds flow to the local level', was an unexpected surprise and very heartening.

**Shivani Biswas**

I have always lived in a large, crumbling city. So the points Ravichandar highlights are a welcome set of things that can and should be done. Thank you for bringing up such an important issue. Our cities are dying and there is much we can do if we follow such advice and if the ideas he suggests can take shape in a meaningful way.

**Lalita**

Rescue work

Thanks for the interview with Dr Rajat Jain, 'Our way of looking at disasters has now changed'. His organization, Doctors For You, is

always ready with solutions in a crisis and is really the need of the hour. His interview was very inspiring.

**Ishan Khatter**

The selfless attitude with which doctors work in remote areas, leaving behind highly paid opportunities, are a genuine service to the country. I have so much respect for people like Doctors For You and others who are following in their footsteps.

**Dr Harsh Mehrotra**

We need more incentives and accolades for doctors like Dr Rajat Jain. I am grateful to magazines like *Civil Society* for featuring people who matter, people who are doing good work without hankering for credit.

**Kavita Mohan**

I happened to visit a village of a loved one and saw qualified doctors living in a humble setting, working long hours and helping those in need. I was reminded of those incredible medical professionals while reading Dr Rajat Jain's interview. The idea of disaster secretariats was, also, so unique. I was very inspired.

**Aparna Swaminathan**

Ageing blues

Thank you for writing on a very important subject, 'Exercising the right to die'. I am 75 years old and a neonatologist trained in the US. I strongly believe that I wish to die while I am still intellectually and physically intact, not dependent on any outside help and am still living a productive and happy life but I feel I have lived long enough. I should be allowed to choose my end in a happy state and not wait till I get sick and then thrown into hospital. That's an awful place for anyone to be in and die. I know since I have worked in a neonatal ICU for 25 long years.

We need to have a global agreement so that we are allowed to end our lives in a happy state of mind and choose the way to end our life peacefully, without pain. That should be our right.

**Anita Patil-Deshmukh**

Med help

Sukanya Sharma's helpful article, 'Done with your meds? You can pass them on to others', was so

inspiring, especially in telling us that there are people who do this voluntarily.

**Gaurika**

This is great work.

**Faiz**

This is a wonderful system of giving medical aid to the less fortunate. Medicines can be very expensive and thus unaffordable for many. Instead of throwing away or keeping medicines which we don't require, collection and distribution of these is a wonderful idea. To make such an initiative a success we do need several charitable people. All the best to those who have already taken this up and are doing such good work.

**Chandralekha Anand Sio**

Population, migration

Kiran Karnik's column, 'Demographic dangers', in your June issue was a very lucid account of the looming reality that is staring India in the face. As a collection of states with varying fertility levels, India's heterogenous demographics will trigger increased migration from more fertile states to less fertile ones.

This will be an economically corrective mechanism and yet in-country migrants who are also voters, can change voting patterns in destination states if they become a substantial chunk of the population, even in just a few constituencies. There are already early signs of this happening. Hence, regional political formations may have to

anticipate and plan for rapid change.

**Sharad Iyengar**

Bamboo wealth

Shree Padre's cover story, 'Bamboo bonanza for small farmers', in your June issue was quite interesting and informative. As a bamboo enthusiast I would love to see *T. oliveri* or *lathi* bamboo growing in Karnataka. Thanks so much to Shree Padre for this article.

**Zabiulla T.**

Village and city

Thanks to Dr Surinder Jodhka for his article, 'The Indian village has been relegated to the margins'. It is such a well written piece that it helped me organize my thoughts better around the subject.

**Rahul N. Ram**

Gifts and more

Your Products section has crafts which make lovely gifts. I especially liked the short pieces featuring trinkets from the hills, skincare and no-oil snacks. What lovely gifts these would make! I will be visiting Dastkar Bazaar very soon to browse these stalls. Thank you for connecting us with small producers.

**Bhavani Goya**

Urban growth

I agree with Kirtee Shah's perspective as stated in his article, 'Affordable shelter with a better quality of life'. The need of the hour is to reduce the cost of house building for Economically Weaker

Sections (EWS), particularly those in rural areas. There are two options: first, use bamboo for walls and roof with ferro cement for construction. I built a few houses using this method in my village more than 20 years ago and those houses are still in good condition. Such construction is more eco-friendly, sustainable, and creates houses that are cool in summer and warm in winter.

The cost of construction is 40 to 50 percent cheaper and people can easily be trained to construct such houses. Materials will be available locally and use of steel and cement is 50 to 75 percent less.


Secondly, use prefabricated roofs and walls. The cost of labour is rising. Using prefab will bring down costs by 20 to 30 percent, reduce the use of materials, be stronger and construction will be faster. In summer, the roof can trap hot air and keep the house cooler. Three floors can be constructed using this method.

**Madhusudana Rao D.**

The reality is that urban slums are going nowhere, as Kirtee Shah explains. If governments and those in positions of authority could go through each of these points, housing and shelter would be in better shape. These are matters of utmost urgency and concern. Shelter is every citizen's right and to achieve decent housing, upgrades are needed urgently.

**Dhruv Bhalla**

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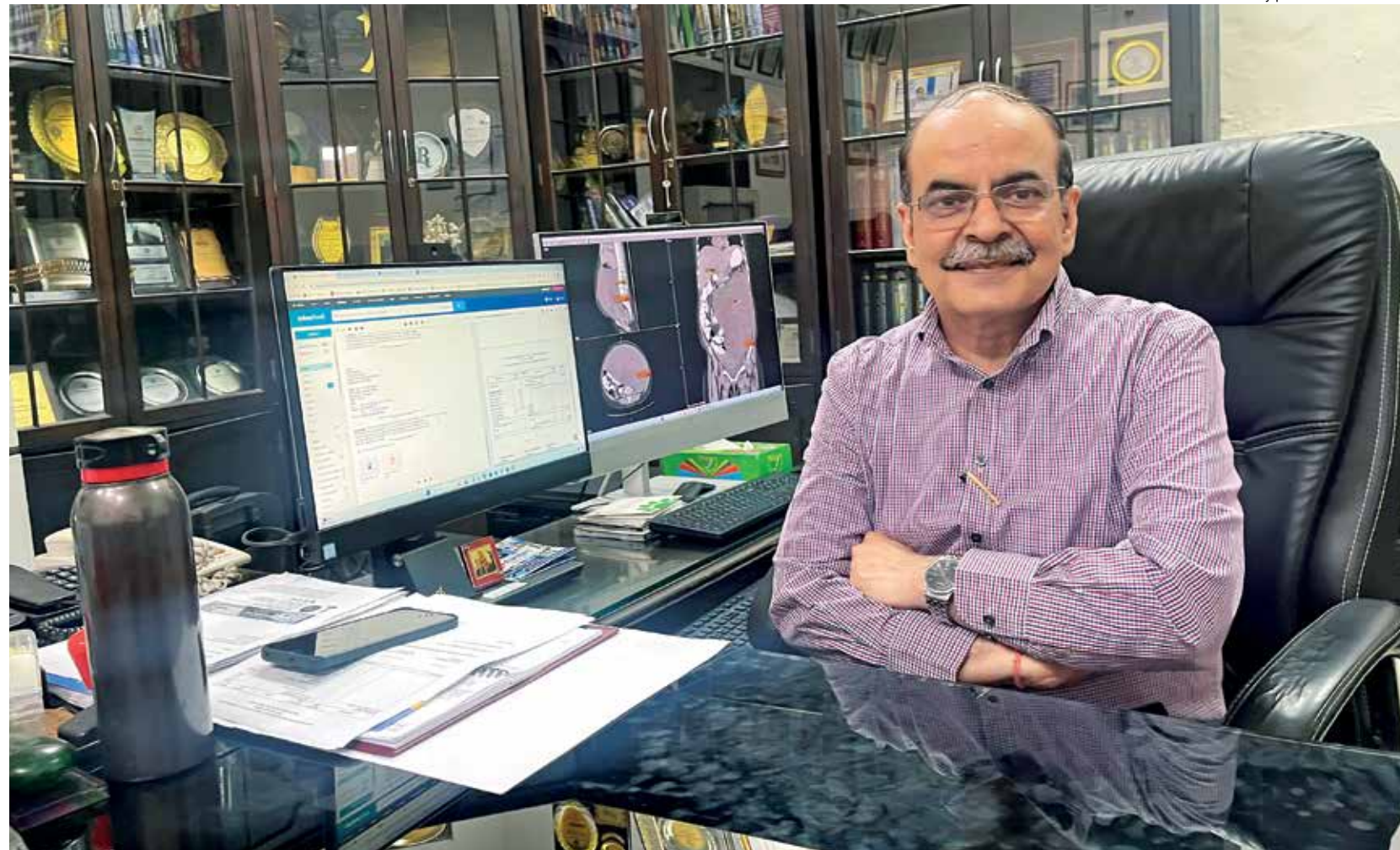
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**RAJU SHARMA ON TECHNOLOGY AND HEALTHCARE**

Civil Society picture/Umesh Anand



Dr Raju Sharma: 'Checks and balances are needed'

# 'AI should be used to help doctors, not replace them'

Civil Society News

New Delhi

WITH the arrival of Artificial Intelligence (AI), the time is here to consider its implications for public healthcare. Currently, AI is an expensive and corporation-grown technology. Private hospitals will flaunt it. But for the tens of millions of people awaiting medical services, how AI is developed and deployed will determine how much they finally benefit from it.

With AI many wondrous capacities are on offer — far outdoing what human beings can achieve in terms of speed and numbers. Scans will get read faster. Pathology samples will be processed quicker. The physician making a diagnosis would get a helping hand. Beyond such simple uses, AI will also interpret data in ways that can't be imagined.

It is the inventiveness of start-ups that defines the uses of AI. But can it be left to them and the bigger tech companies that are taking it over to decide how it should be employed?

To find out more, we spoke at some length to Dr Raju Sharma, head of the department of radiology at the All-India Institute of Medical Sciences (AIIMS) in New Delhi.

**Q: Do you see AI as a boon? Particularly in diagnostics. Or do you see it as a huge challenge?**

Like anything else, it has its pros and cons and it will eventually depend on us how we leverage it to our advantage. It can certainly be a boon because it can come to the assistance of the physician, both to increase his access and to decrease the time that we take for various processes.

It can have multiple users in the field of healthcare, especially in radiology where we rely a lot on images. AI can come to our rescue in interpreting these images. It can make healthcare more accessible in the sense that even in remote areas where radiologists are not available at least the basic tasks can be done by the AI algorithms.

Having said that, there are many challenges and there are many downsides. Remember, these are early days for AI. We don't know the full potential as yet. No one can call himself an expert in the field right now because it is in a state of evolution.

**Q: What do you think it could do for public healthcare in India? What are the possibilities that you see? It is early days, but is there any vision for it?**

There is immense potential. Because AI can handle large volumes of

data, it can certainly come to our rescue in fulfilling the shortfall in physicians. In any country, physicians are in short supply. In India that is especially true because the distribution of physicians across the country is very uneven. The majority of physicians and experts are in the cities. There is a definite shortage in the rural areas. Eventually, though not right now because currently it is an expensive technology, once the technology gets more accepted the cost will come down and that will be a time when one can scale it up to the entire country, take it to the rural areas and, first, try and fill that shortage. If I talk of radiology as a field, there are no radiologists available in the rural settings of the country.

**Q: How many radiologists do we produce in a year?**

I can't give you a number, but the Indian Society of Radiology has about 25,000 members across the country.

**Q: That's all.**

That gives you a sense that it's not a very large community. A country like ours needs many more radiologists than we currently have.

**Q: Technology is moving at a great pace, but there is a human resource deficit that is not improving. Is that worrying?**

Definitely, because it's very hard to fill that deficit. Just training more physicians is not going to be a solution. Unless we can improve the infrastructure in the peripheries of the country, especially in the rural areas, physicians will not move there.

**Q: Is there a danger that we would use AI to avoid putting in better infrastructure and a healthcare system in place? Shouldn't technology be a part of a larger infrastructure instead of infrastructure getting hooked to technology to make up for deficiencies?**

I couldn't agree more. I don't think this is the only solution. This is perhaps one small solution for a much larger problem which has multiple dimensions and needs to be looked at from multiple angles. This alone will not be a solution to our lack of infrastructure.

It will come to the aid of the physician. Remember, the physician today is very challenged when he works in a hospital, whether a government set-up or a corporate set-up. The numbers are overwhelming and physicians are stressed.

AI can come to the rescue of the physician by taking over some of the mundane tasks we do. We can then spend our time on the more complex tasks which need the cognitive skills of a physician.

There have been articles published where people have called AI "assisted intelligence" rather than "artificial intelligence". Used like this I think we won't see a time when the physician gets replaced. I think that's more of conjecture. But there are certainly a lot of tasks which AI could take over and leave the physician to spend that time in a more productive manner — thereby increasing efficiency and containing cost.

**Q: In a typical working day, what are these mundane tasks that can be taken over so that physicians can be freed up to use their expertise in better ways?**

If I talk about radiology, when we look at CTs and MRIs, there are a lot of measurements that we make. This is especially true when we're comparing studies. Cancer patients have many studies and they need to be compared to see how the patient is responding to therapy for which we have criteria laid down. We measure each lesion. We sit and see how they are progressing with time. This is something that can very easily be done by a computer.

Very often, when the patient is on follow-up there's a lot of measurement which is done and computers are obviously far more efficient than humans at doing that in a much shorter span of time. We use AI in many ways, not just for making a diagnosis.

AI today is used in a hospital right from the time scheduling is being done. Hospitals in the developed world have algorithms which help them triage patients. This way, those who are more sick get priority

appointments, get seen earlier, get reported earlier. Let's say 40 scans come into the reporting station of a radiologist. The AI algorithm tells you which are the ones which you should report first because those patients are critical. And are waiting for your report. Or which are the relatively older patients who can wait for some time.

So, right from the time of triaging your patients for the order you should be booking them in, to the order in which you should be reviewing them, to a date-wise arrangement of those scans — these are things we very often do physically because it is required but can easily be done by AI algorithms.

**Q: An algorithm is based on the data at hand. How do you create algorithms for the Indian body?**

Very good data is needed to train the algorithm. AI algorithms typically learn based on the data we provide them. It needs to be high-quality labelled data. The physician first labels the data and says, This is the abnormality and this is the nature of the abnormality. Those X-rays are fed to the computer algorithm. It learns what we are trying to train it for and also some extra bit which we may not have trained it for. But the basic requirement for training a good algorithm is that you need to have good, clean, labelled data. And today data is everything.

As you very rightly point out, this data needs to be locally representative of the population we are going to apply it to. There's no point in using

**'I don't think AI is the only solution. This is perhaps one small solution for a much larger problem which has multiple dimensions. This alone will not be a solution to our lack of infrastructure.'**

data from the US and just adopting their algorithm. Before we adopt any algorithm, we typically validate it in our patient population. We give data to the tech companies which are developing these algorithms. We also have collaborations with the IITs in Delhi and Jodhpur — we provide them our data and they provide their domain expertise in developing computer algorithms. And this synergy of physicians and computer scientists within the country helps to develop algorithms which are more locally relevant.

But it's absolutely correct that algorithms will need to be developed on data which is representative of our patient population. If they have been developed overseas, they need to be validated before they can be applied to the general population.

**Q: How much does genetic diversity matter in a country as large as India?**

We are like many countries put together and the disease profile from the northern part of India to the southern part of India is very different. You know, cancer of the gall bladder is very common in the Gangetic belt. But if you fly down to Chennai and speak to them in meetings, they say we almost never see carcinoma of the gall bladder. So, yes, there is a very variable spectrum of disease in the country, which is going to make things more difficult because our patient populations are very different. The South Indian population is very different from the northeastern population, for example, and we will have to adapt and modify these algorithms to the requirement of individual states and hospitals also.

**Q: Commercial interests of one kind or the other drive AI right now. Do you think that is enough to make it truly useful in India? Or**

*Continued on page 8*



Continued from page 7

should AI be led in a more academic way, which perhaps we are not doing now, with proper oversight?

I wouldn't say we are not doing it. We are taking steps towards that. But you are right that in the future this will have to have regulation. It will have to have legislation relating to data privacy, to patient safety. There are so many issues which come up and go beyond the domain of science. Patient confidentiality will have to be maintained. Informed consent of the patient will need to be taken before this data can be used for training algorithms. And you're right that tech companies have a very different perspective. You know, their economics determines everything.

**Q: It would seem that AI is all about market expectations. There seems to be no attempt to integrate it into the scientific part of our lives, no scientific authority that is able to do this.**

No, I wouldn't say that there is no authority. There is the Indian Council of Medical Research, which has taken cognizance of the field of AI. So has the Union Ministry of Health and so have the academic institutions across the country. I can name at least five or six leading academic institutions which are involved in both developing and validating algorithms, helping the government in deciding how they should be deployed. A lot needs to be done but, certainly, steps have been taken in the right direction. I would agree totally that this should not be only a tech-driven innovation. It should be driven both by the academic institutions and by the Government of India.

**Q: You know, when AI was first offered to private hospitals it was seen as a marketing edge. This tendency has continued to grow. Is there scope to now pause to think of the need for greater regulation?**

Absolutely. I think everywhere, even in the US, there is a lot of thinking going on both in academia and in the corporate world about whether we are really heading in the wrong direction as far as AI is concerned. Can we afford to let machines take over everything?

A lot needs to be done and, definitely, checks and balances need to be in place. I don't foresee a time when physicians will get replaced by a machine. I think the physician offers much more to a patient than just a diagnosis. There is a whole component of a patient-physician relationship which is empathy with the patient. These are things which cannot be eliminated just by putting a machine in place. There is a lot of rethinking going on across the world about this. We need to step back and think where we are going and channellize it in the right direction as assisted intelligence, as I mentioned earlier. ■

# DOG BITE ANGER IN JOR BAGH LEADS TO OUTCRY

## Residents take on VIP activist Ambika Shukla

Jyoti Pande Lavakare  
New Delhi

JOR Bagh is not the kind of neighbourhood in New Delhi where people take to the streets to protest. So, when residents showed up with placards and slogans at House 154, where Ms Ambika Shukla lives, it was an unlikely scene.

An elderly resident, Rajni Mehrotra, 81, had been bitten while walking down the street by one of the 15 dogs that Ms Shukla keeps at her home.

The dogs are allowed to roam free without leash, the residents say, creating a reign of terror, so to speak, in the nearby area.

Appeals to Ms Shukla in a spirit of good neighbourliness have gone unheeded, the residents claim. Complaints to the local police haven't resulted in any action either.

Ms Shukla happens to be an unabashed animal rights activist. She is also the sister of Maneka Gandhi. When in the past complaints have been raised against her, Varun Gandhi, an MP till recently, has spoken on Ms Shukla's behalf.

Apart from the 15 dogs that live in her house and come out for walks without adequate supervision, she champions the cause of having stray dogs on the streets and feeding them there even if they bite people.

The dog attacking the elderly Ms Mehrotra has been captured on CCTV. But there have been many preceding incidents in Jor Bagh, residents say.

Stray dogs, the larger cause that Ms Shukla champions, have caused several tragic incidents in Delhi and the rest of the country. Children, mostly from poor families, have been mauled to death.

"Every morning between 6:30 and 9:30 and in the evening between 5 and 8, 15 dogs from that house roam around the colony without a leash, taking over the adjoining park and roads, often attacking innocent passers-by. These 15 dogs are managed by only two staff — one male and one female, which is just not enough. At least six to seven residents and their staff have been attacked by her dogs in a short period of time, including me — and I have been



Driven to the wall with no one to heed their pleas, residents hit the streets with posters and slogans outside Ambika Shukla's house



Rajni Mehrotra was bitten by Shukla's dog



Elderly residents and children are fearful of stepping out. Shukla's dogs defecate in the local temple compound.

attacked twice," says Vandhana Varma, a representative of the Residents Welfare Association (RWA) and wife of the President of the RWA, Varun Varma.

When contacted, Ms Shukla denied that her dogs roam around unleashed. She said only eight dogs are sent out at a time, with three attendants.

However, CCTV footage from July 1 shows an unleashed dog darting out of her house and biting an elderly resident who is walking on a public road outside her home. Ms Shukla

admitted she has 15 dogs inside her compound "but they are all vaccinated and sterilized. They are all rescues, have never bitten anyone before."

She admitted she is aware of the July 1 bite but said, "This is the first incident in 30 years. It is unfortunate and one-off and we will ensure it never happens again."

Residents aren't so sure. "So many people have been bitten, we've lost count. Usually, they are staff or couriers or delivery people who leave and we never hear from them

again," said a resident.

Leave alone picking up after her dogs, repeated requests to manage the dogs better have been ignored.

"I have gone with the beat constable and the RWA security guards with folded hands to ask Ms Shukla to increase the number of staff managing her many dogs so that at least our youngest and senior residents are safe, but to no avail," said Varma, sounding thoroughly frustrated.

She has reason — the neighbourhood has been dealing with this issue for over two decades, and finally on July 14 came out in solidarity as a community to protest outside Ms Shukla's home. The protest was silent, but the dogs were not and could be heard barking. Several policemen and a police jeep with the deputy station house officer were also present at the venue.

"Neelam Chopra and I were the first victims of her terror some 20 plus years ago. She would bring her dogs into the Community Centre hall for our aerobics class where the dogs would jump on us," says Ritu Handa, another long-time Jor Bagh resident.

"I had many arguments with her," says Handa resignedly. But her dogs continued terrorizing hapless residents.

From then to now, nothing much appears to have changed, except the dogs, with new ones being added to the menagerie, residents at the protest said. They said Ms Shukla's dog walkers are still careless and laugh rudely when asked to leash the dogs.

The elderly and children still walk and play fearfully, avoiding the park that the dogs have taken over. Until April, the dogs were still defecating in the local temple compound, upsetting several residents. This led to a community complaint being filed by some residents at the local police station on April 1 asking for action under eight sections of the Indian Penal Code, but no action was taken.

Leave alone action, three separate complaints filed at the local police station in the six months till July 1 have still not been converted to First Information Reports (FIRs). An earlier complaint filed by the RWA on its letterhead on December 31, 2023 remains on paper.

"The problem has become much worse in the past five years," say two elderly women who live right next door to Ms Shukla in numbers 152 and 153 and were present at the protest. "We feel like prisoners in our own homes, and have to check if her dogs are

Continued on page 10



COMMENTARY

# Animal Welfare Board out of control?

MEGHNA UNIYAL

SHOULD an advisory board set up under a law be allowed to assume for itself a role bigger than what was envisaged for it and turn the law on its head?

The Animal Welfare Board of India (AWBI) has, in recent years, assumed greater prominence than the law against cruelty to animals. It is interpreting the law in ways that were never intended.

It was way back in 1960 that the Prevention of Cruelty to Animals (PCA) Act, a visionary piece of legislation authored by Rukmini Devi Arundale, made India become one of the first countries to protect domestic animals by law.

The PCA Act does not give 'rights' to animals but vests in citizens the duty to protect them from "unnecessary cruelty" and not suffering that may arise out of human necessity or to uphold human rights. Unlike the 'animal rights' ideology that is against the usage of animals, the PCA Act is based on animal welfare principles that allow for the humane usage, ownership and even killing/consumption of animals.

Under the PCA Act, the Animal Welfare Board of India (AWBI) is only an advisory body to the government and its functions include:

- Taking steps to ensure that unwanted animals are destroyed by local authorities whenever it is necessary to do so.
- To encourage the setting up of rescue homes, animal centres, sanctuaries and so on for animals and birds that need protection.

However, in the last two decades, AWBI officials seem to have done everything possible to violate and subvert the principles enshrined under the PCA Act under the

influence of radical animal rights NGOs.

While the PCA Act recognizes various negative impacts of stray dogs and their own suffering as homeless dogs, the AWBI formulated the regressive and dangerous ABC policy that requires dogs to remain homeless and in perpetual conflict with people. The policy not only legalizes straying, it makes redundant several sections of the PCA Act that allow for the permanent removal, sheltering and/or euthanasia of stray dogs as dogs are domestic, companion animals not meant to live homeless on the streets.

Ironically, the AWBI seeks to 'save Indian dogs' by neutering mongrels and leaving them to fend for themselves on the streets, when in fact, indigenous, Indian breeds like the Mudhol Hounds and Rajapalayams need to be bred extensively and protected from crossbreeding with stray dogs if they are to survive in future.

In this manner, the AWBI has defeated the most important objective of the PCA Act — to ensure the welfare of domestic animals and to prevent their 'unnecessary suffering.'

In 2014, the AWBI went to the Supreme Court and got Jalikattu, the centuries old traditional bull racing, banned — a stated PETA agenda. In 2023, the Nagaraja judgment was overturned by a five-judge constitutional bench which stated that the Indian Constitution does not recognize fundamental rights for animals. A year later, the AWBI officials are still referring to the Board as the "apex body for safeguarding animal rights in India", openly contradicting the Supreme Court.

In 2015, the AWBI published its 'Revised ABC Module', the foundational document for the ABC policy. The Module misrepresents research of global organizations and actively

mis-portrays the World Health Organization (WHO) policy to further an 'activist' agenda not in keeping with Indian laws or constitutional values, human health issues or animal welfare, leading to the death of thousands of Indian citizens and children, via stray dog attacks and rabies, daily pollution of public places via tonnes of dog faeces, the spread of zoonotic diseases, the slaughter of India's wildlife due to dogs and the suffering of millions of homeless dogs.

Though the Module states that availability of food waste increases stray dog populations, the AWBI still promotes the feeding of stray dogs in public, causing massive filth and human-dog conflict on the streets.

The AWBI seems to function under the active directions of foreign animal rights NGOs like PETA, that is also well known for its virulent opposition to pet ownership and has globally tried to get various dog breeds banned. In 2013, the AWBI had teamed up with PETA in court to shut down India's only indigenous dog breeding unit in Karnataka.

This, in fact, violates one of the core objectives of its parent Animal Husbandry Department, that is, the "upgradation and conservation of indigenous breeds." Clearly furthering PETA's objectives, and clueless or apathetic regarding its own, the AWBI is currently trying to ban various dog breeds in India.

An Australian Yorkshire Terrier was one of the numerous breeds banned by the AWBI in the interest of "public safety", while promoting the idea of stray and unowned dogs roaming the streets. The AWBI admitted that it had, in fact, not constituted any expert committee on the matter and the ban has been stayed by several High Courts. ■

Meghna Uniyal is director of Humane Foundation for People and Animals

## Dog bite anger in Jor Bagh

Continued from page 9

roaming unleashed before we step out of our gate," they said in unison.

Calls to the Lodhi Road police *thana* to ask why no FIR has been registered on any of the three complaints didn't yield any credible answers. The SHO Sanjeev Mandal was on leave and Deputy SHO Sumeet Mallik merely said the law will take its course. Investigating Officer Ramesh Dahiya, the policeman who is responsible for this particular case, whom *Civil Society* met at the protest site, said he is "awaiting orders from above," to convert the

July 1 complaint into an FIR. He said he was unaware of the earlier complaints since he said he was posted to this station as recently as June 2024.

An RWA representative told *Civil Society* anonymously that some RWA committee members have even spoken to senior officers at the Deputy and Assistant Commissioner of Police levels, who told her in confidence that they could not proceed further as they have orders from their seniors not to take action.

"What protest?" Ms Shukla asked when contacted an hour after the protesters dispersed. "I'm not aware of any protest. I do hope someone from the house offered them

water in this heat." She said she was at an animal shelter at present and when told about the protests and details of the police complaints, she dismissed it, saying, "There are people who will make trouble out of anything."

Ms Mehrotra's complaint of an actual dog bite, complete with an attached medical report, recorded by the colony's CCTV camera, will be harder for the police to overlook.

"She lacks empathy and basic humanity. How can she not be affected by the suffering of another at her expense and her almost deluded apathy?" asks Richa Bery, whose maid was attacked by Shukla's dogs last winter. ■

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Standing on a stool, environmentalist Ravi Chopra urged people to save forests, trees and the natural world

# Doon boils over on cutting down of loved, old trees

Rakesh Agrawal  
Dehradun

HUNDREDS of people, including activists, students and senior citizens, gathered under the national flag at Dilaram Chowk on Rajpur Road recently to begin a two-kilometre protest march against rampant tree felling in Dehradun.

Chopping down trees in the city is akin to heresy for citizens. After all, the state is famous for the Chipko movement, which saw village women hugging trees to prevent them being felled.

The trigger this time was a proposal to cut down trees to widen the stretch leading to the chief minister's house on New Cantonment Road. Around 240 trees, including a 250-year-old one, were slated to be axed for the project.

Another reason was the heat this summer

which was the hottest ever. Dehradun recorded a temperature of 43°C-plus on June 18, along with persistent hot winds, a phenomenon unheard of in this picturesque city surrounded by mountains.

A large poster at the protest march site read, "Abki baar 50 paar" — a play on the BJP's election slogan — referring to the city's temperature that rises each summer.

Sensing the indignation of the people, Chief Minister Pushkar Singh Dhami backtracked. Government agencies placed banners along the route informing protesters of his decision. But his reassurance had little impact. In response, not one but two protest marches were carried out, on June 27 and July 7.

"It's a long battle. About 40,000 trees are planned to be sacrificed in the city. We must be ready to fight," said environmentalist Ravi Chopra, who was in attendance with his wife,

Jo McGowan.

Dehradun, once labelled 'the city of grey hair and green cover' is now called 'the city of black hair and grey cover'. It has lost 75 percent of its green cover and its once free-flowing canals are now drains carrying sewage. Thousands of young people from the hills have migrated to the city in search of livelihoods. And unabated construction of malls, offices, flyovers have turned its sky grey with dust.

Residents were alerted to the government's covert plan when workers began marking trees to be axed. Voluntary groups informed residents through Facebook, Instagram, WhatsApp and X.

There was talk of more roads being widened and more trees being sacrificed. Such as a road leading to Centrio Mall, close to the Survey of India building entrance. All this under the guise of making Dehradun a 'smart city'.

"The existing two-lane road is good enough for us. This is being done to benefit the mall owner," alleged Trilochan Bhatt, a journalist and activist.

Protesters arrived at Centrio Mall from Dilawar Chowk and filled the air with songs, slogans and street plays on tree protection. A clutch of voluntary organizations took part — Making a Difference by Being the Difference (MAD), Parashashti, Agaaz Federation, Students Federation of India, Youth Club and many others.

Folk singers Satish Dhau lakhandi and Jaydeep Saklani sang loudly and passionately, hoping their message reached policymakers clearly.

Ritu Chatterjee, founder and partner of GW Lifestyles, exhibited green design concepts suited to hilly areas. All participants took a pledge to save trees and protect the environment.

The march was colourful and lively with camaraderie. A retired bank official, Dipak Menon, came with an oxygen machine. "We will soon need more of these if this craze to uproot trees continues," he quipped. Gayatri Tamta, a folk artiste, dressed as Gaura Devi, the legendary Chipko leader. "I came here dressed like her to save trees like her," she said.

Ajay Sharma, a teacher, arrived with some of his students. "These trees will soon be dead, so we came for our last darshan," he said, pessimistically.

Dehradun's smart city project has resulted in endless road digging, road widening, water logging, traffic jams, bulldozing of slums, eviction of hawkers and tree felling. Long-time residents are not amused.

According to Himanshu Arora of Citizens for Green Doon, more than 25,000 trees have already been cut in one sweep for road building, road widening, and sundry other projects.

He says that, according to his calculations, another 40,000 trees are on death row — waiting to be chopped soon. These include



Protesters filled the air with songs, slogans and street plays



The summer heat will cross 50 degrees, read one poster

**The trigger this time for the protests was a proposal to cut down 240 trees, including one that is 250 years old, to widen the road to the house of the chief minister.**

4,500 trees which will be axed for widening the Ballupur-Paonta Sahib road, 5,000 trees likely to be sacrificed for the Asarodi-Jhajhra four-lane Expressway, and 2,000 to build a reservoir to supply drinking water to the city from the Song Dam. Another 16,500 trees will be felled for building the infrastructure to supply drinking water from the Song Gravity Dam on the Song river in Dehradun district.

The second demonstration on July 7 was held at Canal Road to protest against a proposal to cut down 200 trees, including mango and jamun trees, to widen the road.

For the time being, 240 trees have been saved, thanks to the unprecedented crowd of nearly 3,000 people who gathered to protest vociferously against the massacre of trees in Dehradun. ■

## Samita's World

by SAMITA RATHOR





# Hazardous trash going unchecked

Sukanya Sharma  
New Delhi

HOW many middle-class households in India segregate nail polish bottles, expired medicines, paint boxes, batteries and other such hazardous wastes while discarding them? Very few, if a survey conducted by Toxics Link, an environmental non-profit, is anything to go by.

More than 65 percent of the households surveyed by Toxics Link discarded hazardous biomedical waste together with regular waste, while more than 50 percent discarded fluorescent bulbs and tube lights without any precaution. The list goes on, and becomes more grim.

Hazardous domestic waste (HDW) includes a wide variety of materials. Toxics Link divides them into two categories: household biomedical waste (medicines, syringes, sanitary napkins, blood sugar test kits, cotton swabs, bandages) and household toxic waste (CFLs, tube lights, cleaning products, disinfectants, paint containers, batteries).

Information was collected from 600 households in Delhi, Jaipur, Bhopal and Ranchi. A survey was also conducted among waste workers in these cities as well as in Coimbatore to understand the handling practices and flow of hazardous waste after it has been discarded by households.

It was found that 90 percent of interviewed workers did not wear any form of personal protective equipment (PPE), exposing them to toxins and injuries. While workers collected some categories of HDW separately, they finally mixed them with other waste, revealing an acute lack of awareness.

The figure for HDW generated in India, it seems, is not known. Toxics Link says between 1,600 and 6,400 tonnes may not be getting segregated at source in a year. It is an approximation based on how much municipal solid waste (MSW) gets generated each year.

But with urbanization, a growing economy and more people in the middle class both MSW and HDW are expected to rise rapidly.

There is a significant threat to public health from HDW. Exposure to toxic emissions from waste items like cleaning agents, antibiotic resistance from biomedical waste such as expired medicines, used syringes and testing kits are only a fraction of the entire scope of risk.

There is also the threat of severe pollution when these toxins are released into the

environment. They become catalysts for resistant micro-organisms to develop, making infections more difficult to treat. Inadequate handling of such waste also contaminates the food we eat with severe pollution levels in both soil and water bodies. Landfill fires compromise human and animal health. All of these risks jeopardize our ecosystem at large.

Other findings of the study paint a similar picture. Seventy percent of households in Coimbatore discard biomedical waste with

This exposes both waste workers and the general public to needle stick injuries that can transmit serious diseases. Thirty-one percent of surveyed households admitted to instances of injuries while handling HDW, with Bhopal being the highest at 97 percent.

Even though the Solid Waste Management Rules, 2016 mandate source segregation of hazardous domestic waste, this is far from what really happens in most cities across the country, including the national capital. Despite the serious health risk, 13 percent of respondents in Delhi said they want to continue discarding biomedical waste with regular household waste. Challenges like the lack of compliance and weak enforcement continue to loom large. The survey also identified many regulatory and operational challenges such as inadequate infrastructure for HDW disposal, incomplete data on hazardous waste generation and lack of awareness about disposal protocol amongst the public.

In its last section, the study lists a few key recommendations based on these findings and stakeholder interactions. Some of them include:

- Policy enforcement: introducing municipal by-laws for HDW management and enforcing penalties
- Research and capacity building: working up a national inventory of HDW and organizing training programmes for local officials and workers
- Producer responsibility: ensuring producers bear the full costs of waste management and making labelling of hazardous household products mandatory

- Collection and disposal infrastructure: designating different days and vehicles (with separate compartments) for different types of household waste
- Public education and behaviour change: creating a sense of citizen ownership and responsibility through sensitization and awareness campaigns.

The study by Toxics Link highlights the pressing need for comprehensive strategies of hazardous domestic waste management across the nation. Addressing existing challenges requires a collective effort involving government agencies, waste management authorities, community organizations and the public. Organized efforts in the domains of segregation, disposal, laws, enforcement and public awareness can together help mitigate the immense risks that emanate from hazardous domestic waste. ■



Civil Society picture/Umesh Anand

Ninety percent of waste workers did not wear any personal protective equipment

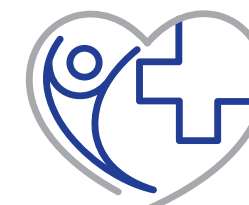
**More than 65 percent of the 600 households surveyed discarded hazardous biomedical waste along with their domestic waste.**

regular household waste and what makes it more alarming is that 1.8 percent of households burn it. Around 19.2 percent of surveyed households admitted to discarding used needles or injections, especially in Ranchi and Bhopal (35 and 32 percent of households, respectively).

## Beyond Business Scripting social change



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# Jackfruit in dumpling is a winner

Shree Padre  
Kasaragod

A steamed dumpling made of ripe jackfruit, jaggery and rice flour wrapped in an aromatic leaf with the fragrance of cinnamon has begun to enjoy popularity as a snack. It is proving to be a winner for the Neeloor Producer Company (NPC), a farmer-producer organization (FPO) in Kottayam district of Kerala.

Called *kumbiliyappam* or *chakka ada*, the snack is a fusion of flavours particularly so because of the edana or vayana leaf which is redolent and tastes like cinnamon. It all adds up to a tasty, modestly priced and hugely successful snack that has brightened the prospects of the NPC, which was started in 2017 in Neeloor near Pala. It is now the biggest producer of *kumbiliyappam*. The company sells value-added jackfruit products as well, and is eyeing a turnover of ₹2.5 crore next year.

Edana leaves, however, aren't widely available. The leaf grows wild in the deciduous forests of the Western Ghats where it is gathered by tribals. Sometimes it is spotted growing in the backyards of houses near forests. Generally, it is an elusive leaf. It belongs to the cinnamon family, *Cinnamomum malabattrum*.

The *kumbiliyappam* is also a decent source of income for a solitary farmer, Shaji Jose, who knocked down his rubber trees to plant the fragrant edana. The leaf now grows on his land. He then started a family business making *kumbiliyappam*.

Why has this traditional sweet risen in popularity? In the good old days, it was made at home. But it's not nostalgia alone that sells *kumbiliyappam*. Unlike short eats at tea shops like *vadas* and *puris* which are oily, the *kumbiliyappam* is steamed and therefore appeals to the health-conscious consumer.

Its popularity has opened up the export market as well. For the past few months *kumbiliyappam* is being exported to the US, UK, Canada and West Asia. About half of the Neeloor Producer Company's output is sold locally and the rest is frozen and exported.

The snack is called '*kumbiliyappam*' because it is shaped like a cone. *Kumbiliyappam* means cone-shaped in Malayalam. Some people pack the dough between two folds of the leaf. This flat version is called *chakka ada*, with '*chakka*' meaning jackfruit.

**FROM TREE TO TABLE** After prices of rubber fell, Jose looked around for an alternative. He realized that edana had consistent demand and would fetch him decent revenue. So, five years ago, he cut down his rubber trees and replaced them with edana plants on his 3.5 acres in Thrissur district. No one has grown the leaf commercially, so far.

This also enabled him to begin his *kumbiliyappam* making business. Jose says he was fond of the traditional sweet. "During the jackfruit season, in my childhood, it was made regularly in my home. At night I'd eat lots of it instead of rice."

Jose, who lives in Vettilappara in Patnamthitta district, also runs a small enterprise which makes sweets like peanut *chikkis*, sesame *chikkis* and ginger *mithai*.

Commercial production of *kumbiliyappam* is rare with the exception of Navya Bakery which has more than 40 branches in Ernakulam and Thrissur districts. They make this snack with jackfruit pulp in large quantities.

Last year Jose started producing *kumbiliyappam* with help from his family. They make it early in the morning and deliver it to tea shops. *Kumbiliyappam* has a shelf life of only one or two days so it has to be supplied on a daily basis. In a short time, Jose began making 600 *kumbiliyappams* per day.

Jose buys jackfruits and converts it into fresh pulp every day. "You



The farmers now have an attractive office for their company



Kumbiliyappams being steamed

won't get the taste of fresh pulp in the *kumbiliyappam* available commercially. But in our sweet you will taste bits of the fresh fruit. It makes our snack taste more authentic," he says. "We also put in a fairly large proportion of jackfruit pulp. Unlike others, we don't stint on quantity."

Jose made and sold *kumbiliyappam* for only a month and a half last year. One big advantage is that his son, Alan Jose, a graduate in food processing, understands the nuances of manufacturing.

Jackfruit is supplied to their doorstep by agents. The price varies according to the season. The flakes are removed, diced, cooked and stored in the deep freezer at night. The pulp is cooked the previous night. At 4 am, before dawn, seven women from the neighbourhood arrive and work till 7 am.

They make the dough — mixing rice flour, jaggery, cardamom, ginger and *jeera* into pulp. The edana leaves are washed and kept aside. The dough is filled into the leaves which are folded into cones and then steamed in an electrical steamer for 45 minutes. Around 1,000 *kumbiliyappams* can be steamed at a time. By 7 am, the sweet snack is ready for dispatch.

Alan now takes over. He loads the *kumbiliyappam* into his auto-rickshaw and supplies it to bakeries, tea shops and restaurants. The family sells 1,800 *kumbiliyappams* daily at ₹15 each. The shops resell it at ₹20. Alan travels around 150 km every day to supply the sweet.

It takes the edana plant three years to grow leaves suited for the snack. The leaves are carefully harvested. Jose has about 200 plants that are four to five years old. One plant yields 300 leaves. Every day he collects leaves from four to five plants. "Growth is slow. A plant requires a year to give leaves again," he says. Jose selects cultivars with mild aroma for planting.

When the jackfruit season began this year, from April 15, Jose's family began making *kumbiliyappams*. He hopes to produce the snack till the jackfruit season ends which is around August-end.

*Kumbiliyappam* is in demand through the year. After the jackfruit season is over, the family can continue production by stocking the pulp in a cold room but that requires considerable capital investment. There are export enquiries too, they say.

The other alternative, says Alan, who has studied all the possibilities, is to outsource. "Blast freezers and a cold room are available in Kothamangalam. We can avail of these services for a fee. We can stock our flakes there and bring it home in a freezer. It will increase our cost of production somewhat."

It would cost them ₹25 lakh to ₹30 lakh to install a cold storage of 15-tonne capacity and a blast freezer. "We can buy fresh jackfruits off-season but, again, it increases our costs," says Jose. The cocoa industry has a catchy slogan: Bean to Bar. The Jose family could coin its own unique tagline, 'Leaf to Cone'.

**A BESTSELLER FOR FARMERS** Two districts away is the NPC. It has made a name for itself by buying jackfruits locally and converting them into value-added products for sale.

Last year it sold 2,000 *kumbiliyappams*. The company soon realized demand for the product was high. It now produces 5,000 *kumbiliyappams* daily in two shifts. The snack has a short shelf life of a day or two. But if frozen, it can last much longer. The NPC supplies *kumbiliyappams* to about 45 tea shops and bakeries in a 25-km radius of Pala city. It has two distributors who supply the snack farther to distant areas. The company's selling price varies from ₹13 to ₹15.

Replacing oily snacks with a traditional healthy snack throughout the year is a remarkable achievement for the company. It also takes orders for weddings and other functions. Last year, it got around 100 orders for various functions.

As the largest *kumbiliyappam* producer in the state, the NPC produces its own jackfruit pulp. Its daily requirement is 150 kg. About five tonnes is used in a month. Production in two shifts started six months ago.

"Demand for *kumbiliyappam* is increasing, especially from other countries. We have installed a cold room with 100-tonne capacity. Jackfruit is available at a very competitive price for only three months. We can now stock sufficient pulp in our cold room. We need an off-season stock of around 50 tonnes," says Shaji Joseph, CEO of NPC.

But the hurdle in scaling up is the edana leaf. The company currently sources leaves from the Attappady forest in Palakkad district and the forests of Pathanamthitta district. Tribals pluck the edana leaves from forests and sell them to local agents who supply the leaves to the company once every three to four days. Procuring leaves every day is not easy.

The company used to buy jackfruit and tapioca and convert both into value-added products for sale. Using electric dryers, the company was also producing dehydrated green (raw) jackfruit. During the off-season people would buy the dehydrated jackfruit. Subsequently, more companies began making dehydrated raw jackfruit and demand declined.

The NPC buys jackfruit from farmers within a 10-km radius. About 70 to 80 traders also bring jackfruits. The buying price is ₹25 per kg though it varies. During the peak season it can decline to ₹8 per kg. The company operates for eight months of the year. Around 70 women, some on



Slicing of jackfruit flakes in the producer company's unit



Shaji Jose with edana plants in his farm

contract, are employed. Each woman worker slices 20 kg of jackfruit in a day.

Joseph became CEO two years ago. He introduced two major changes. One, he decided that they would work only on jackfruit products since there were other companies producing tapioca products. Two, sensing the demand for *kumbiliyappam*, he decided they would produce it throughout the year.

"We were actually wondering what to do with the ripe jackfruits we had. We buy only raw fruits but some would ripen every day. We then thought, why not make *kumbiliyappam* with it. And this idea turned out to be a success," says Joseph, happily.

The company supplies sliced raw jackfruit to five or six export companies in Ernakulam, 50 km away, at ₹110 to ₹120 per kg. This is frozen and exported. There is not much local demand for frozen jackfruit since the fresh fruit is easily available. However, demand is rising in the state because it is considered beneficial for diabetics. Kerala is the only state exporting frozen raw jackfruit — around 1,000 tonnes annually.

The NPC also sells jackfruit pulp in bulk and dehydrated raw jackfruit in small quantities. Jackfruit seeds are cut into four and sold to export companies. This brings the company an income of ₹25 per kg. Frozen seeds are used as a vegetable abroad. NPC also produces tender jackfruit cutlets and plans to introduce jackfruit puffs next year.

The acquisition of a 100-tonne cold room and blast freezer enables the company to keep their processing unit open for 12 months instead of eight months.

"Our turnover in 2022 was ₹35 lakh which increased to ₹1.5 crore in the last financial year. Next year, we hope to achieve a turnover of ₹2.5 crore," says Joseph, proudly. ■

Contact: Alan Jose — 86062 36913, Shaji Joseph — 94475 72919

**A traditional healthy snack has replaced oily snacks. It is a remarkable achievement by the farmers' company.**



## With natural farming base, FPO takes off

Bharat Dogra  
Tikamgarh (MP)

THE Ken-Betwa Women Farmers' Producer Company in Tikamgarh district of Madhya Pradesh has 2,300 shareholders, mostly women farmers who took to natural farming with assistance from SRIJAN, a voluntary organization. Going natural helped the women save money, produce better crops and conserve soil health. Their next step was food processing and the final plunge was starting their own company.

Their farmer-producer company now sells cold-pressed mustard oil, groundnut oil, *desi ghee* from the milk of local cows, groundnuts as well as *arhar* and *moong* pulses.

"Instead of making a big splash by introducing many products for the market, we decided to focus on fewer products and achieve credibility by maintaining quality standards," says Kamlesh Kurmi, a marginal farmer who was involved in SRIJAN's project from the start.

With orders coming in from Delhi and Mumbai, this company is on its way to becoming a successful micro-enterprise.

The unusual name of the company — after the two rivers, Ken and Betwa — symbolizes that just as it is important to save the two rivers for the prosperity of the region, it is equally important to save rural livelihoods, explains Rakesh Singh, team leader of SRIJAN (Self-Reliant Initiatives through Joint Action) in Tikamgarh.

In 2018, when SRIJAN reached out to marginal women farmers in Pathari village in Jatara block of Tikamgarh district, Saroj Kushwaha responded at once. She subsequently emerged as a key person promoting natural farming in the village.

Kushwaha now manages a natural farming centre which produces non-chemical fertilizers and pest repellants for her own farm and for other farmers in this village who find it difficult to produce these items on their own. They can buy the fertilizers from Kushwaha at a modest price.

Kushwaha also took up SRIJAN's advice to set up a multi-layered vegetable garden. It enabled her to diversify her produce within

the space constraints of her small farm of about four acres.

Kushwaha is only one of several hundred women in Tikamgarh district who have made important gains with natural farming with SRIJAN's guidance and help, reducing farming expenses while producing more diverse produce of better quality.

"Apart from lowering the costs of farming, the food we produce with natural methods keeps our families healthy and we save a lot by not having to go repeatedly to doctors," says Guddi Ahirwar, a Dalit farmer who has been active on a small but very productive farm.

Their success with biodiverse farming opened up opportunities to hike incomes further. They realized they could take their produce to consumers who value healthy food and are willing to pay a small premium for it.



An oil processing unit being run by the Ken-Betwa Women Farmers' Producer Company

**The women had to ensure that the technology they chose for processing maintained food quality and cost.**

However, to realize this objective they first had to build their capacity to run a food processing unit. They also had to be careful about the processing methods they employed so that food was not stripped of its nutrients.

As Rakesh Singh says, exploring various technologies carefully was a gradual process. They had to ensure that the technology they chose maintained food quality and affordability.

"We realized the benefits of small-scale local

processing compared to big processing in urban areas. When we extract oil from mustard or groundnut crops locally, then it is possible to make available the residual oilcake for local dairy animals. This is very beneficial for the local rural economy," Kurmi points out.

In addition to marketing these products, the company is helping a sister organization by marketing their *kodo* and *kutki* millets, which are also reputed for having health benefits.

As the company is working on rather low margins, it has tried to raise some income from additional activities like supplying wheat to biscuit manufacturers, but this is not its core activity.

At an early stage the company has already started receiving valuable support from customers. With orders coming in from Mumbai and Delhi, the venture appears to be well on its way to achieving an adequate base of regular buyers of its products.

If the effort succeeds, it can open the door for several other similar ventures. SRIJAN's efforts to promote natural farming have already spread to states like Uttar Pradesh, Rajasthan and Chhattisgarh, apart from Madhya Pradesh.

These efforts involve promoting multi-layered vegetable gardens and small orchards suitable for farmers with small land holdings. With fast growing crop diversification, other opportunities present themselves like making pickles and jams for urban markets.

Hence, both in terms of new units and greater product diversification of the Ken-Betwa company, there are considerable new opportunities waiting to be tapped.

With growing national discussion and debate around reducing the distress of farmers, what these farmers have been able to achieve can be very useful and inspiring for wider efforts to better the lot of farmers.

As these efforts reduce fossil fuels by giving up chemical fertilizers and pesticides and emphasize planting of many more trees and improving soil, resulting in carbon capture, such farming efforts are good for climate change mitigation. And, since they reduce expenses while promoting diversification, soil and water conservation, these initiatives are good for climate change adaptation too.

Hence, if payments are made to such farmers for their contribution to climate change mitigation and adaptation, their livelihoods would be strengthened further.

By adding processing and direct marketing to health-conscious consumers, these efforts can succeed even better, setting an example for others. ■

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The Gomti river at Kudia Ghat in Lucknow

Civil Society picture/Yash Sachdev

# CAN LUCKNOW GET BACK ITS RIVERS, LAKES?

## A revival plan with concerns from a troubled past

By Venkatesh Dutta

THE city of Lucknow is planning a revival of its water heritage. If the effort succeeds at least one shrunken river with wetlands, lakes and rivulets could gradually spring back to life over time.

Originally, the city depended on waterbodies for its survival. Thoughtless urbanization then tore this harmonious equation apart. Restoring it, in some measure, will be key to survival and a sustainable future.

The rapid growth of Lucknow calls for a course correction. As the population has risen, housing needs have multiplied. There has been a building boom — both formal and unorganized. Neither has been regulated with a vision for a healthy future.

Construction has happened on floodplains and wetlands have been gobbled up. With natural sources of water either gone or polluted, Lucknow could face a serious water crisis. Residents are already relying on deep borewells with the rapid decline of the groundwater table across the city.

In addition, global warming has brought uncertainties. There are long dry spells and then so much rain that the city is flooded. A healthy river system could solve both problems by being a source of supply and a

receptacle for the run-off during the monsoon months.

The Gomti, which runs through Lucknow, has been under stress. The Kukrail, that joins it in the middle of the city, has been reduced to a drain. Rejuvenating the two rivers is important but simultaneously their catchments and networks of smaller waterbodies have to be revived and protected.

In May, Uttar Pradesh Chief Minister Yogi Adityanath convened a meeting for rejuvenating the Kukrail. The CM asked officials to conduct a comprehensive study on improving the river's water flow.

In response, our team of researchers conducted a survey of the entire river stretch and presented a revival report within 15 days. We have been working on the restoration of the Gomti and its tributaries since 2005.

In 2011, I undertook a 960-km *yatra* along the Gomti and documented more than 60 tributaries of the river. This led to the initiation of rejuvenation programmes of smaller rivers in the state. Nature-based solutions are best for rejuvenating rivers.

The 28-km Kukrail is an important tributary of the Gomti. It originates from Asti village of Mahona and winds its way through the Kukrail forest, converging with the Gomti near a barrage.

The Kukrail forest survives due to this river. Just like the Gomti, the Kukrail is fed by artesian wells and springs. North Lucknow was drained

by the Kukrail river while the southern part of the city was drained by the Sai river. The two rivers were further fed by many streams. Sadly, as Lucknow grew, no attention was paid to these water sources.

Before the construction of an embankment in 1962, the Kukrail river joined the Gomti downstream of the barrage opposite Martinpurwa. However, following the construction of the embankment, this section of the river became isolated from the mainstream flow.

The area between the Kukrail and the Gomti used to be known as the Municipal Sullage Farm. It was owned by the municipal corporation. In 1980, this area was transferred to the Lucknow Development Authority (LDA) for residential and commercial development.

Renowned for its purity, the water of the Kukrail was lauded in the British *Gazetteer*. Initially, groundwater played a significant role in sustaining the Kukrail's flow. However, due to a substantial decline in the groundwater table, the base flow has diminished considerably, nearly ceasing the natural flow of the river.

**PROTECTING FLOODPLAINS** The state government is planning to revive the flow of the Kukrail from its point of origin in Asti village where it has been reduced to a mere trickle. The first step is to return the floodplains to the river.

The Sub-Divisional Magistrate of Bakshi ka Talab block of Lucknow has received directives to swiftly remove all encroachments along the banks of the Kukrail. The official was instructed to collaborate with the revenue department to ensure clearance of the area.

The Chief Development Officer of Lucknow has been entrusted with the responsibility of supervising the restoration of 22 ponds scattered across Asti village. These ponds will eventually serve as feeders for the Kukrail, improving its water flow in future. The drainage of the catchment area from where the Kukrail originates is impeded by the construction of Kisan Path, a ring road that circumscribes Lucknow.

There is an urgent need to undertake notification of waterbodies and take strict measures against encroachment. If these waterbodies are not saved, the entire settlement of Lucknow will face dire consequences. Lucknow had many waterbodies, *tals*, lakes, wetlands and rivers. It had excellent drainage.

We have mapped each and every stream and wetland of Lucknow, using high-resolution satellite pictures. We are also using drone cameras to study the extent of waterbodies.

Lucknow boasts 1,370 wetlands even today which we have identified through satellite remote sensing. Around 108 have now been earmarked for restoration.

Waterbodies are our natural heritage. They came into existence millions of years ago. They are sanctuaries, just like forests, and should be protected. The status of waterbodies must be mapped every year, just like forests.

Lucknow is famous for its gardens. But it was also once famous for its lakes and ponds. Historical records document hundreds of waterbodies, varying in size, scattered throughout the district.

Interestingly, most waterbodies were interconnected with the Gomti river and its numerous tributaries, ensuring a steady water supply to the river year-round. Given that the Gomti is sustained by groundwater, its feeder streams, lakes, and ponds hold significant importance as they contribute to its perennial flow. Many of these rivers survive even today and could serve as vital parts of the city's drainage system.

Unfortunately, some have been converted into sewage-carrying drains, while others have fallen victim to extensive encroachment by private and government entities. There are no legal provisions in place to safeguard the land adjacent to these waterbodies. In numerous instances, roads and buildings have been constructed directly on riverbanks, constricting the natural flow of the water.

In Hulaskheda of Mohanlalganj in south Lucknow lies a large oxbow lake, known as Karela Jhil. It is situated around an excavation site that dates back to the Bronze Age. This lake, once a segment of a flowing river, played a vital role in early human settlements, serving as a water source for over a dozen villages.

Karela Jhil overlooks a series of lakes to the southeast, extending up to Nagram. At its western extremity flowed the Bakh river, which used to irrigate thousands of acres of agricultural land. Today, local people do not even know that a Bakh river existed here just 50 years ago!

During the late 1980s and 1990s, numerous colonies came up on the



The southern part of the city is drained by the Sai river

wetlands and floodplains of such rivers, rivulets, and natural streams, causing irreversible harm to these vital ecosystems, which are otherwise protected under the law.

Consequently, groundwater levels in the city have been steadily declining by one metre annually, due to the loss of natural recharge sites. Public properties of revenue villages, such as nullahs, ponds, *chak* roads and pastures, were sold to builders and land development agencies. The development authorities even came up with colonies on large ponds, resulting in the disappearance of 70 percent of ponds over the past four decades.

**FORESTS, RIVERS, LAKES** Forests, rivers and lakes were seamlessly connected. There is a record of dense *dhak* forests around the areas of Mahona, Mal, and Malihabad in Lucknow at the beginning of the 20th century. The Gomti, along with its three tributaries — Behta, Jhingi and Akraiddi — meandered through these wooded landscapes in the north. The Behta originated from lakes nestled in the eastern centre of Sandila in neighbouring Hardoi district, traversing into Lucknow through the forests of Malihabad.

And tigers frequently travelled from Lakhimpur Kheri and Hardoi to Lucknow, drawn by the watercourses along these routes.

Waters from the northern part of Kakori contributed to the flow of the Behta river. Ultimately, the Behta converged with the Gomti in Kankarabad village. Approximately 80 percent of Mahona's fields were



nourished by ponds and lakes. Green fodder was transported via boats from Mahona to Lucknow through the Gomti.

Such was the abundance of water that groundwater would appear just 16 to 20 feet below the surface. The villages of Ataria and Manjhi in Malihabar were situated in the *khadar* (floodplain) of the Gomti and were prone to frequent flooding.

In the northeastern part of Lucknow, numerous lakes nestled amidst dense *dhak* forests. The Reth river originated from the marshy woodland near Gulariya at the northeastern tip of Mahona. These lakes collectively contributed their waters to the Reth river, which, after meandering a short distance within Lucknow, progressed into Barabanki district, a bit farther to the east.

Sadly, all these lakes have been encroached upon by numerous housing projects.

In the southwest corner of Lucknow, the Sai river enters through Mohan, delineating the boundary between Unnao district and south Lucknow. One side of the river belongs to Unnao, while the other side is within Lucknow. Many lakes and ponds in Mohanlalganj were consistently brimming with water.

The Jalvihar Utsav (water festival) was celebrated here during August-September with elaborate boating and musical performances on the rivers and ponds. On the northern and eastern perimeters of Sisendi, several sizeable lakes irrigated the fields of the village. A forest spanning approximately 270 acres also adorned this village.

The Bakh river originally sprang from the cantonment area behind the Lucknow Railway Station. Initially, it was sustained by water from numerous lakes, forming an extensive chain of large bodies of water near its source, which eventually transformed into a perennial stream.

Subsequently, settlements such as Aashiyana, Bangla Bazaar, and LDA colonies came up on these lakes. One of the feeder lakes to this river was Qila Mohammadi lake in Aashiyana, contributing to its flow. Over time, the Bakh metamorphosed into the Qila Mohammadi drain.

As a tributary of the Sai river, the Bakh meandered for 56 km in southern Lucknow before converging with the Sai. The water from Haibatmau lake, adjacent to the Rae Bareilly road, used to flow into the Bakh river. However, establishment of the Vrindavan Colony and Eldeco Colony two decades ago led to cessation of water flow into Haibatmau lake. Many unplanned private settlements also came up around the Haibatmau lake. What we see now is not even 10 percent of its original size.

Originating in Unnao district, north of Mohan, which acts as a demarcation between Kakori and Mohan, the Nagwa river briefly marked the border between Kakori and Bijnor before entering Bhadoi in Bijnor. The Nagwa river receives water from the southwestern part of Kakori. After a brief journey, it flows into Bijnor and eventually merges with the Sai near Bani.

Notably, the expansive Chande Baba Taal, situated in Garhi-Chunauti, a site of religious significance in Sarojini Nagar, covered an area of approximately 200 acres. The water from this lake fed into the Nagwa river. The Nagwa has now been reduced to a small channel receiving sewage and wastes from housing settlements and industries.

The Loni river originates in the northeast of Mohanlalganj *tehsil* of Lucknow and joins the Gomti near Salempur. This river played a crucial

role in irrigation in Mohanlalganj. It is now reduced to being just a small drain.

**WHAT CAN BE DONE** The end-of-pipe solution is an outdated idea. We should learn from our past mistakes. The world is moving away from large-scale centralized STPs. These require huge capital expense for pumping and treatment. Besides, the water they eventually produce is never up to the mark. It is far better to treat water at source through small, decentralized STPs and use the water to restore the ecosystem or for other purposes. Water should be used, reused and returned to nature.

No human, machine or technology is superior to the intelligence of nature. River rejuvenation should be based on revitalizing river processes through nature-based solutions. Unfortunately, in many projects cosmetic treatment is done with irreparable damage to the river ecology.

The second issue is encroachments. Decisions on urban growth and governance have consistently overlooked encroachments on river floodplains, resulting in destruction of ponds, wetlands, and interconnected water systems.



Encroachments on river floodplains, destruction of ponds and wetlands are leading to urban flooding

Consequently, our cities are experiencing frequent and severe flooding due to the removal of these natural absorbers and the subsequent reduction in the rivers' flood-carrying capacity. It is crucial for urban planning policies to prioritize the protection and restoration of river floodplains, wetlands, ponds and waterbodies for more water in summer and less flooding during the monsoon.

The riverfront should be known for its naturalness. It should have minimal use of concrete. Remember, this area will flood during high-intensity rain. If you reduce the width of the floodplains or the riverbed, you put communities at higher risk of flooding.

The age of these rivers is in millions of years, whereas your concrete infrastructure will not last even five decades. Therefore, you threaten the resilience of the river. This has a cascading impact on the health of the river and our own survival.

Just like the river channel, the land adjacent to it on both sides is important. If you lose the river terrace, you lose the river. The riverbanks store water and recharge aquifers very fast. The banks should be natural with native plants and grasses. This foliage is the refuge of a variety of life forms. If you take away riverbanks and replace it with concrete walls, you destroy all the processes which keep the rivers alive. ■

*Venkatesh Dutta is a Gomti River Waterkeeper and a professor of environmental sciences at Ambedkar University, Lucknow.*

## PEOPLE'S AGENDA

# Making cities water rich with a better quality of life for all



S. VISHWANATH

THE fundamental premise to start from is that water is a human right and all city dwellers have a right to water for health, hygiene and a decent life based on their needs and irrespective of their capacity to pay. It is also true that beyond the human right to it, water becomes an economic good and therefore should have a price so as to ensure it is conserved and used properly. When people pay for water a water utility or the local urban body remains fiscally afloat and can invest in maintaining the system as well as extending networks in a growing city.

Thinking around water includes the collection, conveyance and treatment of used water in such a fashion so as to not pollute the environment and present health risks. The true ecological cost of water is captured when we return it to nature in the same quantity and quality that we appropriated it in. There are crucial factors to keep in mind.

## Manage sources well, price and use water efficiently

These sources are available for our cities: rainwater, groundwater, local surface water in ponds, lakes and rivers, piped water from distant sources, treated used water and in coastal cities desalinated seawater. We have to manage these sources in an integrated fashion on the supply side.

On the demand side we will have to plug leaks in the system, use water efficient devices such as aerators, flushes, taps and showers which save water and, above all, price water volumetrically and charge according to the full ecological cost of it, that is, to enable returning of the water to nature in the same quantity and quality at which it was appropriated. Luckily, most urban use is non-consumptive which means that the water does not evaporate or evapotranspire and can be reused if properly treated.

## Strengthening institutions with better expertise

In the past, specialized institutions have been created in some of our major metropolises for water supply — such as the Delhi Jal Board, the Bangalore Water Supply and Sewerage Board, etc. These are institutions of the 20th century and, within constraints, have done a commendable job. These institutions now need to be well-rounded, for example, by staffing with hydro-geologists to understand, plan and manage groundwater better.

We need hydrologists to tackle floods better. Community or social development specialists would help understand the needs of the informal, low-income settlements and migrant workers to be able to provide outreach and water for these groups. Used water treatment specialists would help put in place a system to recycle wastewater for productive purposes — environmental, agricultural or urban-industrial. At a river-basin scale we need institutions to track catchment level changes, monitor and rectify them to ensure the clean flow of water in our rivers.

## Sustainability depends on a robust legal framework

Much of the groundwater is under-regulated. We need to develop a robust legal framework for its sustainable management. The protection

of waterbodies, wetlands, streams and rivers, and the channels connecting lakes is still not robust enough to prevent encroachment, conversion into real estate or dumping of waste. Pollution laws are followed more in the breach. It has taken sustained efforts by our courts and the legal system to push for the protection of the environment. We need more robust laws and, particularly, more effective implementation of existing laws in a sustained fashion to protect water in its various forms in the city. Wastewater treatment standards are stringent but follow one standard for all STPs. We need to develop fit-for-purpose wastewater treatment standards depending on the intended reuse.

## Ensure that water utilities are not in the red

Most of our water utilities and local governments are not even able to recover the operations and maintenance cost of water supply and sewage facilities. Unless these institutions are fiscally stable, investment in maintenance, leaks and repairs, extension of networks in the periphery and replacement of leaking pipes will simply not happen. Unless these



A revived well in Belgaum

utilities and service providers operate in the black and not in the red, we cannot expect universal coverage of water supply and sewerage to the populace and the prevention of pollution of waterbodies. Strengthening their fiscal capabilities is an urgent need.

## Master plans for cities should include water needs as well

Master plans are the only legal tool available for formal city-level development. We need to develop land use plans and master plans sensitive to the issue of water. Protecting wetlands, mangroves, lakes, ponds, interconnecting channels, rivers, streams, floodplains, seafronts from encroachment and pollution must be priority. Development must not be allowed in flood-prone areas or on wetlands and lakes.

Building by-laws need to encourage rainwater harvesting, wastewater recycling through setting up of decentralized STPs, dual plumbing lines for different qualities of water, grey water recycling and water meters for individual flats and buildings.

The AMRUT 2.0 guidelines have started a push in the right direction for the 500 cities and towns which are eligible for funding. They need to be taken further in AMRUT 3.0 so as to make our cities vibrant and livable with regard to water. ■

*S. Vishwanath is a civil engineer and urban planner by profession and an insightful water expert*



## On a weak foundation



**DELHI DARBAR**

**SANJAYA BARU**

WHEN Union Finance Minister Nirmala Sitharaman presents her sixth annual Financial Statement and Budget speech in Parliament, she will equal the record set by Morarji Desai. Among the many things that she will take credit for, the foremost may well be the fact that the Indian economy is once again the “fastest growing large economy” in the world. There is much to be said for that record. However, the foundations on which this growth is being built remain weak. The weakest links in the Indian growth story remain the poor performance of the manufacturing sector and the even less impressive performance on the education front.

It was as far back as 2004 when Prime Minister Manmohan Singh constituted the National Manufacturing Competitiveness Council (NMCC) with V. Krishnamurthy as chairman. Krishnamurthy had earned a good reputation as a leader in the manufacturing sector with his leadership at Bharat Heavy Electricals Ltd (BHEL) and Maruti. The NMCC did considerable work and by 2006 produced a document titled “National Strategy for Manufacturing” aimed at boosting the rate of growth of manufacturing in India to a sustained 12 percent to 14 percent per year and increasing the share of the manufacturing sector in national income from around 16 percent in 2006 to 23 percent by 2015. In the event, that did not happen and the share remained stubbornly stuck at 16 percent.

Subsequently, the government took more initiatives and set new goals, hoping to step up manufacturing sector output growth to 14 percent per annum and increase its share in national income to 25 percent by 2022. The policy aimed to create 100 million jobs in the manufacturing sector through investment in skill development, enhancing global competitiveness, promoting new technologies and so on. Despite all the effort, the share of manufacturing remained stuck at around 16 percent.

In 2014 Prime Minister Narendra Modi’s government reshaped the NMCC report and produced a strategy for ‘Make in India’. This time the Make in India plan aimed at increasing the share of manufacturing from 16 percent to 20 percent but shifted the timeline to 2020. Subsequently, the government further shifted the timeline and the goal post by setting a target of 25 percent by 2022. In 2024 we are still stuck at around 16 percent, give or take a percentage point or two. In short, despite sustained efforts by successive governments, India has not been able to trigger a growth spurt in manufacturing. India’s share in global manufacturing is today around 3 percent, compared to China’s 32 percent and the US’s of around 16 percent.



The traditional pre-budget halwa ceremony

What about education? Here too there has been considerable policy effort culminating in the publication of the National Education Policy (NEP) 2020. There is recognition at all levels of government that India has lagged in investment in education at all levels, especially in primary and secondary education. It has been estimated that total public and private investment in education account for around 6 percent of national income (roughly 3 percent each for public and private). The National Education Policy has set a goal of total public investment, by Central and state governments, of at least 6 percent of national income.

Spending apart, what of the quality of education? Everyone knows that this varies widely across the country and across sectors. The education pyramid is steep, with a narrow summit of globally comparable high-quality institutions at the top and a wide base of sub-standard ones at the bottom. From lack of adequate funding and infrastructure to lack of qualified teachers and, above all, a weak and often corrupt system of evaluation, a host of

factors has given the education system a bad reputation.

The best institutions still produce hundreds of thousands of highly talented students while millions end up in the worst ones. What is worrying is the trend towards out-migration of Indian students. Lakhs of them leave home to go overseas for graduate education. Estimates of how much is paid in terms of tuition fees vary from \$3 billion per year to \$8 billion per year.

In education, too, China has taken the lead over India. While millions of Chinese students do go overseas for higher education, the solid base of primary and secondary education that China has built has enabled it to create world-class institutions that have been able to retain talent. Of the 20 top universities in the world, six are now in China. The remainder are in the western hemisphere.

To my mind, manufacturing and education are the two weak links in India’s growth story that require special attention. Any strategy of growth and development for the medium term must focus on these two areas. A large part of the educational system has been focused on providing skills that cater to the services sector. In fact, the growth of the services sector has contributed to

increased investment in such types of education that generate the manpower needed for that sector. There has been, on the other hand, inadequate attention paid to creating skills relevant to a rapidly changing manufacturing sector. As a result, a lot of the training for such employment is now in-house — adding to the cost of manufacturing. Low labour productivity remains a problem for Indian manufacturing.

When the Union Finance Minister, or any of the state finance ministers, presents the annual Budget speech, media focus is almost always on tax measures and incentives. To cater to their diverse audience finance ministers have adopted a ‘*thali*’ approach to writing their Budget speech — with little bits to cater to varied policy palates. This year Sitharaman could depart from that practice and, instead of spelling out a dozen different priorities, focus exclusively on what the government intends to do to strengthen the country’s manufacturing and education bases. ■

*Sanjaya Baru is a writer and Distinguished Fellow at the United Service Institution of India*

## Boost that birthrate



**LOOKING AHEAD**

**KIRAN KARNIK**

A previous article (‘Demographic Dangers’, *Civil Society*, June 2024) discussed some implications of the latest fertility figures for India and the demographic projections that result. For the next two decades, with fewer births than earlier expected, the dependency ratio (the proportion of non-working age compared to working age population) will be lower, potentially amplifying the demographic dividend.

After that, though, the trend will begin to reverse — and alarmingly fast — as fewer births mean, in due course, a lower working age population. As the present bulge in working age population ages, the rapid growth in elder population will be bigger than the decrease in births. This will be compounded by increased longevity, resulting in more elders and, ultimately, a greater dependency ratio.

Developed countries in Europe and Japan are already confronting this problem and are faced with burgeoning pension and healthcare expenditures. South Korea is similarly placed, and now China too is on the verge. Many of them crossed the demographic transition years ago and are now experiencing a depopulation (Japan’s population decreased by 850,000 in 2023).

The UK and US are tackling labour shortages by facilitating immigration of foreign workers. In many other countries, there is hesitation regarding the social, political, and even security aspects of large-scale immigration. Therefore, countries like China, South Korea, Japan, and Singapore are seeking an organic-growth solution by providing incentives for childbirth. So far, this solution is not working as people don’t want to have more children.

Various hypotheses have been advanced for this: cost of childrearing and education, the time and attention that children require, downtime due to pregnancy and immediate post-natal care, working couples, and inadequate space in the home. However, none of these bears scrutiny against facts. Japan, South Korea, countries in Europe, and Singapore are all prosperous places, with enough social security nets to negate these arguments. In addition, there are now cash and other

incentives to encourage childbirth.

Some argue that rapid declines in fertility reflect a lack of hope about the future. Climate change, wars, and social strife make people fearful about what may happen in the years ahead, and they don’t want to bring children into such a world. In India, even the jam tomorrow (Viksit Bharat) being promised by leaders is not resulting in a higher TFR (total fertility rate). Also, it is the happier countries, according to rankings (especially European ones), which have lower birthrates, not poor countries riven by wars and unrest.

Developed countries confronted low fertility, greying demography, and an adverse dependency ratio, only after they reached a level of prosperity. Growing rich before growing old has been the paradigm thus far. Within the Global South, China is the first to grow old at an earlier stage in its economic growth. Yet, even this is at a per capita income of \$10,000 plus.



India will grow old before it grows rich

India will reach this level of income only after some two decades, which is about the time that the country’s population will begin to decline. The dependency ratio, now low and decreasing, will reverse and begin to worsen well before that, with elders (60-plus) increasing from the present 10 percent of the population to 20 percent by 2050. Of major concern is that this could mean a lowering in the economy’s growth rate, and we will grow old before growing rich. This scenario has serious implications, especially in relation to India’s ambitions and the economic well-being of its people.

What are the possible solutions? One is to change the emphasis. Shift the focus from population control to women’s education, agency and empowerment, and population quality: better infrastructure to ensure maternal and child wellness, nutrition, and healthcare. Another answer is to promote greater fertility through cash and other incentives: free, extensive, and high-quality childcare facilities, freeing parents from otherwise necessary duties; free creches, Anganwadis, education,

nutritious meals, and healthcare.

An outside-the-box solution is to ban all birth control medications and products, as also abortions. Another equally undesirable solution is boosting birthrates by cutting all social security measures for elders, on the assumption that traditionally children were birthed to provide old-age care and security to parents (hence also the son preference). The money saved could be used to provide incentives for more births.

Exhortations — *a la* President Putin, who declared it the patriotic duty of women to have more children — and propaganda (to increase the social cost of being childless) are neither desirable nor effective in our situation.

A different solution would be to change the dependency ratio: redefine “working age” by raising the upper age (to, say, 70). This would not only increase the denominator but would simultaneously lower the numerator (number of non-working dependants), thereby substantially reducing the dependency ratio through a double advantage. Already, France has increased its retirement age from 62 to 64; in Belgium it is 67.

However, if the redefinition of “working age” is to be genuinely beneficial, elders must have jobs that are productive — necessitating reskilling and excellent healthcare (to keep them fit and active up to 70 and beyond). One interesting possibility is childcare: ensuring productive work as also inter-generational transfer of culture and values. Simultaneously, the prospect of being freed from some childcare tasks may encourage couples to have more children.

Two other possible solutions: increase inward migration, and use technology to automate. Given our history of open doors, the first should be easy. However, the recently-created xenophobia will have to be reversed. The second, involving robotics, Artificial Intelligence, and much else, will happen in any case. This will, though, require a huge push if it is to compensate for the shortage of workers. Many developed countries — and China, too — are trying this route.

It is time to shift gears, to worry about the problems of a lower, older, and decreasing population, rather than a growing one. Studies are required on an optimum population size and its age profile, both dynamic over time. Population growth and de-growth happen with unexpected speed: we need to act now to influence outcomes in the coming decades. ■

*Kiran Karnik is a public policy analyst and author. His most recent book is ‘Decisive Decade: India 2030, Gazelle or Hippo’*



## PEOPLE'S AGENDA

# Wildlife plans should not leave out communities



RAVI CHELLAM

INDIA's record in conserving its wildlife, especially the more charismatic species, is remarkable. Lions, rhinos, elephants and tigers are good examples. These achievements need to be viewed in the context of the challenges we face as a nation.

India has the world's largest human and cattle population which exist in high densities. Indians still depend on land, water bodies and

bio-resources for their livelihoods.

Despite this intense competition for space and other resources, many of our communities coexist with numerous species of wildlife including potentially dangerous ones. These are evolved and nuanced relationships which span a range of human-wildlife interactions.

Unfortunately, this is insufficiently recognized, supported or celebrated by government policies and by much of civil society. The situation is further complicated by the government's push for rapid economic development which often results in the fragmentation, degradation and destruction of natural ecosystems.

## Restore ecosystems

Our imagining of development and approach to development planning have to change immediately. Multiple environmental crises are accelerating and synergizing their impacts on our planet and our lives: frequent extreme weather events and widespread disease outbreaks are examples. We can no longer justify the destruction of natural ecosystems in the name of development.

The human and economic costs of our models of development are enormous. It is time to focus on human well-being as the priority goal of development. Given the scale of human-caused destruction of natural ecosystems, it is imperative that we start restoring natural ecosystems on a war footing. There are numerous restoration efforts across the country and several good examples of long-term restoration projects. Ecological restoration has to become a development priority. Such efforts will build our resilience to climate change, provide habitats for our wildlife, connect fragmented habitats and strengthen the foundations of conservation.

## Forest rights and wildlife policies

Currently, the Forest Rights Act (FRA) is viewed as a threat to conservation by much of the forest and wildlife bureaucracy. This attitude has to change to support for the enabling provisions of the FRA which have the potential to shape our official conservation models into more just and inclusive ones. For example, provisions in the FRA for granting Community Forest Rights and establishing Critical Wildlife Habitats provide several opportunities for wildlife managers to adopt more inclusive, just and cost-effective management approaches.

The current obsession, especially in tiger reserves, with relocating and resettling communities from within Protected Areas has to end. The rights of the people living within Protected Areas cannot be trampled upon. Local communities have to be seen as partners in conservation.

## Independent monitoring

It has become very difficult, especially for independent researchers and those from non-government institutions, to conduct field research particularly within Protected Areas. This becomes even more challenging if it involves the capture of animals (particularly those listed in Schedule

I of the Wild Life (Protection) Act) and/or the collection of samples. The challenges relate to obtaining research permits. The process for reviewing such requests varies across states. In general, there is insufficient understanding of the reasons for which a particular research project has been proposed and the questions it aims to address. Almost all projects are forced to justify how the research will contribute to management. Terms, conditions and restrictions are placed on the researcher and invariably there are enormous delays in taking decisions. This process has to change drastically.

The value of knowledge generation, including to answer curiosity driven questions and long-term research projects, has to be recognized. Researchers and managers must work as partners. The process for reviewing research proposals and decision-making has to be standardized across India and it should be fair, accountable and time-bound.

Currently, almost all monitoring of wildlife management efforts and wildlife populations is conducted by government agencies. It is crucial to involve competent non-government and academic institutions in monitoring Protected Areas and populations of endangered species.

Across India local communities hold rich knowledge related to their environment and wildlife. Currently, this knowledge is poorly documented and seldom used in management. This knowledge needs to be ethically documented and used to inform research projects, management plans and conservation strategies.

## Tackling invasive species

Invasive species are among the greatest threats to natural ecosystems across India. We have been slow to recognize the nature and scale of this threat. Reliably recording and monitoring the presence of invasive species across India over time is required to create a robust baseline. This needs to be done immediately. Knowledge-based and sustained efforts need to be initiated to start controlling and even eradicating invasive species at least from priority landscapes.

## Ensuring connectivity

Our knowledge and understanding of the value of connectivity for wildlife populations has increased significantly over the past decades. Unfortunately, our wildlife conservation strategies and actions are primarily restricted within the boundaries of Protected Areas which are small in size. Animals have been moving outside Protected Areas and across human-dominated landscapes, ensuring connectivity between populations separated by fairly large distances. Such movements are becoming difficult for wild animals as wildlife managers are increasingly using barriers and the outside landscape is also changing rapidly.

Wildlife managers have been erecting barriers to restrict the movement especially of elephants from Protected Areas into human-dominated landscapes. Infrastructure like highways, canals, overhead transmission lines, dams, windmills and large solar parks have all become barriers that have disrupted connectivity and isolated populations of various species.

Construction of all infrastructure has to take into account the movement ecology of various species using the habitat and provide ways for the animals to continue moving across the landscape. Infrastructure must not become a barrier. The plans for such solutions should be part of the detailed project report from the very beginning. Wildlife managers have to be innovative in coming up with site-specific solutions and not resort to the construction of barriers. ■

Ravi Chellam is CEO, Metastring Foundation, and coordinator, Biodiversity Collaborative

# Skills survived many odds



CRAFT EQUITY

SUMITA GHOSE

AS we celebrate our 78th Independence Day, there's no better time to honour the rich tapestry of handcrafted textiles that embody India's cultural, economic and social heritage.

India's handcrafted textiles are a testament to centuries of skilled craftsmanship, creativity, and dedication. Each region of India boasts its unique textile traditions, from the vibrant extra weft handloom woven *pattu* (shawls) of Rajasthan to the elegant Kanjeevaram silk saris of Tamil Nadu, the intricate *chikankari* of Lucknow, and the colourful *bandhani* of Gujarat. These textiles are not just fabrics; each is a story woven into threads, passed down through generations.

Handcrafted textiles and handmade products made from natural fibres and raw material remind us of our struggle for freedom and the pride we take in our heritage. During the Swadeshi movement, Mahatma Gandhi advocated the revival of indigenous industries, particularly handspinning on the *charkha*, and handloom weaving, as a means of self-reliance and resistance against colonial rule. *Khadi* became a symbol of our quest for independence.

We remain inspired by another great soul — Rabindranath Tagore. Through the establishment of Sriniketan in 1922, Tagore sought to revitalize rural Bengal by integrating education, culture, and sustainable livelihoods. Today, nearly a century later, Tagore's vision remains remarkably relevant as we navigate the complexities of globalization, sustainability and our craft heritage and culture.

After independence from British rule in 1947, considerable efforts, led by Kamala Devi Chattopadhyaya and others, were made for the revival and growth of handloom products and handicrafts. The Khadi and Village Industries programme was one such major initiative to encourage decentralized village industries, using local raw materials as much as possible. The Handloom and Handicrafts Boards were once powerful bodies which supported weavers and craftspeople in their work.

Unfortunately, these institutions could not

keep up with the times. Artisans moved to other occupations and handloom customers shifted to modern brands that flourished in an increasingly mechanized textile sector. Incentives given to large industrial houses to start textile mills that provided cheaper, brightly patterned fabric in colours that did not fade after washing, and were easy to maintain meant that Indian customers, especially the middle and lower classes, switched to buying more mill-made offerings. State-sponsored marketing outlets like Gurjari and Rajasthali did provide an outlet for handcrafted products, but these were often mired in bureaucracy.

Handloom weavers, finding declining demand for their skills and products, moved away to towns to work in the mills. The demand for beautiful, unique handwoven products globally remained, but it was only a few high-end products designed by well-



Tushar Solanki set up a successful weavers' collective

known designers or through special efforts like the Festivals of India, which were able to successfully find their way to global markets.

The birth of organizations like Dastkar in the 1980s promoted the work of artisans mainly by organizing bazaars across the country, to make crafts accessible to the urban customer. This provided avenues for craftspeople to gain direct understanding of the market and be able to design and make products accordingly. Dastkar also provides much needed design and product development support to newer crafts organizations that are based in rural areas and do not have access to such facilities.

In the early 21st century, after 10 years of liberalization and globalization, the middle class grew exponentially. There were more jobs available with the advent of multinational brands in the country, and purchasing power went up. People, especially women who earlier found it expensive and unaffordable to buy handwoven, handcrafted garments and home

furnishings, were now able to purchase these and waited for exhibitions to reach their cities in order to buy directly from artisans. Organizations like Fabindia invested time and effort in helping artisans hone their skills, and redefined, renewed craft traditions to cater to contemporary needs. They have been able to cover the length and breadth of the country with an extensive range of beautifully crafted garments and home decor, connecting people through their shared heritage.

In each state of India, farsighted, tenacious artisans continue to hone and perfect their skills in order to remain not only relevant but create products and offerings which are cherished for years and often passed down from generation to generation.

One of these is Tushar Solanki, just 27, who learnt the art of weaving from older relatives in his family, in a hamlet called Satram ki Beri in Barmer district, Rajasthan. His first employment was with the Urmul Marusthali Bunker Vikas Samiti (UMBVS) in Pokhran, after which he got a chance to participate in a six-month course on different aspects of running a handloom enterprise at the Handloom School in Maheshwar, Madhya Pradesh. This opened up the world for him. The organization he started afterwards with a few fellow weavers and friends is called Bandhan — Faith and Relation.

Supported by Rangсутra with orders and funds, Tushar set up a small unit so that weavers could work together in a common place. He and his team are testimony to the commitment and

drive that so many of our weavers and craftspeople have even today, despite the challenges they face in continuing with their craft. They choose to work together in small teams, helping one another, and collectively moving ahead. Tushar plans to grow his unit, as there are others in the village who are keen to work with him and there is still demand for handloom-woven soft home furnishings globally, as well as for beautiful saris. He has woven many saris inspired by the traditional checked shawl, the *bardi*.

Tushar is occasionally invited to the Indian Institute of Craft and Design (IICD) in Jaipur for lecture demonstrations, where he shares his skills and his experiences with students. He is optimistic about the future despite the scepticism of some of his neighbours. Tushar is an example for other rural entrepreneurs to follow, and for us in civil society to encourage. ■

Sumita Ghose is founder-director of Rangсутra Crafts



## Go to Lakadong for turmeric

JYOTI PANDE LAVAKARE

FOR those who have grown up on a daily glass of *doodh* with *haldi* in it, turmeric's rockstar international status as a healing herb should come as no surprise. Your grandmother knew all about it much before Whole Foods began selling it in convenient bottles and Starbucks put Golden Turmeric Latte on its menu.

Almost all the world's turmeric comes from India where it has for generations been recognized for its restorative values especially with milk — *haldi* and *doodh*. And in India itself, if you want to track down the very best turmeric, you must make the journey to Lakadong, a speck on the map in the northeastern state of Meghalaya.

The turmeric at Lakadong has more curcumin in it than any other variety. It is the curcumin in turmeric that has awesome properties. It reduces inflammation, heals cuts and wounds and offers protection against, even reverses, cellular damage. From curcumin comes the yellow of turmeric.

In India, turmeric serves as seasoning apart from being good for the health. Fitting it into your diet, a spoon here and there, as happens in Indian kitchens, provides some of the protection needed against the rough and tumble of daily living. Don't expect miraculous cures. But doing the grandmotherly thing of making turmeric a part of one's life almost certainly has long-term, foundational benefits.

Lakadong turmeric is very special. If most turmeric has two to six percent of curcumin, the Lakadong variety weighs in at over seven percent. Rainfall, soil, micro-organisms and traditional growing practices, friendships and rivalries with other local plants make it unique.

Ironically, I learnt about the antioxidant and anti-inflammatory properties of curcumin in 2006, while living far from India.

Having spent a small fortune buying bottles of curcumin tablets from Whole Foods over the years, even after returning to the homeland, I was thrilled to discover Lakadong turmeric in 2018 at a sprawling organic fair held at the Indira Gandhi Centre for the Arts, an outstanding government initiative that should have been repeated annually to offer Indian farmers a platform for their produce.

By 2018, I had learnt even more about the neurogenerative, cardioprotective, antimicrobial, and anti-rheumatic properties of turmeric and knew its bioavailability was activated and enhanced by combining it with pepper. So, when I found small bottles of different combinations (Lakadong turmeric with pepper, Lakadong turmeric with ginger, Lakadong turmeric with dry garlic, etc), I greedily bought as much as I could find at the fair, gifting these bottles liberally to friends, especially those who were then recovering from illnesses or surgeries.

Civil Society pictures/Jyoti Pande Lavakare

But it wasn't until last month that I went to the land of Lakadong turmeric, in the Jaintia Hills in Meghalaya where it is grown organically without the use of fertilizers.

The mounds and mounds of turmeric powder in Burra Bazaar in Shillong, nestled between the local black sesame, whole pepper, bay leaf and other spices, dried fish from the azure streams and rivers we had passed, varieties of red rice and black rice, bright yellow pineapples and emerald green produce, banana blossoms and bamboo shoots from the local hills. It was truly a sight for sore eyes.

There were more delightful sights in the rural hamlets we passed while chasing spectacular waterfalls and sacred forests in this beautiful northeastern state that shares a border with Assam. It struck me that these traditional items — from the dried smoked pork, traditional exotic rice to the local varieties of alcoholic rice wines — are as much a part of our intangible heritage and culture, passed on more from oral learnings and received wisdom than any formal documentation.

In December last year, Meghalaya's Lakadong turmeric

was awarded the Geographical Indication (GI) tag, along with Garo *dakmanda*, the region's Garo Hills' traditional dress, Larnai pottery and Garo *chubitchi* (alcoholic rice beverage). This pure, potent and organic turmeric, grown in the Lakadong area of the Jaintia Hills, has the highest curcumin content globally and the GI tag will help farmers in marketing and give customers access to the authentic product, the state agriculture minister, Ampareen Lyngdoh, declared.

Reports said around 14,000 farmers from 43 villages of the Lakadong area cultivate the turmeric variety on 1,753 hectares and Lyngdoh said the GI tag will provide local farmers with a unique selling point, fetching a good market price.



Several varieties of the golden spice from Lakadong are available



Raw and crushed turmeric on sale in Shillong's Burra Bazaar



**Mounds and mounds of turmeric powder in Burra Bazaar in Shillong, nestled between black sesame, pepper, bay leaf and other spices are truly a sight for sore eyes.**

Equally important, consumers like us will benefit from the high curcumin content of this turmeric variety which helps repair and heal internal (as well as external) injuries.

As someone who has always ground my own turmeric powder from the root at home after washing and drying in the sun (for fear of pesticides, chemicals and so on) it is an absolute delight to buy organic Lakadong turmeric.

I have always found Lakadong turmeric pure (there are several home tests to check for purity) and if one buys it from reliable sources in Meghalaya, then even sceptics like me can forgo the hard work of grinding turmeric at home, a very tough job that I've lost many mixer blades to.

What is so special about the high curcumin content of Lakadong turmeric, you may well ask. Here's a quick primer on the amazing medicinal properties and health benefits of curcumin.

Turmeric contains curcuminoids, of which the main three are curcumin, demethoxycurcumin and bisdemethoxycurcumin. Of all these compounds, curcumin is the most active and most beneficial to health. It is the main active ingredient in turmeric and has powerful anti-inflammatory effects and anti-carcinogenic properties. Oxidative damage, which speeds up aging and triggers many diseases via unstable free radicals is also repaired by curcumin, which is a potent antioxidant that can neutralize free radicals due to its chemical structure. Curcumin also has neurogenerative properties. Animal and human studies have found that it can increase brain levels of BDNF, brain-derived neurotrophic factor (BDNF), which improves memory, attention and learning. It can even reverse or delay Alzheimer's disease, depression and other age-related decreases in brain function. Brain neurons are capable of forming new connections even for adults, and in certain areas of the brain they can multiply.

Curcumin may also help protect against heart disease. Endothelial

dysfunction is a major driver of heart disease, when your endothelium or blood vessel lining is unable to regulate blood pressure and blood clotting. Curcumin helps improve vascular endothelial function and heart health, specifically, by reducing inflammation and oxidation.

It can also contribute to the death of cancerous cells, reduce growth of new blood vessels in tumours and reduce the spread of cancer. There is also evidence that curcumin may prevent cancer from occurring in the first place, especially cancers of the digestive system like colorectal cancer.

Curcumin is also considered excellent for arthritis and its related pain. It seems to be more effective in relieving pain than a placebo in osteoarthritis, its effect similar to that of non-steroidal anti-inflammatory drugs (NSAIDs). In another study on rheumatoid arthritis, curcumin appeared to have helped reduce disease-related inflammation.

Of course, one can't consume the quantities of curcumin required to heal cancers, heart and other disease or derive them from daily intake of turmeric — the quantities needed would be too large. To help heal specific diseases, one would have to take supplements, under the supervision of a physician. I'm happy to report that curcumin supplements are now available in India as well; so goodbye, Whole Foods! But if one wants the general benefits of turmeric's antioxidant and anti-inflammatory nature for disease prevention as well as its overall repair and healing properties from daily consumption, just add Lakadong turmeric to your food — it goes very well in practically every dish in Indian cooking.

Remember, it helps to consume turmeric with black pepper, which contains piperine, a natural substance that enhances the absorption of curcumin. Additionally, the body absorbs curcumin better in fat, undoubtedly the reason why it has traditionally been lovingly given with milk. ■

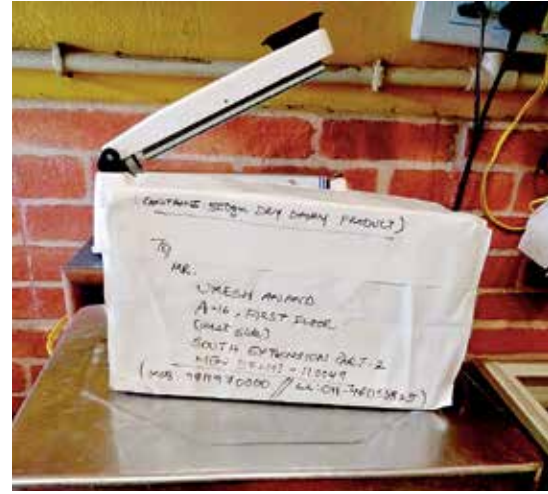




A wheel of the cheese in Kalimpong



Our half-kg being weighed



And the vacuum-packed cheese ready to be shipped

# Hunting down Kalimpong cheese

UMESH ANAND

IN a networked world, nothing, it seems, can ever go missing forever. Not even Kalimpong cheese. It was with great satisfaction, therefore, that we cheered the arrival in Gurugram of 500 gm and then 1 kg of this delectable cheese.

A dedicated hunt on the internet finally led us to one of the few existing producers of the cheese. That it did the journey of 1,500 km from a tiny village unscathed and in good condition to be eaten is a tribute to the wondrous communications of our times. You can get anything from anywhere.

Once a cherished product for its unique texture and flavour, Kalimpong cheese has fallen off the map and faded from popular memory — as indeed perhaps has Kalimpong which is a small town in an arcadian setting on the peripheries of Darjeeling in West Bengal.

As is only natural, the longer the gap the more difficult it is to rediscover the original thing. Restaurants wind up. Recipes go through mutations. Products get pushed off shelves. Communities go into turmoil. Cooks and master makers pass away over time, taking their culinary secrets with them.

So also with Kalimpong cheese. There was a time it flourished and was savoured and then it gradually withdrew from sight. For all the iconic standing it once had, it is remembered now only by a dwindling tribe of Calcuttans for whom this special-tasting cheese used to be *de rigueur* on the breakfast table.

Kiran Karnik, our columnist and friend, is

one such aficionado. A sudden yearning for Kalimpong cheese prompted Kiran to drop us an email a couple of weeks ago. Did we know about Kalimpong cheese and where it could be found? He hadn't had it in years, but he wanted it now and how! He was asking us because he knew we track rural foods and products in this magazine.



Cheese-making is a fine art

But, unknown to Kiran, there was another good reason to ask us. We grew up eating Kalimpong cheese in Calcutta. Like Kiran, we too hadn't had it in years. But this was a worthy cause to pursue. A reliable source of supply of Kalimpong cheese would be invaluable for Kiran and us and also for our many readers.

A series of phone calls followed. A colleague who spends months hanging out in Darjeeling was asked, but he said his wife had tried to buy the cheese there — without success. It wasn't in production anymore, they were told. Calls to Calcutta zeroed in on Keventers outside New Market as a possible store to buy it. But Keventers there and here in Delhi sells

only bottled milk and such products. At Nature's Soul, an organic food store in Delhi, they said they hadn't heard of it.

Finally, searches on the internet threw up the name of Samuel Yonzon at the Makarios Bous Farm. He and a few others were making the cheese in a village outside Kalimpong — not just as a rural enterprise, but to keep the cheese-making tradition alive.

When we called Yonzon he was tending to his cows and politely asked if he could call back later when he could address our query.

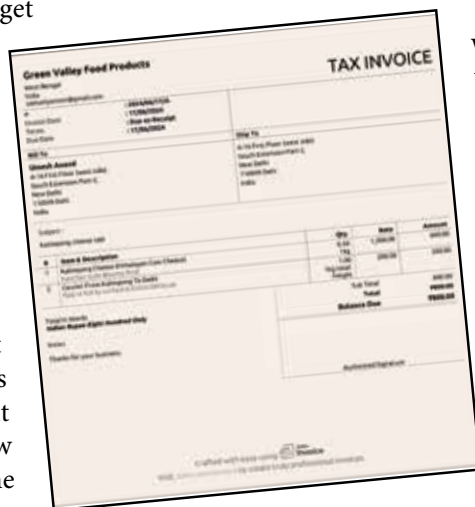
Yonzon did get back and it was agreed that he would sell us 500 gm of Kalimpong cheese for ₹800, inclusive of the courier charges. It would reach in two separate packs of 250 gm each, one for Kiran and one for us.

An invoice followed on WhatsApp and the payment was made over Google Pay. Then, at every stage Yonzon kept us updated with photos: Cheese packed, cheese being weighed, cheese labelled, cheese handed over to the courier with tracking number.

Days later, in Gurugram, we were all tucking into the cheese and planning to order more — which we did in much the same way. And it was even better than the first consignment.

Kiran's family recalls that a few drops of oil had formed around the edge which they attribute to the 1,500-km journey during the worst of the heat wave. It is for them a "comfort cheese" — not overly sharp or acidic, no overpowering aroma.

"Expect to get your fingers oily — a thick-butter feel — as you slice the cheese. That said, the texture is moderate: not flaky, but not creamy either. It is a mildly aromatic cheese, exuding a meadow-like, slightly milky, smell. The taste, too, is rustic, more earthy than sharp. In other words, you realise right away that this is not one of those factory-processed, big-brand items. Savour the cheese by itself, alternatively, atop bread or crackers that are not heavily flavoured," they say. ■



# Being a liberal in these times

CIVIL SOCIETY REVIEWS

THIRTY years ago, Gurcharan Das decided to give up his life in the corporate sector, to be a writer. He was at the time managing a multinational company's business in consumer products. Becoming a writer, he hoped, would make him a better human being.

Over the years he has written quite a lot and spent his time in intellectual pursuits. But he is not so sure that he has made the personal transition he was hoping for from the cut-throat, status-conscious world of business that he left behind.

At Bahri Sons in Khan Market recently, he got so worked up about not seeing one of his books in the window display that he strode into the bookshop to demand that it be placed there. And when it was placed a little behind other books, he insisted that it be placed right in front.

Das recounts the clearly embarrassing episode with complete honesty. A life of letters may actually have made him less respectful of others than when he was running a business. He says his neighbour, a small businessman, would never take his clients for granted in the way Das behaved with the staff of one of Delhi's few surviving bookshops.

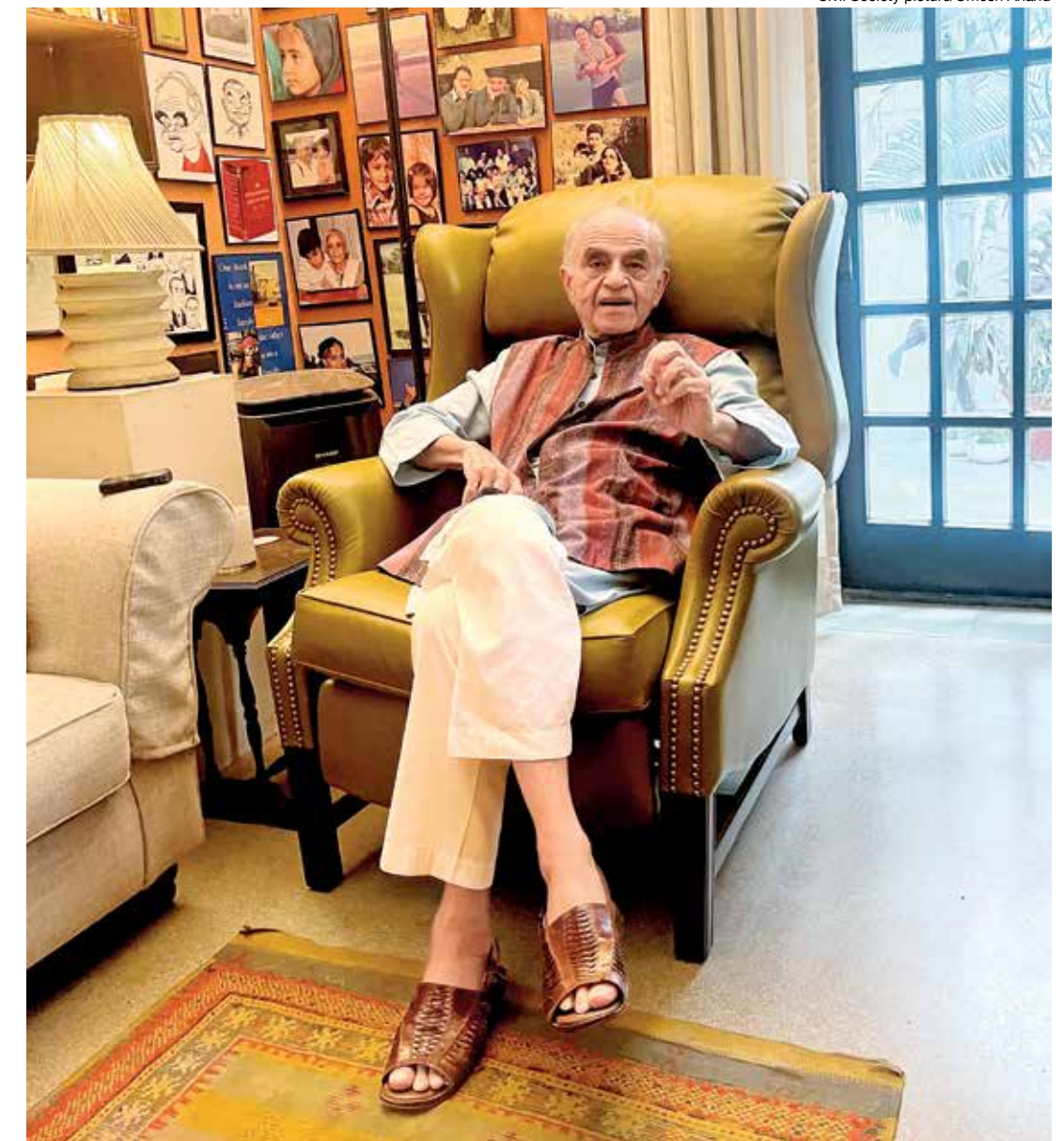
We are talking to Das about his latest book, *The Dilemma of an Indian Liberal*. And one of our questions to him is about how he sees Indian business leaders. Does he find liberals among them? It is important because of the significant impact that industry and the decisions business leaders take have in an unequal economy.

Das tells us that businessmen are interested in certainty and profits. They have companies to run and wrap themselves around situations rather than trying to shape them. When we ask whether he would call them "value neutral", he finds the term interesting enough to stay with it for a bit.

But "value neutral" Das certainly is not. One of his earlier books is *The Difficulty of Being Good* in which he deals with modern-day ethical dilemmas in the context of the *Mahabharat*.

Das has been and continues to see himself as a liberal. He believes liberal values have served the modern world well and allowed it to progress. If now there is a dilemma, it is because of the extreme positions that are being taken. What room remains, then, for a liberal? Especially so when liberalism is getting redefined and hijacked from time to time.

Now in his eighties, Das is a gentle, thoughtful, public-spirited soul who retreats into his book-lined study from early morning

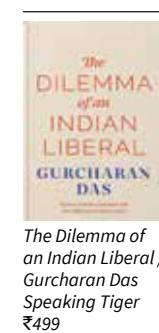


Gurcharan Das in his study

so as to write as much as he can. His wife complains about him being in there so much, but there is no time to be lost, he says.

One of his major concerns is what to do with his vast collection of books. We suggest handing them over to Ashoka University, of which he is a founder, or some such institution. But it is not as though he is entirely a recluse. When residents in Jor Bagh, the upscale neighbourhood where he lives, hold a protest against dogs being walked without a leash, we notice that he is present in the crowd.

*The Dilemma of an Indian Liberal*, in Das' easy-flowing style, is a good read. It is as much about him and his life as it is about liberalism as an idea and the many avatars through which it has transitioned. It can serve as a primer but it is, above all, his personal journey. Das is shaped by ideas from childhood and then through an education and exposure to influential teachers



The Dilemma of an Indian Liberal / Gurcharan Das Speaking Tiger ₹499

in America. He has studied Sanskrit. Liberalism as a philosophy and a way of life has had its ups and downs. But it has survived to come back and be useful over 250 years. In that sense, it isn't an outdated 'ism' to do a book about — polarized as the world is in these times.

Das argues that Indians are inherently liberal and tolerant of different points of view. He goes into religious texts and mythology. Divisions in India, of the religious kind or otherwise, can't be lasting even if they get whipped up on occasion. People are accustomed to living together and giving each other space in harmony.

Interestingly, the book comes at the time of the general election results in India. People, it would appear, have voted against a communal divide. Narrow obscurantism too has been rejected for a bigger canvas of progress. A quiet liberal tradition has asserted itself when most needed. ■



# Joys of the Telugu kitchen

SUSHEELA NAIR

TO feast on Telugu food in a pleasant ambience, look no further. Reputed for its well-researched, authentic recipes from homes in the regions where the dishes originated, United Telugu Kitchens (UTK) restaurant is on the must-visit list of foodies in Bengaluru. The restaurant offers cuisine that is local, authentic, and prepared with care. It showcases a curated menu, highlighting cherished recipes passed down through generations in Telugu households. Known for its dedication to preserving and presenting the vibrant flavours of Telugu cuisine, it provides authentic Telugu flavours to Bengaluru's food enthusiasts.

The aesthetically designed contemporary interiors offer a pleasing ambience to enjoy a meal. As we entered the restaurant, a larger-than-life mural of a smiling lady welcomed us into the no-frills restaurant. Though the actor of yesteryears, Suryakantham, is in no way associated with the restaurant, she symbolizes the wholesome comfort food they serve, much like home-cooked food.

She is the mascot of UTK as she has portrayed many iconic roles centred in the kitchen and spoken about food and its aromas in these roles. Her character in movies revolves around cooking in the kitchen. It is said that when she does *tadka* (tempering), the entire street gets a whiff of it.

UTK dishes out many traditional Telugu delicacies under the 'Telugodi Style' category, retaining their regional names. Each dish reflects the region's rich culinary heritage featuring indigenous ingredients and time-tested cooking techniques. "Our idea was to bring the primal flavours of Telugu culinary delights from the regions of Rayalaseema, Telangana and Andhra Pradesh within one kitchen. From the minimalism of Telangana cuisine to the complex spice-filled Andhra and Rayalaseema cuisines. They are all delicious and are what you get at United Telugu Kitchens," says Teja Chekuri, managing partner.

"It was born from the urge to ensure that our traditions are served to everyone on a silver platter. These are dishes that we've grown up on, loved, and cherished. The farms, the farmers, the folk and the folklore — UTK celebrates it all, trying to connect the heart to our heartland and our motherland," adds Chekuri.

The focus is on preserving and celebrating the traditional flavours that have been passed down through generations in Telugu kitchens. UTK's menu features dishes from all over Andhra and Telangana. In both states, the quantity of spice varies by area. So, as the name conveys, UTK brings all of the region's spice levels, tastes and authenticity into one kitchen that serves many.

Under Chekuri's ownership, UTK is a part of a group of restaurants that includes Godavari, Madras Dosa Co., Khiladi, 1947 Truly Indian, and Don't Tell Aunty in the US and Canada. UTK and Ishtaa are his main Indian ventures in the food industry. He is also a partner in Ironhill India Breweries which holds the record of being the world's largest

microbrewery, spread across 1.3 lakh sq. ft in Bengaluru. Its USP is the mind-blowing ambience and tasty food which includes perennial favourites like *koli* chips (chicken chips) and the *palkova samosa*.

At UTK, there are plenty of meat options for non-vegetarians. I sampled some of the wide range of dishes offered in their menu. I started off with the chicken lemon coriander soup. This was followed by lamb soup cooked with aromatic spices.

Then came a salvo of appetisers. Kamju Pitta Roast is quail fried and roasted with select spices. Seafood enthusiasts have a myriad of dishes to choose from the menu. The whole fish (vanjaram or seer) is marinated and tandoori-grilled with your choice of avakaya, gongura or traditional *masala* and is a favourite of customers. In between nibbling the starters, I sipped *goli* soda which comes in several flavours. Avakai Koramenu is the highlight of UTK. It is a special preparation where the fish is marinated in freshly ground Andhra spices, Avakai (Andhra mango pickle), and grilled to perfection.

Civil Society pictures/Susheela Nair



Seer fish marinated in traditional masala



The palkova samosa



A hearty pulao



Murrel fish in a tangy gravy with jaggery

Another seafood dish worth mentioning is Artakula Chepala Vepudu or fish wrapped in banana leaf and fried on a pan. I relished the Chepa Bellam Pulusu (murrel fish in a tangy gravy sweetened with jaggery), a dish that has a blend of sweet, sour and spicy notes. It is akin to a sweet and tangy version of Nellore Chepa Pulusu, an interesting variation.

Chitti Royyala Boondi Vepudu, tiny shrimps fried and combined with spicy *boondi* in a curry leaf paste, is worth a try. The shrimp used is small river shrimp which is a rarity here. In them, you can taste the meat. Chekuri says that the seafood served here can't get any fresher. Seafood produce is sourced from Bhimavaram in West Godavari district of Andhra Pradesh.

Satiated with seafood, I tried samples of different rice dishes.

UTK's rice selection ranges from *pulaos* to *bajaras* and *biryanis* apart from steamed rice. The menu suggests rice dishes to pair with main courses. It recommends *mamsam pulusu* be had with *ghee* rice. But I tasted the mutton *dalcha* with *bagara* rice (a Telugu style of *masala* rice) pairing. It is an aromatic rice served with a lentil-mutton stew, a Hyderabadi favourite.

Vegetarians can try some of the 'local favourites' like Mudda Pappu Pachi Pulusu, a heartwarming blend of soft lentils and tangy tamarind-based stew, and the Mudda Pappu Avakai Annam — in which spiced mango pickle lends its piquant flavour to creamy lentils and rice. Gongura or sorrel leaves are a popular ingredient in the cuisine of this region, much like spinach in the rest of India. The Gongura Mamsa, boneless mutton cooked in gongura paste, is another example of how flavours and textures blend in the cuisine in this region.

Since we were fully satiated, we had to skip the mindboggling variety of *chaats*, *parathas* and sandwiches on offer. We rounded off the meal with an ice-cream infused with *gulab jamun* and *paan kulfi*. ■

Contact: United Telugu Kitchens, 160/3, SBR Gokulam Commercial, Kadukodi Main Road, Bengaluru-560007. Phone: 82969 161105

Small producers and artisans need help to reach out to sell their wonderful products. *Civil Society* happily provides information about what they have on offer and how you can get to them. Here are some fascinating products from the Dastkar Bazaar.



## WEAVES AND STYLES FROM BENGAL

ANUSHREE Malhotra specializes in Bengal's weaving techniques. Her clothes are organic, and modern with a traditional twist.

"My inspiration for designing sustainable pieces comes from a deep appreciation for traditional crafting techniques as well as the beauty and artistry of hand embroidery and weaving," says Malhotra.

Based in Kolkata, this fashion designer works with traditional muslin, *khadi*, *jamdani*, *kora* and *padma kantha* weaves.

Her brand, which is named after her, offers clothes for all occasions — be it the festive season, a cultural event, a wedding or just an outing. You can buy saris, kurtas, fusion pieces and kurta-pyjama suits. Khudey, her organic clothing brand, is for children.

She specializes in using hand embroidery, block printing, and textile weaving. "I am inspired by the rich history and cultural significance of traditional weaving practices, and strive to honour and preserve them through my work," she says. She also works with the Bengali film industry and styles actors in the Hindi film industry too.

Her NGO, Tanuz Vocational Training Society, works for underprivileged women and children. Malhotra also runs a rooftop café called Rahee Tea Time.

Log onto her website to see her creations. Malhotra participates in Dastkar Bazaars held from time to time across the country. ■

Contact: +91 9903955300

Website: <https://www.anushreemalhotra.com/>

Email: [support@anushreemalhotra.com](mailto:support@anushreemalhotra.com)

## HEADY FRAGRANCES

KLEDA offers organic fragrances, scented candles, skincare, haircare and bodycare products. The enterprise says their products have been curated from organic plants and are free of chemicals, mineral oils and paraffin.

"Fabric fresheners and solid perfumes are our bestsellers. Customers always revert with feedback, saying they are gentle on the skin and long-lasting," says Vineeta, who co-founded Kleda with her sister after researching products for about 15 years.

Kleda's gentle face oil and face wash sell out quickly, says Vineeta. "The shampoo bar is one product that we created because we realized liquid cannot be stored without chemicals. This is why we came up with solid shampoo bars that are natural, sustainable and nourishing for the hair."

Instead of chemical air fresheners, try their natural car freshener. There is also a range of sprays that make your clothes and bed linen smell fresh. These come in several aromas: there is a berry blast linen spray, a mogra linen spray and a green tea linen spray.

Also available are solid perfumes made with natural ingredients like the La Sentir Boisee, Bulgarian Rose and more. Aromatic wax tablets are perfect for freshening drawers, shelves and cupboards.

Kleda also offers *chakra* candles, which are said to promote emotional and physical well-being. These come in seven varieties like the earthy Root Chakra and the intuitive Third Eye Chakra.

Their skincare products are suited to all skin types, even sensitive skin.

You can find their products on their website, with prices and detailed descriptions. They ship across India. ■

Contact: +91 8510003569, Email: [contact@kleda.in](mailto:contact@kleda.in)





So you want to do your bit but don't know where to begin? Allow us to help you with a list especially curated for *Civil Society's* readers. These are groups we know to be doing good work. And they are across India. You can volunteer or donate or just spread the word about them.

## COMBAT CHILD MALNUTRITION

Akshaya Patra Foundation runs the world's largest school meal programme. It serves nutritious meals to over 1.8 million children across 14 states and two Union Territories.

Founded by Madhu Pandit Dasa, president of ISKCON, in 2000 in Bengaluru, the non-profit's primary objective is to address hunger and malnutrition by implementing the government's Mid-Day Meal Scheme in its schools.

Akshaya Patra's kitchens are designed to prepare large quantities of food while maintaining high standards of hygiene and quality. These centralized kitchens have the capacity to cook up to 100,000 meals within five hours.

The non-profit is also involved in disaster relief efforts and provides meals to communities affected by natural calamities. The foundation promotes education, by helping with school infrastructure development and providing scholarships to underprivileged students.

To volunteer, visit their website and fill out the volunteer registration form. You can take part in fundraising, event management, or spreading awareness. Donations can be made online with options for one-time or recurring contributions.

<https://www.akshayapatra.org/>  
[donorcare@akshayapatra.org](mailto:donorcare@akshayapatra.org)  
+91 8030143400

## BE AN ANGEL, GRANT A WISH

Over 77,000 wishes have been granted to children between three and 18 years of age who are battling life-threatening medical conditions. It is what the Make-A-Wish Foundation has made possible. Perhaps the child wants to meet a favourite celebrity, visit

a dream destination or receive a cherished gift. The foundation ensures this wish comes true.

A branch of its global counterpart, Make-A-Wish India, was established in 1995 by Uday Joshi. Headquartered in Mumbai, the NGO is dedicated to granting the wishes of children who are critically ill, and bringing joy and hope into their lives.

Medical professionals, social workers, and volunteers work together to identify such children and then convert their dreams into reality.

Make-A-Wish welcomes volunteers. It has a form you need to fill on their website. Opportunities include wish planning and coordination, fundraising, and event organization. Donations help fund the cost of granting wishes and can easily be made through the website.

<https://www.makeawishindia.org/>  
[connect@makeawishindia.org](mailto:connect@makeawishindia.org)  
+91 8655857350

## BUILD A HAPPY FAMILY FOR CHILDREN

SOS Children's Villages India is dedicated to the welfare of children who don't have parental care or those children who are at risk of losing such care. It works for orphaned and abandoned children and recreates a congenial family life for them.

The non-profit's two programmes, Family Like Care (FLC) and Family Strengthening Programmes (FSP), strive to provide a nurturing and stable environment for children to grow up in.

The FLC programme creates family environments within SOS Villages. Children live in homes with mothers and siblings, ensuring they grow up in a family atmosphere. The FSP programme works with communities to empower families through

education, healthcare, and economic support, thereby reducing the risk of child abandonment.

SOS India is part of the global SOS Children's Villages network. It was founded by Hermann Gmeiner, an Austrian philanthropist, in 1949 in Austria. The organization has since expanded to over 130 countries and territories, providing family-like care to children in need.

As a volunteer you can engage with the children, help with administration and take part in community programmes. The website lists the process to apply and the available roles. Donations can also be made online, with options to sponsor a child or contribute to specific projects.

<https://www.soschildrensvillages.in/>  
[sosindia.info@soscvindia.org](mailto:sosindia.info@soscvindia.org)  
011 43239200

## ASSIST THE VISUALLY IMPAIRED

Ujjala, an NGO in Delhi, helps visually impaired male students studying in the University of Delhi and in the National Capital Region (NCR). Founded by Shalini Shannath, Neru Bhargav and Dolly Bhatia, the non-profit came into being as a shared dream of the three: to create a city where no visually impaired person is deprived of basic rights to survival, participation, protection and development.

Ujjala helps blind students from underprivileged backgrounds become independent and lead dignified lives by providing facilities like special training, education and safe accommodation with relevant amenities.

The premise is to foster an overall nurturing and conducive environment, helping students achieve their dreams and strive higher. You can donate via their website or donate in kind. They accept furniture, laptops, braille-

compatible devices and blankets that are in good condition.

<https://ujjala.org/> | [admin@ujjala.com](mailto:admin@ujjala.com)  
+91 9811029224

## HELP THE LGBTQ+ COMMUNITY

Humsafar Trust is a pioneer in advocating the rights of the LGBTQ+ community in the country. Founded by Ashok Row Kavi in 1994, it is based in Mumbai.

Many essential services are not tailored or don't even exist for the LGBTQ+ community. Humsafar Trust focusses on health, advocacy, legal support, crisis management, mental health, and nutrition counselling.

It works with public healthcare systems in Mumbai to provide services to the community. It also has an in-house clinic that remains open five days a week with three doctors and two lab technicians. There is a clinical psychologist who works full-time along with a team of four community counsellors. Also available is a nutritionist who provides nutritional counselling assistance.

Humsafar offers multiple support groups to the community. There is Yaariyan for young LGBTQ+ individuals, Umang for LBT persons, and Sanjeevani for those living with HIV. The NGO engages in policy advocacy with healthcare providers, law enforcement agencies, judiciary, legislators, political parties, government bodies, media, and student communities to sensitize them on the issues of LGBTQ+ communities.

As a volunteer you will be involved in community outreach, participate in advocacy efforts, and assist in support services offered by the team. One can reach out to them for more details. Donations can be made through the website or via the trust's page on GiveIndia.

<https://humsafar.org/>  
[info@humsafar.org](mailto:info@humsafar.org)  
+91 9892940966

# Civil Society

JOINING THE DOTS

## THE MAGAZINE THAT GOES PLACES

WHERE ARE WE BEING READ?

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