

# Civil Society

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# IN CIVIL SOCIETY EVERYONE IS SOMEONE



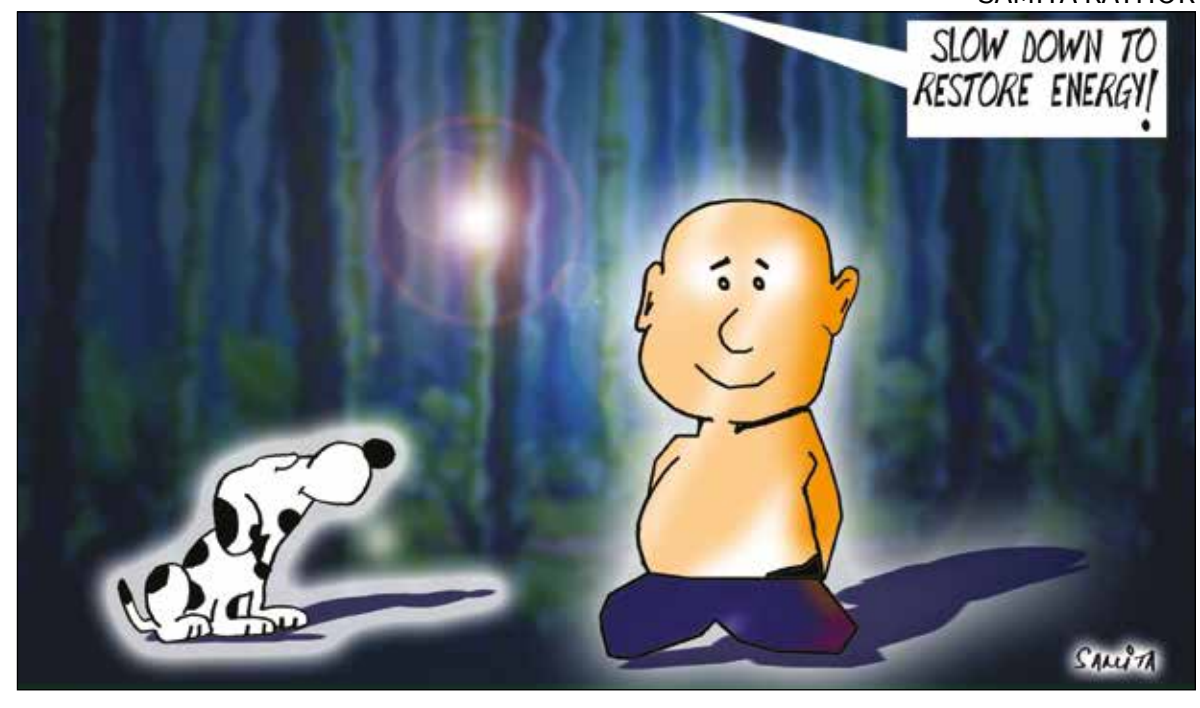
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IN THE LIGHT

SAMITA RATHOR

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LETTERS



Glorious history

The restoration of the tombs and the *baolis*, as described in your cover story, 'Baolis tumble out of Hyderabad's past', is simply amazing. I really enjoyed reading the article. It captures the powerful impact of Ratish Nanda's contribution to Hyderabad along with support from dedicated individuals like Sajjad Shahid. The restoration of the Qutb Shahi tombs complex is an invaluable gift to the community and to the city.

Juhee Ahmed

The restoration of the Qutb Shahi necropolis is stunning. Not only does it add to Hyderabad's many wonders, it is also a lesson in water conservation. We need to relook at our old water-harvesting structures in cities and draw up a roadmap to revive them. It will help recharge groundwater and enhance the city as well.

Anil Mehtab

Sewer deaths

I was Casualty Medical Officer at Hindu Rao Hospital, Delhi. In 1985 or 1986, three bodies were brought by the police accompanied by the father who had taken out the bodies from a sewer. I came to know one of them was an employee of the Municipal Corporation of Delhi (MCD). The other two had been substituting for their father and elder brother, who had also died. It was so pathetic. I couldn't eat or sleep that day. This is my most heart-rending experience till now.

Dr B.K. Datta

I'm happy to note that somebody is thinking about these kinds of problems and injustices. This is the kind of work culture going on

in India. We can't seem to address these problems. We need a society that believes in corrections and works for all of India.

Jyoti Rawat

Cycle sights

The ride through the Walled City in your article 'Old Delhi slowly: Cycle tour takes you to monuments', sounds fascinating. But how safe is it to be riding bikes in a crowded city like Delhi? I would be scared to be riding a bike amongst bustling crowds and traffic, jostling with auto rickshaws and cars. Do you provide any accident insurance?

Nilesh Kothari

This is a nice way to see the Walled City and sounds quite

perfect. But we need cycle lanes and no motorized traffic zones. Also, cleaner lanes. The old city is very chaotic. Still, I'd say this is a good idea.

Shanta B. Sinha

Temple tour

Susheela Nair's piece, 'Village of ancient temples', was excellent. Felt great to read about Aihole, the cradle of Indian temple architecture. The Durga temple with its horseshoe structure brings a sense of wonder to the reader's mind. It also revealed the historic details of the Chalukya dynasty. Nair's is the best traveller guide.

Nalini Krishnankutty

Bespoke meals

Food Darzee is an excellent initiative, especially for people like me who are committed to eating healthy. Is the service available in Hyderabad? All the best to this enterprising team.

Evita Fernandez

Great story. Urgently needed in these times.

Anita Anand

With women working and men averse to doing domestic chores, it is start-ups like Food Darzee which are the future. The choice of meals is also a great idea. This can give you better meals than your cook can make. Food is medicine so meals can also be tailored to combat disease.

Ram Kanwal

Letters should be sent to response@civilsocietyonline.com



COVER STORY

AT HOME IN A FOREST

A homestay on the periphery of the Kanha Tiger Reserve is a great example of what wildlife tourism in India should aspire to be. It takes people into a world full of nature's bounty.

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On the wild side

INDIA is teeming with biodiversity. Animals, birds, insects, plants, trees, water bodies — there is more than one can hope to see in a lifetime. It is a wealth of natural resources that offers an opportunity to earn and create local prosperity. Conservation can be profitable and result in livelihoods for local communities. Many things are possible and one way is wildlife tourism, but in India it sucks. You have a choice of dumb CPWD kind of facilities or rapacious and low-quality private operators or extremely expensive five-star facilities. They all come with a heavy footprint. Wildlife, on the contrary, needs a light touch and sensitive programming. It involves accessing nature but not disrupting and disturbing it. Local talent and resources and traditional knowledge cry out to be employed.

Our cover story this month is an example of what wildlife tourism can really be. Sheema and Aniruddha (Jhampan) Mookerjee have turned their home into a homestay, named Salban, on the periphery of the Kanha sanctuary and in doing so have created brilliant access to not just the forests where tigers are sighted, but also a whole lot else which begins with the way their house has been built and extends to the grains and fruits that they grow. To stay with them is to partake of an organic lifestyle. It is to respect nature and explore it gently.

The Mookerjees' homestay is an example of what Indian tourism could be. Other examples also exist. For instance, homestays abound in Sikkim and have a great record. *Civil Society* did a cover story on them some years ago. There are other farmstays as well from north to south. In this issue we have in our Living section a feature on how the unique suranga tunnels in Kerala's Kasaragod district are being developed into a tourist attraction. So, there is stuff happening, but not enough. The reason for that is the absence of a vision for India's grand natural resources.

Governments that knock voluntary organizations make a big mistake. From SHGs to NGOs they are all needed because of the focused and creative energy they represent. Who would think a former fighter pilot in the IAF would have a solution for potholes. But that is exactly what Prathap Bhimasena Rao has devised, making it so much easier now to fix a pothole and even lay a whole road. He calls his outfit PotHoleRaja — the name itself being an indication of how much the unorthodox matters. Our opening interview this month is with Rao.

We have made note of construction workers dying at building sites. Many of them have just fallen off structures. So, what's happening? Why aren't basic safety measures in place? We decided to count the accidents, based on news reports alone, and found that a whopping 84 deaths had occurred so far this year.

*Shanta B. Sinha*

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## Prathap Bhimasena Rao on making roads better, safer

## 'More people die in pothole mishaps than terror attacks'

Civil Society News  
New Delhi

WHEN he was in the Indian Air Force, Prathap Bhimasena Rao was flying Jaguars and breaching the sound barrier. After the Kargil war and the ceasefire that followed, he couldn't fly anymore because of an injury. He joined civilian life, earning a management degree from Harvard and working with blue chip companies.

Now at the age of 44, he has dedicated himself to fighting a different kind of battle at ground level. He saves lives by fixing potholes and by making roads safer.

Potholes occur worldwide, but they are the particular bane of Indian roads, resulting in loss of lives and slowing down transportation. Filling them should be a priority so that people can get on with their lives, but innumerable challenges come in the way of road repair.

In 2016, Rao launched PotHoleRaja, his social enterprise, and in the short while that he has been around, he has succeeded in finding a quick-fix solution to road repair. He has also come up with road-building techniques that make road surfaces more durable and put plastic waste to good use. In addition to his social enterprise, Rao has a company, Ground Reality Enterprises, under which he takes on commercial contracts. Excerpts from an interview with *Civil Society*:

**Q: You were a fighter pilot and you got interested in potholes?**

Absolutely. When I did my own studies, I came across a lot of interesting statistics. In 2015 the Supreme Court came up with startling data: there were 800 deaths due to terror attacks but in the same year 4,000 people died due to potholes. So, potholes were more dangerous than a terror attack. Potholes are a global issue and a challenge for civil engineering across the world.

**Q: When did you launch PotHoleRaja?**

Officially, I launched my company in 2016 when I started fixing potholes, but the idea was to look at more sustainable architecture. Pothole is essentially a post-mortem. The road has gone bad, and you are fixing something that's broken. The pothole can start with a crack, then it continues to grow due to impact on the road, there is seepage, breakage in the underground and the pothole happens.

Technically, potholes are one to two square metres with a 50-mm depth. That means you have a depression on the road. When you see it, it's not a full-fledged crater already.

When I started looking at how potholes are traditionally managed around the world, I found they use the old model, especially in India. Road making and maintenance adopt the same methods. They use hot mix, pavers, road rollers, etc. Unfortunately, technically that is not the



Rao: 'We have done 25,000 potholes in the past five years'

method for fixing potholes.

The pothole covers a small area on different parts of the road. When you construct a new road, the paver can keep going on one stretch continuously, using material which needs to be at one temperature — about 120 to 130° Celsius. Hot bitumen is laid, using a paver.

Now, they use the same hot mix method to fix potholes. Unfortunately, you can't do that with large machines. You need to have small lorries moving into those small parts. Material is unloaded from larger lorries and put on a small patch. By then the temperature dips to 70 to 80° Celsius. With that kind of temperature, the mended potholes will not last. That is one of the reasons why, after a few days, the pothole is back again. One period of rainfall and high traffic movement and the pothole is back. Technically, it's an inappropriate method.

We did our research and through global exposure we found that something called a cold asphalt and bitumen mixture stored in a bag was available. No heating was involved. It is a chemical oxidation process. It is like a 25-kg ready-to-use premixed bag. You can keep one or two in your car, tear it open, fill it on a pothole, hand tamp it or use a machine. That has been one of the methods used globally. I've not invented it.

In 2016 I began importing cold asphalt from the US and a bit from China. Meanwhile, Hindustan Petroleum Company got into collaboration with a French company for cold asphalt. I started becoming one of its large buyers. We did a lot of research with their R&D team, using plastic waste with cold asphalt as a filling material for pothole fixing.

**Q: How do you fill potholes?**

We have our own unique mixture of coal-based bitumen with plastic waste and crumbed rubber. When you retread a tyre you get a lot of small powdered rubber which is actually waste material. We use that as one of the materials.

From the beginning, I wasn't just looking at potholes. My focus was preventive: how do we make roads that don't develop potholes. How do

we look at infrastructure so that you don't get into maintenance. We were doing a lot of R&D to create roads with plastic waste, industrial waste and other waste. Our aim was to create infrastructure which is so non-technical that even an unskilled worker can do it and people can just buy a road.

That's how in 2018 I finally created my first product called the grid mat, a plastic-based honeycomb structure with an inter-locking grid. Imagine how you make a road. It is a sandwich of layers, soil, more soil, asphalt, tar, bitumen layer, etc. Both asphalt and bitumen roads need multiple layers and rollings. That's where the technical compromise happens. Water is the enemy of roads and when water stagnates, breakages happen, and potholes emerge.

**Q: What is the area of your business? Is it confined to Bengaluru?**

No. We are now in 35 cities in India, and we have done 25,000 potholes in the past five years. Potholes can be as large as a crater or just a small hole. I consider one square metre to be a pothole. We have also done 20,000 volunteering hours with CSR funds. We have educated close to 7,000 volunteers and 15,000 students on road safety and fixing potholes. And that's just in India. In the past year we have also gone to Europe, Indonesia and Africa. I'm going to Nairobi to enable their government to explore our model and adopt it.

**Q: What is the size of your company?**

There are two aspects to road infrastructure: public roads managed by government agencies and private roads like, say, in an IT park managed by a private company and used by people on the campus and the public.

All public roads are not-for-profit entities for me. Private roads are for-profit entities. I have a private limited company to manage the private roads infrastructure. They don't want it to be charity work. For public roads, we work with CSR funds, grants and donations.

Initially, I was only focusing on public roads and fixing potholes. But the funds and donations we received were not enough to tackle the number of potholes being reported.

I have a mobile app and WhatsApp number 814 where you can report a pothole. Just send us a picture with the GPS location and details of the pothole. We will go and see if it can be fixed. We also request people reporting the pothole if they can spare funds for it.

We do not go to the government or municipalities or take part in tendering processes. One of our largest sources of funding is CSR funds. About 30 companies have funded. We have raised close to two and a half million dollars in terms of grants, donations and CSR funds.

**Q: Which companies have you made roads for?**

One of our biggest projects is with ABB in an industrial area of Bengaluru where we are making five km of road. We are doing drains, walkways, signals, lights, surveillance cameras, anything you can imagine in a smart city. It's a complete transformation and includes all aspects that are critical for a safe and beautiful road.

It's not just potholes but road safety that we are concerned with. We worked with Mercedes-Benz on an amazing road safety project in Bengaluru and Pune. They go to schools and teach road safety to children. One of their biggest R&D centres is in Bengaluru. They started with schools around Whitefield and found the children disinterested and somewhat amused. The children said, See the road infrastructure outside our schools. We don't have zebra crossings. Or no-honking zones. We walk to school. Our parents don't drop us in cars and on bikes.

The company connected with us. We did audits in 20 schools to determine what makes a school zone safe. We got students, employees and traffic police to audit two km around the school and determine the kind of infrastructure needed for safety. There were eight to 10 aspects that were required. Eventually 15,000 students and 6,000 employees of Mercedes-Benz fixed potholes, placed speed-breakers, reflectors, and appropriate walkways and crossings.

We are working with Hyundai in Kochi. One of the challenges they face is that the access to their dealerships is not great and a lot of accidents happen. We are working with employees, dealers and the municipal council to make three dealership zones safer.

Another important aspect is our grid mat technology. We are making roads that don't get into pothole issues. Reducing the thickness of the road has a positive environmental impact in terms of carbon emissions, footprints, acidic reactions and weight on the road.

We have done 500 km of roads using grid mats, including Adani airport in Ahmedabad, and flooring for the Maruti Suzuki plant in Gurugram and Manesar. Last month I was in Europe, doing research on how to create a circular economy in infrastructure.

We insert sensors inside the grids to track data points. We are using IoT (Internet of Things)-based smart roads. The sensors tell us how many vehicles use the road, what is the load, the temperature and the pressure. Another project we are working on is vigilance for Border Security Roads using such sensors which capture data.

My research in Europe includes solar roads. So another pilot we are doing is to make roads with solar surfaces so you can continue to drive, walk, or bicycle but you can harness solar energy through the open real estate approach.

**Q: Do you work with a lot of municipalities?**

We work with the BBMP in Bengaluru, the BMC in Mumbai and the municipal corporations in Ahmedabad and Coimbatore. But not through a tendering and contractor model. They invite us, we train

**'I wasn't just looking at potholes. My focus was preventive: how do we make roads that don't develop potholes. Infrastructure so simple that an unskilled worker can do it.'**

their engineers, give our material, deploy volunteer groups with CSR funds. We are helping them adopt this technology.

In Bengaluru, the BBMP buys material from us. We have trained their engineers. We also work with the Metro corporation, training their resources wherever Metro works are happening.

In February-March we undertook an All-India Bharat Mala. We drove 15,000 km, covering 53 places. We fixed 1,000 square metres of potholes with our customized lorry which has cold asphalt. Two EV bikes drove alongside, creating a *Guinness* record.

**Q: How much does it cost to make a road which for five years won't have a pothole? What is the cost saving?**

For pothole fixing there is different costing. For new roads our grid mats are 25 percent cheaper than traditional costing. The other aspect is that we are also reducing the amount of natural resources you need to build a road. We are cutting use of steel, the heavy load on the ground, time and water. These are intangible benefits.

**Q: You can't have a pothole census because potholes come and go. Still, how many potholes roughly do you think we are generating?**

We undertook a study with different countries with 30 interns from different colleges. Globally, one km of road which is five metres wide, if maintained well, should not generate more than two or three potholes in a month. But in our country, we generate 15 to 20 potholes every km, every month. In Bengaluru the main arterial road and main roads are about 15,000 km. In India, as per MoRTH (Ministry of Road Transport and Highways) statistics we have 69.8 lakh km of roads. You estimate 10 potholes every km, so you are talking about... ■

# Without safety, workers at high risk AT CONSTRUCTION SITES, A CONTINUING DEATH ROLL

Civil Society News  
New Delhi

At least 84 workers have lost their lives and 60 have been injured in accidents at construction sites across the country between January and November this year. Invariably they have fallen off upcoming buildings or been crushed under collapsing structures from which there has been no escape.

The lack of safety measures and poor construction practices adopted by builders appear to be the main reason for the accidents. In the absence of stable scaffolding, safety nets, harnesses and protective gear, the workers seem to be exposing themselves to risks from which they cannot save themselves when things go wrong. There are deaths which happen during a cave-in at an excavation site or when a pick-up van crashes. Then again, it could be an iron pipe falling.

The numbers of dead and injured have been put together by *Civil Society* on the basis of news reports in the English-language media. The numbers could actually be much higher because of reports that have not been accessed. Or accidents that are likely to have gone unreported.

In the absence of central, state or city level records of these accidents, it is not known how many accidents happen and what really causes them. It is also doubtful how much compensation the workers get because they are unorganized, lack formal terms of employment and don't have the means to assert their rights legally.

But from the little that is known from the sites of accidents there emerges a worrisome picture of the construction industry being exploitative and unaccountable. While real estate is a driver of the economy and apartments and commercial properties attract ever rising prices, workers, mostly seasonal migrants from rural areas, aren't beneficiaries.

It is not known how much compensation they receive and what happens to families after these tragedies. Those who injure their limbs and are impaired for life are most likely worse-off than those who lose their lives. There are no provisions for their rehabilitation.

Several of the news reports are chilling. On September 15, there were eight workers who went plummeting down a lift shaft in Ahmedabad. Five fell from the 13th floor and three from the fifth floor. Seven died and one was seriously injured.

They were plastering the lift shaft when the wooden platform on which they were standing gave way. They fell straight down into the basement. "On hearing what happened, three workers on the fifth floor went to see and they too fell into the shaft," ACP L.B. Jhala of the Ahmedabad police

**Rising prices of real estate don't benefit workers who are not even given safety gear or compensation. In all accidents, action is after the event. Rules exist but there is no implementation.**



A building coming up in South Delhi

was quoted as saying by *The Times of India*.

Imagine the scene. Five men fall 13 floors. Another three go to see what happened from the fifth floor and also fall to their death. It would appear that there were no safety provisions at all for the men working on plastering the lift shaft. Nor were they cautioned or trained for the job.

The labourers who died included Jagdish Nayak, 21, of Samakuva village of Panchmahal; Sanjay Babu Nayak, 20, and Ashwin Nayak, 20, of Virol village in Devgadhi Baria of Dahod; Sanjay Manga Nayak, 21, and Shailesh Nayak, 19, and Mukesh Nayak, 26, of Vavkuli village in Panchmahal; Rajmal Kharadi, 25, of Ganoda in Banswara, Rajasthan.

These were all young men in search of daily wages in the city of Ahmedabad. They typically get whatever they can get and become part of a churning labour force that is incapable of dealing squarely with

6 MONTHS OF ACCIDENTS IN 2022				
Date	State	Causes	Injuries	Deaths
2 January	Pune	Steel rods fall		1
5 February	Yerawada	Iron mesh falls	6	5
16 February	Bhopal	Van goes into ditch	15	4
21 March	Kochi	Earth caves in		4
24 March	Ghaziabad	Wall collapses	2	3
26 March	Gurugram	Metal pipe falls		1
6 April	Pune	Road caves in		1
18 April	Ganjam	Fall from height		1
24 April	Ghaziabad	Roof falls	5	1
3 May	Pune	Slab collapses	4	1
17 May	Pune	Fall from height		1
21 May	Jammu	Earth caves in		9
1 June	Bengaluru	Wall collapses	3	1
7 June	Guwahati	Tunnel support collapses		1
8 June	Mumbai	Crane malfunction		2
12 June	Gurugram	Fall from height	1	2
12 June	Pune	Buried under soil		1
26 June	Puppallaguda	Wall collapses		2
28 June	Thane	Lift accident	2	4
5 July	Idukki	Earth caves in		2
16 July	Bakoli	Wall collapses	8	5
21 July	Dehradun	Bridge collapses	6	2
29 July	Ghaziabad	Crane malfunction		1
30 July	Hyderabad	Shaft crash	2	5
02 August	Gurugram	Fall from height	1	4
02 August	Madurai	Fall from height		1
22 August	Chennai	Fall from height		1
22 August	Chennai	Electrocution		1
10 September	Gurugram	Fall from height		1
14 September	Ahmedabad	Fall from height	1	7
17 September	Surat	Fall from height		2
20 September	Ahmedabad	Fall from height		1
20 September	Ahmedabad	Cable snaps		1
21 September	Thane	Wall collapses	4	2
23 September	Hyderabad	Fall from height		1
13 October	Pune	Electrocution		1
20 October	Kondhwa	Fall from height		1
The dates are when the news reports appeared online			<b>60</b>	<b>84</b>

employers or negotiating work conditions. In the absence of effective regulation there is no one to represent them either.

Cases were registered under the Indian Penal Code, Sections 304 and 114, against the contractor and sub-contractor. But the developers seem to have got off scot-free without taking any of the blame. Who should be held responsible for such deaths is the question that arises.

*The Tribune* reported on August 2 that four labourers fell to their death from the 17th floor of a building under construction in Sector 77 in Gurugram. They were reportedly fixing a tower crane used to take up construction material when an iron angle broke and they went into a free-fall. A fifth worker who also fell got stuck on the 12th floor and was injured.

The workers were all from Kishanganj, Bihar and their names were Mohammed Tahmid, Kamod, Naveen, Parmesar. They had been working at the site for several months. Emaar, the developer, is putting up a residential colony there.

On July 16 in Delhi, five workers died and eight were injured when a wall collapsed on them. They were working on the foundation of a warehouse adjacent to the wall when it came down on them.

Photo: Civil Society/Lakshman Anand



Workers pass bricks at a site in Gurugram

Photo: Civil Society/Lakshman Anand



There is no regulation and no one to represent the workers

Local residents said these were unauthorized constructions and at least one resident claimed to have filed complaints with the local authorities much before the accident actually happened.

In all the cases it appears that action taken by the authorities follows the event. While rules pertaining to safety exist, there seems to be little or no effort to ensure that they are implemented. Inspectors don't seem to be visiting sites and auditing what builders are doing. It is also seen that accidents happen at large projects. The cost of having safety measures in place would be a mere fraction of the entire project cost.

Also missing is awareness among buyers. While they make significant investments in property, they show no interest in how buildings are coming up. The crude use of human labour doesn't seem to have pricked the conscience of buyers or for that matter the banks and large investment institutions which fund them.

For a long time a large fund for the welfare of workers collected by way of a levy on projects remained unutilized in Delhi. It was not even known how many workers there were. Now in Delhi at least, under the Aam Aadmi Party, government workers have been registered, but their empowerment is still a long way off.

Voluntary organizations such as Safe-in-India and Aajeevika Bureau have been helping workers in the unorganized sectors get their rights and employment benefits. (See *Civil Society* November 2021 and April 2022). Such efforts are laudable and important, but not enough. They cannot substitute sustained initiatives by the government and sharper regulation.

The data collected by *Civil Society* shows accidents happening at construction sites all over the country from Maharashtra to Haryana, Delhi, Gujarat, Rajasthan, Andhra Pradesh, Jammu and Kashmir and so on. Clearly, it is a problem deserving of a national solution. ■



The film crew on location outside the teashop where the first episode was filmed

## Shopfloor thriller: Vijay loses fingers

Kavita Charanji  
Gurugram

A video series with a title like *Gang of Shramikpur* suggests a thrilling edge-of-the-seat film full of action and gore. In fact, *Gang of Shramikpur* is an eight-episode series which tells the story of Vijay, an injured factory worker, who must negotiate a maze of red tape to claim the compensation rightfully due to him under the Employees State Insurance (ESI) scheme.

The first episode of the eight-part series tackles a serious issue sensitively with a light touch. Vijay's friends engage in banter at a tea stall manned by Raju, a tea-seller, who knows the processes, procedures and heartburn involved in traversing the ESI system and advises Vijay.

The film has been produced by Safe-in-India (SII), which campaigns for the rights of exploited auto workers in the Gurugram-Faridabad-Manesar industrial belt.

"*Gang of Shramikpur* is our team effort to create edutainment content that engages workers. We really hope the worker community sees season one," says Sandeep Sachdeva, co-founder and CEO of SII.

Vijay, the central protagonist, loses his fingers working on the infamous power press machine in a factory. He is traumatized by the injury which incapacitates him. To add to his distress, he has to deal at once with complex procedures to claim his ESI benefits. There is an endless list of documents he must produce: an accident report, witness statements, medical clearance from a local ESI dispensary, an ESIC identification card, an accident form given to him by the factory owner within 24 hours as



Lalit Saini, director of *Gang of Shramikpur*

well as a ledger number.

The series premiered at SII's third Shramik Sammelan on August 15 this year. A sizeable audience of over 300 factory workers, 250 of whom had been injured in industrial accidents, came to see the film. "We hope that business owners, managers, and even labour unions, find it useful to learn about Employees State Insurance Corporation (ESIC) benefits and processes through this medium and share it with their workers and members," says Sachdeva.

To make the first episode, SII tied up with FilmArt, a film production company in Delhi. "Understanding pain is not enough. Tactics are needed to get ESI benefits. Experts from SII gave us the description and brief. We had long discussions about the ESIC system and the attitude of workers to it. They were keen that the story should connect with the audience," says Lalit Saini, co-founder of FilmArt and director of *Gang of Shramikpur*.

Video content is a great way of creating awareness about ESI benefits to which factory workers are entitled, says Sachdeva. There are

140 million Indians who lack awareness of healthcare and compensation benefits under ESIC. Sachdeva believes ESI is one of the best social security schemes for workers in the formal sector in India, and perhaps in the world.

"Our message to workers, business owners and labour unions is that we need to be much more aware of ESIC benefits and processes to obtain disability pension, maternity benefits and healthcare," says Sachdeva.

FilmArt proved to be a supportive partner of SII for the video series. A lean team, mostly from lower income backgrounds, FilmArt has made films on stories of change for Indus Action, Tata Trusts and Save the Children. The *Gang of Shramikpur* series brings together real-life stories and situations aptly. Saini also teaches filmmaking to children from vulnerable communities, who lack financial resources to study the medium.

The next episodes of *Gang of Shramikpur* will debut in November or December. They will cover how to get ESIC pension after a disability and include messages on workplace safety. The following episodes will inform women workers how they can claim maternity benefits.

The immediate challenge SII faces is in getting their film across to a larger number of workers. While *Gang of Shramikpur* had almost 5,000 YouTube views in the first week itself, Sachdeva acknowledges that they must reach many more workers. "We need partners in businesses, labour unions, worker communities and community influencers who are happy to help India's workers. We would be grateful if they could contact us at team@safeindia.org. We can create the right partnership model with them as long as we are value-aligned," he concludes. ■

## Plastic waste becomes park furniture with eco-bricks

Rakesh Agrawal  
Dehradun

EIGHT years ago, when Ranjit Bar came to Dehradun to study B.Tech in computer science, he was taken aback at seeing mounds of garbage strewn across the city. Bar is from a village called Kalagachhiya in East Midnapore district of West Bengal and the sight of so much rubbish surprised him.

He decided to act. The next day, Bar, who was just 19 years old then, collected some garbage in a bag on his way back from his college, the Dev Bhoomi Institute of Technology. He took it to his quarters and started segregating it in the evening. He had spotted homeless children begging on the streets and asked their parents if he could pay ₹1,500 to each child to stop begging and help him instead. Two parents agreed.

"I follow the ideas of Swami Vivekananda," he says. "Swamiji said, Take up one idea. Make it your life, dream it, think of it, live on it. Let the brain, the body, muscles, nerves, every part of you be full of that idea and leave every other idea alone. This is the way to success, this is how great spiritual giants are produced."

Spirituality, sadly, doesn't make plastic waste disappear. What was he to do with the pile of waste in front of him, Bar wondered. At the institute he was studying in, he'd been shown a documentary on using plastic bottles as bricks. "In 2000, Andreas Froese, a German in South America, started converting PET bottles into bricks. He used them in parks, schools, houses, and water reservoirs. Then, Susanna Heisse, an environmental activist in Guatemala, developed the first construction system with eco-bricks in 2003. She filled PET bottles with plastic bags and built a wall. It inspired people around the world. In the Philippines and Indonesia entire houses have been built with eco-bricks," says Bar.

He decided to replicate this idea in Dehradun. The two children he'd rescued from begging helped him. "I feel proud helping him collect plastic waste. It's the only way I could repay his kindness," says Shreyansh, who now studies in Class 5 in a government school.

He registered his non-profit, Building Dreams Foundation (BDF), in August 2016 with four friends. "Everyone has a dream but it is not realized on the ground. As A.P.J. Kalam said, one should see dreams with eyes wide



A bench made of eco-bricks at the Botanical Survey of India in Dehradun



Ranjit Bar

open," says Juhi Pandey, 25, an engineer and co-founder of BDF.

"We wanted to capture the young mind. Our strategy was the three Es — education, empowerment and environment. After making 100 eco-bricks we started conducting workshops in schools," says Dr Surabhi Jaiswal, a dentist and another co-founder.

The first school they held a workshop in was Naugaon Primary School in 2018. Using short videos and PowerPoint presentations, they explained the history, rationale and method of making eco-bricks. They showed how all kinds of plastic waste, even milk and oil sachets, could be reused after being cleaned, dried and put inside plastic bottles.

Then they held workshops in Maharshi Vidya Mandir, Doon Public School and DAV Inter College. So far, they've covered nine schools and universities, including Oakridge International School in Mohali, Doon University and Graphic Era Deemed University.

"They brought empty PET bottles and plastic waste with them. We learnt how to make eco-bricks after the workshop with live music playing in the backdrop. It was great fun," says 13-year-old Neha Kumari, a Class 8 student of DAV Inter College, a higher secondary school in Premnagar, Dehradun.

Teachers were also happy to see their students working for an environmental cause. "Almost everything these days is wrapped in plastic. They showed us a commendable way to reuse plastic. Our students loved doing it," says Mamta Guleria, a teacher at Cantt Board Junior English Medium School in Premnagar, Dehradun.

As word spread, institutions started inviting them to put up eco-brick structures on their premises. "The Botanical Survey of India (BSI), the Zoological Survey of India (ZSI), and Doon Cantt Board asked us to instal eco-brick structures on their campuses," says 23-year-old Himanshu Pathak, an agriculturist and co-founder of BDF.

Using thousands of eco-bricks, BDF made stools, benches, statues, tree guards and fences in these three institutions. "It's terrific to sit on these benches and stools. They are quite sturdy," says 24-year-old Mahesh Rana who was visiting the BSI to examine threatened plant species for his research paper.

"At the moment, these benches are out on the campus, but soon we will have them in our offices as they're cheap, durable and sturdy," says Dr Gaurav Sharma, officer-in-charge, ZSI.

Tourists visiting Doon Cantt Board are thrilled to see the big statues of elephants, tree guards and a flag-post base made with eco-bricks. Children are especially thrilled.

BDF has now been invited to Sikkim to demonstrate their work. "We heard about them and invited them in June 2022 to build stools and benches in Sikkim. Their work is really commendable, more so for a zero-waste state like Sikkim," says Yishey D. Yongda, district collector, Gyalshing.

In West Bengal, BDF made stools and benches out of eco-bricks for the Aurai Gram Panchayat in Purba block of Midnapore district in 2018. However, Bar says he is still waiting for other government institutions to show some interest. ■

# Hyperlocal reporters win village elections

Surmayi Khatana  
Mumbai

WHEN Arjun Pawara won the election for the post of *sarpanch* in the Dhadgaon block of Nandurbar district in Maharashtra in October this year, it was really no surprise.

Pawara is the face of the Aadiwasi Janjagruti, which makes videos on development problems and gets them resolved. Thanks to their efforts, long-sought civic amenities have been provided such as a road and tubewells.

Five of his colleagues from the Aadiwasi Janjagruti were also elected ward councillors as people, grateful for being given a voice, now chose them as their representatives.

The Aadiwasi Janjagruti is a unique effort in hyperlocal journalism by making videos on government schemes, social issues and local demands for infrastructure. They also expose corruption and mismanagement.

Made in the local dialect, the films are avidly watched when they go viral after being uploaded on social media. (See *Civil Society* July 2021).

Residents of Harankhuri village had been asking for a road for 25 years. They finally got it within a year due to the efforts of the Aadiwasi Janjagruti which highlighted their plight. The team not only proposed the road, they pushed for it and stayed at the site to supervise construction.

It all required a lot of back and forth with the panchayat. The residents of Harankhuri were so happy they named the brand new road Aadiwasi Janjagruti Marg. Similarly, people from Aamkhedi, who had to walk nearly four kilometres to fetch water, finally got borewells as a result of the Aadiwasi Janjagruti's videos and persistence.

The panchayat in the Dhadgaon block comprises the two villages of Harankhuri and Bhujgaon. It was the residents of the villages who urged members of the Aadiwasi Janjagruti team to contest the elections.

Their reasoning was that if without political power the team could achieve so much then by being in local government they would bring in radical and quicker change. Also, the performance of the previous panchayat had disappointed them.

In February 2022, the Aadiwasi Janjagruti team held a meeting to discuss whether its members should stand for election. It was only as recently as September that they decided that 33-year-old Arjun Pawara would contest the post of *sarpanch* and seven other members

would stand as ward councillor candidates. Over the years, every volunteer in the team has come to be regarded as a local leader in his or her own way. "I was not interested in politics but the people kept urging me to contest. So, I decided to give it a chance and plunged in," says Arjun.

The five members who won the ward councillor elections are Kailash Mohan Pawara, 34, Dilip Kalusing Pawara, 34, Kavita Rakesh Pawara, 28, Thumli Ravindra Pawara, 29, and Nita Lotan Pawara, 23.

"Arjun has been the face of the work that we do. Everyone knows him," says Nitesh Bhardwaj, who set up Aadiwasi Janjagruti in 2016 and was joined by Arjun and Rakesh Pawara.

Earlier, people elected a ward councillor for each ward and they subsequently elected the *sarpanch*. Recently, the Maharashtra government changed this system. Now each ward has its election for ward councillor. A separate election for the post of *sarpanch* is held for which people vote directly.

The total voter turnout on October 16 for the *sarpanch* election was over 850. Arjun won with 440 votes. The other candidates, Vipul Suklal Pawara, 37, and Padvi Suresh Dohanya, 40, got 249 and 165 votes, respectively.

Right from the beginning of the campaign, the Aadiwasi Janjagruti team decided to keep their reportage independent of politics. "We made it a point to not make any videos or use our platform for campaigning," says Bhardwaj. "We will report on the work a person has done, but not promote a person."

After finalizing their candidates in September, they designed their own posters. They would usually campaign late in the evening or at night since all their volunteers were caught up in Aadiwasi Janjagruti work in the daytime. They would go door to door and speak to residents.

Rakesh Pawara, who works as cluster manager in a rural livelihood mission run by the Maharashtra government and is an integral part of the Aadiwasi Janjagruti team, led the campaigning along with Bhardwaj.

"We emphasised that Arjun, who is studying for a PhD in rural development from North Maharashtra University, was a highly qualified and educated candidate for *sarpanch*," says Bhardwaj.

"We underlined that this is the first time in the history of this panchayat that a PhD candidate was standing for the post of *sarpanch*."



Rakesh Pawara and Nitesh Bhardwaj at the Aadiwasi Janjagruti Road in Harankhuri which was named after their organization



Arjun Pawara and the team celebrating their victory

They also emphasized the work the team had done for the local people. Many of the issues which residents had been struggling with for the past 14 to 15 years and their repeated requests to the administration had been successfully taken up by volunteers of Aadiwasi Janjagruti.

Their manifesto included making Harankhuri and Bhujgaon a model gram panchayat. Also included was upgrading the infrastructure and the buildings housing the *anganwadis* and ensuring the children get more nutritious food. Building a library for the school which students have been asking for was on their agenda. Installing streetlights and removing corruption at the panchayat level were also important issues.

Most candidates spend heavily campaigning



A campaign meeting in progress

for local elections in Dhadgaon.

The Aadiwasi Janjagruti spent around ₹45,000 on campaigning. Most of this money came from personal funds or from friends. Some money was raised via crowdfunding.

The expenditure was mostly on petrol, food for the team, travel, banners and posters. "People would tell us that to win an election in Dhadgaon you have to pay the voters at least ₹1,000 each. Funnily, the opposite happened with us. People in the village put together small amounts of money to help us campaign," says Bhardwaj. In the ward in which they helped build the road, people raised ₹10,000 for their campaign.

One advantage the team had was that for the past four or five years, they had interacted with the panchayat, the gram sabha and the local administration. This equipped them with an understanding of how the system worked.

The Aadiwasi Janjagruti would approach the panchayat with issues and questions on civic

amenities. While these discussions would eventually lead to action, the team also had to encounter a lot of friction. Since last year people of both villages had been urging them to stand for elections themselves.

Arjun Pawara was in a unique position as these interactions with local institutions enabled him to understand the functioning of the panchayat, the manner in which funds are procured, the responsibilities, grassroots politics, the structure and corruption. Last year, Arjun, Rakesh and Bhardwaj visited Chhattisgarh for an event where they spoke about how the panchayat works and their personal interaction with the system.

Winning the post of *sarpanch* and five out of seven wards was a pleasant outcome for the team. Campaigning for the councillor posts and for *sarpanch* was done simultaneously. The new panchayat started its six-year term on October 22. Its progress will be followed enthusiastically. ■

## Samita's World

by SAMITA RATHOR



## Bengal village sees boost in incomes from better farming

Raj Sekhar Bandopadhyay & Himadri Das  
Bankura

AN obscure tribal village in West Bengal where seasonal migration has been the norm has seen household incomes increase as much as three times in five years with improved paddy and vegetable cultivation and fish-rearing.

The increase in incomes follows measures for water conservation and better methods of cultivation brought in by PRADAN, an NGO, which has been working with the villagers.

Dakshinkendbana is a Santhal village in the Indupur block of Bankura district. It has 26 households with 111 individuals. The local economy depends on agriculture, livestock and wages. The total land under farming is 56 acres. The average annual household income was a paltry ₹36,000. To supplement their income, villagers worked as farm labour and construction workers.

The village had only one tubewell which was used for drinking water and household chores. For bathing, washing clothes or taking their cattle for a dip, villagers travelled four km to get to a water source.

The Indupur block suffers from a shortage of water. The average rainfall is 1,200 mm. Villagers cultivated paddy during the monsoon and a few farmers grew vegetables on their homesteads. Lack of income compelled them to migrate seasonally for work as labourers. The rest of the year they worked on other people's farms for meagre wages.

In 2016, PRADAN's team started working with the village to boost its income. They began by organizing women into Self-Help Groups (SHGs). They were taken to visit the SHG federation in Purulia to understand how they could collectively increase their income. PRADAN's team held meetings to inform villagers about cropping patterns and better agricultural practices.

The quality of upland soil in villages is usually unsuited for growing cash crops. The lowlands, on the other hand, have fertile soil. After assessing Dakshinkendbana's soil, PRADAN decided to introduce Direct Seeded Rice (DSR), a method by which seeds are sown directly into the soil instead of transplanting seedlings from the nursery.

Twenty-two farmers opted for DSR that year. Earlier, an acre would yield around five quintals of paddy. With the DSR method, an acre yielded 9.5 quintals on average. This jump in production was still lower than Bankura's standard production which was 10.71 quintals per acre.

The villagers were not disappointed. They said that since DSR allows direct seed sowing, they saved transplanting time which helped them work as labour on other people's farms. Also, due to early harvesting, their lands had residual moisture which helped them take up mustard cultivation in winter.

The moot point for PRADAN was that paddy cultivation was not generating enough income. So, to make agriculture more remunerative,



Motivating farmers to experiment with cropping patterns



Ujjwala Tudu with one of her watermelons

PRADAN turned to vegetables. But water for vegetable cultivation was a hurdle. They noted that demand for cucumber rose during religious festivals like Vishwakarma Puja and Durga Puja. They calculated that cucumber cultivation using trellises during the monsoon would yield six tonnes from every acre. In 2019, 12 farmers made an attempt to grow cucumber. Since production wasn't in bulk, farmers sold the cucumbers locally. They earned ₹5,500 each on average.

PRADAN realized that lack of irrigation was proving to be a serious hurdle to lucrative farming. A plan was drawn up to dig ponds for harvesting rainwater. In 2019, the first pond

was excavated on 2.13 acres and two more were dug in 2022, with the support of the West Bengal Accelerated Development of Minor Irrigation Project (WBADMIP). Five ponds and 11 borewells were made under the rural employment guarantee scheme.

These ponds became a lifeline for the village. The availability of water inspired farmers to collectively cultivate vegetables for large-scale profit. In the 2020 monsoon season, 18 farmers grew cucumber on trellises on 3.64 acres. After their cucumber was harvested, they grew flat beans on the same trellis in winter. PRADAN supported them with technical know-how. This time, the average income went up to ₹8,000 per farmer.

PRADAN motivated farmers to experiment with improved cropping patterns. Seven farmers decided to grow watermelon in January 2021. But they couldn't afford the input cost of ₹6,000. Here, the SHG came to their rescue and gave them a loan of ₹18,000. As the watermelons started growing, market vendors visited their farms. The farmers were paid market rates and earned an average of ₹11,000 that year from watermelons.

In 2022, 13 new farmers joined the watermelon brigade. They earned an additional income of ₹16,786 each. The farmers also formed a Farmer Producer Company (FPC) with PRADAN's help.

"As members of an FPC, we were able to develop marketing channels with Sufal Bangla, an initiative of the government of West Bengal, to ensure doorstep delivery of fresh vegetables. We could sell our watermelons at government-mandated fair price rates," says Adari Munda, a local farmer.

Irrigation had another salutary effect. It led to diversification of livelihoods. Since Bankura ranked first in pisciculture in West Bengal, PRADAN floated the idea of using the ponds for fish cultivation. The villagers were keen. They were taken on orientation visits to Ramsagar, a village well known for fish-rearing.

A group was formed for pisciculture. Fingerlings were released into the ponds.

The cost of fish feed was supported by the WBADMIP. By selling various species of fish, within a few months, the farmers earned ₹144,100, with a working capital of ₹11,400. Today, they have increased their vegetable cropping area. They have purchased a water pump to regulate water flow judiciously.

"PRADAN helped us increase our livelihood every year. I earned ₹218,000 from watermelons and ₹28,000 from other crops in the past two seasons. I could enrol my child in a good school. I expect every household in our village to earn ₹1,00,000 every year," says Ujjwala Tudu, a woman farmer of Dakshinkendbana. ■

Raj Sekhar Bandopadhyay and Himadri Das work for PRADAN

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Photo: M+P Architects Collaborative



Salban's drawing room and dining area

# At home in a forest

## A model for wildlife tourism

### CIVIL SOCIETY REVIEWS

WHAT is a good way to go tiger-watching? Slow down, spend time and sink into the forest. Be immersed in its sights, sounds and aromas. Worship the trees. Get acquainted with passing deer. Check out the birds, frogs, snakes and butterflies. Relish those tubers, mushrooms, berries and wild strains of rice. Wind down the evenings with some homemade *mahua*.

Seeing a tiger is more than a mere photo-op. It is a wondrous experience. Preparing for it is as important as the moment itself. It involves getting the mood right by leaving bustling cities behind and entering a habitat awash with magical attributes.

Salban is a good point of entry. A small homestay on the periphery of the Kanha Tiger Reserve in Madhya Pradesh, Salban has for the past eight years now been quietly raising the bar for wildlife tourism in India.

It consists of a large bungalow, with four rooms available for guests, on 12 acres and is blessed with all things bright and beautiful. There are forays into the forest and tiger sightings that may or may not happen, but what makes Salban special is that it is passionately local. It is quite truly a

home in the forest created by Sheema and Aniruddha (Jhampan) Mookerjee after they escaped from the urban jungle of Delhi and Gurugram.

Their house has been built using wood, mud, red brick and stone — all sourced nearby. RCC is at a minimum and cement has been replaced with mud mortar. The wood is from local varieties of trees. Like the materials, carpenters, plumbers, electricians and labour have also been locally sourced from nearby villages.

There is no air-conditioning but the thick mud-mortar walls retain coolness and together with the surrounding greenery keep the rooms cool. The bathrooms are modern in their facilities with top-of-the-line fittings, but natural stone, rather than factory-made tiles, has been used creatively for the flooring. The ambience, touch and feel are natural.

Meals are homecooked and from locally grown crops and vegetables. Local varieties of trees are in abundance such as sal, from which the name Salban comes. There are also fruit trees such as litchi, custard apple, avocado and guava. A mango orchard with 200 trees has pride of place. In the fields rice, wheat and millets are sown from traditional seeds, free of chemical pesticides and fertilizers.

“Our philosophy was simple. Living so close to the core of a tiger

reserve, we wanted to be as unintrusive to our surroundings as possible,” says Jhampan about their efforts to create a mini-forest.

Salban was really meant to be only the Mookerjees’ home. But between 2014 and 2016 the costs of maintaining and greening such a large area began to hit them. In the early part of their careers, they had both been journalists. Over time they had made transitions. When they left Gurugram, Sheema was the publisher of a travel guide company and Jhampan was a wildlife consultant. Now their personal resources and freelance incomes weren’t enough to maintain the expanse of their new home at Kanha.

It was then that they decided to make Salban into a homestay. The Madhya Pradesh Tourism Board (MPTB) was very supportive though they had just two rooms to rent out. Within a month of applying, Salban was registered as a place where tourists could stay.

“This was a completely new line of work for us, but we seemed to fit in. To begin with, our marketing effort was completely word-of-mouth and guests started trickling in,” says Jhampan. By mid-2017 Salban had been awarded the Best Homestay by MPTB.

Among the pro-active tourism boards in India, Kerala and Madhya Pradesh stand out. Any awards given by these two states are noticed by the media and industry.

The same year *Outlook Traveller* ranked Salban on top of the 10 best homestays in India.

“As our online presence improved, we began getting a steady flow of guests who gave Salban five-star reviews,” recalls Jhampan.

“We have maintained a five-star rating on Trip Advisor since 2017, which has given us the Traveller’s Choice Award every year since 2019, the same year Lonely Planet India ranked us among the five best places to eat and sleep in Madhya Pradesh, which was, honestly, a pleasant surprise.”

This year they won the silver for Sustainable Leadership at the Indian Responsible Tourism Awards.

Salban is special because of the easy way in which it melds with its surroundings. Guest houses and hotels in forest reserves tend to be of the cement and concrete variety and an imposition on their beautiful surroundings. There are also the luxury hotels, which seek to replicate every urban comfort. The Mookerjees have a different vision. Their rooms are comfortable but synchronous with the forest. To stay with them is to belong in the forest.

**KEEPING IT NATURAL** They started by planting wild species of trees in open areas to create a mixed forest. Over time a mini-forest came up, consisting of 157 different kinds of wild and fruiting trees.

Since they hardly used pesticides and fertilizers, birds, butterflies and moths proliferated. Among the regulars now are spectacular butterflies like the Blue Mormon, Common Map, Orange Oakleaf, Great Egfly, Sahayadri Commander and Crimson Rose. There are moths like Atlas, Moon, Tussar Silk and various Hawk moths.

Among rarer birds seen are the Indian Pitta during the rains, Jerdon’s Baza, Indian Scimitar Babbler, Indian Tree Swift, White Rumped Shama and Blue Capped Rock Thrush. From the owl family there are the Brown

Hawk (both oriental and Indian), Dusky Eagle and Spot Bellied varieties. There are many regulars like the orioles, treepeeps and drongos (Racket Tailed, White Bellied and Hair Crested).

“Our fence, which allows us to farm, however, discourages herbivores like deer from coming in. But sloth bears and civets are regular during the fruiting season with an occasional tiger during the monsoons. Jackals, foxes and jungle cats can be seen around the property all year round. A special guest in the summer is the Giant Flying Squirrel gliding across our century-old mahua trees,” says Jhampan.

A childhood memory that has never left Jhampan is one of seeing a tiger from his ground-floor bedroom window. The tiger used to walk around his family’s large backyard and sit under a peepul tree.

“We then lived in Jhalawar, a small district town in Rajasthan, and a forest called Darrah, which is part of a tiger reserve today, started from the back of our house. Maybe tigers would once again go past our bedroom, something subconsciously told me,” he says.

By 2018 the Mookerjees began to feel the need for more rooms, but this time they decided to use mud instead of bricks particularly because they could see mud architecture slowly fading out of villages around them.

“With help from our neighbours, we made moulds and started experimenting, making large sun-dried mud bricks ourselves with sand, mud and straw from our land. The bricks took time to stabilize and dry, but the cottage was up in no time,” says Jhampan.

It has the same red-tiled roof as the main house. There are two bedrooms with attached bathrooms and pleasant sit-outs facing the sal forest. As with the main house, all the materials were locally sourced. The veranda and



Sighting the reigning queen of Kanha’s Mukki Zone, Dhawa Jhandi aka DJ

### HOW TO GET THERE

To get to Salban, you can fly to Nagpur, Raipur or Jabalpur. From these cities it takes four to five hours by road. The closest train junction is Gondia. Website: [www.salbankanha.com](http://www.salbankanha.com)

bathrooms are laid out with kadappa and kota stone, and the bedroom floors are fitted with terracotta tiles, adding to the natural rustic look.

“Over the years we have become strong proponents of keeping tourism natural and small. We have made sure that our staff remains local and that our surroundings prosper from our small effort. Most of our food is sourced locally and adapts to the rhythm of the seasons,” says Sheema.

“We forage, process and store seasonal wild produce like mushrooms, mahua and fruits. We do, however, watch with some discomfort the growing ills of urbanization around us with large and intrusive tourism properties. Apart from plastic, there is growing noise pollution with throbbing bass-heavy speakers over our landscape that are now a part of every village event,” says Jhampan.

**ESCAPING THE URBAN JUNGLE** After having lived 25 years in the National Capital Region (NCR), the Mookerjees were tired of it by 2014. They’d spent the past 12 years in Gurugram in a haze of construction dust, buying tankers of water every third day, suffering *jagrans* and loudspeakers, parking woes, traffic jams, and endless commutes. The

children had grown up and gone their own ways. There wasn't any reason to stay on in dusty Gurugram.

"We were ready to run but where to we did not know," recalls Jhampan. It was the forest of Kanha which beckoned them. In 2005 the Mookerjees had invested in a piece of land at Kanha with some people, hoping to develop it into a sustainable nature lodge on the edge of the tiger reserve. They had paid blind when it was offered to them by a feisty resident of Kanha.

But when they came to register the land, they were stunned by its beauty. Although close to a village, the land shared a boundary with the core of the Kanha National Park with a large patch of thick sal forest and at least 30 mature mahua trees. Deer grazed and tigers and sloth bears visited, they were told. A short walk led to a huge lake where gaur and sambar came to sip water in the evenings.

"We were so mesmerized that we ended up buying 12 acres, much more than what our modest budgets permitted," confesses Jhampan.

Plans by their feisty friend to build a sustainable tourist lodge never materialized. There were disagreements and others who had invested in the idea slowly backed out. Meanwhile, lodges and resorts sprang up all over the buffer zone of the park. Mercifully, the land the Mookerjees had bought was spared. It was in a place where nothing could have come up. So, their land just sat there with scores of cows grazing on it. The big



Jhampan performing a ritual puja before sowing

Photo: Aniruddha Mookerjee



Sheema with a fresh harvest of tomatoes: Global cuisine, local produce

Photo: Debi Mukhopadhyay



Raptor of the woodlands: juvenile Shikra



A copper-headed trinket snake on the porch



Where is my lunch? An Indian fox with pups



The beautiful Moon moth

trees remained untouched but anything they planted got chewed up.

Back home in Gurugram on a particularly depressing evening in March 2014, the Mookerjees took a snap decision — to move to their land in Kanha. The enormity of that decision soon sank in, recalls Sheema. "A four-km fence had to be erected, wells had to be dug, electricity and water lines laid out, and a house to be built from scratch. And all this needed extensive paperwork from multiple authorities, which we surmised would take longer than building the house," she says.

**DESIGNING A HOUSE** The little village of Baherakhar, where the land is situated, remains mostly in a time bubble. Houses are still made of rammed earth, although government schemes are gradually forcing everyone to make ugly concrete boxes. The roofs have irregular red tiles, each home is fronted by a barn for cattle and fodder, and large ficus and mahua trees shade the courtyards.

But the first task which confronted Jhampan and Sheema was to articulate the kind of house they wanted. Some things were very clear to them — the house would have a colonial forest bungalow look and not stick out like a sore thumb. It would be made from local materials as much as possible. How many rooms? They weren't sure. Should they use



Named one of five best places to sleep in, rooms at Salban are high on comfort

mud? They were unsure. One storey or two? They didn't know. The two had long discussions with Ashok Lall, who specialized in indigenous styles of architecture, and took his advice. Another architect friend suggested two young architects, Meghana Kulkarni and Pooja Chaphalkar, in Pune.

"Our brief for this project was to use minimum RCC, provide large, covered verandas using only locally available material, expertise and labour. The residence was designed keeping in mind the local climate and context, a tight budget and a quirky colonial look. The form of the building was inspired by local houses built in two levels and verandas to provide shade to the main house," says Kulkarni. Of course, not a single tree was to be cut, there would be no air conditioning and no swimming pool.

The house was built with fired red bricks made in the village, with mud mortar giving it its stand-out red appearance. Everything, from taps, pipes, stone, steel, wood and terracotta tiles for floors and roof, was sourced within a 60-km radius. Workers, masons, welders, electricians, carpenters and plumbers came from Baherakhar or neighbouring villages.

"We found that the local masons were highly skilled at brickwork and

with some inputs from us, they were even able to make two large structural arches that we had proposed, even match-casting bricks to the door and window lintels," says Chaphalkar.

Since local construction and skills were to be deployed, communication with local contractors became very important. "So, we made drawings in Devanagari, models with detachable roofs, sketches and 3D views which made the scheme easy for them to understand," say the two architects who undertook three exhaustive trips to the site and communicated via phone, emails and videos from the site. "We learnt immensely from this experience, and it has helped us in most of our projects since," they say.

**A WATER DIVINER** The Mookerjees plunged into supervising construction, taking turns to be at the site. A supervisor was appointed to look after labour, purchases and payments. But Jhampan and Sheema worked hands-on to optimize the use of brick and mud, minimize cement and use for doors and windows local timber like sal, beija and jamun, instead of teak. The house was made earthquake-proof. Expensive synthetic distemper paints were replaced by using just wall putty creatively. Discarded wood was recycled for furniture and fixtures.

"We even picked up 'sub-standard' stones, which were perfectly fine

for floors, avoiding expensive tiles. All this made the house look old-world and well lived in, but with a contemporary feel. Visitors are surprised that it is not even a decade old," remarks Sheema.

Perhaps their biggest challenge was getting the right workers and managing them. Men and women were paid differently and when they were offered equal wages, there was some grumbling. In the end, women turned out to be their most consistent workers. But there were funny situations. Workers would vanish for days and, when queried on return, would say: "Our cows were lost, we went to search for them in the forest." Five days to find a cow? "Yes, sometimes they go deep inside, and we have to look for them. Tigers and leopards can kill them."

"The cows, we realized, were all bulls. There is no tradition of milk or cows among the Gond and Baiga tribals who live here. The bulls are used for pulling, ploughing and as dung producers for fertilizer. They are considered investments that are bought and sold all the time. In fact, if someone has cows with calves, the entire milk goes to the latter," says Jhampan.

There was much debate about whether they should have an open well or a borewell. Soil here is sandy and porous with not much clay to retain water. The water table was high, yet it was difficult to find the right vein of water. Their tribal neighbours suggested inviting a water diviner who lived in the next village.

The water diviner, a wizened old man, appeared one morning, looking distracted and uncomfortable. Everyone was very deferential to him. He declined the customary sweet black tea and vanished into the neighbouring forest.

He appeared an hour later with a forked jamun branch. After an elaborate ritual he asked where they wanted him to dig. Out of the 10 locations they suggested, he chose three. And sure enough, the lone one they chose of the three he suggested spouted ample water.

By December 2015 the roof was up with a power connection in place. Bathrooms had running hot and cold water. The Mookerjees moved in to do the interiors. By summer the house was looking lived-in.

They also discovered that they did not need air-conditioning. The surrounding sal forest, thick walls and a high ceiling kept the place cool. "During the hottest of dry summers there would be a 15- to 20-degree variation between day and night with afternoons sometimes going up to 40° Celsius. We have a 30-foot-high ceiling which makes a big difference along with the room coolers," says Jhampan.

**ORGANIC FARMING** With their home built just as they wanted, the Mookerjees turned their attention to growing their own food. The land had not been farmed for years. Crop-raiding by wild boar and deer made growing anything unviable. However, with a fence in place they decided to try.

All around villagers grew paddy and wheat with hybrid seeds and copious amounts of chemical fertilizers and pesticides. It made the rice and *roti* tasteless. The Mookerjees looked around for local paddy and wheat seeds.

They drew a blank till they discovered Raju and his seed bank off the little town of Paraswada about 50 km away. Not only was he knowledgeable about seeds, but he had also diligently collected over 1,000 local varieties of rice that were no longer in circulation.

With his advice they planted rice varieties like Sathiya, Kali Mooch, Bhalu Dubraj and Jeera Shankar, and Sujata wheat. They also discovered nutritious local varieties of wild millets like *kodo* and *kutki* which slowly became their staples. But they realized small-scale organic farming was expensive since yields were not high. With a system of composting pits and beds in place, they produced their own manure and reduced their fertilizer costs.

As grazing was kept at bay with a fence, grasses began to grow again along with woodland species. Invasive plants were removed, and wild species of trees were planted. It is now a mini-forest that attracts birds, butterflies and moths, some rare and some spectacular. "No tigers under our bedroom window yet, but I have not lost hope," says Jhampan. ■

## Quantifying reality



**DELHI DARBAR**

**SANJAYA BARU**

THE Global Hunger Index (GHI), published by two European non-government organizations, has been universally slammed in India both by government representatives, including the chairman of the Prime Minister's Economic Advisory Council, and by professional economists. Poor methodology, questionable data collection through sample surveys and inadequate understanding of the difference between hunger and malnutrition made GHI an easy target.

As economist Sonalde Desai reminded us in a recent newspaper column, the controversy draws attention to the difficulties in constructing such indices in general and diverts attention from substantial arguments relating to statistics, their collection, the construction of an index and so on. The lay public is not interested in substantial arguments and only looks at and remembers numbers and country rankings. Hence the need for the government to get its message out.

There was a time when the general public paid little attention to such studies coming out of international organizations. In 1990 economist Amartya Sen (later a Nobel laureate), London School professor Meghnad Desai, and Pakistani economist and former finance minister Mahbub ul Haq constructed the Human Development Index (HDI) and the United Nations published a Human Development Report (HDR) with this index in it. It tried to measure country performance in education and health and not just gross domestic product (GDP).

When the first report came out, few in the Indian media showed any interest. Having just moved from academia to media that year, I took some interest in the HDR. Not only did I write about it, I was probably the only journalist who interviewed Dr Haq. That early association lasted a lifetime. Between 1991 and 2002, I was

invited to almost every global launch of the HDR and in 1997 Dr Haq took me to New York to write a report on the global media response to the first five HDRs.

Since then, there has not only been a proliferation of such reports coming out of various United Nations organizations but also various global NGOs. Once again, few of these reports have drawn much attention because the governments of the day were not into seeking global approval or too irritated by disapproval. We are now into *achhe din*, and any *sachchi baat* coming from outside either excites us or makes us angry.

The Indian media is full of Westerners saying what a great place India is to do business in.



A midday meal for children in a government school

Union ministers readily shake hands with them. When Western commentators criticize India, they are castigated as racist and worse. Indian businesspersons who are not willing to give such certificates about 'ease of doing business' are either frowned upon or worse, a knock on the door. Business organizations have become a department of the ministry of industry and commerce.

Coming back to the HDI. The big issue in the early years was India's relative ranking with respect to its neighbours. While Dr Haq was a Pakistani, he was a student at Cambridge University, UK, and knew both Amartya Sen and Manmohan Singh well so no one accused him of any anti-India bias even though India had a low rank. Most were satisfied that India's rank was higher than Pakistan's.

During Prime Minister Narendra Modi's first term in office, the World Bank's Ease of Doing Business (EoDB) index became a hot topic because the report showed a dramatic improvement in India's rank. When the report

was published in 2017, the Union government organized a celebratory event in New Delhi, inviting the World Bank CEO, Kristalina Georgieva, a Hungarian. Prime Minister Modi attended the event and praised Ms Georgieva sky-high. The leadership of Indian business was in full attendance. No one wondered how this dramatic improvement had been constructed.

By 2021, Georgieva got caught in an EoDB scandal when an internal inquiry revealed that senior World Bank officials had tweaked numbers to favour China and Saudi Arabia. Many in the bank and in India felt that what had happened with China and Saudi Arabia, the World Bank's major shareholders, may have happened with India too. The PM's high praise for Ms Georgieva strengthened such doubt.

Whatever the facts, despite the ignominy of the scandal, Georgieva not only retained her job but, even before the scam broke out, was promoted as managing director of the International Monetary Fund. Cynics in Washington, DC, said the combined weight of China, India and Saudi Arabia had tilted the decision in her favour.

India has a schizophrenic attitude towards such international comparisons and indices. Countries like China do not really give a damn these days, in part because any negative news may not be reported at home and also because China has stopped seeking global approval.

Indians, both at home and overseas, are constantly looking for global approval and get very prickly when it does not come their way. Both the desperation for approval and the anger against disapproval have markedly increased this past decade.

Prime Minister Modi's mega gatherings in the United States, in New York and Houston, when several US politicians stood in attendance and President Donald Trump walked hand in hand with him, excited his support base. But, when US politicians criticized India's human rights record, religious bigotry and so on, all hell broke loose. The Hunger Index was so flawed that it got rejected and buried very quickly. But what's the harm in flogging a dead horse a few more times! ■

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## What stole my job?



**LOOKING AHEAD**

**KIRAN KARNIK**

LAY-OFFS, unemployment, moonlighting and gig work, shortage of talent; amidst issues and contradictions, what is happening to jobs? People around the world are worried: many about automation eating up jobs, others (as in Germany) about shortages of workers. In India too, some sectors bemoan inadequate availability of people with certain skills.

However, amongst the biggest macro problems facing the country, and the most worrisome one for individuals, is unemployment. Despite economic growth, many companies and some sectors are witnessing jobless growth. With a rapidly growing youth population (adding some nine million persons to the working age group each year), this is an issue of concern on many counts.

First, unemployed youth means that the much-touted demographic dividend — which results from a growing working population forming a larger proportion of the total, compared to dependants — will not kick in. Looking ahead, it was expected that, as happened in the East Asian tiger economies, this would give an additional boost of 1-2 percent to India's GDP. Now, it seems that we might miss out on this, in part because of mismatches between demand and availability of types and levels of skills.

Second, idle youth are dry timber, easily combustible by an intentional or stray spark. Frustration and ennui make them easy targets for recruitment into criminal gangs, drug peddlers' groups, or various varieties of extremist or cult organizations. Frustration levels and resultant vulnerability are higher amongst the educated unemployed. The problem is especially serious in urban areas, where criminal gangs abound, but is also a danger in villages (as exemplified by the drugs problem in Punjab). The well-being of millions of youths is at stake.

Third, the issues mentioned not only ruin the lives of individuals; they also lead to wider societal problems. Volatile urban youth are often at the forefront of protests, with the combination of frustration and impatience sometimes driving them to violence. The resulting social unrest is dangerous and disruptive, causing a flight of investment

(talent too) and thus dampening growth. This creates further misery, in a vicious feedback cycle between unemployment, social unrest and reduced economic growth.

Finally, there is also a socio-psychological issue. Unemployment means a lowering of status in the eyes of others, and lower self-esteem. This can lead to emotional and mental problems, including depression. The young person suffers, and so do his/her family members. Clearly, the cost of unemployment — to individual and society — is high.

One independent research organization (CMIE) puts the overall unemployment rate for India at 7.8 percent in October 2022. This in itself may seem high — until we see that in March 2022 only 10.4 percent of youth (age group 15-24) were employed; worse, the figure has fallen steadily over the past five years, from 20.9 percent in March 2017. Regional disparities are huge: in October 2022, overall unemployment was 31.8 percent in Haryana



and 30.7 percent in Rajasthan, but only 1.7 percent in Gujarat and 1.1 percent in Odisha. Maharashtra and UP were both at 4.2 percent.

Data is questionable, and clouded by disguised employment, part-time work, and contract jobs. Yet, unemployment is visible and deeply felt beyond mere statistics. The fact that recently some three million people choked railway stations and bus depots to travel for an eligibility test to qualify for future recruitment exams to secure the few thousand jobs on offer in the UP government tells its own story.

Governments at the Centre and in the states are worried about the economic, social, and electoral consequences of high unemployment. Experts argue about why we are seeing jobless growth. Many claim that our direct transition from an agricultural economy to a services-dominated one is responsible, and that we need to give the manufacturing sector a boost. The aim of ensuring that manufacturing constitutes 25 percent of the GDP remains a dream. This is not only unattainable but, even if it is magically achieved, it will not create jobs on the scale required.

Today, and more so in the future, competitive and efficient manufacturing requires automation of ever more processes. Jobs, therefore, will be scarce, especially for unskilled and semi-skilled work. Automation is not only becoming continuously cheaper, but assures better and more consistent quality, without the constraints of labour regulations or worries about labour unrest and strikes. Given this, the 'China model' of mass employment through mass manufacturing has long passed its expiry date, a fact that many Indian policymakers do not seem to have noticed.

Of course, a large country like India with big ambitions must have an extensive and robust manufacturing sector, but it must focus on leveraging its strengths in software and engineering for high-value, sophisticated production (the German model, rather than the old Chinese one), in pharmaceuticals, and in strategic areas. It could also pick specific areas of high-efficiency automated mass production, plus job-creating agri-processing industries. However, the future of mass employment lies elsewhere: not in manufacturing, but in services.

In services, there is scope to create employment for the full range of capabilities: from minimally-educated and unskilled workers, including surplus agricultural labour, to highly-specialized graduates. The hospitality and security sectors alone will absorb millions of the former, while lakhs of the latter will find employment in engineering, development and research centres. Tourism already creates jobs at various levels, and a big thrust in this area can create millions more; so also, healthcare.

Entrepreneurship, covering the gamut from the most sophisticated to gigs to road-side stalls, is another source for self-employment and jobs. Conducive policies can catalyze lakhs of start-ups and millions of jobs, better defined as livelihoods. A necessary requirement is a universal, comprehensive social security system, including healthcare, unemployment insurance and old-age pensions. This would give additional impetus to entrepreneurship and gig work.

Technology and automation do take away some jobs, but inevitably create many more. The future here will be in the human plus machine mode, rather than either/or. This calls for a stronger focus on upgrading and scaling relevant skills for livelihoods. With this, India can meet its own needs and be the source for global supply of talent. ■

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

# Himachal scores in schooling

BHARAT DOGRA

VISITORS to distant parts of Himachal Pradesh who reach after negotiating very tough terrain are often quite pleasantly surprised to find rather well-functioning schools even in such remote villages. This is contrary to the experience of neighbouring states like Uttar Pradesh and even Haryana where there are frequent complaints of neglect of schools in remote areas.

The progress of education achieved in Himachal Pradesh is rooted in the exceptionally high commitment of its leaders to inclusive development and the right development priorities, including education, in the post-Independence period.

These leaders brought a lot of the idealism of the freedom movement to new development challenges in a hilly region whose villages had been neglected even though a few urban pockets had developed (although in an unbalanced way) during British rule.

Now, for the first time, adequate emphasis was accorded to rural areas, to the progress of minorities and underprivileged groups. Education was put forth as a major means of progress before people in such a way that rural communities felt encouraged and inclined to contribute more to the effort. Hence,

as compared to several other parts of the country, more encouraging and inclusive conditions were created for progress of literacy, and school education in particular.

Spread of education and other development facilities in difficult hill terrain can be much more costly. Despite this, Himachal Pradesh has managed to add another 8 to its literacy rate of 8 percent at the time of independence. With a literacy rate of about 88 percent now, Himachal Pradesh may still be slightly behind a few states like Kerala, but in terms of the rise from 8 to 88 in difficult conditions it is perhaps the most inspiring example.

A literacy rate of 87 or 88 percent is also remarkable compared to the all-India average of around 78 percent, or when compared to what has been achieved by some neighbouring states — 73 percent by Uttar Pradesh (UP), 77 percent by Jammu & Kashmir, (J&K) 81 percent by Haryana and 84 percent by Punjab.

Unlike Kerala, moreover, there was no exceptionally encouraging or significant

background of educational work in Himachal Pradesh from pre-Independence days. In this sense, Himachal Pradesh did not have a head-start compared to states like Kerala where some pioneering educational work had taken place earlier.

Himachal Pradesh's performance is all the more credible keeping in view the much higher percentage of its people living in rural areas. In fact, if we only look at rural areas then the comparative performance of Himachal Pradesh is even more impressive. The literacy rate of rural Himachal Pradesh at 85.6 percent is significantly higher than that of the rural areas of its neighbours — 70 percent for UP, 75 percent for J&K, 77 percent for Haryana and 80 percent for Punjab.

Even if we leave aside sheer literacy and look at indicators of more advanced progress in



**Despite being a hill state with a large number of people in rural areas, Himachal has done very well in school education.**

education, Himachal Pradesh has done well. The percentage of population which has completed secondary education is among the best in the country.

What is no less impressive is that economically and socially weaker sections have also recorded significant improvements in literacy and education. The latest available data on comparative performance in this context tells us that in the case of Scheduled Castes the literacy rate of Himachal Pradesh at 78 percent is significantly better than the all-India achievement of 63 percent.

It is also much better than several

neighbouring states including UP with 60 percent literacy, Punjab with 64 percent and Haryana with 66 percent.

If we consider the data for only Scheduled Caste women, then Himachal Pradesh is even more ahead with a literacy rate of 71 percent, compared to the all-India attainment of only 52 percent. Himachal is also way ahead of its neighbours: UP has a rate of 46 percent, Haryana, 53 percent, and Punjab, 56 percent.

This indicates the adoption of an inclusive development path by Himachal Pradesh, a fact confirmed also by data for its Scheduled Tribes which have a literacy rate of 72 percent, compared to the all-India attainment of 62 percent. In the case of neighbouring states, the literacy rate for Scheduled Tribes is 36 percent in J&K and 44 percent in UP. If only women from Scheduled Tribes are considered, then the achievement of Himachal Pradesh appears in even more favourable light, as the state has a literacy rate in this context of 61 percent, compared to only 19 percent for J&K and 39 percent for UP.

While this data confirms the more inclusive development of Himachal Pradesh, this does not imply that there is no injustice against Scheduled Castes and Scheduled Tribes here. The reality is that discriminative practices exist here too against Scheduled Castes, and Scheduled Tribes in addition face increasing threats of displacement and denial of

proper implementation of protective laws like PESA (Provision of the Panchayats (Extension to Scheduled Areas) Act and the Forest Rights Act. Nevertheless, development here has been more inclusive than in several other parts of India.

This has also created more conducive conditions for mobilization of communities for development initiatives. In the context of education, better support from rural communities and more active functioning of parents' groups have contributed much to the improvement of school education.

However, the rapid spread of liquor abuse and the related violence against women as well as increased disruption of communities by too many instances of displacement have been harmful for community life as well as health and education. Political rivalries are worsening and corruption is increasing. These worrying trends should be checked to protect and improve the achievements made earlier. ■

The writer is Honorary Convener, Campaign to Save Earth Now. His recent books include Planet in Peril, Man over Machine and A Day in 2071.

# Bring back wild and scenic rivers



LIVING RIVERS

VENKATESH DUTTA

IN my city I often search for a spot by the side of the Gomti river which looks somewhat wild and scenic. My quest has been futile. Fifteen years ago, I discovered a small stretch, almost 30 km from my home, where I could sit peacefully, reflect and spot fish. It had well-vegetated banks with natural plants. I could hear the *naad* of flowing water and the chirping of birds, take a boat and navigate for some time. But alas, that too has gone due to the emergence of a filthy drain outfalling into the river.

There has been a catastrophic reduction of wilderness in our urban and suburban areas. Expanding real estate has really killed landscape aesthetics and ruined scenic spots. In many other cities nowadays, finding a river that is untouched and scenic is really difficult. In the past 50 years, we have slowly but surely poisoned our life-streams. We have not learnt to value and guard nature's priceless gifts.

Rivers are more than just converging linear channels of water; they are linked to entire catchments by the whole hydrological cycle's inherently occurring phenomena. A river forms a 'mosaic of habitat' connecting its floodplains with ponds, wetlands, shrubs and forests. The two sides of the rivers — referred to as 'fluvial terraces' — are high-energy ecosystems. They support unique biodiversity — a large variety of plants and animals thrive in their flowing water. Lakes, streams, forests, perennial vegetation and aquatic plants are all hydrologically connected with one another — they define a local catchment. How many of us respect a river's right to have its fluvial terrace and its connections with vegetated banks and corridors?

The US Congress passed the Wild and Scenic Rivers Act in 1968 and declared that "rivers that possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations".

The entire river does not have to be included in the designated stretches; rather, it might also contain its tributaries. As of March 2020, this Act will have protected a total of 226 rivers throughout 41 states, and their combined length will amount to nearly 22,000 km. Though, this length is not even one percent of the total length of rivers in the US.

According to this Act, rivers can be wild, scenic, or recreational, depending on their naturalness — wild rivers are those rivers or parts of rivers that do not have any impoundments or dams, their water is unpolluted, and their banks and shorelines are primitive and undeveloped. They are generally inaccessible except by walking trails. Scenic rivers have all the above properties except that they are accessible in some areas by roads. On the other hand, rivers are



*A wild river is scenic and splendid but hard to find in India*

**Can we have a few stretches of rivers in our cities that are scenic, not by ugly concrete river fronts but by naturalness?**

considered recreational if they are easily accessible by road or railroad and may have some development along their banks and shorelines. They may have been subjected to impoundment or diversion in the past.

All rivers are managed with the same overarching objective: preserving and developing the qualities that led to their designation. The goal of such acts and provisions is to permanently safeguard some of the country's most exceptional free-flowing rivers while still allowing for dams and other buildings at appropriate sections of rivers.

Funding for projects that would compromise the river's free-flowing condition, or affect water quality or exceptional resource value is prohibited.

Canada's Heritage Rivers System (CHRS), started in 1984, is similar to the US Act. Similarly, wild and pristine rivers in New Zealand are protected by law for their scenic and recreational value as well as their role in maintaining habitat. However, such wild and scenic rivers in India are becoming things of the past. The water quality is deteriorating and the natural flow regime is compromised. Decreasing habitat quality in our rivers is a major contributor to declining biodiversity and altered ecological processes.

Degradation of native habitats poses a significant threat to fish in particular. Large tracts of forests in the upper Ganga basin and other important river basins are being cleared to make way for agriculture, hydropower generation, and human settlements. Fish communities are becoming more homogeneous in space and time, and in function as a result of deforestation in the floodplains. The IUCN (International Union for Conservation of Nature) has updated its list of endangered animals to include many freshwater species.

We have only a handful of rivers that can still be described as 'genuinely wild' and 'free-flowing', if any at all. There are many rivers whose past glory has been largely lost to time.

They have transformed from 'pristine' to 'heavily modified'. The key to successfully preserving the wild character of a river is to focus on conserving the wilderness characteristics of its immediate catchments or fluvial terraces. Many rivers will likely be damaged, lose their wilderness, and stop providing essential ecological services if they are not protected.

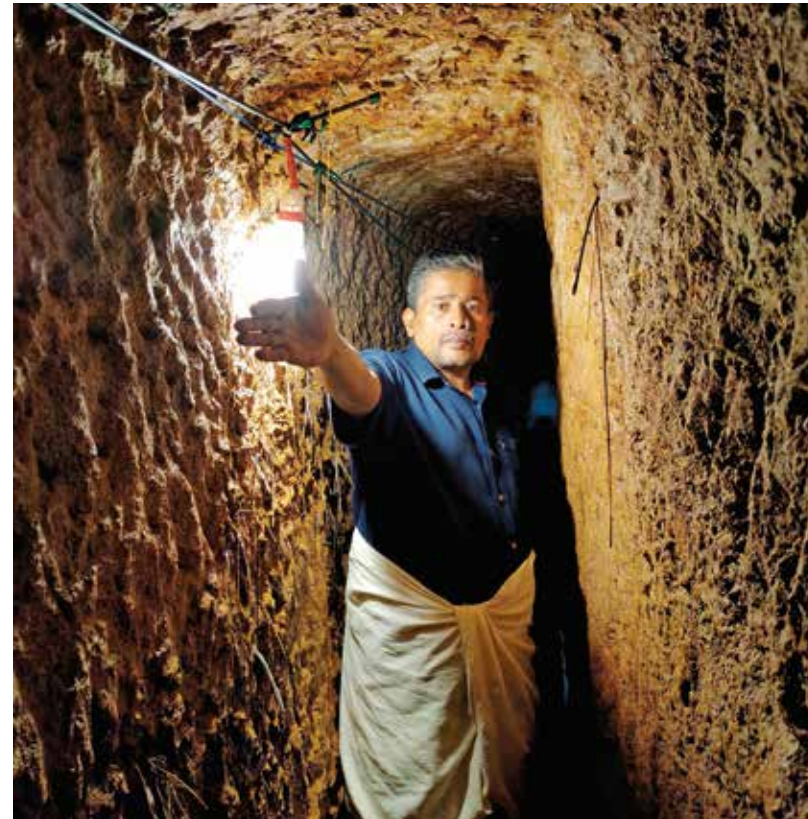
One of the first steps in better conservation would be to consistently and regularly identify our surviving wild and scenic rivers and river stretches. Designating such stretches as scenic might help to sustain their high conservation benefits. Wild and scenic rivers support a rich habitat with amazing plants and animals including a large variety of fishes. These rivers may also contain native sites and natural artifacts that can be located and preserved.

Can we have a few stretches of the rivers even in our cities which are truly scenic — not by ugly 'concrete riverfronts' but by naturalness? ■

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



An iron gate prevents wild animals from entering Jayakrishnan's suranga



Jayakrishnan leads the way into his suranga.

## Visiting the unique suranga

### Inside Kasaragod's water caves

SHREE PADRE

THE coastal town of Kasaragod is gradually realizing its tourist potential. True, it doesn't have the Taj Mahal or the Hawa Mahal. But it has the unique suranga, a narrow cave dug inside a hill which yields crystal-clear water. The suranga, a traditional water-harvesting structure, is an engineering feat.

Kasaragod district has thousands of such surangas owned by farmers. For some of them, it is the sole source of water. My own village, Padre, has nearly 100 houses without an open well or borewell which rely on a suranga. Kasaragod district probably has around 10,000 surangas.

It was 56-year-old P. Jayakrishnan Nair, a local farmer, who first started suranga tourism in the district. Six years ago, he invited tourists to see his suranga at his Banam Farm Stay near Parappa. He drew up a 'suranga tourism package' which included a homestyle meal of fresh vegetables and tubers plucked from his farm.

"It was my childhood dream to attract foreign visitors to our farm and show them our suranga and farming practices," says Jayakrishnan, who grows a variety of crops like arecanut, coconut, paddy, and rubber in this picturesque part of the Western Ghats.

Jayakrishnan's suranga was dug by his grandfather, Kelu Nair, and extended by his father, Mullachcheri Nanarayanan Nair. The suranga provides drinking water and irrigates around three acres of his farm until the end of summer.

Surangas are at most 100 metres long. Generally, they are between 30 to 40 metres. But Nair's suranga is a rare one since it is a km long.

What really motivated him were training workshops held by the Bekal Resort Development Corporation (BRDC). Bekal Fort in Kasaragod is one of Kerala's biggest forts. It faces the Arabian Sea and has been attracting international attention. BRDC, a state government undertaking started in 1955, promotes environment-friendly and responsible tourism. Their tourism promotion activities have resulted in more than 50 homestays coming up in Kasaragod and Kannur districts.

Although Banam Farm Stay's suranga tourism started in 2014, it took two years for word to spread. After a brief hiatus caused by the Covid pandemic, visitors are again coming to see Jayakrishnan's suranga. They mostly arrive in groups coordinated by different tour operators. "For us it is easy to cater to groups because we also serve food," he says.

A visit to a suranga takes half a day or at the most the whole day. Jayakrishnan has placed LED lights inside his suranga without which it would be completely dark even during the daytime. He takes only three or four persons inside at a time. "I lead the way. As a precaution, we don't take visitors through the entire length of the suranga. We stop at, say, 150 metres. They get a very clear idea of our suranga," he says.

Once they emerge from the suranga, tourists can taste suranga water and chat with Jayakrishnan's wife, Savitha. They are usually surprised by the quality of the water. It is cool, pure, clear and sweet. Some people drink the water while others fill their bottles.

Tender coconut water is served as a welcome drink. For lunch, Savitha cooks a variety of seasonal vegetables and tubers fresh from their farm. The dishes that are served include *unniyappam*, *eleyada*, boiled tubers and *kandhari* (bird's eye chilli) chutney and stir-fried cashew kernels.

"The tourists are very happy because the suranga experience is not available anywhere else. This is their first experience," says Jayakrishnan proudly. "Groups are usually 10 in number. But if there are just four or five people who are water lovers and want to have this experience, we welcome them." The Banam farm will soon offer accommodation to groups of 15 or so. Right now, only day visits are available.

There are some concerns which tend to restrict suranga tourism. Since the suranga supplies drinking water to the family, people stepping inside should not pollute its water. For this, Jayakrishnan has constructed a sub-soil pipeline to channel the water out so that footfalls inside the suranga do not contaminate the water. Secondly, small animals like bats, pigeons, porcupines and even snakes might take refuge inside the suranga. To prevent any unpleasant encounters, Jayakrishnan makes two inspection trips before he takes tourists in.

**HIDDEN TREASURE** Unfortunately, surangas aren't very well known even in Kasaragod. Many people haven't heard of them or entered one. How a suranga is dug, what it is like to go inside, what the risks are and so on make for a memorable experience.

But this is an issue not limited to Kasaragod. Although India has some outstanding traditional water harvesting structures, they haven't been promoted as tourist attractions. Government agencies were unaware of their tourist potential. That is changing.

Says U.S. Prasad, manager, BRDC, "We have been including surangas in our presentations. On two occasions recently, we recreated a sample version of the suranga in our events in Thiruvananthapuram and Ernakulam. During the three-day Kerala Travel Mart at Ernakulam, we built a 13-metre-long suranga with a small paddy field in front. Entering it in semi-darkness was a novel experience for visitors and a big attraction. It was the first time they were entering one."

More people have started adding a suranga experience to their itinerary. BRDC now gets requests from academicians, students of groundwater related studies and ordinary tourists who specifically ask to see surangas. If they have sufficient time, they are directed to Banam Farm Stay. A few villages like Bandadka and Bayaru have thousands of surangas. But those are not always suitable for tourists. In some there could be a shortage of oxygen. Others are so narrow that a plump visitor wouldn't be able to go inside.

Some government agencies are planning to include surangas in tourist maps. "We are working on a 'Tourist Circuit' in which we would like to add suranga tourism," says E.P. Rajmohan, special officer, Kasaragod Development Package (KDP), a state government body formed a few years ago for all-round development of the district.

According to Rajmohan, they will list tourist attractions in Kasaragod for a one-day trip as well as three-day tours. KDP will help build infrastructure for start-ups in responsible tourism. The focus will be on a few surangas and arrangements for tourists to visit them.

Lijo Joseph, secretary of the District Tourist Promotion Council (DTPC), is from Thrissur. He hadn't heard of surangas until he came to Kasaragod. Struck by their uniqueness, he visited Kunhambu (*Civil Society*, August 2016) to gain a working knowledge of the system.

"We have specific plans to make such tourist attractions known widely. We will get some bloggers and YouTubers to visit the district and document these. Once they are impressed, they will spread the message effectively," he says.

**ADDED ATTRACTIONS** Mohankumar Naranthatta, vice-president of ART-M (Association of Responsible & Experiential Tourism Entrepreneurs of Malabar), has been running a homestay since 2015 in Kasaragod. He says surangas alone won't be enough to attract tourists. "We have to include riverside walks, forest walks, local places of interest



A tourist emerges with a smile from the suranga



Savitha serving lunch to a group of tourists

and so on to provide a more attractive package."

Water activist S. Vishwanath of Rainwater Club, Bengaluru, recalls: "In 2002-03 the Centre for Science and Environment (CSE) started a unique tourism initiative called the Pani Yatra. People could go and see the wonderful water works of Tarun Bharat Sangh and Hiware Bazar. It got water-harvesting structures national attention." His suggestion is to conduct two- or three-day tours along similar lines with homestays and local food. Vishwanath points to the example of Indonesia where tourists are taken to see the wonderful terraced paddy fields and water distribution systems which are managed by irrigation supervisors.

Other amazing water tourism experiences, he says, are in Yazd, China, and in Tapan, Iran. Interestingly, at both places the water system resembles the suranga. It is called karez in China and qanat in Iran.

"They have a cafeteria offering local food, museums and photo exhibitions showing their ancient water systems. All travel information is provided to tourists," says Vishwanath.

Kasaragod has many attractions which could be included in a suranga tour. Not far from Banam Farm Stay is Kunhambu, a suranga digger who has half a century of experience in making surangas. Sheni Suranga near Perla has three to four unique features like air vents, an indicator of the amazing engineering skills of old suranga diggers.

In Manila village, Manimoole Govinda Bhat's farm has 22 surangas, all yielding water. He irrigates his areca gardens using gravity. Drinking water and bathing water come from the suranga.

Amal Mahalinga Naik, who was honoured with a Padma Shri this year, is also a suranga maker. When he started digging surangas on a barren hilltop, everyone ridiculed him. Five surangas, one after the other, were failures. Mahalinga didn't let disappointment get the better of him. His sixth suranga finally yielded water. He developed a nice little garden, constructed a house and is living there happily.

The time is ripe for a new kind of tourism. ■

Contact: P. Jayakrishnan Nair, Banam Farm Stay—96451 78948

# Buying coffee? Take some pepper too

CIVIL SOCIETY REVIEWS

If you have coffee on your mind, chances are that you will be thinking about pepper as well — especially if you are a farmer up in the Western Ghats trying to make the most of the limited land around your homestead.

Pepper vines get along well with coffee plants. They grow together with ease and are an example of the interdependent plant life in the teeming gene pools of the Western Ghats, the mountain range that runs 1,600 km along the western coast of India.

Small farmers with their traditional and eco-friendly farming practices keep this biodiversity alive. The Black Baza Coffee Company supports them by marketing their unique coffee and ensuring that they get a good price for it.

The company is now also helping them sell their pepper directly to consumers. Branded as Biligiri Black Pepper, it is available on the Black Baza website, blackbazacoffee.com, at ₹220 for 100 gm.

At first glance, that may sound expensive, but this black pepper is organically grown and sourced from remote locations. Like the coffee that Black Baza markets, the pepper establishes a direct but sustainable connect between the consumer in cities and one of the world's most valuable biodiversity hotspots. It comes in eco-friendly packing. With every purchase, farmers are rewarded and, in theory at least, a tiny part of the planet is being regenerated.

The coffee Black Baza sells comes either powdered or as beans. But the pepper is being sold whole because it is easier to preserve this way and the potency of pepper is best derived when it is ground at the time of consumption.

The company says: "Biligiri Black Pepper is a spicy, fruity pepper from the beautiful forests of BR Hills in Karnataka. This black pepper is vine-ripened, harvested by hand and has never seen the nozzle of a chemical sprayer or fertilizer. Please note that we will not grind pepper for you! It is best stored as whole pepper!"

Black Baza brings to pepper all its experience in handholding small coffee growers and helping them get a better deal in the rough and tumble of modern commerce. The coffee business is dominated by big plantations. A small farmer traditionally doesn't stand much of a chance and ends up getting a tiny fraction of the market price.

Black Baza seeks to restore the balance in the marketplace. It supports the farmers with their ecological farming practices, gives them an identity and also ensures that they get a much better price than they normally would by selling to wholesalers.

While the pepper project is in the nascent stages, it holds out the promise of giving farmers a much higher return of 1.4 times the usual market price. The company expects to expand and get pepper from most of the coffee growers that it is associated with. The pepper is also a gateway spice and it expects to also begin buying cardamom, nutmeg, clove, cinnamon and vanilla.

"For half a decade, our partner coffee growers have nudged us to venture into pepper. Across the Western Ghats coffee is intercropped with pepper and most of our partner coffee producers depend almost as seriously on pepper for their livelihood. What can we say, we are

slow and organic and it has taken us longer than it should have to do our first lot of this incredible spice," says the company.

"The way that we work is that most of our decisions are actually led and nudged by the people we work with," says Arshiya Bose, the founder. Bose has a PhD in the political ecology of markets for biodiversity conservation from Cambridge University.

Black Baza's partner growers are active leaders of conversations in the partnership and make suggestions along the way. The growers wanted to replicate the beneficial coffee partnership for their other produce.

Pepper as an intercropped spice prospering in the same climatic conditions as coffee made the perfect candidate. "The logical progression for us in our way of supporting farmer livelihoods was to include pepper," says Bose.

With the partner growers excited, the next phase was the planning. Much needed to be considered such as the scale of cultivation, defining the partnership with farmers and how it would be beneficial to them, the number of producers to be included and so on.

While the supply chain remains the same for coffee and pepper, the manner in which pepper is stored, dried and harvested is very different, even though the same farmers are involved. Since pepper is highly perishable it requires care in storage, especially in humidity. Both the coffee and pepper are stored in Bengaluru.

The main species of the pepper offered by Black Baza is piper nigrum, mixed with two to three wilder varieties. It is vine-ripened, harvested by hand and sun-dried. The drying method impacts the quality of pepper. It is sold as whole pepper and not ground because it is best preserved whole.

Several therapeutic uses are associated with pepper. It is highly regarded and widely used in traditional systems of medicine. It is known to be good for the liver and digestion, and boosts immunity. It eases a cough when taken together with sugar candy.

But ensuring high quality cultivation without pesticides and chemicals is important to preserve the therapeutic value of pepper. Small farmers have an indispensable role to play in protecting pepper's purity. But, scattered as they are across the Western Ghats, they need not just help to avail of remunerative prices but also advice to deal with the problems of cultivation.

Helping them in this regard has been Dr Madhugiri Narayan Rao Venugopal, a retired agricultural scientist. He has been travelling extensively in the Western Ghats, visiting small farmers at their remote landholdings to advise them on pepper cultivation.

It all began for Dr Venugopal when a farmer approached him to share his immense knowledge with farmers who had no access to scientific advice. He began travelling 15 days a month to help farmers, but says he doesn't charge for his advice. At most he takes expenses.

Dr Venugopal was included in the Civil Society Hall of Fame in 2017 for his altruistic efforts. While a company like Black Baza helps farmers with equitable and ethical commercial arrangements, Dr Venugopal has been providing the scientific advice they need.

Of course, none of these initiatives would be complete without the socially conscious consumer chipping in with a little extra to buy that coffee and pepper trickling its way down from the magnificent Western Ghats. ■



## Craft as child's play

KAVITA CHARANJI

THE wondrous world of Indian craft with its colours and intricacies is rarely introduced to children at an early age. The reasons are understandable. India's numerous crafts are out of reach for children and parents. Patua art is from West Bengal, Aipan from Uttarakhand and Madhubani from Bihar. To see Ikra houses in Assam or Himachal Pradesh's Kath-Khuni homes children would have to travel. Neither would it be viable for them to learn kite making or block printing in the comfort of their homes.

But what if a slice of India's crafts arrived neatly packed in a box for the child? Potli's toys and games bridge the distance by merging craft and play. Colourfully designed for children four years and older, Potli has a range of do-it-yourself (DIY) kits for children. There are art kits, block printing kits, kite making kits, costumes of India kits and more. Such toys and games foster creativity and help the child learn about the country's cultural heritage.

A Madhubani painting kit costs ₹330, a block printing kit ₹770 and an Ikra hut kit is for ₹198. Children can dress up a doll in a costume from Kerala, Punjab or Bengal for ₹682.

Educational DIY kits teach children the story and journey of India's rivers: the Yamuna, Godavari, Narmada, Brahmaputra and Ganga. There are kits to make kites, block print a T-shirt or build different kinds of traditional huts. For little ones, Potli also has jigsaw puzzles of Patua, Madhubani and Kerala mural art.

Potli was founded by Pooja Ratnakar, a NIFT alumnus. She says she has always been fascinated by India's rural and cultural landscape. She recalls family holidays spent crisscrossing remote villages of Jammu and Kashmir. Her love for ethnic culture and people, she says, came from her father. "My father used to say that I could do whatever I wanted but I should not be a national waste. I think what I am today is not due to my formal education but to my upbringing," she says.

Pooja first worked with Hidesign as a product developer. It was her work at The Shop, a craft store, that introduced her to block printing, Kalamkari and other printing techniques. Later, she and her sister, Payal, opened a shop in Hauz Khas village in Delhi, where they sold products made by artisans.

Ratnakar says there is huge lack of awareness about crafts. The only well-known names in the craft world are Dastkar, Crafts Museum and Cottage Industries. There is a big gap between the world of the artisan and the urban world. "To bridge that gap we decided to educate people and create awareness about our country's crafts," she recalls.

Pooja and Payal started Potli in 2010, and



Pooja Ratnakar

worked with artisans to create inventive products which they launched in 2012. These were DIY kits of Patua, Madhubani and Gond art. Schools, craft boutique stores and exhibitors loved Potli products.

When the Potli team undertook a survey two years later of 500 families across the country they found that 99 percent of respondents wanted their children to be more aware of India's cultural heritage. The families were from both rural and urban areas. "Price was a very important factor for people in the lower income group. We realized if we wanted to reach every child, we had to be very price conscious," says Pooja.

However, at that time the market was dominated by Chinese goods and a 'big is beautiful' mindset regarding gifts. So Potli found the going tough. It took them six or seven years to convince people to buy their products. Pooja says she is equally committed to ensuring artisans earn a sustainable livelihood. Potli's criteria in selecting artisans as collaborators is that they should be located geographically near the art form. They identify artisans from craft clusters or villages known for their art, and then develop the kit.

"We also ideate on the activity while focusing on the takeaway for children. The next step is to work on the graphics to put the kit together. A prototype is made and tested on children and/or their parents. Their feedback is incorporated. The final prototype then goes into production," explains Pooja.

Potli has a profit-sharing model with artisans. The artisan gets four to seven percent of Potli's turnover for the product they have made. "It works like royalty. It is not limited to a certain number of years. Artisans continue to get their share of the revenue for as long as the product sells," says Pooja.

Standardization of products has proved to be a challenge. Once, she and her sister went to a village in Odisha where the women scarcely spoke Hindi. They wanted to use the women's skills to make bags. A sample was given to help them. Despite that, each bag was made of a different size. Pooja realized there was no basic standard of measurement.

She also learnt why certain crafts were done. During a visit to Etikopka village near Visakhapatnam she was told by women artisans that they sprinkled *rangoli* with rice flour as an offering to ants and insects.

"That made me realize why *rangoli* was made and that there was tremendous reverence for the ant. *Rangoli* helps prevent ants from entering homes. It slowly became a ritual. These are small stories but so important for a child to know. We developed a small *rangoli* kit in Uttarakhand where it is called Aipan. Rangoli in fact is practised across the country," says Pooja. ■

Contact: Pooja Ratnakar, info@potli.org, 077019 27741

# Waterfalls, sand and a woman's curse

SUSHEELA NAIR

AFTER we had our fill of the royal city of Mysore, we decided to explore nearby destinations within driving distance. Mysore district is a trendy tourist destination, offering a fabulous mix of Karnataka's major tourist attractions and getaways. We chose to embark on a day's outing to the mesmerizing falls of Shivanasamudram and Talakadu, one of the oldest towns of Karnataka.

Situated on the banks of the Cauvery, the quaint town of Talakadu offers a heady combination of a sacred river, ancient settlements and shifting sands, steeped in intriguing myths, legends and history. We found Talakadu to be a town of stark contrasts, with a barren expanse of sand all around—akin to a desert. It was once the capital of the Western Gangas, and during various points of history, it was a flourishing centre under the Cholas, the Hoysalas, the Vijayanagara Empire and the Wadiyars of Mysore. It was a glorious township stifled by the rush of sands that have shrouded its splendour.

After a boat ride on the placid river, we took a stroll along the stretch of sand and listened to the intriguing tales that still swirl on the sands, of a woman and her curse that resonates through the centuries. According to popular belief, Raja Wadiyar, the ruler of erstwhile Mysore state, defeated Rangaraya, the Vijayanagara viceroy, in Srirangapatna. The victorious king alleged that Rangaraya's wife, Alamelamma, still had with her priceless jewels that rightfully belonged to the temple at Srirangapatna.

Following Rangaraya's death, Alamelamma fled to Talakadu when Wadiyar sent his soldiers to recover the jewels. Furious at the insults suffered at the hands of the Mysore king, cursing the Wadiyars and the town of the splendid spires, an enraged Alamelamma plunged with her priceless jewels into the lap of the swirling Cauvery near Malangi, a town on the opposite bank of the river.

Her curse was: 'May Malangi become a whirlpool, Talakadu town turn into a desert and the rulers of Mysore not have children.'

Alamelamma is believed to have committed suicide by drowning in the river after pronouncing a curse on the king that his dynasty should never have a continuous line of succession and every descendant should die without a son to succeed him. Incredible as it may sound, the curse seems to have come true. From the 1600s, Talakadu did indeed begin to be deluged with sand. While geologists and ecologists have come up with alternative theories, the presence of sand still remains shrouded in mystery.

Most of the temples in Talakadu are dedicated to Lord Shiva, who is worshipped here as the *panchalinga* — Pathaleshwara, Maruleshwara, Arkeshwara,

Barachukki and Gaganachukki. The falls area is also called Shimsha by locals but the British labelled it Bluff. They present a splendid sight with the lush forested hills and green expanses which form a startlingly serene backdrop to the Cauvery, the life line of Karnataka. These falls have been ranked among the world's 100 best!

More than the vertical drop, the two waterfalls are famed for their horizontal sprawl. At the top of the falls, the river divides around the island of Shivanasamudram, the Barachukki stream to the east and Gaganachukki to the west. The falls are at their impressive best during the monsoon and it was wondrous to hear the roar of gushing water leaping down the rocky gorge, shattering the silence of the sylvan surroundings.

Downstream is Asia's first hydroelectric project, started by Dewan Sheshadri Iyer in 1902 with the intention of feeding power to the Kolar gold fields. After driving just a few km past the hydroelectric station, we stopped by the fall-side *dargah* dedicated to the Sufi saint, Hazrat Syed Mardhani Gayeb. We saw several pilgrims who had come to pay respects to the Sufi saint. Barachukki is beyond the *dargah*, a few km away. The water falls from a height of 100 feet and forms a deep pool. Compared to Gaganachukki, Barachukki wears a more serene look probably because there are no boulders hindering its course downwards.

We stopped by the temples of Madhyaranga and Someshwara and also two churches. The Madhyaranganathaswamy temple, an ancient Dravidian temple on the island dedicated to Lord Ranganatha, is a pilgrimage site. There are two more Ranganatha temples on the banks of the Cauvery which are Adi Ranga at Srirangapatna and Anthya Ranga at Srirangam in Tamil Nadu.

The Ranganathaswamy temple dates back to the Chola period with modifications by later rulers like the Hoysalas. Many interesting legends are associated with this temple. The main deity, Ranganathaswamy, is believed to be carved in fossil stone (*saligramashila*). The deafening roar of the water of the mighty Cauvery as it plunged into the gorge lingered on in our ears even after we had left the place. ■

## FACT FILE

**Getting there:** Road — From Mysore drive via Bannur to Talakadu (45 km). To reach Shivanasamudram, from Mysore drive via Bannur and Malavalli (65 km). Rail — Maddur (40 km).

**Tips:** Avoid public holidays and weekends. It is advisable to visit Talakadu before 11 am as it can be unbearably hot at noon.



The Barachukki and Gaganachukki falls are ranked among the world's best

Vaidyanatheswara and Mallikarjuna. Built over several centuries, with a distinct style of architecture, the exquisite shrine of Lord Vaidyanatheswara is probably the most imposing structure in Talakadu. Pathaleshwara, perhaps the oldest shrine, was built by the Ganga kings. Nearby is the Kirtinarayana temple, with a 10-foot idol of Vishnu. Built in commemoration of the victory of the Hoysala ruler, Vishnuvardhana, over the Cholas, it is the only temple here built in the Hoysala style.

Another interesting *panchalinga* temple is the Mallikarjuna temple atop a hill in nearby Mudukuthore village. It offers panoramic views of the meandering Cauvery and the surrounding countryside. The Kritti Narayana (Vaidyeshwara temple) comes to life once every 12 years during the Panchalinga Darshan, when the temple on the sandy bank of the Cauvery is the focus of a colourful festival.

After temple hopping in Talakadu, we proceeded to the small island-town of Shivanasamudram (Sea of Shiva), 65 km east of Mysore. We could hear the resounding roar of the Cauvery as it plunged 75 m into a deep, rocky gorge to form the twin falls,

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.

## DIAGNOSING LEPROSY, HELPING PATIENTS

The Leprosy Mission Trust India (TLMTI) was founded in 1874 in Ambala to help people affected by a curable disease which turns them into outcasts in society.

Apart from leprosy, the trust works with people suffering from other neglected tropical diseases, like lymphatic filariasis. TLMTI provides medical care and treatment, livelihood opportunities, economic development and social inclusion to those affected by leprosy.

The organization diagnoses over 6,000 new cases of leprosy each year. The trust works with 15 hospitals, six vocational training centres, and four residential care homes for elderly people affected by leprosy. The trust runs a research laboratory across nine states in India. <https://www.leprosymission.in/> +91 (0) 11 4353 3300 | [info@leprosymission.in](mailto:info@leprosymission.in)

## GETTING CHILDREN TO STAY ON IN SCHOOL

Human Hope Foundation specializes in remedial education for children from marginalized sections of society so that they have access to quality education and stay on in school.

To fill the gap between enrolment and learning outcomes, Human Hope Foundation runs a Remedial Education Program. The program supplements school education by looking after each child's learning needs. The foundation also offers a range of extra-curricular skills with the help of volunteers. There are workshops for students to learn skills like dancing, singing, painting and making handicrafts. There is also a scholarship program for six students from economically weaker backgrounds. The foundation works on water, sanitation, and health issues as well.

<https://www.humanhopefoundation.ngo/> +91 8091030875 (Whatsapp), +91 9418030875 | [humanhopeindia@gmail.com](mailto:humanhopeindia@gmail.com)

## WORKING FOR THE GIRL CHILD, MOTHERS

Founded by a doctor alarmed at the extent of female foeticide, Vatsalya has been working since 1995 at the grassroots with communities to combat female foeticide and create awareness of the rights of the girl child.

The NGO assists in the implementation of the law against ultrasound use to identifying the gender of a foetus. Its workers are active at the state, district and national level. Based in Lucknow, Vatsalya's main work is at the grassroots where it trains traditional midwives and others at the lowest rungs of the healthcare system. It helps them in dealing with social issues and providing nutrition to promote maternal and child health.

<http://vatsalya.org.in/> [info@vatsalya.org.in](mailto:info@vatsalya.org.in) [vatsalyaa@rediffmail.com](mailto:vatsalyaa@rediffmail.com)

## FIRST PERSON

SISTA SRINIVAS, 24, CAMPUS LAW CENTRE

## 'I LEARNT A LOT ABOUT WILDLIFE CONSERVATION'

I WORKED with the Worldwide Fund for Nature (WWF) for over a year. I wanted to take a break from academics, so I decided to apply there. The focus of WWF is to protect the environment and conserve wildlife species. One of their main projects in India is Save the Tiger.

As an executive officer, my role was to help WWF's leadership programme for school and college students. We would induct students and train them to spread awareness on environment protection and wildlife conservation. This included motivating people to bring about changes in their own lifestyles. Since wildlife protection is not as visible as campaigns against use of plastic or littering on roads, the



programme helps people understand, through school and college students, that the choices they make at micro-level have larger impact — such as whether the leather they buy has been ethically traded or whether the meat and eggs they eat are from an ethical source.

We also taught students how to fundraise and the skillsets you need to convince people to join

and donate to your cause. Since individual donations form a large part of NGO functioning, we were also taught about wildlife conservation, national parks, protected species and endangered species.

I learnt a lot about wildlife conservation, which species are native to India and which are endangered. I also got to know about our collaborations with other countries to promote and conserve biodiversity. WWF is a very friendly organization. It is very structured into departments but with the unified goal of conserving wildlife.

WWF's website lists their volunteer and internship opportunities. They also organize excursions and research studies that one can participate in.

## SUPPLY NUTRITION TO HIV/AIDS CHILDREN

Sparsh Balgram works for the welfare of children afflicted by HIV/AIDS. It strives to provide them with education, health and nutrition.

The NGO runs a shelter for children with HIV/AIDS in Pune. It works across Maharashtra for such children. Their project, Sparsh Sanjivani, involves providing nutrition bags filled with pulses, fruits and other groceries to young children. Currently, 20 children are being provided a nutrition bag every month. Sparsh Balgram aims to bring under its care 100 children by year-end. The NGO takes care of medicines needed by children and it also provides a good education to the children.

<http://www.sparshbalgram.in/> [sparsh.balgram@gmail.com](mailto:sparsh.balgram@gmail.com), [mahesh@sparshbalgram.com](mailto:mahesh@sparshbalgram.com) 020 25823700 / +91 7620 0402 30

## DIGITAL LITERACY FOR EMPOWERING WOMEN

Based in New Delhi, the SCP Foundation works in the areas of education, healthcare and skill development. It offers computer education and technology training to youth. Their mission is to ensure basic quality education to deprived children.

Another area of focus is women's empowerment. The foundation organizes group discussions with the local community on issues like child labour, begging, literacy and the right to education of every child.

They conduct computer education programs for teachers in schools and other educational institutions. The foundation works on digital literacy and empowerment.

<http://www.scpfoundationngo.com/> Phone: 011-29949510 Email: [scpfoundation021@gmail.com](mailto:scpfoundation021@gmail.com)

# PRODUCTS

Small producers and artisans need help to reach out to sell their wonderful products. They can't advertise and they don't know to access retail networks. *Civil Society* happily provides information about what they have on offer, their skills and how you can get to them.

## Green groceries

ECO FRIEND is a unique grocery store in Noida, Uttar Pradesh. It is, probably, one of India's first zero-waste grocery stores. Eco Friend started by Kavya Singhal and her father, Sandeep Singhal, to help people switch to a plastic-free lifestyle. You can order organic groceries and foods. Or you can place your order online on their website. Eco Friend offers natural skin and hair care products, toiletries, sanitary pads, bags, gift sets and home essentials. They pride themselves on personally having tried and tested every product they place on their shelves. Their grocery prices are similar to groceries delivered in reams of plastic.

**Contact:** Kavya Singhal: +91 93104 31303  
 Email: [ecofriendnoida@gmail.com](mailto:ecofriendnoida@gmail.com)  
 Website: <https://ecofriendnoida.in/>



## For health and strength

BOOST YOUR immunity with Satmya's many offerings. It has immunity boosting *chyawanprash*, brews, anxiety relieving *kadhas* and seasonal preserves. All their products are natural as well as homemade in small batches. They do not contain preservatives and are made from organically grown plants and grains. Satmya was founded by Rabiya Kapoor using her mother's traditional recipes. *Chyawanprash* and an Ashwagandha brew are packed in eco-friendly glass jars and are priced at ₹600. They also offer a digestive *churan* priced at ₹400. Satmya also has squashes, teas, and jams on their catalogue.

**Contact:** +91 9911021952 Email: [info@satmya.in](mailto:info@satmya.in)  
 Website: <https://satmya.in/>



## Soft toys and more



DEEPA PANT, an alumnus of NIFT, started SVATANYA to help empower underprivileged women by upskilling them to make handcrafted products. The aim is to train

the women and help them gain financial independence and self-reliance. You can buy soft toys, bottle covers, cloth masks, and wall hangings ranging from ₹300 to

₹2,000. They also offer earrings, bracelets and necklaces made from cloth. SVATANYA

runs an initiative that distributes soft toys to underprivileged terminally ill patients and children with

disabilities living in slums and hospitals.

**Contact:** +91 95607 03555,  
 011-40516048  
 Website: <https://svatanyaindia.com/>



## Bliss with jaggery



INSTEAD OF white refined sugar try healthier options made with organic jaggery and honey. Founded by Apeksha Grover Bagga, DOREE offers Desi Khand which is made by evaporating sugarcane syrup without removing the

molasses, Paan Gulkand made with honey, Real Gud Cocoa, Gud Sattu, Gud Chai Masala and more. These are all made from grandmother recipes. You can also buy dried rose leaves and moringa leaves. The organic jaggery powder costs ₹125 and the other jaggery-based products are priced at ₹300.

**Contact:** +91 92058 67294  
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 Website: <https://www.doree.in/>



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WHERE ARE WE BEING READ?

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**TATA STEEL FOUNDATION**

# Skilling programmes at the **Foundation**, are poised to **Reimagine** and unlock potential

**Our journey of partnering the nation's aim to build a technically skilled youth base, is now in its 10th year. Our Industrial Technical Institutes of Tamar (from 2012) and Jagannathpur (from 2017) have ushered a rigor in this vocation among rural youth and in particular, girls from tribal belt in Jharkhand. The need is strong, and so is the appetite to create more bases (the third at Chandil, from 2022), to provide many more trained hands for a resurgent India.**

**More than 650 youths  
trained and the  
journey continues!**

