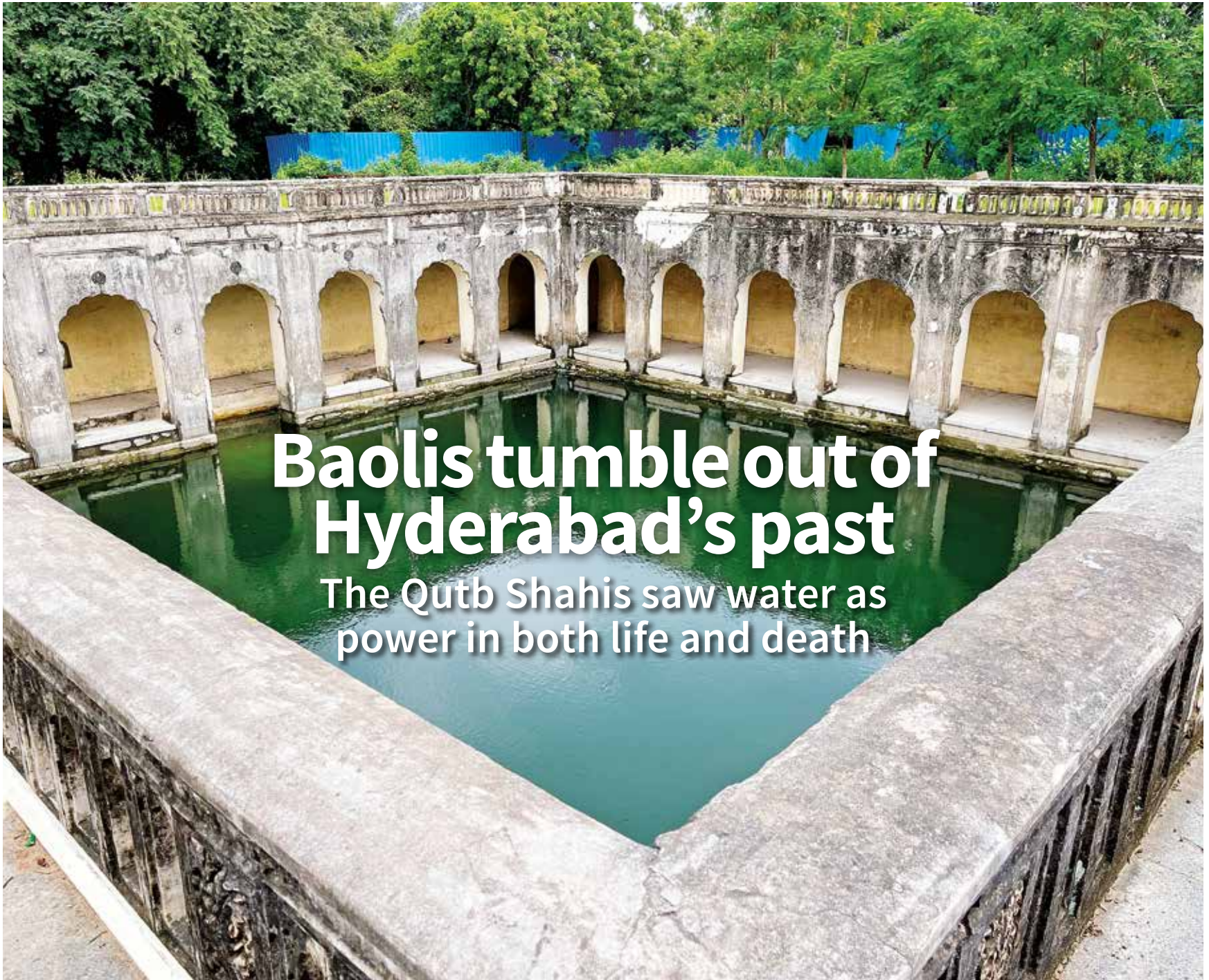


# Civil Society



## Baolis tumble out of Hyderabad's past

The Qutb Shahis saw water as power in both life and death

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**Civil Society**  
EVERYONE IS SOMEONE

WHERE  
ARE WE  
BEING  
READ?

Ziro, Tirap, Rewa, Shivpuri, Morbi, Panna, Nalgonda, Baksa, Anini, Yingkoing, Washim, Sahibganj, Visakhapatnam, Prakasam, Umaria, Yupia, Yelmudi, Wokha, West Godavari, West Garo, West Champaran, Wayanad, Zunheboto, Wardha, Udupi, Tumkur, Kurukshetra, Agartala, Sahibganj, Saurashtra, Sagar, Bardez, Sabarkantha, Patna, Rudrapur, Arunachal Pradesh, Reasi, Mau, Raxaul, Angamaly, Udham Singh Nagar, Hathnagar, Ashirbad, Sehore, Ranga Reddy, Faridabad, Angul, Wanaparthy, Purnea, Fremont, Satna, Trivandrum, Pratapgarh, Akola, Changlang, Sri Potti Srinamulu Nellore, Mainpuri, Satara, Barabanki, Uttarkashi, Secunderabad, Ranchi, Malda, Pathanamthitta, Alirajpur, Ujjain, Palghar, Seoni, Muraiya, Tavang, Ottapalam, Bagpat, Bagalkot, Midnapur, Ananthapur, Bahadurpura, Manikonda, Osmanabad, Surendranagar, Tuensang, Saivakasi, Rong, Maharsa, Porvorn, PAGESHWAR, Maharkot, Nuh, Bareilly, Chikkmagaluru, Rampur, Nizamabad, Shechar, Alipurduar, Palavakkamm, Namsai, Uttar Dinaipur, Mysuru, Dahod, Surat, Bagpat, Bagpat, Bagalkot, Murshidabad, Trichhi, Parpanangadi, Porbandar, Kiphire, Bantwal, Roorkee, Amravati, Mokochung, Shivamogga, Brisbane, Tenneru, Mehsana, Ramban, Prashanthnagar, Mayurbhanj, Ansol, Chitradurga, Mathura, Shrirampur, Belagavi, Sonbat, Palampur, Margison, Rajsamand, Aurangabad, Shirdi, Kurnool, Mangalore, Anand, Paschim, Almorat, Chandrapur, Mandi, Patan, Jhwar, Dehradun, Nalanda, Hawaii, Maloba, Porwar, Bargarh, Jirwa, Sasaram, Bathinda, Madhubani, Lunawada, Patiala, Manvi, Lower Dibang Valley, Tonk, Poraiyhat, Nirmal, Mon, Lohit, Chikodi, Nanded, Latehar, Ramanagara, Sultanpur, Sangli, Rajouri, Kheri, Amroha, Bankura, Simdega, Laitumkrah, Shorapur, Nainital, Kushinagar, Vapi, Panipat, Anaravathi, Basti, Chhindwara, Belonia, Kulu, Tehri, Kudal, Saraikela, Mohali, Kozhikode, Kovilpatt, Kottayam, Ontario, Yavatmal, Lohardaga, Yadga, Pooch, Yadadri, Bhuvanagiri, Malappuram, Kothagudem, Mahabubabad, Koppal, Neemuch, Kolima, Rohtak, Bastar, Junagadh, Kodmbakkam, Chittoor, Adyar, Mandya, Koderma, Saproon, Kodaikanal, Sitamarhi, Manali, Valsad, Kodagu, Barwani, Damoh, Tucson, Avittathur, Kochi, Mancherial, Navsari, Jiyawan, Balam, Latur, Kishangani, Panchmahal, Bellary, Tiswadi, Khowai, Bemetara, Chamarajanagar, Mahasamund, Alinho, Ludwa, Nagpur, Banka, Palamu, Sheopur, Varanasi, Klemmam, Pondicherry, Khamhalia, Amreli, Khagaul, Mungeli, Parbhani, Tankere, Gulugu, Uttar Pradesh, Burdwan, Khagaria Ponda, Adilabad, Medak, Kalimpong, Keimur, Jyothinagar, Sutteri, Bhind, Mudigere, Sullia, Banda, Chicago, Jind, Tikamgarh, Kolar, Jhabua, Jaunpur, Jangaon, Pollachi, Sirsi, Munger, Kawardha, Jamui, Madhepura, Jamtara, Shimoga, Nagarkurnool, Barmer, Moradabad, Ramgarh, Jamnagar, Chamoli, Kolathur, Hyderabad, Muzaffarpur, Sidhi, Begusarai, Khonsa, Jaisalmer, Bhavnagar, Itarsi, Hungund, Kondgaon,

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going places.  
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dots with us.

IN THE LIGHT

SAMITA RATHOR



LETTERS



River yatra

I read with great interest Venkatesh Dutta's article on river policy, 'On the trail of the Gomti'. Prof. Dutta has identified the problems and made very good recommendations.

However, the main problem is implementation. Several years ago, we had some speakers here, headed by Veerbhadra Mishra, the mahant of the Sankatmochan Foundation. They spoke on the Clean Ganga initiative. There was a lot of discussion with professors from Berkeley. They depicted some practical examples of treating sewage from the city before it reaches the Ganga.

However, a few years later, nothing had happened. Mishra himself was very unhappy. It seems like the more committees on water are created, the more is the scope for corruption and turf wars rather than actual work being done. I hope a committee is

set up which not only has advisory capacity but also some teeth to enforce the rule of law.

Nilva Vora

It is a daunting task for all stakeholders but creative models of *jal, jungle, jamin, jan, janwar* and *sadak* seem to be evolving. We need to develop pilots to rejuvenate rivers by taking all departments on board.

Ashok Sarda

How are we going to win yet another battle over our rivers when the government won't hold hands with us? Instead, they are pursuing an even more destructive path—linking of rivers. Your analysis of the Gomti makes me shudder. What will the

consequences of such a plan be?

Aruna Rodrigues

Polluted Punjab

Happy to see some rudimentary mention of industrial pollution in Punjab in your story, 'In Punjab more speak up on pollution'. Usually, pesticides, fertilizers and now dairies are frequently mentioned. The average Punjabi's health and environment need more focus.

Narasimha Reddy Donthi

Temple tour

I thought Susheela Nair's piece, 'Village of ancient temples' was excellent. I really liked reading about Aihole, the cradle of Indian temple architecture. The Durga temple with its horse shoe

structure looks wonderful. The article also revealed historic details of the Chalukya dynasty. It's the best traveller's guide.

Nalini Krishnankutty

Urban history

Thanks for your review of Serish Naniseti's book, 'Hyderabad's chronicler has rare stories to tell'. The story of this city needs continuity and in-depth studies. Its glory in the beginning of the 20th century and even after Independence has not been told in detail.

Narasimha Reddy Donthi

Older cities built by our kings have always been ignored. All writing by journalists and historians is about the colonial cities built by the British. The old cities are like jewels in the dust. They have beautiful buildings and heritage which are distinctively Indian. Please tell their stories.

P.R. Sathish

Dog menace

Another excellent article by Meghna Niyal, 'Animal rights versus welfare'. The stray dog menace must be controlled especially in residential areas where dogs bite and attack children and old people and spread a wave of fear. New laws for the safety of citizens should come into existence to avoid so many deaths of people by stray dogs. This is akin to murder of innocent citizens.

Neelima Kale

Letters should be sent to response@civilsocietyonline.com



COVER STORY

HYDERABAD'S BRILLIANT BAOLIS

The Qutb Shahi tombs in Hyderabad have been turned into an outstanding heritage site which includes six baolis or stepwells that captured 20 million litres of rainfall last year.

COVER PHOTOGRAPH: UMESH ANAND

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Cheque to: **Content Services and Publishing Pvt. Ltd.**  
Mail to: The Publisher, Civil Society, A-16, (West Side), 1st Floor, South Extension - 2, New Delhi - 110049.  
Phone: 011-46033825, 9811787772 E-mail to: response@civilsocietyonline.com  
Visit us at www.civilsocietyonline.com

**Publisher**  
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A-16 (West Side), 1st Floor, South Extension Part 2, New Delhi - 110049.  
Phone: 011-46033825, 9811787772  
Printed and published by Umesh Anand on behalf of Rita Anand, owner of the title, from A-53 D, First Floor,

Panchsheel Vihar, Malviya Nagar, New Delhi - 110017.  
Printed at Samrat Offset Pvt. Ltd., B-88, Okhla Phase II, New Delhi - 110020

Postal Registration No. DL(S)-17/3255/2021-23.  
Registered to post without pre-payment U(SE)-10/2021-23 at Lodi Road HPO New Delhi - 110003  
RNI No.: DELENG/2003/11607  
Total no of pages: 32

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Past matters

CITIES make themselves noticeable in many ways. Heritage brought alive and made accessible is one of them. This month we bring you the story of the conservation efforts at the Qutb Shahi tombs in Hyderabad. On 100 acres there, architect Ratish Nanda and his team at the Aga Khan Trust for Culture have worked outstandingly to restore a necropolis that rulers of the Qutb Shahi dynasty created to serve as their last resting place.

Before the project, Hyderabad knew of a handful of tombs and monuments at the site, which was visited by local people but hardly the destination it is becoming. Now, close to 100 monuments, including tombs and baolis or stepwells, have been identified and worked on. The planting of thousands of trees has also brought back green cover. The necropolis is well on its way to being an iconic heritage site, perhaps the only one of its kind in the world. Hyderabad has reason to be proud of a civic effort that distinguishes it as a modern city eager to engage with its past.

It is important for Indian cities to aspire to be world class because they should be competing internationally to attract talent and investments. Most Indian cities don't make the cut. The Qutb Shahi tombs project in Hyderabad is a good example of how multidisciplinary teams with high standards are needed to transform the urban experience in India, not just in terms of heritage but also transportation, waste management, housing, air pollution and safety. India's position in the world will finally depend on how its cities are perceived. If they are syncretic, wholesome and forward looking, India will be regarded as a modern and progressive country worth betting on. A good heritage site is a small thing but it creates the kind of lasting impression that money can't buy.

If you have for the longest time heard of people dying in manholes while trying to clean them and wondered why machines can't be used instead, the answers are many. First, of course, is slipshod municipal administration in India. Municipal bodies are long due a makeover in terms of leadership and technical expertise. Odisha is succeeding in solving this problem, but the same cannot be said of other states. We spoke to Manvita Baradi and Meghna Malhotra of the Urban Management Centre to get a clearer picture.

Solar power in India is a great success story of which little is understood. Our main interview this month is with Ajay Mathur, CEO of the International Solar Alliance, from whom it is heartening to learn that big strides have been made in generating solar power in India and wheeling it through the grid at a price which is much below that of thermal power. Much, of course, remains to be done to take solar to domestic users and the agricultural sector, but such is the momentum that it is clear it will happen.

**Ajay Mathur says big ticket investments have paid off**



Ajay Mathur: 'Last year, around \$8 billion worth of investment went into the Indian solar sector'

# 'Solar is now the cheapest power you get in India'

Civil Society News  
Gurugram

WITH global warming, pollution and wildly unpredictable fossil fuel prices, renewable energy is the answer. India has played a leading role in the International Solar Alliance, but how successful has it been in facing up to the challenge of increasing solar power production capacities and bringing down the cost of solar power for consumers?

Ajay Mathur, CEO of the International Solar Alliance, says rapid strides have been made and that there is much to cheer about. Big-ticket investments changed the scale on which solar electricity is wheeled through the distribution system. Small producers have also been making solar power locally available. On the grid, solar power at ₹1.99 per kilowatt hour is the cheapest power available at its sunshine price. The price when locally produced and distributed is higher but still lower than the price of fossil fuel power.

**Q: India is pledged to installing 100 gigawatts of solar energy by 2022. Are we on course?**

Actually, as a country, we have done relatively well. In 2012-13 we had zero megawatts of solar power. Today, we have crossed around 60,000 megawatts, or 60 gigawatts. This is a huge jump.

In 2015, we had committed that 32 to 35 percent of our electricity

installed capacity would be from non-fossil fuel sources: hydro, nuclear, solar. We are already at about 38 percent. Solar and wind together account for something like 11 percent of the electricity that is fed into the grid. In 2015, solar was about zero percent and wind was about 4 percent.

This has happened largely because we got one thing right and that is how to add large-scale solar capacity into the grid. What we did was to move to a regime where new solar capacity is auctioned again and again.

We learnt that investors find it risky to invest in a project where land and PPAs (power purchase agreements) are not there. So, as much as possible, we try to put these issues in place before the tendering occurs. As a result, in 2015, the price of solar electricity was around ₹12 per kilowatt hour. Today it is ₹1.99 per kilowatt hour and is the cheapest form of electricity in India, obviously available only when the sun is shining. But it is the cheapest.

**Q: That's the sunshine price. Absolutely.**

**Q: But what are the challenges?**

One of the challenges we have faced is how do we get investments in solar and reduce the risks. The second challenge is what happens at night. In India, demand for electricity is increasing, whether it is day or

night. The question asked is: Do I set up a solar facility and also a coal facility? Right now we have excess coal capacity which takes care of what is needed at night.

But the problem is that the contracts that distribution companies have with generators is that they pay a certain amount of money, irrespective of whether they buy electricity or not, because the person who has set up the generation plant has to pay the loan for that plant. He's not going to set it up until he's got some confidence that some money will be repaid. So that capital cost is repaid, no matter what.

And then if you buy electricity, you pay additional money for every kilowatt hour of electricity, which is essentially equal to the coal cost. So, because these people are paying the fixed cost, as it is called, they're paying the fixed cost anyway.

Therefore, the real challenge is to bring down the cost of solar electricity to being less than the variable cost of coal power. The total cost of coal power is about ₹3.5. Now, at ₹1.9 per kilowatt hour it is in the range of variable cost. Generally, the variable cost varies between ₹1.5 and ₹2.1 or ₹2.2 per kilowatt hour. We are now in that region.

**Q: Who is buying solar power? You don't have multiple choice suppliers at the domestic level as yet. So who are the big bulk users buying solar at a cheaper cost and therefore being able to bring down other costs of production as well?**

There are two categories of buyers. One are the distribution companies. Some are buying more, others are buying less. For example, Karnataka, Maharashtra, Rajasthan buy a lot of solar electricity. These are also states where solar electricity is generated. So they have greater confidence that they will get the electricity when they want. But then you have a second category, the large users: for example, the Delhi Metro which buys electricity from a solar plant in Madhya Pradesh.

**Q: And wheels it through the normal system that prevails? Absolutely.**

**Q: Who are the key producers of our solar electricity?**

The tendering route has gone in for large-scale plants. And as we've gone for larger and larger plants, we've got cheaper and cheaper prices. Who wins the tenders? It is a range of solar producers who compete and win these tenders. For example, ReNewPower and Greenko. They are in the business of producing solar and renewable electricity, setting up the plants and selling the electricity to potential buyers.

**Q: Are there more big investments coming in?**

Last year, around \$8 billion worth of investment went into the Indian solar sector. This is large. Many investors we have spoken to have said that the greatest challenge they face is fear of depreciation of the Indian rupee versus the US dollar. They, therefore, have all kinds of mechanisms to hedge it. But, till now, India has not faced a problem in getting external or internal resources.

**Q: Are you saying there are both borrowings as well as FDI in these projects?**

Yes, there is borrowings, FDI, and equity. In India solar has become a very mature financial market.

**Q: So, in seven years from 2015 to 2020, there has been an enormous maturing of the solar industry in how it produces, distributes, invests and funds itself?**

That's right and in the number and size of players in the market.

**Q: Is there more competition happening as well?**

A much greater degree of competition is happening between large-scale suppliers. You have a large number of players and the procurement system is open, transparent and based on lower and lower prices. The price declining to less than ₹2 per kilowatt hour is a reflection of that.

We have not seen an equivalent growth in the rooftop market. It is estimated today that some 40 percent of commercial consumers who have put up solar panels on their rooftops own the property. They want to make sure they use it. They can't get into the business of selling to consumers because the law says only the electricity company can sell it. Or I have to get permission from the electricity company to sell it.

There are third party companies putting up rooftop solar and selling at a price lower than what the consumer would get from the grid. For example, there's a company called Fourth Partner Energy which has set up plants right next to us here in Gurugram. They sell electricity at ₹4.4. If you buy from the grid, it's ₹7.5. Again, this is during the day. For commercial users, this is absolutely fine. In all these cases, the total electricity produced is less than the total demand. So the consumer buys from the grid as well as from the solar seller.

**Q: Are we getting solar electricity to remote villages in India?**

It comes into the grid so it goes everywhere. There's no separate electron which is a renewable energy electron versus one which is a fossil fuel electron. The electricity distribution companies buy solar because it's cheaper and then it goes everywhere, including to the villages.

The second answer is that in specific cases, for example, in Maharashtra, they gave land in rural substations to a company called EESL or Energy Efficiency Services Limited, which set up solar plants and supplies electricity during the day particularly to the agricultural sector. So, those villages are getting solar power during the day and the reliability is much higher. The electricity company, by their own accounts which they submitted before the regulatory commission, say when they got it from the grid, to the rural substation, it used to cost ₹7.38. EESL sells it to them at ₹4 per kilowatt hour.

**'Solar and wind together account for something like 11 percent of the electricity that is fed into the grid. In 2015, solar was about zero and wind was about 4 percent.'**

So you can imagine the huge difference. What the Maharashtra electricity board said is, if I get this, I will make no losses. So we see both electricity and solar electricity coming in through the grid and going to all users as well as in this specific case being generated for the agricultural sector.

**Q: What is holding us back from using this kind of distributed power more in the agricultural sector? Also, say, solar pumps.**

There are two problems. The first is that the cost of a solar pump set is much higher than of a diesel pump set. So, while the electricity is cheaper, as far as the farmer is concerned, it is money out of his pocket.

That is why the government introduced the KUSUM programme to support farmers who invest in solar. They have various categories under which the farmer can buy the solar pump or several farmers can get together to set up the solar pump.

Remember, our farmers typically have small holdings. Therefore space going to solar implies that there is less space for farming. Because of the high price, it becomes very difficult for them to invest. Large farmers have been investing in solar. We have seen that happening across the board.

I'm a marginal farmer too. I put up a solar pump about seven years ago. It's been working beautifully. I have now tried to get into the business of selling water to my neighbours. This is wonderful because everybody doesn't have to dig a bore well.

Secondly, I will sell water through a pipe, because then I'm reducing the amount of transpiration. And my neighbour will also want to

*Continued on page 8*

Continued from page 7

distribute it through a pipe because he also wants to get the maximum use out of that water. So it helps in the efficiency of water use. It's happening, but very, very, very slowly.

An added problem is the lack of maintenance people. The government has launched a programme called Surya Mitra, in which they are training mechanics who can travel to villages and repair solar pumps. But this is a chicken and egg situation. You need a large number of solar pumps for the mechanic to make a living. And you need an adequate number of solar lights to make it financially viable for the mechanic.

**Q: How can distribution be made more competitive and efficient and thereby bring down costs?**

One of the key issues is that the price of the electricity that a distribution company buys from the generator has to be linked to time. Between 6 pm and about 10 or 11 pm, there is an increase in the load because lighting and air conditioning are switched on at that time. We need to ensure a higher price for peak demand.

Generators of hydro-power will need to invest in creating tail-end storage and the solar energy generator will have to spend on setting up batteries. They will invest only if there is a higher price available at times of higher use. So the first issue we need to address at the generation level is to make the prices time-dependent.

**Q: Globally, we've had the COVID-19 pandemic, then there is the ongoing Russia-Ukraine war. How have these developments and the fluctuating price of oil affected the International Solar Alliance and its partners?**

Irrespective of the pandemic, the addition of solar electricity and the money that has gone into the sector have kept increasing at a relatively fast pace. Last year, for example, approximately \$200 billion was invested in solar energy, a very large amount. It is approximately the amount of money that was invested when a lot of fossil fuel energy installation was happening. What the pandemic did was to show that countries needed to create as much indigenous capacity as possible. Russian gas export restrictions impacted global trade and fossil fuels, more than anything else, and therefore, we have seen a fast increase in solar and in batteries.

**Q: But hasn't disruption in supply chains and so on affected manufacture?**

You're absolutely right. What has happened is that the price of a solar panel is higher now than it was three years ago. We are right now in the process of carrying out a very detailed analysis. But the first thing that it tells us is that because of greater demand, prices have gone up. Prices have also gone up because of supply chain constraints. The number of ships available are only so many, so it takes a ship longer to provide solar panels.

So what we're looking at is a future where two things are very clear. Number one, by 2030 solar with batteries will be the cheapest form of energy in most geographies of the world. By 2050 it will be the cheapest with no competition. If this is so then demand will increase in each country across the world. And if supply chains are going to be a challenge we will need to create manufacturing facilities across the world. We are therefore putting out a paper next year, which will be looking at global manufacturing hubs in solar panels.

**Q: How will this happen? Can you provide details?**

You convert sand and silicon into polysilicon, then you convert that polysilicon into ingots, rods, cut it into wafers which become solar cells. And then several solar cells are put together to make the modules which you and I buy. So there's silicon to polysilicon, polysilicon to cells, and cells to modules.

There are at least these three kinds of manufacturing that are needed. Silicon to polysilicon is an extremely cost-intensive, electricity-intensive business where electricity reliability has to be of the order of nanoseconds. This will occur in five to 10 countries at the most. But the polysilicon to

cells conversion can occur in probably 50 countries. And cells to modules can occur probably in every country and certainly in every region.

The problem, as it appears in any other area, is where today's price is. When you set up a new plant, this is where the price is. What happens to the difference? So, many countries have started offering all kinds of incentives to draw in manufacturing. Some countries say whatever technology is available, we will produce it here. Others say let's look at tomorrow's technologies. If you can do those efficiencies, which are more than what we get today, we will give you an incentive.

In India we have the Performance Linked Incentive (PLI). There is also the Inflation Reduction Act incentives, in the US there are tax credits and in the EU there is the solar power initiative. So we are seeing different kinds of incentives taking care of this delta, but also focusing on tomorrow's technologies.

We will see over a period of time, 2025 onwards, a broadening of the manufacturing horizon across the world. This itself could also lead to prices being more stable than the sharp spike that we have seen in the past two years.

**Q: Is India also emerging as a manufacturer of solar equipment?**

With the PLI being provided by the government for cells, batteries, etc, there is, I think, 45 gigawatts of supply for which incentives will be put in. That much capacity is under construction. So, yes, we are emerging as

**'We train people at engineer level and technician level. The course content is closely related to what the local solar association says so that they can be employed.'**

a large manufacturer. And remember that these incentives are back-loaded. So they will be provided only if manufacturers are able to sell their products. They need to make products that are at least as efficient if not more efficient than today's products.

**Q: How is the International Solar Alliance helping developing countries to expand solar capacity?**

The International Solar Alliance was announced at COP in Paris in 2015. It came into existence in January 2018 when an adequate number of countries signed it. It is a treaty-based organization. Today 109 countries have signed into it. Every week we have new countries joining.

Our goal is to make solar the energy of choice in all our member countries. When we talk to country leaders, they say, right, but why solar. We provide them information for solar advocacy. Like the study that we did which said that by 2030 solar would be the cheapest energy in most parts of the world. And by 2050 it will be the cheapest across the world.

Leaders tell us this is great, but who will do it. We have therefore started a programme to train people both at engineer level and technician level. You can train people, you can certify them, but then they also need employment.

We try to create that with the private sector in various countries. For example, in Namibia and, recently, Venezuela. The course content is very closely related to what the local solar association says. There are three certification standards, the Indian standard, the US standard and the EU standard. We certify them so that they can be employed. Hopefully, the time lag between certification and employment isn't large. We provide similar training to policymakers.

Third, and I was very surprised at the very quick uptake, are bankers. Because local money is needed. If a banker doesn't know anything about solar, how on earth is he or she going to lend? Across the world, solar training for bankers has huge uptake. In the last session, we trained about 1,000 people. ■

# Strays have Srinagar on edge

Jehangir Rashid  
Srinagar

Srinagar is vying to become a smart city so that it can attract tourists and investment. The administration has initiated many development projects too. But one civic issue is haunting civic agencies and residents and casting a shadow on the overall image of Srinagar — the stray dog problem. The presence of dogs everywhere is making the lives of people miserable.

It is the elderly and children who worry the most over the presence of dogs in their areas. First of all, it restricts their mobility. Residents say they are not able to go about their daily chores and at times have to change either their route or their plans because of strays.

"I used to go to the *masjid* at dawn to offer prayers, but the presence of dogs has forced me to change my plan. I now offer my prayers at home. I don't feel satisfied about having to do this. The administration seems least bothered about the issue," says Abdul Rehman, a resident of Soura.

According to official data of the 2011 Census, Srinagar had a dog population of 60,000. But current unofficial figures point to the population of dogs being around 90,000 or even more.

Over the years the Srinagar Municipal Corporation (SMC) has failed to stem the dog crisis. The municipal corporation has not been able to sterilize the required number of dogs to keep the population of canines in check. City residents as well as those living on the outskirts are left to cope with the problem.

"The SMC higher-ups had claimed that they would be carrying out dog sterilization full throttle and that the population of dogs would begin to decline. Years have gone by but the ground situation seems to have changed very little. The whole process of sterilization has gone awry with very few dogs being sterilized at designated centres," says Mohammad Maqbool, a resident of Nowpora.

People living on the outskirts of Srinagar have a different story to tell. They say that officials of the SMC ferry the dogs from the posh areas of the city in the municipal corporation trucks and then deposit them in their areas. These people say that it is due to this reason that dog attacks have increased in areas falling outside the municipal limits of Srinagar.

"People living in some of the posh colonies of Srinagar are highly influential and have a say

in the working of the government. These influential people pressure the officers of the SMC who in turn pressure the line staff. Following this, the canines are transported from posh areas to less privileged areas," claimed Abdul Majeed, a resident of Dangarpura, a suburb of Srinagar.

In the past decade or so there has been an increase in dog attacks not only in Srinagar, but in other parts of the Kashmir Valley as well. There are regular media reports of dog attacks on people in some locality or the other. Children are the worst sufferers in this regard.

"My children fear coming out of the house since they apprehend that they might be



A dog census is now taking place

**To stabilize the dog population the SMC plans to increase the rate of sterilization to 120-130 per day. It is also establishing two more ABC-AR centres.**

attacked by dogs. As such I don't allow them to go out alone. I always accompany them as and when they want to venture out. Although my son is fond of cycling, he cannot ride his bicycle on the road, fearing attack by the canines," said Shakeela Bano, a resident of Bohri Kadal. There are people who believe that the dog population has increased in areas where there are camps of security forces personnel. They say that the left-over food from these camps is given to stray dogs.

But SMC officials at the lower rungs of the administration seem helpless. They say such decisions have to be taken by higher officials in the municipal corporation. Some old hands

say that in the past dogs used to be poisoned.

"Since we cannot poison the canines now, the only option is sterilization. If we are able to control the population of dogs, half the battle is won but for that we need strong resolve from the civic body. Once the population is controlled there would be fewer attacks on people and everyone will heave a sigh of relief," said Shiraz Ahmad, a *safai karamchari* of SMC.

Junaid Azim Mattu, mayor of Srinagar, agrees that overpopulation of dogs is one of the biggest challenges the city faces. He says that the SMC is implementing the Animal Birth Control and Anti Rabies Vaccination Programme within the city as per provisions of the Animal Birth Control (Dogs) Rules 2001.

The SMC has partnered the Faculty of Veterinary Sciences & Animal Husbandry of the Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST-K) to jointly implement the dog sterilization programme in Srinagar city.

But this is not enough because there is only one centre and 10 surgeries per day are being carried out. It is necessary to have many more sterilizations.

Mattu says currently the SMC provides funds, manpower and vehicles for transportation of stray dogs while faculty members of SKUAST-K perform the sterilization surgeries. In is necessary to increase the scale of the programme.

"To stabilize the dog population, we need to increase the sterilization rate to at least 120-130 sterilizations per day. To achieve this target, the SMC is establishing two more ABC and AR centres within Srinagar at Tengpora and Chhaterhama," says Mattu.

"We have also outsourced the ABC programme and AR vaccination programme. We are going to perform mass dog sterilization surgeries in Srinagar," the mayor says.

To be effective in all 35 wards of Srinagar, an agency by the name of Santulan Jeev Kalyan has been appointed, he explained. An increase in outreach is expected to make the programme more effective and deliver quicker results. Ward-level stray dog management committees have also been formed for those areas that are within the municipal limits of Srinagar.

"We don't have correct figures regarding the dog population. It is assumed to be around 60,000. But to have a more reliable figure, the Santulan Jeev Kalyan has been tasked to conduct a census, which will be completed in two weeks," the mayor says. ■



Dalits continue to be sent into manholes



Some lanes are too narrow for machines

# SEWER DEATHS: WHY MACHINES ARE NOT REPLACING PEOPLE

Civil Society News  
Gurugram

If a sewer line gets clogged in Japan, Sweden or France, and you really do need to send a man inside to unclog it, a sewer diver is called to do the job. The sewer diver has the status of being a highly skilled and trained professional. He dives in, clad in protective personal equipment with emergency measures on stand-by, and clears the blocked sewer.

But in India it is Dalits, the poorest and most marginalized community, who are sent into manholes with no protective equipment, to unclog filthy, stinky sewers or clean up septic tanks. Invariably, they die after breathing in noxious fumes. Newspapers report such deaths with frightening regularity. In almost every Indian city or town, the sewerage network is a deathtrap.

Such manual scavenging work was banned in 2013. Sanitation workers were supposed to be rehabilitated. Everyone is aware of the practice. Activists have protested. Award-winning films, like Chaitanya Tamhane's *Court*, refer to the stark reality of the sanitation worker's plight. Machines have been invented to do this nasty job. And yet manual scavenging continues.

It's not as if no efforts have been made. Odisha, for instance, has emerged as the frontrunner in curbing manual scavenging. In September 2020, the state government launched GARIMA, a scheme for core sanitation workers and their families with all 114 Urban Local Bodies (ULBs). It also set up a State Commission for Core Sanitation Workers.

Aspects of GARIMA have been included by the Centre in its own NAMASTE scheme for sanitation workers. It offers loans and skilling opportunities and encourages cities to 'convert manholes into machine holes'. Yet city governments continue to send sanitation workers down hazardous sewer lines to their death.

"The system of city governance is complex and convoluted at all levels. There has been some progress, but the pace of change is slow," says Manvita Baradi, director of the Urban Management Centre (UMC) based in Ahmedabad, with some exasperation. "Unless we strengthen

our municipalities, our city governance systems, we won't make any progress."

The UMC is a Section 8 company which works with ULBs to provide solutions to urban management. Its mandate is to simplify processes so that citizens get better services. Since 2017, UMC has been working with the Ministry of Housing and Urban Affairs (MoHUA) and the Ministry of Social Justice and Empowerment to converge livelihoods with the Swachh Bharat Mission.

"There has been much emphasis on sanitation improvement but not on worker safety and the occupational hazards they face," says Meghna Malhotra, deputy director of UMC. "We focus on sanitation workers' safety and how SHGs can be engaged across the sanitation value chain in cities across India."

**'We won't make progress unless we strengthen city governance at all levels and make systems less complex.'**

The UMC is also a member of the National Faecal Sludge and Septage Management (NFSSM) Alliance, a group of 30 organizations supported by the Gates Foundation. The NFSSM recommends policy and action on handling human waste safely and sustainably. Its agenda is four-fold: inclusion, technology, strengthening ULBs and communication, says Rishma Shah of the alliance.

**THE DRAIN BANE** Machines are available so how come they aren't deployed to clean sewer pipelines? The problem is that Indian cities and towns expand in a chaotic manner. Such growth does not conform to master plans often set in stone. Residential and commercial buildings, built by private developers, arise faster than roads, drains and sewer lines that are built by slow-moving government agencies.

As a result, the gradient on the ground is not even and sewage lines can't be laid in a uniform manner. "It's a planning failure," says Baradi. "If you know how many people will occupy those offices and homes before such development happens, you can plan your sewerage system accordingly. But first the buildings come up and then you lay the sewage lines. Since the gradient is not even you will need much more water to flush sewage through those pipelines." And every Indian city suffers from water shortage.

Then there are peri-urban areas or small towns where the sewerage system is absent and people opt for septic tanks. The problem, explains Baradi, is that the septic tanks are badly designed and built. Since people don't want to clean out the tank every two years they dig, basically, a very deep hole. Over a period of time the sewage hardens in this hole and becomes rock-like. The depth of the tank and the hard sewage make it impossible for any machine to clean it up. You have to send a man down.

Also, who is in charge of sewer lines? In every city the agency responsible differs. It could be the Jal Board in one city, the municipality in the next. "There is no preventative maintenance. Indore is one exception. You should not let the sewer line clog in the first place. That requires a management system or an SOP. No city does any preventive maintenance apart from pre-monsoon cleaning," says Malhotra.

Contracts for maintenance of sewer lines, given out via tenders, merely state that the pipelines have to be cleaned. "These are not performance-linked contracts," says Malhotra. The contracts don't spell out exactly how sewers will be cleaned. Will it be done mechanically? Which machines will be used?

So UMC surveyed the market for such machines, drew up an inventory and printed a catalogue which they distributed to various municipalities. Here, too, they hit a wall because the procurement process is convoluted and opaque.

"When cities buy one or two machines, it is mostly a photo-op. No study has been done to see how many and where they will be used," says Malhotra.

The role of technology is also limited because of the maze of twisted lanes and bylanes in Indian cities. "Jetting machines and suction machines can navigate wide roads but not narrow ones. For that municipalities will have to work with the private sector to customize machines that suit the needs of their sewerage systems. Ahmedabad, for instance, has innovated such machines, trying them out before placing an order. But such things are not happening on scale," says Baradi.

On November 19, 2021, World Toilet Day, MoHUA launched a Safai Mitra Suraksha Challenge for a week to encourage cities to mechanize cleaning of sewers and septic tanks. Around 246 cities took part. Baradi again underlines that it is all happening slowly. Cities like Chandigarh, Indore, Puri, Kanpur have taken up mechanization seriously.

"You know, there is also the mindset. Sanitation workers are Dalits. They don't matter. This is so ingrained into the psyche of officials, to remove it is very difficult," she says.

**GARIMA SCHEME** Odisha remains the only state to seriously try and improve the lives of sanitation workers and their families. UMC has been working with the state to implement its GARIMA scheme. It has managed to place sanitation workers in the highly skilled category and raise the minimum wage paid to them from ₹258 to ₹420 per day. An additional 15 percent risk allowance is paid by the housing department. Their work hours have been reduced to six hours per day. UMC also took up the task of training sanitation workers, evaluating them and giving them a certificate. It was tough because most of them are not literate.

"Sanitation workers in most states are not recognized. Even the terminology they use is scavenger. In Odisha we have been able to grade them as sanitation workers," says Baradi.

Under GARIMA, sanitation workers are categorized into five job roles: sewer line cleaning, de-sludging, drain cleaning, community toilets and those who work at STPs and faecal sludge treatment plants. "If you are a sewer line worker or a de-sludger you are recognized as a highly skilled person," says Baradi.

Protective equipment is provided according to each category. Clothing is also changed, as and when required. Gloves, for instance, may need to be changed every two months but perhaps not the helmet.

Before recommending such equipment, UMC did a survey. They talked to sanitation workers who told them that they did not wear protective clothing because of the heat or because the clothing was much too large for their small frames. The UMC assessed their problems, and gave them various gloves, aprons and wader suits to try out.

"It turned out to be a huge exercise spanning some six months. We ordered appropriate sizes, testing the equipment in summer and winter. We created a catalogue and got cities to procure some of this equipment," says Baradi. Workers also had to be taught how to wear such clothing and how to remove it, wash it, hang it, films and videos were made to propagate the use and care of such equipment.

The Odisha government also financed Garima Grihas, places where workers can change, bathe, eat and then go home. Earlier, they would go straight home with the dirt still on them and the risk of infecting their children was high.

MoHUA has issued an advisory recommending that every city set up a sanitation response unit attached to a senior officer like the commissioner to assess whether a worker is really needed to go into the sewer or septic tank and to ensure workers are sent in with protective equipment, oxygen, and an ambulance is on stand-by. But, says Malhotra, this is not being implemented in cities.



Manvita Baradi



Meghna Malhotra

**NAMASTE AND JOBS** Aspects of the GARIMA scheme have been included by the Centre in its NAMASTE scheme for sanitation workers. Two new elements have been added — loans for sanitation workers and skilling opportunities. The National Safai Karamchari Development Finance Corporation (NSKDFC) offers loans and skilling to SHGs or groups of sanitation workers who want to buy machines and provide sanitation services. City governments will be encouraged to hire them.

Secondly, sanitation workers are offered alternative livelihoods. Malhotra says their interaction with workers in Odisha revealed that nearly 50 percent of them joined such work because they belonged to a sanitation worker family or had married into one, despite some of them being educated. "We have to

break this inter-generation cycle," says Malhotra.

"We are trying to capture their aspirations and link them to skilling programs and enterprise development programs. Once a worker starts an enterprise there is no help to run a business. So we are linking them to the National Urban Livelihoods Mission (NULM). Typically, ministries work in silos. This time all three, MoHUA, the Ministry of Social Justice and Empowerment and NULM, are coming together," says Malhotra.

The NAMASTE scheme is applicable to 500 Amrut cities, typically large cities where a lot of work on laying sewer lines is happening.

Only 68 percent of India is seweraged and most sewer lines discharge into ponds, lakes and rivers. Both Baradi and Malhotra point out that long sewer lines linked to STPs are not sustainable. Smaller STPs at colony or housing level would be better suited to cities. Even better are Frequent Sludge Treatment Plants (FSTPs) which towns and cities in Odisha are opting for. Some of these systems are being managed by SHGs and groups of transgenders in the state.

"The problem is not in technicalities. We have great designers, architects, engineers and planners. But we have terrible managers. We don't manage our cities well. It's not going to happen with a few IAS officers or state-level officials who get frequently transferred," says Baradi. ■

# Regulating election promises

## Baffling turnabout by poll panel

Civil Society News

New Delhi

PROMISES fly thick and fast during election time. Political parties seek to outdo one another in getting the attention of voters. In the heat of the moment, mostly anything goes and voters are none the wiser about how some of those promises will be fulfilled — for instance, where will the money come for that scheme or subsidy.

Can this runaway situation be reined in? Is it possible to make parties and political leaders more accountable even as election promises are being drummed up rather than later when they have failed to deliver on fanciful ideas? Does an answer to the pernicious culture of freebies lie in stricter rules at election time?

The Election Commission of India has proposed that parties spell out their promises in a form that will go along with their manifestoes. The financial implications of every promise, the commission contends, will then be known so that there is a level playing field during elections. No one will be able to promise the moon and get away with it, as often happens now.

The idea was floated by the commission on October 4 in a letter to parties and laid open to discussion, but it has met with protests that the commission is exceeding its mandate, which is to hold free and fair elections, and instead getting into how governments run.

If the commission's proposal goes through, parties would have to spell out before an election what a promise is going to cost and how this expense will be met. They will have to state whether it will be through rationalizing expenditure, non-tax revenue, additional taxes or loans. To this end, the commission has further suggested that chief secretaries of states provide the budget estimate (BE) and revised estimate (RE) to show what funds are available. Knowledgeable and impartial activists who have for long been demanding transparency in the running of political parties are baffled by the commission's proposal. They don't think it can be seriously implemented. In fact, they fear that such rules will curtail democracy rather than enrich it.

Jagdeep Chhokar of the Association for Democratic Reforms (ADR), which has been campaigning for cleaner elections and accountable parties, says: "I see this with scepticism. Many things in the commission's letter are less than clear. The entire scheme

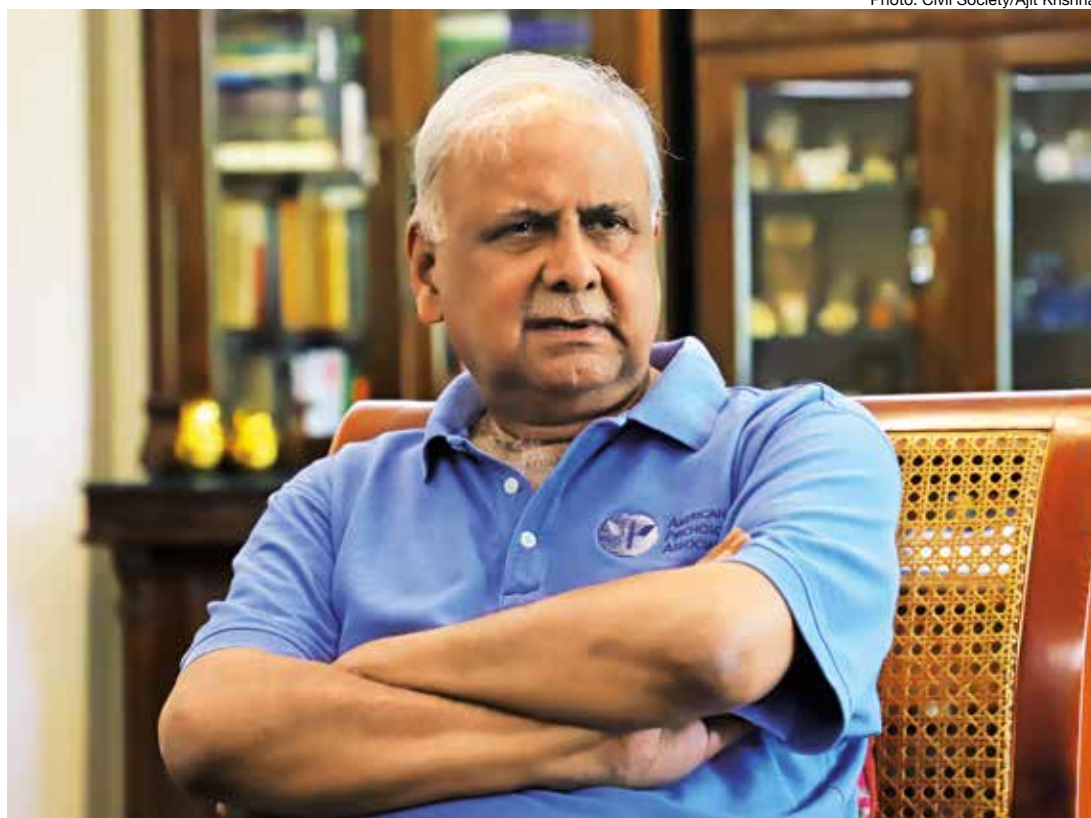


Photo: Civil Society/Ajit Krishna

Jagdeep Chhokar: 'Promises aren't only made in manifestoes'

**The electoral bonds would be a better issue for the Election Commission to take up if it is concerned about providing a level playing field.**

seems to be unimplementable and an exercise in showing a lot is being done. My apprehension is that on the ground nothing may happen."

Chhokar points out the commission had earlier shied away from taking up the issue of freebies, saying it would be an "overreach of powers." It told the Supreme Court on March 2 that the giving of freebies was a matter of policy, to be decided by the party concerned, and that it was for voters to judge whether the freebies were economically viable or not.

Chhokar quotes the commission as saying in court: "... offering any mass distribution of freebies either before or after the election" was a "policy decision of the party concerned and whether such policies are financially liable or it has an adverse effect on the economic health of the state, is a question that has to be considered

and decided by the voters of the state."

The commission said it could not regulate "such policies" which "may be taken by the winning party when they form the government. Such an action without enabling provisions in the law will be an overreach of powers."

Chhokar wonders what has changed between March and October for the commission to now say that it "cannot overlook the undesirable impact of some of the promises/offers on the conduct of free and fair elections in maintaining a level playing field for all parties and candidates."

Chhokar argues the electoral bonds would be a better issue for the commission to take up if what it is concerned about is providing a level playing field. At present, parties don't need to disclose from whom they have received political donations by way of bonds, it is only the amounts that are known. The matter is in court.

"Now, the promises made by political parties in their manifestoes are of great concern, but, according to the Election Commission, something like electoral bonds does not distort the political field at all. There are many other specifics in this letter I can point to. But, let me add, between March 2 and October 4 there was a significant event. On July 16, the prime minister talked about what is called the 'revdi

culture' of the country. I don't know if there is any correlation in these three days," elaborates Chhokar.

"But for the Election Commission to change its view from March 2 to October 4 without giving any justification for this change is surprising, to say the least, and trying to provide a level playing field only on the basis of what has been said in election manifestoes and not something as glaring as the electoral bonds raises weighty issues. Weighty is the Supreme Court's word, not mine," he says.

The issue of unsustainable freebies underlines the much larger question of distinguishing between party and government. The responsibility for executive actions devolves on the government, which when it comes into office has wide responsibilities to those who voted for it or didn't.

"So, the government that is formed as a result of the elections, is not the party which contested the election and this distinction has got blurred very, very badly. Everyone seems to assume the government is the party and the party is the government. There should be a difference between party and government," explains Chhokar.

Promises also aren't only made in manifestoes, Chhokar points out. They are made in speeches during election time and before election time. He refers to a judgment mentioned in the Election Commission's October 4 letter — *S. Subramaniam Balaji versus the state of Tamil Nadu and others on July 5, 2013*. In this, the Supreme Court says, strictly speaking, the Election Commission will not have the authority to regulate any act which is done before the announcement of the date of elections.

"This is a fundamental mistake we seem to make — that elections happen only from the date of the announcement of the election till the date of counting of votes. Election is not a process confined to those two to three weeks. Election is a process that goes on 24/7 around the year," says Chhokar.



The Election Commission wants political parties to spell out what their promises would cost and how they will be financed

"Aren't the advertisements one sees in national newspapers by governments in one state or the other in the country related to elections?" he asks. "Elections may be two years away but every action that a political party takes has an impact on the election. To assume that the Election Commission should act only after the announcement of the date, is a fallacy."

Chhokar says holding of political parties accountable is long overdue. But it can't be restricted to the promises they make at election time. Political parties should be made accountable under the law, which they aren't at present.

"I have specific instances where so-called leading political parties have got together to amend the law so that the prosecution of parties is avoided. They have come on record saying otherwise there would have been no choice but to prosecute parties. Why shouldn't

political parties be prosecuted if they violate the law? So political parties must be held accountable for all their actions," he says.

Chhokar's big fear is that there is an attempt to reduce the electoral exercise to a mechanical process. He worries about talk of reducing the expenditure on elections. So also the Election Commission's suggestion of BE and RE figures within which promises can be made.

"What we are being told is that within this limited area you can do whatever you like and then there will be elections. That is not how a representative democracy works. People choose their representatives and political parties have to represent them," he says.

"Somebody has found it very useful to use this term 'revdi culture'. And, therefore, the whole country is getting behind it. To me there appears to be a systematic attempt to undermine the entire electoral process," he cautions. ■

### Samita's World

by SAMITA RATHOR



# Calling the shots with cashew

Shree Padre  
Uppala (Kerala)

EVERY year, Vishwakeshava Kuruveri, a 39-year-old farmer, used to sell his freshly harvested cashew crop to some cashew-processing factories in Uppala. This year, too, at the beginning of the harvesting season, he sold 2.5 tonnes of cashew for ₹110 per kg to the factories.

But, after some time, the cashew factories began to dither. "We have enough stock," they told him. "We don't want to buy any more cashew."

Kuruveri realized this was a ruse. The cashew factories were a rapacious cartel.

"This is a regular ploy," he says. "The factories import cheap cashew nuts from African countries and then drive down the prices of Indian cashew." They now offered him just ₹80 per kg. "How can we break even at that price?" says Kuruveri. "We are paying ₹500 per day to our farm labourers."

Kuruveri was determined not to be bullied any longer. He went home and discussed matters with his wife, Navyashree. They decided to process their own cashews and sell the kernels in packets directly to consumers.

"Our major apprehension was whether we would succeed in marketing our cashew nuts. But we are now confident. Our nuts have earned a good name though the quantity is low. We are overwhelmed at seeing many neighbouring farmers coming to our house to pick up a packet or two of our kernels," says Kuruveri.

He admits he had to invest his own money, and then plan, organize labour and take on the additional workload of processing. But it was worth it. "We doubled our income," he says.

**FARM TO FORK** Kuruveri is a postgrad in social work. Navyashree is a B.Com graduate. The couple lived in Bengaluru for 11 years. He worked for an automobile company in the human resources department. Navyashree was a housewife.

After they realized that it was becoming tough for Kuruveri's parents to manage their

areca gardens, they returned home to help. Since then, they have been striving to improve farm productivity and income.

Areca nut is the main cash crop of Kasaragod district. Eleven years ago, the Kuruveris planted cashew on their hilltop. "We don't have surplus water for irrigation, so we thought cashew would be the ideal crop since it is rain-fed," recalls Kuruveri. They took care to select grafts of the best varieties like Ullal-3, Bhaskara and Vengurla. They opted for high density planting, crowding 850 plants on four acres. Their cashew yield is, on average, four tonnes per annum.

When he told his parents, Ganapathy Bhat Kuruveri and Draupadi Ganapathy Bhat, that he was considering processing their own



Vishwakeshava Kuruveri and Navyashree with their cashew packets

cashew they supported him wholeheartedly. The family had been toying with the idea for a while. His parents had some experience of processing. Years ago, they had minimally processed their raw jackfruit and supplied it to a chips factory in Mangalore.

The young couple got down to work. They searched for mini cashew processing machines on YouTube and consulted Manjunath, a farmer in Tumkur, experienced in converting cashews into kernels and marketing it.

They found out that small cashew processing machines weren't available in Kerala and Karnataka. Such machines were made in Goa and Maharashtra. They travelled to Pune after fixing an appointment with a manufacturer who had been making a range of such machines, from five kg to 200 kg, for 40 years. The company trained them for a week in cashew processing with machines.

The family invested around ₹2 lakh to buy a boiler, a splitting machine and an electric dryer. Scooping and peeling are carried out manually. "Since we are processing a small quantity, it is manageable. We will buy a peeling machine and moisture chamber

shortly," says Kuruveri.

Now, once a week, Kuruveri Farm processes its own cashews in-house. The farm labourers scoop out kernels and then peel them. Navyashree manages the processing and marketing. It takes them a week to process 80 kg of whole cashew which yields 25 percent of kernels.

The price they quote for their best grade of kernels is ₹900 per kg. They market and sell on social media and reach end-consumers.

"In fact, our stocks get sold within a few days after packing. Unlike the kernels you get from factories, our kernels from this coastal region are a bit yellowish. But these are sweeter and tastier. What companies sell is made from imported kernels. Our customers are distinguishing this change in taste," says Navyashree.

Kuruveri Farm sends its packets to buyers through Indian Post since they have a post office in their village. "Sometimes, when we get invited to weddings and other functions, we take a few packets of cashew nuts along and place them on a table. In no time they get sold. Most guests might have seen photos of our product. Since it is processed locally by a farming family, they buy it." The Kuruveris don't have any leftover stock.

So far, they haven't branded their cashew kernels. "This year we are running a trial. We have understood two things clearly: one, we can easily market our cashews sitting in our farm. Second, our income doubles. If we had meekly submitted to the cashew factories' dictates, we would have had no savings at all," Kuruveri says.

The prices offered to cashew farmers are very low. Local buyers aren't interested in buying local cashew. So farmers, out of frustration, are compelled to sell their crop for just ₹70-80 per kg.

Instead of being paid ₹110 per kg for two tonnes of cashew, this year the Kuruveris secured a price of ₹235 per kg. "Besides, we don't have to wait for buyers," says Kuruveri.

Farmers like him urgently need small processing machines, customized for farm-based kernel production. The Kuruveris were very appreciative of the Pune company that makes such machines to order.

Now that their venture is successful, will they buy cashews from farmers for processing? "We aren't interested. We plunged into this since Navyashree agreed to manage production and marketing. Our main priority is agriculture, which is areca nut farming," clarifies Kuruveri.

Years ago, when the Kuruveris realized that growing cashew wasn't remunerative, they had even thought of felling their trees. But since cashew is a food crop they hesitated. Now they are patting themselves on the back. ■

Contact: Kuruveri Farm (WhatsApp) 94492 93632

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# BAOLIS TUMBLE OUT OF HYDERABAD'S PAST

## For the Qutb Shahis water was power

Civil Society News

Hyderabad

**F**AR removed from its gleaming software parks and ambitious companies, a brooding necropolis on Hyderabad's periphery is a reminder of a different kind of power and glory in an era long gone by.

Rulers of the Qutb Shahi dynasty, who once took the Golconda Sultanate to great heights of globalized prosperity, chose this peaceful corner of their tumult-riven and fractious empire to be laid to rest in tombs which were immersed in nature.

There were hundreds of acres of gardens and thousands of fruit trees to soothe them in death. An assured source of water for this greenery came from baolis or stepwells innovatively connected through an aqueduct from the Durgam Cheruvu, a freshwater lake near Hyderabad.

An ecological vision was at work here. The aqueduct brought water from the lake to a baoli in the west of the necropolis from where it went to the other baolis through a series of interconnections.

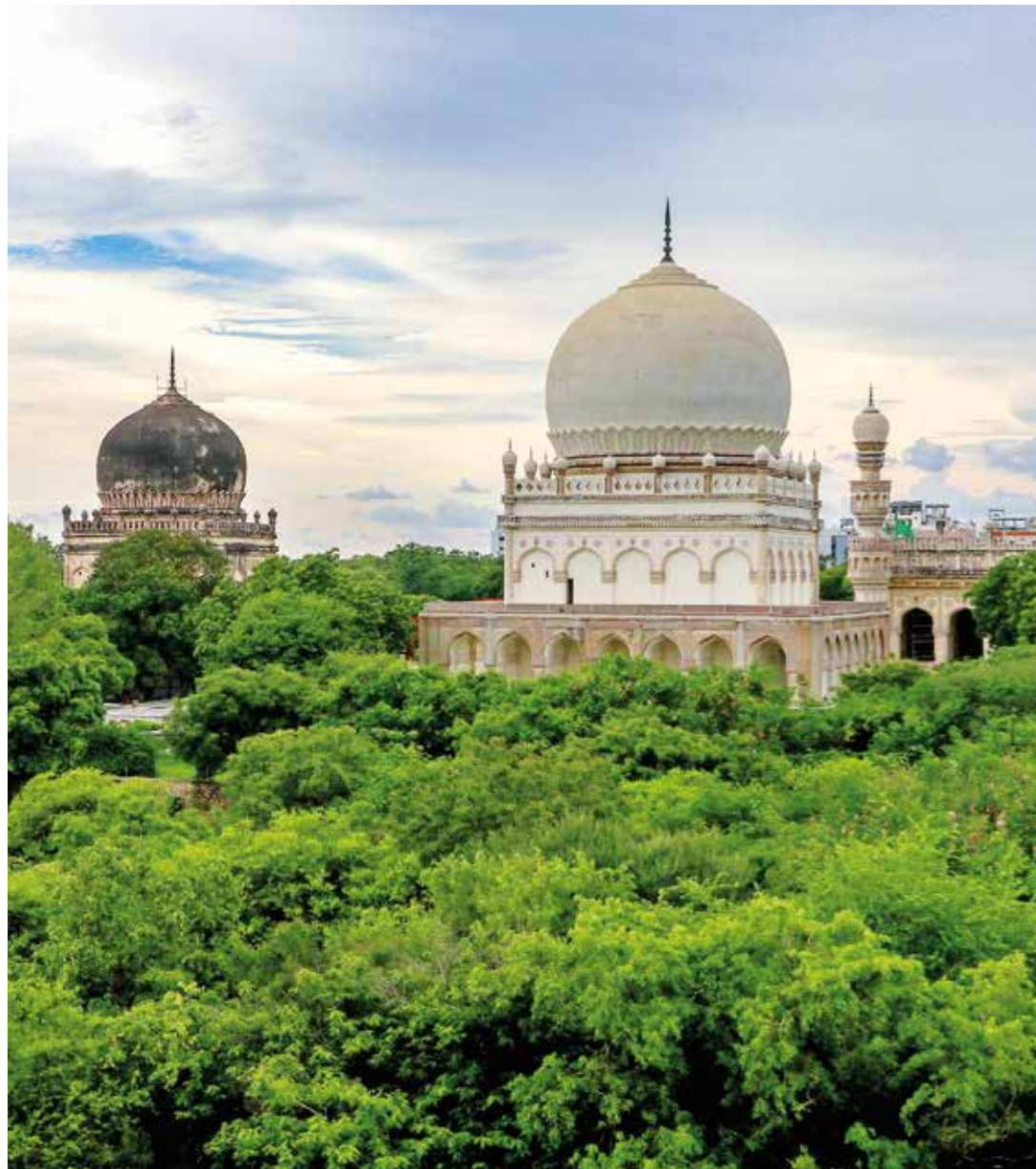
The grounds of the necropolis also sloped in a way that naturally took rainwater to the baolis and in addition, because of the gradient, ensured subterranean moisture for the plants and trees that surrounded the tombs.

The Qutb Shahi tombs have for long been a landmark in Hyderabad. But the baolis were only discovered in recent years and restored as part of a conservation effort undertaken by the Aga Khan Trust for Culture (AKTC) since 2013 in partnership with the state government — then of Andhra Pradesh and now truncated to Telangana after a division.

The project was primarily meant to address the tombs where lie buried the key members of the Qutb Shahi dynasty that ruled the Golconda empire from 1518 to 1687 and founded the city of Hyderabad to serve as a capital beyond the Golconda Fort.

The tombs had been preserved, but just about so. They were in need of repair and more sophisticated conservation that would restore their original architectural qualities.

The necropolis was to be developed into The Qutb Shahi Heritage Park that would freeze-frame history for Hyderabad, all caught up in being a modern and aggressive city. A



The Qutb Shahi tombs

resplendent slice of the past would perhaps prompt present and future generations to pause and think about Hyderabad's history. It would hopefully lead to better care of other pieces of heritage.

As conservation architect Ratish Nanda and his team ferreted around the tombs, the baolis came tumbling out of the necropolis' long-buried past. It was a thrilling surprise. Conservationists treasure such aha! moments.

In all, eight baolis were identified of which six have been revived and are now full of water. Two have not been found though records show they existed. They are a wonderful discovery for their architecture and hydrologic design.

They provide insights into the Qutb Shahis' way of life, in particular their use of water.

The discovery of the baolis has resulted in present-day benefits in much the same way as they met the water requirements of the Qutb Shahis. The baolis now collect 20 million litres of water which meet the needs of the conservation project.

Till they were revived, water for the project work had to be bought and would arrive in tankers as it does for many big consumers in Hyderabad. It was costly.

All the water in the baolis comes from rainfall. The aqueduct that used to connect the baolis to the Durgam Cheruvu, the lake which

Photos by Lipi Bharadwaj



The Badi Baoli after it was restored

was their chief source of water, has been unearthed, but it is not functional. The aqueducts linking the baolis to one another have, however, been revived, making it possible to move water from one to the next.

Says Nanda: "We had to buy water in tankers at ₹2 per litre. Labour needs water and for *chuna* you need water. Then you need to do the gardens. We didn't have an option but to buy our water though we realized that the cost was not sustainable. But last year, we used almost all the 20 million litres we collected during the rains. To be precise, we used about 18 million litres and we left some for the fish."

**WATER, WEALTH, POWER** The Qutb Shahi dynasty ruled the fabulously wealthy kingdom of Golconda from 1518 to 1687, when it was erased by Aurangzeb. Remarkably, the dynasty reigned for an uninterrupted 169 years. It was founded by Sultan Quli Qutb-ul-Mulk, a Shia from Persia. His tomb lies in the necropolis, a few yards away from a *hammam*, or bath, which was the first structure to be built with a captive baoli to serve as a source of water.

Scattered across the site are the tombs of Sultan Quli Qutb's grandson, his third son, Jamsheed Qutb Shah, and his brother, Ibrahim Quli Qutb Shah. His successor, Muhammad Quli Qutb Shah, who laid the foundations of the city of Hyderabad, is also buried here along with the kings who followed. The last ruler, Abul Hasan, was imprisoned by Aurangzeb in Daulatabad and is not buried here. There are



The collapsed state in which the Badi Baoli was found



Restoration work in progress

tombs of *begums* and commanders who fought wars for the kings.

The Qutb Shahis saw access to water as being indispensable to the wielding of power in a rain-starved and dry geography. They drew on replenishable local water sources in ways which modern economies are only now beginning to understand. They recognized that they needed water to flourish and it was important to only use as much as they could collect. For all the excesses of their reign, in this respect they showed a capacity for harmony and balance.

In death as in life, water was essential to their plans. The necropolis was under the gaze of the Golconda Fort, the citadel of the Qutb Shahis. The elaborate structures of their tombs were meant to be symbols of their status and glory.

But the tombs were not enough. An ambience of grandeur was required and what better way to provide it to a sarcophagus than by encasing it in the splendour of nature. Perpetual sources of water were needed for this arrangement.

The best laid out plans don't, however, survive the ravages of time. With the end of the Qutb Shahi dynasty, the necropolis faded in importance as was only to be expected. With the neglect of the tombs, the baolis went into disuse. Their structures collapsed and they were filled up with mud. As a consequence, the trees and gardens disappeared.

For the longest time, Hyderabad has known the Qutb Shahi tombs to be just seven tombs sitting on a hundred acres. They were protected monuments, but this didn't stop an amusement park from coming up in the late 1990s and with it the façade of the site was destroyed.

**STARTING OUT** In 2010, the state government asked the AKTC to develop the tombs as a heritage site. The Tata Trusts were ready to fund the project. The possibilities with the site interested the AKTC immensely, but Nanda took his time checking out what would be required.

Historical sites change in scale as a project



The Idgah Baoli brimming with water after restoration

progresses. It is best to assess them thoroughly before beginning. Nanda found on closer scrutiny there weren't just seven tombs but 60 monuments to be restored at the site. The agreement he signed with the state government in 2013, all of three years after the initial moves, was therefore for a much more ambitious project than had been originally envisaged. Over the years, he says, the number of monuments at the site has gone up to around 100. Of these, 45 are mausoleums and the rest are other structures integral to the necropolis.

Nanda and his team come with vast experience and enjoy rockstar status internationally for their outstanding work on restoring Humayun's Tomb and its surrounding monuments at Nizamuddin in Delhi where the conservation effort has also brought about the social and economic uplift of people living in the nearby Nizamuddin Basti. The *basti* was earlier just a neglected slum overrun by the drug trade. Equally outstanding has been the transformation of Sundar Nursery in the area.

**URBAN MODEL** The AKTC's role in Nizamuddin is essentially over. With the Qutb Shahi tombs, there is the prospect of developing another iconic site which is at the core of the identity of Hyderabad. People visiting the tombs will be able to experience heritage by way of recreation. The project is also better suited to serve as a replicable model for conservation elsewhere in India.

"We like to do urban parks and there was real potential here for heritage and ecology to

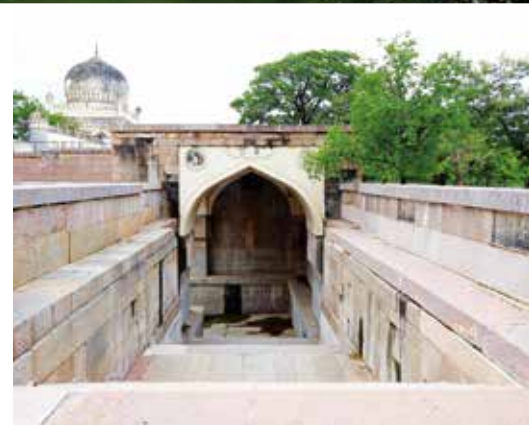


The state of the Idgah Baoli when it was found.

go hand in hand. Besides, it is a site of international significance. The Golconda Fort would have been too big, too complicated, not a park, too much archaeology. There was no other site to consider and we looked at many. This would have global impact," he explains.

There are visitors who come in a dribble to the Qutb Shahi tombs. When the project is complete, Nanda believes their numbers will rise exponentially. The tombs will finally be such a significant landmark that they in themselves will be a reason to visit Hyderabad. This was the experience with Humayun's Tomb and Sundar Nursery in Delhi where the number of visitors rose from 160,000 to two million a year.

"And I think that's what is going to happen at Qutb Shahi. It's going to become a magnet and an anchor. People will go see it and then see Golconda, the Charminar, and everything else. It is going to create that critical mass. The second thing is we are going to plant 15,000 trees out of which we have already put in 10,000. It's going to become a green ecological



The restored stairs

hub which every city needs, not only Hyderabad. And then, of course, there is pride in the community," says Nanda.

"It's a major restoration for Hyderabad. It is the culture of the city which is being conserved," says Sajjad Shahid, a heritage lover whose family has a 600-year association with Hyderabad.

Shahid has helped AKTC decipher the evolution of the site and its significance. "Interest in local culture and history is being rekindled. The Deccan has always been more vocal about its regional identity," says Shahid whose support and deep knowledge have been important for the project.

The opportunity with the Qutb Shahi tombs goes much beyond the footfalls. The project can serve as a conservation model for other cities. Urban areas across India have such opportunities to link their present to the past and use heritage for urban transformation.

Explains Nanda: "Our prime objective is to present a model. What was being done at Humayun's Tomb-Nizamuddin in Delhi was

not considered a model for all of India. The Hyderabad project is a model of how conservation can lead to an improved quality of life, how our heritage is an economic asset that can be leveraged and is, at the same time, a model of sustainable development."

The choice of a project in Hyderabad was important for another reason as well. The city is a hub for the Aga Khan Development Network in India. The Aga Khan Academy has been set up here. The Aga Khan Health Services has a team working out of here.

**REVIVING BAOLIS** Can the restoration of the baolis be a model for the revival of similar traditional water harvesting structures elsewhere in the country?

"It is a model for all of India. Across the country there are any number of water systems being revived. The rural employment program is providing unskilled labour. Ninety-nine percent of our traditional water systems are not working because they are silted. We removed truckloads of rubble from the baolis here. The rubble was reused because we are a zero-waste project," says Nanda.

The methods used in Hyderabad could well be replicated in villages and cities to revive tanks and stepwells that have been lying defunct. To build a new tank is expensive but to revive one and improve its efficiency requires more skills and technique than capital investment.

A baoli's revival can be more complex than that of a tank because architectural, topographical and hydrological intricacies are involved. But the restoration work undertaken at the Qutb Shahi tombs shows what is possible if appropriate expertise is used.

"You need a historian, an architect and an engineer. You need someone who understands how water flows — a hydraulic engineer or a geotechnical engineer," says Nanda.

A baoli is really a building that goes into the ground. When baolis collapse, they get filled up with mud. What else can be done with a hole in the ground? They then get built on or forgotten. Reviving them can't be done either because structures have come on top or there isn't the expertise and awareness available.

Says Nanda: "There were 100 stepwells in Delhi at the turn of the century. Now just 10 or 12 are left. They have all been filled. Some in front of my eyes. When I was a student documenting the Kotla Mubarakpur baoli it was filled up and so was Aurangzeb's baoli. Buildings were made on them for their real estate value."

**GARDENS AND AQUEDUCTS** At the Qutb Shahi tombs, there is the Badi Baoli, Idgah Baoli, Western Baoli, Eastern Baoli, Hammam Baoli and the Bagh Baoli. Of these, the Badi Baoli was revived first for the purpose of conservation and has served as



The hammam which was restored



The Eastern Baoli as it looks now

a demonstration model.

"It took us three years to fix the Badi Baoli and the Tata Trusts funded it. For the other five baolis we got \$160,000 from the US Ambassador's Fund for Cultural Preservation. We put in 50 percent of the money ourselves," says Nanda.

Both the Bagh Baoli and the Badi Baoli are elaborate structures. Bringing a baoli back into use is fraught with challenges. In the case of the Badi Baoli, there was an arcade which had been constructed later by Salar Jung. Before that the baoli was a hole in the ground. The water was pushing out the arcade because in the natural course the water would flow into the baoli. Getting the water to flow into the catchment of the baoli was a design challenge.

"Now what we have done is to divide the gardens with each baoli according to capacity.

We've put in a whole irrigation system with pumps and pipes," says Nanda.

"Originally all of them were interconnected. The Qutb Shahis took water from the Durgam Cheruvu lake to the Golconda Fort. From there an aqueduct with a connection took it towards the Western Baoli and then all the baolis were interconnected. They were probably lifting water from the Western Baoli and then putting it in the aqueducts and filling some of the other baolis," says Nanda.

First the original Qutb Shahi aqueduct was found. It was cleaned up and made operational. Then the other aqueducts, which serve as a network, were identified and restored. Now all the baolis are functional and connected to one another.

"When we want to move water from one baoli to the next we use the pump. We have aqueducts and the rainwater also goes into the

aqueduct. When we were repairing the baolis we had to lift the water and store it somewhere else so we had to make these interconnections work,” explains Nanda.

Unlike the baolis in Gujarat and Rajasthan, the baolis at the tombs are not very elaborate structures. They are mostly just dug-out structures meant to hold water. However, the Hammam Baoli, the Badi Baoli and the Idgah Baoli are more elaborate than the rest of the baolis and restoring them has been challenging. For instance, 600 cubic metres of stone had to be put back on one side alone of the Badi Baoli.

Steps, walls, ramps, arches and embellishments have had to be brought back apart from reviving the hydrological systems.

Nanda recalls: “When I went to Hyderabad, they all said to me, ‘These are the Qutb Shahis, they are not the Mughals, they don’t have any enclosed gardens.’ But we found this wall which didn’t seem to be going anywhere: it was the enclosure wall of the founder’s tomb. And then we found three enclosure walls. So, three of the biggest tombs were set in their own gardens. And the gardens had orchards and they needed water. Each of these three gardens had its own baoli. Now we were able to decipher the site.”

**NOT SO VARIED** Nanda is hard-driving and known for his pursuit of perfection. He works with a full-time inter-disciplinary team — archaeologists, architects, engineers, horticulturists. Except for the baolis, which are unique, the rest of the structures are mostly similar.

In the Qutb Shahi tombs, conservation has involved thinking about granite, stucco and ground levels. Ground levels, which had mostly been razed, had to be revived. The granite plinth had to be restored. The original stucco plaster had to be brought back. Cement which got used in earlier clumsy conservation efforts had to be removed from everywhere.

“The approach is very consistent, which is a big advantage — the quantity of work is enormous but it is repetitive in terms of approval, thinking, conservation, planning. For a very big tomb and a very small tomb, the effort is the same. The process is the same. We do these big reports so that people are able to learn from it,” says Nanda.

On the other hand, restoring smaller monuments is more expensive and time-consuming because the effort required is intricate.

At the project in Nizamuddin in Delhi, for instance, the “conservation philosophy” varied from one monument to another whether it was the Sundar Burj or the Chausath Khamba — among many others.

Nanda elaborates: “If at Humayun’s Tomb there was a red sandstone block which was slightly damaged and according to our



Ratish Nanda (centre) with team members



Photo: Civil Society/Umesh Anand

Visitors to the Qutb Shahi tombs: Experiencing heritage through recreation



Photo: Civil Society/Umesh Anand

craftsmen would not last more than 10 years, we would replace it. At Chausath Khamba each stone block was unique. So we had to repair every block of stone. At Rahim’s Tomb where people think we have redone the interiors, it’s all original. It’s really preservation — uncovering layers of cement, *jaali*, everything. Every monument needs thought.”

The experience in Nizamuddin, of course, serves well in Hyderabad. The tombs are in themselves less challenging but there is also the benefit of all the learning from having dealt with much more complex archaeological situations.

In Nizamuddin, craftsmen with traditional skills with stone were brought in from villages in northern states, bringing them a new source of employment and drawing on the fine quality of their work. In Hyderabad such craftsmen were not available and those who

worked in Nizamuddin have been used. There has been not only cross learning from one project to the next but also a transitioning of craftsmen.

The makeover at the Qutb Shahi tombs has taken more than a decade. Conservation is a slow and painstaking process of investigation, discovery and revival with many dividends. Fast moving cities can learn from their heritage to slow down a bit and think about where they are headed. Can they spend a little more time getting things right? Are they mindful enough of ecology? With the baolis and trees coming back at the tombs, there is now so much water that the project is creating an artificial lake. The tombs and baolis were for all practical purposes lying abandoned. Now they are on their way to being seen as glorious emblems of a progressive Hyderabad. ■

## Among the people



**DELHI  
DARBAR**

**SANJAYA BARU**

ON the eve of Rahul Gandhi’s *padayatra* political commentator Neerja Chaudhuri made a pertinent observation in a televised discussion. Almost every politician who has undertaken a *padayatra* to canvas support has been politically rewarded, she observed. Citing the examples of N.T. Rama Rao’s Chaitanya Ratham, Lal Krishna Advani’s Rath Yatra, Chandrashekhar and Y.S. Rajashekhar Reddy’s *padayatra* and the latter’s son Jagan Mohan Reddy’s ‘Odarpu Yatra’, Chaudhuri made the valid point that direct connect with people always helps in democratic politics.

It is, therefore, not surprising that Rahul Gandhi has been able to transform his image with his *padayatra* within days of setting out. All of a sudden, he has been able to shed his elitist image and the dynasty tag. Many, including this writer, who mocked him for his presumption that mere family inheritance would and could enable him to secure political leadership in a democratic society, have been re-assessing his potential.

While one will have to wait and see how the *padayatra* proceeds and what new tricks opposition political parties have up their sleeves to debunk him, the fact is that he has already scored a moral victory by demonstrating his direct connect with common folk. In the end, this is what democratic politics is all about.

Two factors may be contributing to the growing appreciation of Rahul Gandhi. First, the image of arrogance that has come to attach itself to several political leaders in positions of power. Second, the fact that the *padayatra* is clearly helping Rahul shed his dynasty tag and acquire the image of an underdog.

Consider the first. From Narendra Modi to Mamata Banerjee, from Arvind Kejriwal to Jagan Reddy, indeed from Yogi Adityanath to Pinarayi Vijayan, every politician in power

mimics a Tughlak. Each one of them uses public funds and institutions and instruments of state to project their image and harass opposition. Whatever their personal traits, their public persona suggests that they not only project their power but seem to thrive on it. The public often admires them from a distance and concerns of security have widened that distance, but even when they are shown connecting with ordinary folk it is within a framework of power and pelf.

More to the point, the arbitrary governance styles of almost all these political leaders diminish the citizen and create a psychological distance between the leader and the common folk. Even when they lustily cheer their leader,

party’s leadership. Be it Mamata Banerjee or K. Chandrashekhar Rao or Jagan or Kejriwal, all of them mobilized public opinion, engaged civil society and acquired political power.

At a time when the space for such democratic political activism is being curtailed, when funding of opposition political activity is under stress, when dominant sections of mainstream media have become partisan in favour of the dominant political formation, traditional Gandhian techniques of civil society mobilization have once again become necessary. The *padayatra* is one such Gandhian technique of political mobilization. While the State can intervene more effectively to restrict and restrain a *gherao*, a *dharna*, and even a



Rahul Gandhi has been able to shed his elitist image and the dynasty tag

public meeting, it finds it more difficult to step in when common folk are merely walking in large numbers. No slogans. No destruction of public property. Just a silent march.

The Gandhian silent march has gained global currency as a form of both protest and mobilization of civil society. It is the silence that empowers the mobilization. We have seen this in Martin Luther King’s civil rights movement half a century ago and, most recently, in the protest of Iranian women against the imposition of a dress code. When the Arab Spring petered out many felt despondent that the power of civil society mobilization had run its course. However, the more repressive a regime, the more powerful the effect of silent mobilization.

Rahul Gandhi has so far done well not to address rallies and make speeches. Perhaps, as Swaminathan Aiyar has suggested, he could join singing sessions and participate in non-political activity. It is not what he says that seems to matter for now, it is what he does. At a time when visual mobilization is key and the more that politicians in office are seen with the swagger of power, succumbing all too easily to sycophancy and the arrogance of power, it is the smile of a tireless silent marcher that seems to attract public admiration.

Whether Rahul Gandhi and the Congress can convert all this goodwill into votes and electoral success is another matter. That requires an organization. It would be the task of the next party president to rebuild that organization. ■

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

# Name or number?



## LOOKING AHEAD

KIRAN KARNIK

WHO am I? is a deep philosophical question, one which can take a lifetime of pondering. Humans are prone to ask such profound questions; so, after 7.5 million years of computing by the Deep Thought super computer, we have the response: “The ultimate answer to life, the universe and everything is: 42.” (Intrigued? Read *The Hitchhiker’s Guide to the Galaxy* by hilarious sci-fi writer Douglas Adams.) At a more mundane level, today I can answer the identity question, like Deep Thought, in numerals: “xxx6910” — that being my partially-redacted Aadhaar number. This gives me (and some 1.1+ billion Indians) a digital identity, which can be accessed anywhere and anytime. More important, being biometric and retina-scan based, it is unique; therefore, better than a conventional name which can — and often is — duplicated (think of how many Anil Kapoors or Srinivasans you know, leave alone Buntys and Pinkys).

This transition of identity — from alphabetical name to number — is yet to happen in day-to-day human interactions, but is the norm when interacting with machines (e.g., for digital financial transactions) or in proving identity (e.g., for entering an airport terminal). How long before we are defined and identified by a number instead of a name? Is “xxx3269, meet 6910” going to become the norm for introductions in a few years?

For many a human-to-machine transaction, there is a second factor of authentication (SFA), which provides an assurance of additional safety and security against stealing of personal data (like an Aadhaar number). Even in human interaction, especially with strangers, a name-based identity often requires a second factor, given the commonality between names. This SFA is generally the “from”: in professional interaction, the expected response is the name of your organization; in personal and casual conversations it inevitably refers to a city or town.

The cultural ethos in India means that in most cases the expected answer to “From?” is

the name of your hometown. Thus, I have overheard countless conversations amongst strangers introducing themselves in the format of: “Koshy from Kochi, but I now work in Kolkata”, or “I am Banerjee from Burdwan in Bengal, but now living in Bangalore”. Identity is defined by name and hometown, both of which contain additional data. Encoded in the former is often caste and religion (yet important parts of identity for many) and in the latter the cultural origin, including mother tongue. SFA is particularly useful when introductions are by first name. Thus, Ashok from Ahmedabad is a Gujarati, whereas Ashok from Amritsar would be a Punjabi.

How long will these forms of identity continue in a rapidly changing social milieu? It may be many years before alphabets are replaced by numbers as names. However, with long-term migration, the second identifier —



How long before we are defined and identified by a number instead of a name?

hometown — is losing meaning: many have long left their hometown. Further, the nuclear family means that the inter-generational transmission of culture is minimal. For instance, having spent just over a tenth of my life in Maharashtra, as compared with over two-thirds in Ahmedabad and Delhi, can I claim to be “from Maharashtra”? What roots of culture or language can I claim as my identity from that state?

There are already tens of millions who are similar nomads relative to their “home” state. Of these, millions have been born and raised in a state different to that where their forefathers lived. Admittedly, many millions still go back to villages and towns in their (original) home states for major festivals or family occasions like marriages, births and deaths.

Thus, they keep their links alive and consider their new homes temporary. Yet, there are a few million — mainly urban-to-urban migrants or second-generation migrants (brought up in their new home city) — who

identify as much with their present location as they might with the home state of their ancestors.

Overall, though, cultural roots are so deep in India that traditional identities stay embedded in each person. New identities do emerge, but are accretive, being added as a veneer atop the more basic ones. Thus, the identities of religion, caste, region and language (and, of course, gender) continue to be deeper and stronger than newer ones: birth-defined identities, in most cases, outweigh acquired ones. A person may be a manager, a footballer and a resident of Delhi, but the fact that she is a Hindu, a Brahmin, a woman, and from Uttarakhand will inevitably trump the newer identities at critical junctures.

There is a churn in society: will this obliterate or render less important the birth identities? In years to come, will identities and linkages be based more on profession, interest group and voluntary choice than on inherited ones? At one time, progressive and modern states were defined by this goal of creating new, professional identities. In some ways, this was the American ideal: migrants from everywhere with diverse origins were to be “homogenized” in the melting pot into “Americans”. More recently, global trends favour creation of “multi-cultural” societies, with diversity being recognized and celebrated, rather than submerged.

In India, we seem to have abandoned the Nehruvian goal of a casteless, secular society. The identity politics of the late 1980s led to groups and political parties based on caste and religion, reinforcing these and entrenching them as identities of pride. Region or state too has become a powerful defining identity. It is unlikely that these will be replaced by new and equally strong identities emerging from a renewed idealism based on development, equity, nation-building, empowerment, and environmental concern.

Realistically, then, while acknowledging and celebrating the diversity of caste, gender, religion and region, will we overlay these with even stronger acquired and chosen identities? Will the latter become dominant? Will we package all these together within a cling film of compassion, community and caring? As technology drives a new and — hopefully — more equitable world, will birth identities become less important and fraternity be the watchword? Maybe a next generation identity will emerge. ■

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

# Dense city, dense flooding



## LIVING RIVERS

VENKATESH DUTTA

THE rain in September and October with unexpected, powerful cloudbursts, and the phasing out of the monsoon was unusual on many counts this year. The monsoon rain, which is usually spread over four months, was replaced with intense and short episodes of heavy downpour.

Scenes from the RBD layout on Sarjapur Road in Hoskote in Bengaluru and its surrounding areas reminded one of Venice. Dakshina Pinakini, a river that had long dried up and been forgotten by the city’s residents, was suddenly inundated, flooding Channasandra main road near the IT Park. The majority of local inhabitants was taken to safety using rescue boats. There was no electricity for around 36 hours. The overflowing river threw traffic into disarray. Many housing and commercial structures had sprung up on the bed of this river, forgotten for nearly four decades.

Similar visuals came from Lucknow — several affluent colonies were flooded for hours, and many businesses and residences suffered losses due to waterlogging. Many settlements adjacent to the Gomti river were submerged.

There is definitely a change in rainfall pattern. Rain has undeniably become intense, the onset and phasing of the monsoon has become unpredictable, and flooding is taking a more severe form. After a lengthy dry period, nature reinstates the balance by flooding. This is natural. In order to restore the land and regulate ecosystem functions, a river must flood. The monsoon has been around for a very long time, around 15 million years. Then why are floods and flooding seen as bad?

When it rains a lot, our cities are unable to cope with the resulting floods. It’s a breeze, really. You occupy the space of rivers and lakes, and the water occupies you. Even if you block the water and construct buildings above it, floodwaters will still find a way to inundate them. Green areas and lakes, and other open spaces, have been carelessly eliminated. Unrestrained and chaotic urban expansion has long been a feature of India’s emerging cities.

Every year we are losing wetlands and ponds with the ongoing expansion of cities, and the development of new urban centres on the periphery. When cities grow, they usually don’t take into account how much water is lost within city limits and along their peri-urban zone, which might exacerbate flooding problems in future. This is due to human ignorance and failure to foresee how much a city can expand sustainably, within its carrying capacity.

In most cities, colonies have sprouted on *khadar* land on the banks of the river. We are ruthlessly encroaching upon ponds and lakes and altering the natural paths of rivers and streams. All the drainage, a natural way for the water to flow, has been closed. The water now goes wherever it finds it easier to flow.

Why should we only blame the climate for this? The problem is not the flood but the persistence of flood waters for a long time. In



Several affluent colonies were flooded for hours in Lucknow

our plans to develop colonies, we have never given serious thought to the circularity of water — we have built wherever we wanted. In the process, we broke up the watershed and catchment areas of ponds and rivers. And we have not learnt from our mistakes!

Between 1970 and 2010, Bengaluru lost 79 percent of its water bodies and its concrete cover increased 950 percent. Similarly, Lucknow lost 70 percent of its water bodies during the same period. Three decades ago, there were more than 1,000 in the urban area of Lucknow alone. Shopping malls, colonies and houses were built on the ponds. We built a riverfront by narrowing the Gomti river, and established a posh colony on the terrace of the river. Kukrail river, a tributary of the Gomti in Lucknow, is a drain today.

Dakshina Pinakini, a once perennial river, has now dried up in Bengaluru. Bellandur lake, Varthur lake, and other streams now contribute to the discharge of raw sewage into what

remains of this river. In Pune too, the riverfront is expanding on the Mula-Mutha rivers. The same is the case with the Mithi river in Mumbai. The Varuna and Asi rivers are heavily encroached upon in Varanasi and are now reduced to drains. The East Kolkata Wetlands and the Rabindra Sarovar, two of Kolkata’s most important water retention and drainage zones, are in trouble as a result of the city’s unabated urban expansion.

Our emerging cities do not have adequate drainage infrastructure to deal with sudden, heavy downpours. Drains are frequently clogged due to excessive garbage, reducing the flow of sewage, and they are inadequate in size to handle the growing population. Sewerage infrastructure is overwhelmed during heavy rainstorms because of inadequate flood storage, a faulty sewage network, malfunctioning pumping stations, and general lack of maintenance. In developing most ‘affluent cities’ of the country, we took away the land of rivers, streams and ponds. We built colonies, apartments, and malls on the banks of rivers, which was reserved for nature. If we build concrete walls or embankments on the banks of rivers, the rivers cannot deposit silt on the adjacent floodplains. Gradually the riverbed rises and starts flowing above the land around it.

In just a few episodes of intense rain, clouds of trouble start hovering over our cities and towns. Water starts filling in populated areas and, on the other hand, it does not reach ponds

and lakes. When we block the routes of rivers, then during floods they will decide their own paths as soon as they get a chance.

Lakes and ponds serve as a buffer to store surplus rainwater. Many drains and water bodies were filled up to make highways and roads. The highways and elevated roads serve as a dam for rainwater, preventing the water flowing down. The tendency of town planners to avoid culverts while making highways intensifies the severity of flooding: rainwater is forced to build up, which results in a deluge.

Each community or colony can help prevent flooding by directing all stormwater into a nearby water body or natural drain. Natural drainage must be protected and restored. In places like parking lots, pathways, walking and jogging tracks, permeable ground should be developed instead of solid concrete. If we do not correct ourselves, future floods will remind us — even harder. ■

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

# A change of heart is welcome



## MINORITY REPORT

ZAKIA SOMAN

to diktats of political bosses and acts swiftly with arrests and bulldozers instead of protecting citizens' lives and properties. Being Muslim in "Modi's India" is not easy.

There seems to be no solution in sight to religious polarization with a fragmented political opposition and stifled civil society. In such a scenario any initiatives coming from different quarters are welcome.

The RSS chief raised certain concerns in his meeting with the Muslim intellectuals. These must be addressed genuinely by Muslims. Besides, there is need for Muslims to introspect about worsening Hindu-Muslim relations and think of what they can do to build bridges across communities and towards responsible participation in democratic processes.



It is good that Bhagwat is keen on a continued dialogue

While the heightened hostilities and lack of trust are an outcome of divisive politics, Muslim political leaders and conservative clerics need to accept their share of the blame. Ever since independence, they have been selectively invoking constitutional principles of justice, secularism and democracy as per convenience. Their irresponsible actions and public utterings paint the entire community in poor light and alienate ordinary Hindus. Unfortunately, there has been a total absence of robust, committed and democratic leadership amongst Muslims in independent India. The so-called Muslim leaders have remained obsessed with religious and narrow identity-centric issues. Recently the Nupur Sharma episode demonstrated how the religious leadership mobilized overnight to save the honour of the Prophet. These leaders never felt the need to save the Muslim from poverty or educational backwardness or economic distress! They never felt the need to

support Muslim women's equality and tried every trick to undermine the struggle of women fighting against instant triple *talaq!* They need to pay attention to social reform apart from building education and economic options for the community.

Referring to fellow human beings in derogatory terms such as "*kafir*" is unacceptable. Muslim leaders must understand that diversity, pluralism, respect for those belonging to other faiths are democratic imperatives in our society. There can be no place for notions like blasphemy and apostasy in a modern democratic nation. Muslims must show respect to Hindu gods and goddesses and cannot make fun of idol worship. A responsible participation in a multi-faith democracy demands shedding of certain orthodox and extremist interpretations of religion. They must highlight that Islam teaches Muslims to respect the faith of others. Besides, mutual respect, sensitivity towards each other and mutual accommodation can go a long way in building social harmony and peace.

India badly needs a societal response to hate and polarization. Political parties seem focused only on electoral calculations and social harmony does not appear to be a priority. Unfortunately, both the major national parties have deployed religion to further their political ends rather than work for harmony. The Shah Bano episode, demolition of the Babri Masjid and construction of a grand Ram temple in Ayodhya demonstrate how both the Congress and BJP have politicized religion for political purposes. In the process, thousands of innocents have lost their lives, our social fabric has been torn apart and secularism has become a maligned term.

The RSS chief has given calls for Hindu-Muslim dialogue, social harmony and the Constitution being sacrosanct at various fora. And yet the onslaught of mob lynching to genocide calls has continued unabated. It is evident that these violations are happening under the BJP government. It cannot be denied that nobody from the RSS-BJP speaks out against these atrocities. There are no steps taken by the ruling establishment to address the sense of fear and alienation amongst Muslims and towards halting the onslaught.

There is need for the RSS-BJP to shun Hindu nationalism and instead embrace civic nationalism rooted in the Constitution. All Indians are equal and must be accepted as equal irrespective of religion. Without these corrections our slide into civic discord will continue. ■

Zakia Soman is a founder-member of Bharatiya Muslim Mahila Andolan, a mass organization of Muslim women in India

# LIVING

FOOD | TRAVEL | REVIEWS | PRODUCTS | GIVING

## The *sattvic* meal

### ISKCON's Higher Taste offers a Vedic menu

SUSHEELA NAIR

LIKE any global city, Bengaluru offers a range of flavourful gourmet dining options. But Higher Taste at ISKCON is significantly different. It is India's first *sattvic* food restaurant, offering unique and delicious dishes. Eating at Higher Taste is a heritage culinary journey definitely worth taking.

The master chefs at Higher Taste have conjured up a rare dining experience offering a plethora of flavours, textures and seasonings in a range of dishes culled from across India. Some of the Higher Taste dishes date as far back as the Chola dynasty. The spices are freshly ground every day and the food is prepared keeping Vedic customs in mind. By introducing local, national and international food in their menu, other restaurants in Bengaluru are rediscovering *sattvic* cuisine too.

"Every dish consumed here is first offered to Lord Krishna and thus in effect, what you consume at Higher Taste is *prasadam*. *Sattvic* food helps in elevating the consciousness and the overall transformation of a person. The impact of *sattvic* food is profound," says H.G. Ratnangada Govinda Dasa, Head-TSE, ISKCON Bengaluru. He recalled how Srila Prabhupada, Founder Acharya of ISKCON, succeeded in persuading some hippies in New York to abstain from drugs through *sattvic* food. He brought about a transformation in their lives and they became his followers.

To the uninitiated, *sattvic* food conjures up visions of bland, boring vegetarian food, sans onion, garlic, mushrooms, caffeine, and, of course, minus fish and meat. Traditionally, *sattvic* food was limited to temples serving only local items relating to rice preparations.

*Sattvic* cuisine is a diet based on fresh vegetables, fruits, legumes, lentils and pulses, milk, ghee, honey, jaggery, wholegrains such as rice, wheat, oats, millets and nuts and inspired by Ayurveda. *Sattva* is a Sanskrit term that is generally translated as balance of harmony. The Vedas define *sattvic* foods as being juicy, wholesome and pleasing to the heart, thereby providing nourishment for positive vitality.

Some foods that a *sattvic* diet recommends avoiding are indeed unhealthy like candy,



Higher Taste offers a unique dining experience

**A *sattvic* diet is high-fibre, vegetarian and low-fat. *Sattvic* food uses pure ingredients and vegetables that won't induce *tamas* and heritage recipes.**

sodas, processed food like chips, frozen meals and white bread. *Sattvic* food excludes animal proteins, fried foods and white sugar. Dairy products that are of high quality may be consumed in moderation. Microwaving food and frying also renders it *tamasic*. What makes

*sattvic* food so unique and pleasurable is that all dishes are prepared fresh. Leftover food is never served or consumed.

A *sattvic* diet is high-fibre, low-fat, vegetarian and conducive to a balanced and harmonious life. *Sattvic* food uses only the purest ingredients (no eggs, onions, garlic, asafoetida or caffeine), vegetables that won't induce *tamas* (inertia) and freshly-ground spices in recipes that strictly adhere to age-old tenets. A *sattvic* diet is high in micronutrients. Ayurveda believes that *sattvic* food could be responsible for longevity, strength and a healthy mind. The aim is to increase the duration of life, purify one's existence and give strength, health, happiness and satisfaction.

We start our meal with the Kesar Sikanji, a

Continued on page 26

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lemonade infused with saffron and slivers of dry fruit. It is a refreshing start to the buffet. For crispy starters, we dug into the Palkatti Varuval — strips of *paneer*, marinated in a tangy masala and deep-fried to exceptional crispness — and delectable golden fried Vazhaipoo Vada made from banana flower, *dal* and traditional spices. We also savoured Potato Milagu Fry, a yummy potato fry tossed with Chettinad spices, crushed pepper corn and curry leaves.

This was followed by the main course comprising Raja Bojanam, a ghee-rich peppery curry of almonds, cashews and pistachios, and Vetrilai Thakkali Saatham, a heavenly rice preparation with a rare blend of betel leaf and tomato. The chefs also rustle up international dishes like pasta with red sauce, and American Chopsuey sauce.

Chefs at Higher Taste have delved into North Indian culinary traditions to conjure up dishes like Dry Fruit Tehri Rice, a saffron flavoured Lucknow pulao, luscious with dried fruits, and Jafrani Kofta, *paneer* ovals stuffed with nuts, enveloped with a rich and creamy cashew-based saffron-flavoured gravy, served with breads like Benarasi Paratha, a juicy vegetable stuffed *paratha* and Hariyali Kulcha, stuffed with greens and vegetables. Other delicacies include the delectable Kabulistan Biryani, an Afghan-style rice with tandoori cauliflower and potato.

We moved on to some delightful desserts, delving into Higher Taste's signature Elaneer Payasam made with coconut milk and lots of soft tender coconut and served chilled. The Paan Ice Cream is actually a whole *paan* that is ground and then blended with the ice-cream mix and set. It is divine and doubles as a palate cleanser, mouth freshener and a digestive. There were other mouth-watering desserts like Sunehari Halwa (made from corn) and assorted pastries.

"We have adapted to the changing taste of the customer over the years, especially to suit the palate of the millennials. Traditional food is also served in a modern restaurant space. Fine porcelain crockery is used to ensure the millennials have comfortable dining here. Modern unique presentation of the food laid out at the buffet with miniature serving portions for many preparations are presented so that each guest can try the maximum number of dishes.

We have adapted the *sattvic* style of cooking to suit multiple regional and international cuisines which has resulted in an exhaustive buffet of more than 60 preparations," says



Regional and international dishes are freshly cooked



Dosas, chutneys and poha



Food served in tiny pressure cookers

Arvind Chowdhury, co-founder of the restaurant. The buffet has everything for everyone in the family right from *sattvic* pasta to traditional curd rice and lemon rice in mini pressure cookers. Live pizza and pasta counters and ice-cream counters are a big hit with kids and adults. Sri Sri Ravi Shankar also alludes to the idea that a *sattvic* diet is one that is conducive to a balanced and harmonious life. The manner in which it is prepared is as interesting. The *sattvic* food is cooked using steam produced from environment-friendly boilers using briquettes (bricks of compressed sawdust and ground groundnut and coffee shells). This articulates food preparation with both therapeutic and environmental concerns.

This high-energy vegetarian food which increases the *prana*, the subtle life force in the body, is said to be clean, wholesome and known to promote harmony and positive thinking. Cooked food consumed within three to four

hours of preparation is also considered *sattvic*. If you follow a *sattvic* diet, you will ingest foods that are light and healthy and ideal to maintain the balance and harmony of your body. This simple food has no extremes of taste — neither too sweet, nor too salty or spicy.

The perception that *sattvic* food is generally insipid has changed with the changing times. Now it is an integral part of the new health trend in India, besides yoga and meditation. Today's emphasis on a healthy lifestyle and the pressure of looking good and staying fit mean that dining out has to be as nutritious and environmentally responsible as it is great-tasting. More and more people are adopting natural eating and *sattvic* vegetarian food. Now there are restaurants specialising exclusively in *sattvic* gourmet cuisine.

The pandemic has made people realize the goodness in a *sattvic* diet. People are becoming increasingly conscious about their immunity and hence curious about the *sattvic* diet. Consumers are adopting a healthy lifestyle and choosing pure and natural ingredients. The change in behaviour is a welcome move because *sattvic* food helps build immunity and keeps harmful problems at bay. The rise of restaurants dedicated to *sattvic* gourmet cuisine shows its growing popularity. ■

## Whizz down snowy slopes

JEHANGIR RASHID

FOR winter sports lovers in India and abroad, there is good news from snowy Kashmir. Sonamarg in Central Kashmir's Ganderbal district is being primed to rival Gulmarg, Kashmir's premier destination for skiing. It is getting a boost with more hotels and facilities of global standards.

The picturesque health resort of Sonamarg, located along the banks of the Indus river, used to be out of bounds for locals and tourists in winter due to heavy snowfall at Gagangeer. A few skiers would turn up but, by and large, it didn't attract many ski lovers. The construction of the six-km Z-Morh tunnel is going to completely change that.

"Work on the construction of the Z-Morh tunnel is in the final stages and it is likely to be thrown open by or before November 15. Once the tunnel is opened, Sonamarg will be much more accessible to tourists. This means that this famous health resort can be added to the itinerary of tourists visiting Kashmir in winter," says Rauf Trambo, president of the Adventure Tour Operators Association of Kashmir (ATOAK).

Trambo says two ski drag lifts have already been set up at Sonamarg. Just like in Gulmarg, many events connected to skiing will be held here which will greatly bolster the sport in Kashmir, he said.

"In the past snowfall used to cut Sonamarg off from the rest of the world. The Z-Morh tunnel will bypass areas where there is heavy snowfall. So there will be no connectivity issues. The mighty slopes are perfect for hosting skiing and hopefully people will arrive in large numbers to enjoy this sport," said Trambo.

He also said that different disciplines of skiing like alpine skiing, Nordic skiing, ski mountaineering, back country skiing and snow shoe skiing can be easily organized at Sonamarg in due course. Tourists will have multiple options.

Fazlul Haseeb, director of Tourism Kashmir, said that his department was trying its best to place Sonamarg on the adventure tourism map of Kashmir. "I believe that we are on the right track. Hoteliers in Sonamarg have already announced packages for tourists. Ski drag lifts have been set up and we are all set to host ski tourists. In the near future we can introduce different skiing courses at Sonamarg as we are doing at Gulmarg," said Haseeb.

He said they were also looking at international tourists and trying to ensure Sonamarg's hotels and facilities met global standards. "We are trying to add more tourist



Photos: Civil Society/Bilal Bahadur

Sonamarg is emerging as the new skiing destination



Ski drag lifts have been set up and different types of skiing activities are being organized

spots on the winter tourism map of Kashmir. We are on the job to improve facilities at Pahalgam, Doodhpathri and Yusmarg. Once facilities are developed, a new dimension to tourism will be added," said Haseeb.

Mohammad Abbas Wani, president of the Winter Games Association of Jammu & Kashmir (WGJK), says that last year skiing was introduced in Pahalgam.

"Drag lifts for skiing have already been set up at Pahalgam and the process for setting them up at Sonamarg is on. Basically, visitors who come to Gulmarg for their honeymoon or

for a vacation do a little bit of skiing. I think Sonamarg and Pahalgam will be abuzz with skiing this year," said Wani.

He said that some schools in Mumbai are interested in their students learning skiing. So they have been sending students to Gulmarg in the winter over the past few years.

Trambo says that ice hockey has also picked up at Gulmarg. "The government wants to utilize the mighty slopes of Aru at Pahalgam as ski slopes. Once this is done, Pahalgam and Gulmarg will both be winter sports destinations in Kashmir," said Trambo. ■

## Serenading a visiting owl

RAHUL RAM



A MAGICAL thing happened on the night of October 3. I got a call from a neighbour that there was an owl outside her door. It had not moved for a couple of hours and she thought it might be injured. Could I help? I had absolutely no idea what to do...so I thought for a bit and figured: maybe if I take a sheet and try and put it over the owl, I might be able to pick it up, take it out from the stairwell and see what happens.

I called a couple of people to see if they had advice and could send a rescue team if required. Bahar Dutt, who is the go-to person in Delhi for snakes, responded almost immediately, while I was walking to the neighbour's. She warned me that I might actually hurt the owl's wings using the sheet, and also that owls can bite quite hard, so I should watch out! Get gloves, she suggested.

Gulp! Anyway, I reached the spot and found the owl huddled in a corner. It looked like a barn owl, and covered when I approached. So I sat down on the stairs in front of her/him. I tried to make soft hooting noises, but they sounded totally unconvincing! So I whistled a song softly. I whistled "Raate Musafir", a song from *Gulaal*, which I had sung for the film. It seemed appropriate. In about a minute or so, the owl opened her eyes wide and regarded me intently. Then she walked right up to me, and then past me, brushing past me, to sit on the steps behind me.

I continued whistling softly. She flexed her wings, which were a beautiful mottled brown, and hopped up to the railing but couldn't get a grip, so hopped back to the other side of the stairwell, from where she could see the skies. And then she just took a few steps and quietly flew into the night!

My Bengali mother would have regarded this encounter with a "Lokkhi'r paincha" (Lakshmi's owl...the *vaahan* of Goddess Lakshmi) on the night of Nobomi (the ninth day of Durga Puja) as an extremely auspicious event. The barn owl features in all the Durga Puja idols, as do the lion, swan, mouse and peacock (the *vaahans* of Durga, Saraswati, Ganesh and Kartikeya, respectively). Nobomi also happens to be my mother's *jonmotithi* (birthday according to the traditional calendar of Bengali Hindus), and the family remembers her specially on this night every year.

I have seen barn owls before, but never from so close. Barn owls and the spotted owl are two species of owls that have adapted to city life in India. Barn owls often nest in inaccessible ledges in relatively tall buildings, and can be seen flying at night. Spotted owlets are much more commonly seen, as they emerge during daylight and make a racket! Spotted owlets nest in holes in trees.

I'm sure there are other species of owls present in Delhi, but I have never seen them. It's quite amazing that these wondrous creatures continue to persist in a city that is becoming increasingly polluted, and loud and all concretized, but then that is the wonder of Delhi — that, thanks to still extant greenery and the Yamuna, we have over 200 species of birds spotted in Delhi. In my neighbourhood, a half-hour walk on a routine day can result in my seeing over 20 species of birds! ■



## A bird listing in Sanawar

BHARAT DOGRA



LAWRENCE SCHOOL Sanawar, described by its headmaster, Himmat S. Dhillon, as "arguably the oldest co-educational boarding school in Asia, if not the world", celebrated its 175th anniversary in the first week of October. While the celebration had several sides to it, one contribution that will be remembered for a long time is a beautiful book, *Familiar Birds of Sanawar*, brought out by the students and teachers together and published formally by Sanawar Nature Club.

Many former students, several in leadership positions (known as Old Sanawarians or simply OS) have also contributed much to this book, rekindling their own memories of the gentle denizens who afforded them so much joy during their school years.

As many as 62 birds greet us in the pages of this colourful book, and there are interesting details about each one. The art work (in the form mainly of sketches of birds) contributed to this book by students is particularly eye-catching, not to mention the several beautiful photographs.

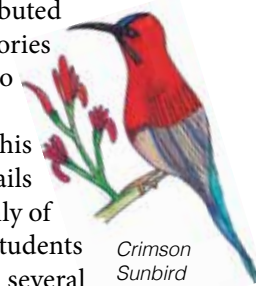
This kind of initiative which involves students closely over several months in the world of birds can bring them much closer to nature. Just like Sanawar (which is located in the lap of the lower Himalayas, quite near the famous hill resort of Kasauli), several other boarding schools are also located in areas with a rich diversity of bird life, and they may be interested in somewhat similar ventures.

While we should celebrate the beautiful world of birds, we cannot and should not turn our gaze away from the many threats faced increasingly by them; to do so would be to fail in our duty towards them. The most obvious threat relates of course to the ruthless axing of trees, much of which is avoidable. Each tree axed means loss of abode for so many birds.

Then there is the big threat posed by chemical pesticides, and in this case the threat can be even more serious for butterflies than for birds. Such threats should also be included in the studies of birds that students take up, and they should be encouraged to suggest various possible ways of preventing, checking and reducing this harm.

Such an exercise would take students to the real challenges of conservation, and equip them with deep understanding of the bird world. This process can be further helped if students are encouraged to interact with local rural communities and benefit from the rich indigenous knowledge of birds and even folklore related to them. It will be interesting to know what they learn from farmers and from village elders regarding birds.

Such studies can no doubt lead to many useful and interesting books, but in addition they can prepare several students to fulfil important duties of conservation as they grow up — the kind of much needed conservation which is also linked to real-life needs of people and communities. ■



Crimson Sunbird



Grey-Winged blackbird



Verditer Flycatcher

### RESCUE ANIMALS AND FIND HOMES FOR STRAYS

If you live near Panipat you can help rescue animals by working with NayiPehal Welfare Society. The NGO has over 50 volunteers across Panipat who carry out first-aid for stray dogs and rescue injured animals. Registered in 2015, NayiPehal is currently trying to establish a dedicated animal hospital. They have, thus far, rescued over 5,000 animals and found homes for around 140 stray dogs. In winter NayiPehal distributes blankets to the homeless. Their volunteers collect stationery and clothes for children from an underprivileged background and they also conduct awareness workshops on animal welfare. <https://nayipehal.in/> | [info@nayipehal.in](mailto:info@nayipehal.in) | +91-903-495-9965 / +91-805-319-3881

### FOR SPECIAL CHILDREN, LESSONS IN FREEDOM

Sparsh is an NGO which helps children with special needs especially those from low-income families. It provides basic education and vocational training so that the children grow up to become independent and productive. At Sparsh Special School children are taught more than maths, science and English. They learn to lead a normal life. Sparsh's Project Shakti provides education to girls.

Sparsh also supports soldiers who have become disabled and the families of bravehearts who have lost their lives. Goods are collected and sold and the money is given to soldiers and their families. <http://www.thesparsh.org/> | [info@thesparsh.org](mailto:info@thesparsh.org) | +91-783 865 4004

### SKILL WOMEN AND EDUCATE CHILDREN

Set up by like-minded corporate professionals in 2009, Kriti works with the urban poor in Hyderabad. Their focus is on the empowerment of economically vulnerable women.

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.

### FIRST PERSON

GAURANGI MEHROTRA, 23, GOVERNMENT LAW COLLEGE, MUMBAI

### 'INTERACTING WITH CHILDREN WAS A UNIQUE EXPERIENCE'

I VOLUNTEERED with Umeed as a junior coordinator in 2018 and 2019. Umeed describes itself as a youth club devoted to social service.

It works for children in difficult circumstances such as children engaged in labour, children of very poor parents, street and runaway children, special children and children with HIV/AIDS.

The NGO was closely associated with my college in New Delhi. They used to shortlist interns from among the students. That's how I came across them.

As junior coordinator my work included coordinating Umeed's



events in Daulat Ram College and teaching students between 10 and 15 years of age on weekends in GTB Nagar. The course work and study material were provided to us by Umeed. The people working at Umeed are very motivated. The

organization is like a well-oiled machine. Everything runs smoothly and their volunteers genuinely wish to make a difference to society.

We organized weekly and monthly drives to collect stationery, books and medicines for underprivileged children. I really enjoyed my work with Umeed. Interacting with the children was a uniquely fulfilling experience.

Their happiness whenever we received new books and material for them was unmatched. Umeed organizes events to create awareness like 'Run for Unity' marathons and workshops.

The NGO helps them become self-reliant and financially independent. They also help children acquire basic education and improve their livelihood opportunities and life skills. Their Project Milan skills women and Project Hunar trains women in tailoring. Many children living in Hyderabad's slums study in small local private schools. Project Disha helps pay their school fees so that they remain in formal education. <https://www.kriti.org.in/> | [contact@kriti.org.in](mailto:contact@kriti.org.in) | 8008951144

### FIGHT FOR THE RIGHTS OF DISPLACED CHILDREN

Started primarily as a resource centre for human rights in 2006, Thozhamai has evolved into a community development organization. Thozhamai, which means 'solidarity', works specifically on enhancing the quality of people's lives at Semmancherry relocation sites on the outskirts of Chennai. The people living here were relocated from slums in Chennai.

Thozhamai enrolls child workers, school dropouts and out-of-school children, especially girls between 14 and 18. It provides for their education in government schools. It has helped 185 children so far. For vulnerable groups like orphans and children of single parents, Thozhamai, with ActionAid, has designed educational material specifically for this target group. Around 96 vulnerable children have benefited. <http://thozhamai.in/> | [thozhamai@gmail.com](mailto:thozhamai@gmail.com) | 094441 51626

### LEND A HAND FOR STRAY DOGS, CATS

Started by Rachana Shah Jain and Harsh Jain after their beloved dog passed away, Raksha Foundation primarily works for animal welfare. They organize sterilization and vaccination drives for stray cats and dogs in Mumbai. With local veterinary doctors, the organization has helped vaccinate 91 animals and sterilized 113.

Their second initiative is to

support education for underprivileged children among whom they distribute stationery and books. They work with Asha Sadan Child Care Institution and Children's Aid Society to help facilitate children's education. <https://www.raksha.love/needhelp@raksha.love>

### CONNECTING CHILDREN WITH SPONSORS

Founded in 2008, Yuva Bengaluru has a force of dedicated volunteers who work to educate and mentor children from government schools, orphanages, slums and villages across the country.

Their programme, Educate India, brings together the child, school, volunteers and a sponsor to benefit children from marginalized communities. Yuva's project for vocational training, Empower India, empowers indigenous youth and women with sustainable livelihoods.

<http://yuvabengaluru.org/> | [contact@yuvabengaluru.org](mailto:contact@yuvabengaluru.org) | +91 8861262531

# 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.

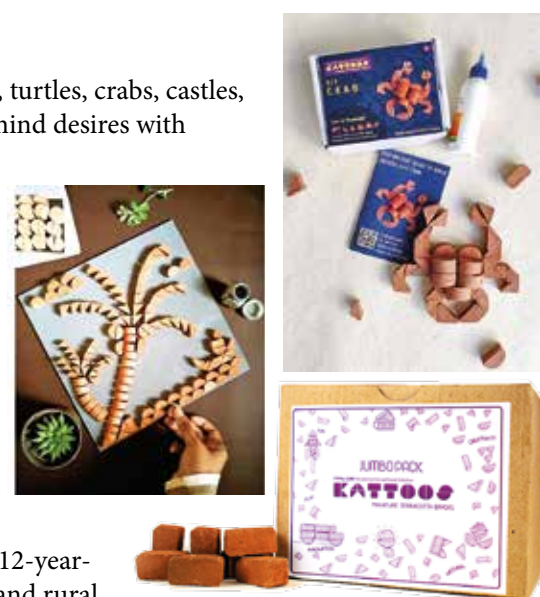
## Brick art

Make wall art, coconut trees, turtles, crabs, castles, trees or whatever else your mind desires with Kattoos' miniature eco-friendly terracotta bricks. Kattoos has a range of handcrafted do-it-yourself hobby resources, including puzzles, made from natural materials to de-stress and improve mental well-being. The Kattoos bricks come in together with glue.

Kattoos is a livelihood initiative by Headstreams, a 12-year-old NGO working in urban and rural Karnataka with women and youth from social and economically vulnerable communities. The terracotta building blocks are made by women's groups in Kolar district of Karnataka.

Kattoos is suitable for all ages and brings young and old together. Smaller boxes of bricks cost between ₹200 and ₹300 while larger boxes are priced between ₹1,000 and ₹1,200.

**Contact:** Naveen I. Thomas; email: [contact@headstreams.org](mailto:contact@headstreams.org)  
website: <https://headstreams.org/kattoos/>



## Reinvented fabric

Upcycle sells upcycled products using fabric waste. Namrutha Ramanathan set up Upcycle as a startup solution for textile waste and to make an effort to help build the circular economy. They began by sourcing their materials from local tailors. Upcycle sells Kindle sleeves, iPad sleeves, and cord holders. Their 'samosaa' pouches are unique and colourful triangular pouches for storage priced at ₹200. They also offer soft toys shaped like stars, whales, fish and hand puppets ranging from ₹400 to ₹700.

You can also buy tote bags, sling bags and clutch purses. Bharathi Akka and Bhuvana Akka stitch Upcycle's products along with Ramanathan.

**Contact:** Namrutha Ramanathan; 09663323583  
Email: [nam@upcycle.com](mailto:nam@upcycle.com); Website: <https://upcycle.com/>



## Child's Potli

Potli is a wondrous *khazana* for little children. It introduces the child to the colourful, artistic world of Indian folk art and craft with amazingly inventive do-it-yourself kits. Your child can put together puzzles of Madhubani art, block print your dupatta or T-shirt, build a tribal hut, make a kite or dress up a doll in a costume from Kerala, Gujarat, Punjab or West Bengal. All priced at ₹950. You can buy painting kits like a Kerala Mural Kit which costs ₹500.

Founded by Pooja Ratnakar, a NIFT alumnus, Potli was created to raise awareness and preserve ancient art practices. If you are looking for unique games and artistic do-it-yourself activities, Potli has just what your child needs.

**Contact:** 077019 27741  
Email: [Info@potli.org](mailto:Info@potli.org)  
Website: <https://potli.org/>



## Vegan spreads and snacks

Peepal Farm rescues animals and runs an organic farm in Dhanotu village in Himachal Pradesh. Started in December 2014 by Robin Singh, Joellen Anderson and Shivani Bhalla, Peepal Farm's main focus is improvement of animal life. They started Peepal Farm Products to spread awareness about animal welfare. You can buy vegan spreads, snacks, body care and pet care products straight from the hills.

The three founders of Peepal Farm believe in reducing consumerism and even encourage you not to buy their products and instead use their recipes posted online. But if you don't have the time for that, they assure you that buying from them means minimizing waste and packaging and engineering profits that go towards saving animals. Their vegan bar and spreads range from ₹80 to ₹220. You can also buy handcrafted jewelry, upcycled products and home accessories.

**Contact:** 9805668368  
Email: [products@peepalfarm.org](mailto:products@peepalfarm.org)  
Website: <https://shop.peepalfarm.org/>



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**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!**

