VOL. 12 NO. 7 MAY 2015 www.civilsocietyonline.com .com/civilsocietyonline ₹50

Civil Society

AYURVEDA'S TIME IS NOW

Four big moves India must make

People inspire.
Imagine what half a billion inspirations can do.

Over a hundred years ago, if anyone had told Messrs. Ardeshir and Pirojsha Godrej that they were about to found a company that would help send a rocket to the Moon, they would have scarcely believed it. Admit it, scarcely would you. If anything, they would have said that they were just making innovative products based on consumer needs. The spirit of innovation and ability to change entire product categories continues to this day. After making the first levered locks in India, even today, we make the most advanced security solutions, remaining a step ahead of the times. If innovative marketing of PUF was a first then, today's Chotukool and Eon range of refrigerators have redefined cooling. GoodKnight Advanced mosquito repellents help millions sleep well. In market, we launched India's first soap made from vegetable oils. We were also one of the first to launch a hair dye specifically suited for Indian hair. Today, Colour Soft, Nupur and Expert are some of the most innovative and leading hair colourants in the market. Our thrusters and precision components passed the ultimate test, by helping launch Chandrayaan, India's first mission to the Moon. The highly respected and awarded Properties Division creates landmarks that people want to live in. Even in the virtual space, GoJiyo.com is India's first 3D virtual world.

What's more, we have been safeguarding vast areas of mangroves, way before environmental consciousness became a CSR activity. These are just some of the 100 plus firsts that we have clocked up till now. Today, we are a conglomerate spread across 60 countries, engaged in delivering products and services in over 30 distinct categories. We have gone global via strategic acquisitions like Keyline, Issue Group, Rapidol and Kinky; and where required, have set up joint ventures with the best in the world, like Efacec.

Constant innovation has helped us remain in touch with consumer needs and close to the hearts of half a billion people. Inspiration that has helped us transform into a $4.1 billion group raring for new challenges; with a management structure that is open to new ideas. Our human capital strength of over 20,000 is a mix of experience and youth, relooking at ideas, processes, skills, execution and delivery, with just one focus: how to enrich the consumer experience and make shoppers come back for more. The Godrej way is encapsulated in a simple philosophy. One that inspires us everyday. What we like to call Brighter Living.

Godrej

This pictorial representation does not purport to be the political map of India

CONTENTS

COVER STORY

AYURVEDA'S TIME IS NOW

As the world moves decisively in the direction of integrative medicine, a great opportunity awaits Ayurveda with its complex understanding of body and mind and holistic healing. 18

COVER PHOTOGRAPH: LAKSHMAN ANAND

Contact Civil Society at:
response@civilsocietyonline.com
The magazine does not undertake to respond to unsolicited contributions sent to the editor for publication.

Civil Society
READ US. WE READ YOU.

Alternative medicine

THE connection between traditional medicine and modern drugs has always existed. Pharmaceutical companies have drawn heavily on how communities use plants for healthcare. In an unequal world, the compensation for this knowledge has been inadequate. But the past two decades have seen a growing respect for systems of medicine like Ayurveda. They are increasingly recognised as being evolved sciences in their own right — a status that is well deserved. It is no longer a mere fascination with mind-body medicine. It goes much beyond that to lines of treatment that western medicine cannot provide.

Our cover story this month looks at the four basic things India must do to nourish the foundations of Ayurveda and seize the opportunity a global interest in integrative medicine presents. At one level India sits on a huge business opportunity — but that is easily done and the boring part. A much more important aspect is the promotion of a complex system of healthcare and its use in India itself for improving the quality of life of people.

We chose Darshan Shankar to write on the subject because he has been promoting Ayurveda, Siddha, Unani and folk-healers for a long time now. He started the Foundation for the Revitalisation of Local Health Traditions (FRLHT) and it has grown into the Trans Disciplinary University. The whole effort is to bring different streams together.

Among his suggestions, Darshan Shankar proposes an Amul-like effort to promote community-based enterprises in herbals. He has suggested that Ela Bhatt and SEWA take the lead in this regard. It is a great idea because it will translate into livelihoods and promote standards at multiple levels of production.

The big challenge is to make Ayurveda, Siddha and Unani formally a part of the public healthcare system in India. In China it was done long ago with regard to traditional Chinese medicine. We need to adopt that model. Investing in research and education will be key to strengthening Ayurveda and giving it the status it deserves. Only the government can do this and it needs to act soon.

In our opening interview Leila Seth talks about the problems of the justice system. The courts reflect the all-round decline in values in society. We need more public-spirited lawyers and judges. Where do you find them? Lawyers want to make money and judges aren't all above being influenced. Yet, at the same time, people do get justice. Public interest litigation has taken jurisprudence forward. So, we have a mixed picture, but does that bode well, or should we worry?

Our business section always tries to look at innovations. We need new-age businesses. It is not just about making money but delivering value and bringing change. So when a slum in Kolkata found a drinking water solution by using solar power and smart cards and by pricing the water we felt we felt we had a story.

Finally, we celebrate Rajendra Singh getting the Stockholm Water Prize. His work in Alwar showed what can be done across the country. The tragedy is that no one listens.

Publisher
Umesh Anand

Editor
Rita Anand

News Network
Shree Padre
Jehangir Rashid
Rakesh Agrawal
Susheela Nair

Photography
Ajit Krishna

Layout & Design
Virender Chauhan

Cartoonist
Samita Rathor

Write to Civil Society at:
D-26 Basement, South Extension Part 2, New Delhi -110049.
Ph: 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)-01/3255/2015-17.
Registered to post without pre-payment U(SE)-10/2015-17 at New Delhi PSO
Registered with the Registrar of Newspapers of India under RNI No.: DELENG/2003/11607
Total no of pages: 36
www.civilsocietyonline.com

HONDA
The Power of Dreams

India's No.1 Power Products Company

Portable Generators
for all your power needs.

Ultra Silent Series

EU65i
Output : 5500 VA

EU30i
Output : 2500 VA

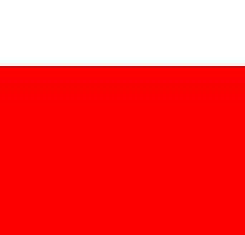
Super Silent Series

EBK 2900i
Output : 2100 VA

Handy Series

EP 1000
Output - 750 VA

Whatever your power application **Honda engines** will deliver!



GX120 (3.5 HP)

GX160 (4.8 HP)

GX390 (11.7 HP)

GX690 (22.1HP)

Portable Water Pump
get water wherever ... whenever!

WB 30X (5.5 HP)

Power Tiller
For the happy fields !

Tiller FJ500

Brush Cutter

UMK 435T UEDT

Lawnmower

HRJ216K2

Gardening Equipment
For that perfect trim !

HONDA
POWER PRODUCTS

Honda Siel Power Products Ltd.
Head Office & Factory : Plot No. 5, Sector 41, Kasna, Greater Noida Industrial Development Area, Distt. Gautam Budh Nagar - 201306 (UttarPradesh), India. Tel : 0120-2390224, 215, 219
Mobile 09794229838, 09560225157. E-mail : ho.mktg@hspp.com, Website : www.hondasielpower.com

IN THE LIGHT

SAMITA RATHOR

LETTERS

Bandhan bank

Your cover story, 'Will Bandhan be a bank to admire?' is very timely. There are ongoing discussions on financial inclusion and we are told a huge number of accounts have been opened under the Jan Dhan Yojana. I think Bandhan can educate public sector banks on how to handle new account holders and make them use banking services effectively.

Vidya Ramanathan

Bandhan is strategically placed to be a leader in the micro-industries sector. They know how to inspire confidence among small entrepreneurs. They can also reach out to middle-class housewives who want to start small businesses. Most start-ups are micro, even in the IT sector.

Shanta Kumaraswamy

Dairy farm

I was very glad to see the happy faces of cows in your article, 'Milk of kindness.' Dr G.N.S. Reddy is doing a great service to the health of our people and to soil health. I would like to visit his dairy farm, Akshayakalpa.

Nagaraja G.S.

If Akshayakalpa is over its experimental phase and is now an established model, Dr Reddy must take it to other parts of India.

Naveen Kumar Pathak

Spare the rod

I would like to comment on Dileep Ranjekar's article, 'Spare the rod, spoil the child.' He has clearly brought out the various implications of this widespread practice of beating children. He has also highlighted how parents encourage this practice by teachers and at home. But the other extreme is seen these days in elite urban schools where even if the teacher mildly reprimands a student the parent complains to the higher authorities. How does the teacher handle such a situation?

Arun Patil

City to farm

Ravleen Kaur's story, 'From city lights to rural farms,' was awesome. It's great to act against the ill effects of the chemically poisoned food we are feeding the next generation. This is a bold and brave mission.

Basavarajaiah

The farmers written about are indeed inspiring personalities. I am working for sustainable organic agriculture and making it more profitable while doing my PhD. These stories inspire me to do more for nature.

Pushpendra Awadhiya

My wife and I have taken a decision to move to my native place in Kerala. I have got a lucrative job right now. I have decided to give it up by May and work for myself. You guys are awesome, inspiring, you helped strengthen our decision. Thank you so much.

Vinod

Alternative politics

One of the most important issues in India is to meet the basic needs of all people and ensure sustainable livelihoods. This needs significant reduction of inequalities and broad-based efforts to protect environment. There is also the spectre of climate change and proliferation of weapons of mass destruction. Alongside social relations, especially gender relations have to improve to ensure the above challenges can be tackled peacefully.

Any alternative political party should therefore strive for the integration of justice, environment protection and peace issues/movements.

Such urgent concerns appear to be missing in the cacophony of various warring actions of AAP. The task of creating a genuine alternative political party is a much bigger challenge which needs to be taken up with all seriousness, creativity and enthusiasm. Any such effort should have an in-built system of complete transparency, honesty, collective work and responsibility, avoiding all problems of personality cult.

Bharat Dogra

Letters should be sent to response@civilsocietyonline.com

‘Appoint judges, but you have to find people first’

INTERVIEW

Leila Seth

AJIT KRISHNA

Leila Seth: ‘We have many judges, many lawyers who do feel the need for ethics to be preserved’

ORDINARY people worry about going to court in India. From the high fees of lawyers to the slow pace of hearings and the complexities in procedures — the entire machinery of justice seems ranged against the uninitiated litigant. It doesn’t help their image that the courts are often in the news for the wrong reasons. Questions are raised about the appointment of judges. The mother of a deceased rape victim says on TV that the Supreme Court hasn’t found the time to hear the case for a year. The Prime Minister himself has voiced concern over “five-star activists” having undue influence over the judiciary in social action litigation. The backlog of undecided cases across courtrooms from the district level upwards never seems to get smaller.

Yet it is in the courts that governments are held to account and citizens get to be heard when all else seems to fail. Many times they also get justice. There have been important judgments on the environment, women’s rights, prison reforms, child labour, school admissions and much more. The courts remain very much a pillar of Indian democracy and finding solutions to their problems should be a national priority.

Justice Leila Seth, widely admired for her values and legal acumen, has recently published, *Talking of Justice: People’s Rights in Modern India*. She deals with the role of the judiciary in securing people’s rights, especially women’s rights. At 83, her activist spirit burns strong. She eagerly seeks reform and worries about a decline in standards in the legal profession. Recently she was an active member of the Justice Verma Committee to redraft laws on rape and sexual harassment.

Civil Society met Justice Seth at her home in Noida for this interview.

The Nirbhaya case shook the nation. Yet, according to Nirbhaya’s mother, the Supreme Court could not make time to hear the case for over a year. Why?

The thing is that even after fast-tracking the case there is so much litigation in court the judges just can’t hear it. The number of judges to the number of litigants is so low that it is just not possible. So they say, appoint more judges. But you have to find people first. Then you need a whole infrastructure for it. Also, there is a whole lot of money involved so what gets emphasis first and what gets emphasis later is always a big problem.

Of course, I don’t think there will be any change so far as the conviction is concerned. I am personally against the death penalty, and prefer life imprisonment for the whole life, which is also what the Justice Verma Committee recommended, But the government did not quite agree to that and it happens that the death sentence is already there in our criminal procedure code, though only in the rarest of rare cases.

Are there issues apart from infrastructure and shortage of judges?

I think the Nirbhaya case did get priority otherwise it would not have been fast-tracked. But even divorce by mutual consent can take years when the idea was that such cases should be decided within six months. I mean, every case has a priority. People are old, dying, they don’t know what is going to happen to their property. Criminal cases normally get priority especially if the person is not out on bail. If you are out on bail then you have some freedom, which is not the case for people in jail.

In the Nirbhaya case there was special priority because the case was in the media. It had caught the imagination of the young. They forced the government to take action. This is the first time I have seen that without a political party, without a leader, young people went out there and protested day after day.

It’s very hard to say how to do it. I remember when I was Chief Justice in Himachal I made a statement in the Lok Adalat that there were 30 million cases pending all over India. And I find I still hear there are 30 million cases pending. Perhaps there are fewer cases pending in the Supreme Court and a little more in the High Courts. In the lower courts the number of pending cases is phenomenal.

We tend to litigate and not settle out of court. If civil litigants, smaller cases, would settle there would be more chance for criminal litigation to get

on. If people don't get justice on time they are going to go to the streets and that's a big fear.

So encouraging mediation would be one way out.
Well, you know there is a big emphasis on mediation and Lok Adalats. In Himachal, Justice Desai would evaluate a judge by seeing how many cases he could get the litigants to settle. Now you have a whole mediation procedure and the advantage is that there won't be an appeal because both parties have agreed.

Will the National Judicial Appointments Commission result in any relief for the common man?
The commission will have the Chief Justice, two senior judges, the law minister and two eminent persons. So it is a commission of six. It could get locked three on one side and three on the other. They have put in a clause that if two of the six don't want a particular person then the person will be out. So you can have a very good, independent judge not being able to come to the Supreme Court or a very independent lawyer not being taken in because of this.

I think having a Judicial Appointments Commission is not a bad thing because, hopefully, things will be more transparent. The process is very important when you appoint someone. You must insist on certain standards. The challenge is in the way it has been constituted.

There is huge disenchantment with the judicial system.
I agree with you. See it from the other point of view. We have grown hugely in population, in people's aspirations, in number of litigants. But the number of lawyers and judges has not increased proportionately. Where do you get a judge from? From the same society. Definitely today we have a more consumerist value system. For my generation reputation was the most important thing. We were expected to take the straight and narrow path. Today it is about how quickly you can make money, build a business, get there.

Is it possible to protect the values in our judicial system?
You can only protect it to the extent civil society helps you but you still have to take people from the same society. What are the aspirations of a lawyer? Lawyers can earn in a day what a judge earns in a month.

Would a national judicial service along the lines of the Indian Administrative Service be the answer?
This is an idea that has been floated time and again. There are difficulties. A lawyer who is living in one place and has a practice is reluctant to become a judge. In my generation, if a judgeship was offered, you felt it was an honour. But today they say we cannot manage. We have children in school and they have aspirations.

In this case it is being suggested that induction into the national judicial service begin after coming out of a law college.
The lower judiciary has the most cases and the largest number of judges. Straight from college, sometimes, after a year or two of practice, people are becoming magistrates. Now they have started giving them some kind of training. Otherwise you learnt on the job. Bhopal has a judicial academy.

In the High Court the system was you took one-third from the judiciary and two-thirds from the bar since those lawyers were supposed to be more exposed to different types of work. Slowly it became that fewer lawyers wanted to join and the pressure from district magistrates was so strong, since they had fewer areas of promotion, that it became half and half. And now I am told much more is taken from the judiciary and fewer taken from the lawyers.

So it's not as though people who come to the High Court are not getting training. It is the attitudes in society. Being a judge or a district magistrate was an extremely important thing. Now it's like, does he take money? Is he amenable? Money is not the only kind of pressure. There are other pressures too. So you go to court but you don't know if your case is going to be heard in the real sense or whether there is going to be some pressure there. In the High Court you may be sitting on a divisional bench and you don't know if your brother judge has been influenced by something.

> **'I think PIL has brought many things to the fore. It has helped raise minimum wages, find shelters for the homeless, protected women's rights...'**

Is there any move to reform the judiciary from within?
Exposure is a good thing though we often say the media is over-exaggerating things. They tend to go hammer and tongs at little things, but they do expose.

There is nothing like sunlight to disinfect. We have many judges, many lawyers who do feel the need for ethics to be preserved.

The judiciary has also played a seminal role in securing people's rights. What has been the driving force in your opinion? Is it Public Interest Litigation (PIL)?
I think PIL has done a huge lot of good for society. When it started everybody wondered what it was about? Is it a Justice Bhagwati thing or a Justice Krishna Iyer thing? They were the two people who pushed it forward. I think it has in the long run brought many things to the fore, which would not have happened. It has helped raise minimum wages, find shelters for the homeless. It has protected women's rights — how they are treated when brought to court, in prison or in protective homes to the extent of making sure they get sanitary towels.

So PIL has been a good initiative?
Definitely. It has helped to change society. Earlier, letters would come and the particular judge would read them — mainly they would go to Justice Bhagwati or Justice Krishna Iyer and they eventually found a method for it. A process for the PIL has been established.

One of the people who really pushed for it was Kapila Hingorani. She read this newspaper report about people who were in jail for longer periods than if they had been sentenced and felt she had to do something.

So you would say activism has taken the law forward?
Yes, but it has to be activism that is controlled by the court. You can't let it go haywire.

With regard to women's rights, what to you would be a landmark?
I would say the Vishakha judgment. It is an important case and it has changed the attitude towards women in the workplace. It took 16 years before the law was changed. Though Bhanwari Devi has not got justice even today.

But the Bhanwari Devi case did create awareness about the rape law?
It did and it has produced many good results. In the Bhanwari Devi case — here is a working woman trying to stop child marriage and then she is raped by upper caste men.

There was a book brought out many years ago in England called *Politics of the Judiciary* and it tries to answer the question, who are the judges that get appointed. They come from a particular (section of) society. Someone who knows what a farmer or a labourer feels like would not get appointed as a High Court judge.

A person with a particular status will see things from his or her own angle. So you would see it only as a man from a particular status of society sees it. You have to achieve a balance and hope that the people who sit on the bench, even if they have a particular status, will see the other point of view because that is what the judge is supposed to see.

You will find that attitudes differ towards women in the lower courts as compared to the High Courts and the Supreme Court. Justice Verma and Justice Anand who wrote judgments in favour of women rights both had daughters and no sons. I think there is a psychological thing about it.

But the court has still not put a system in place for harassment of women in the workplace.
No that law came in 2013 (The Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act.) They have set up a system for complaints of lawyers against lawyers. As for lawyers and judges, it is still a grey area they are trying to sort out.

What are the biggest changes you have noted in the judiciary?
Well, I think the legal profession has been much more open to social action litigation or public interest litigation. I think to a large extent judges are not as rigid as they used to be in interpreting the law. Law and justice are not always on the same side. Judges are much more open to women's rights, to workers' rights, to environmental concerns. One is worried, though, about corruption and the norm of corruption. We would have never said to a brother judge, "My son's case is before you". This comes from the value system. ■

Social Cops get the real data story

Sanjay Singh
New Delhi

PRAMILA lives in a slum in west Delhi. She built her house from the savings she made with a self-help group (SHG). But what else is known about Pramila and her family? Is there better sanitation at her home? Has the status of the girl child improved in her family? What are the illnesses she and her family suffer from? What's their income like and what are its sources?

Collection of information is the key to the success of development programmes. All the better if it can be in real time and easily accessible. Data that trickles in after a lag, as is usually the case in India, can be misleading. Social Cops seeks to set this right. Founded in 2013 by Varun Banka, 23, and Prukalpa Sankar, 23, two Indian students at Nanyang Technological University in Singapore, Social Cops uses tablets, activists and an application called Connect to figure out how schemes are doing and what people want.

"A police officer who wants to prevent crime must know where to post a constable. Similarly, the best utilisation of resources for development is not possible in the absence of data," says Banka. "You can get all the information you want on mobile phones on the Internet. But when it comes to social initiatives, very little is readily available. With Social Cops we have tried to meet that need."

Banka is from Ranchi while Sankar's family is currently based in Bengaluru but keeps shifting. They studied in Nanyang Technological University and are currently based in New Delhi.

When we met Pramila in Shiv Vihar, she, Premshila and Radha were answering questions being put to them by Anita from Deepalaya, an NGO working since 1999 with SHGs in the area. Anita was feeding the data into a tablet from which it would be transmitted to a central computer for analysis. Like Anita, there are 14 others collecting data door-to-door. While Pramila has built her house with SHG savings, Premshila has got her daughter married and Radha has plans for a micro-enterprise.

AJIT KRISHNA

Premshila, Radha and Pramila in Shiv Vihar

Social Cops uses tablets, activists and an app called Connect to figure out how schemes are doing and what people want.

"There are 200 questions that we are putting to them. The questions cover everything. By feeding the answers into the tablet straightaway, a lot of paperwork is saved. This data will provide a clear picture of the impact of the programme and the financial as well as social needs of individual members of the SHGs. We will know about gender issues, health and hygiene, and a lot more. Ultimately, the data will be used to shape welfare measures in the Shiv Vihar area," says Anita.

The two founders of Social Cops initially spent six months figuring out how government works, how people react and how the authorities take decisions. The first pilot project of Social Cops was in Punjabi Bagh in Delhi. The councillor of ward number 103 was very interested in using information technology and invited Social Cops to put their pilot to work in his ward.

Social Cops chose to do the pilot on *safai karmacharis* or municipal sweepers of the area. People were asked to rate the sweepers of their area on a scale of one to 10. The scores were matched with the attendance records of the sweepers. There was a clear correlation. The sweepers were told of how people were rating them and every month awards were announced for those who did well. The sweepers were very keen to get good ratings for their work. The result was that the attendance of the sweepers went up.

Social Cops is not the only non-profit collecting data. But it is more contemporary in its methods than the others who rely on manual noting down of information and then often feel challenged in processing the information. Social Cops has cut cost, effort and time. It uses an Android-based tool to collect and share the data and make it available for use. Crowdsourced data is valuable

Varun Banka and Prukalpa Sankar collect real-time data from the

and people invariably come forward enthusiastically. But the challenge is in the methods of collection and processing, which Social Cops tries to crack by relying on information technology.

Recently, Social Cops has joined hands with Oxfam India and collected data of over 1.4 million schools all over India and made it available online so that anyone can see and use it. You can find out the status of midday meals in schools across the country. With the use of this data the district scores are immediately available and can be compared with the state and national average. The data from the schools carries a lot of information about people's representatives, education officers, attendance, libraries, toilets and it is all online.

To raise funds for their idea, Banka and Sankar participated in competitions all over the world and won around ₹10 lakh in prize money. This became their seed capital, which kept them going for a year or so. Last year they received ₹1.5 crore from 500

AJIT KRISHNA

field and make it available online

Startups, a US-based start-up accelerator, Google India's MD, Rajan Anandan, and some others.

Social Cops has partnered with various organisations working on issues ranging from road safety to electoral awareness. Over 100 non-profits have signed up for data-sharing with them. Deepalaya and Swades are some of the prominent ones among these partners.

Groups in Ghana and the United Arab Emirates (UAE) want to replicate the Social Cops model in those countries. The word has spread on the Internet.

Social Cops has also come up with the Himsagar Fellowship, which will fund travel across the country to collect data. The emphasis is on making people data-capable. A real-time census is also planned. From road safety to air pollution to crime rates — Social Cops has a long and diverse list. For example, if one needs to buy or rent a flat it will be possible to get the profile of an area and know more than only the real estate prices. ■

Disabled women lag in higher education

Civil Society News
New Delhi

A nationwide survey conducted by the National Centre for Promotion of Employment of Disabled People (NCPEDP) on the status of disabled students in higher education in 2015 has found that such students comprise just 0.56 per cent of the total of 1,521,438. Women with disability especially lagged behind.

The survey's findings were released on April 4 at the National Convention for Youth with Disabilities 2015, in New Delhi. This is the third edition of the survey.

The survey report is based on data collected from top-notch institutions across the country in arts, science, commerce, law, medicine, engineering, business management, design, journalism, architecture, social work and hotel management.

"We had written to the top 20 colleges in each stream and about 250 institutions in total. We received responses from 150. A 70 per cent response rate is encouraging, with all IITs and IIMs making their data available to us," said Javed Abidi, Honorary Director, NCPEDP.

According to the Person with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, all government educational institutions and all those that receive governmental aid are expected to reserve not less than 3 per cent seats for persons with disabilities. However, only 0.56 per cent of seats in these 150 institutes had been filled by people with disabilities.

In terms of disability-wise break-up, students with orthopaedic disabilities comprised 46.67 per cent; those with visual impairment 32.13 per cent; those with speech/hearing impairments 5.16 per cent; and those with other disabilities 16.05 per cent.

The social work stream registered the maximum enrolment of disabled students followed by engineering, law, arts, science, commerce, business management, design, medicine, hotel management, architecture and journalism.

The IIMs and IITs, with 2.49 and 1.47 per cent of disabled students, respectively, have not only recorded higher enrolment but their response rate too is 100 per cent. "Maybe the IITs and IIMs have not much to hide as they are implementing reservations and guidelines. The private educational institutions have so far lagged behind even in terms of responses. Whether they are providing admission to an adequate number of disabled students remains a question," adds Abidi.

Out of these disabled students, the percentage of females stands at 22.70 per cent while that for boys is 74.08 per cent — which clearly indicates that female students with disabilities face more discrimination in education.

While the percentage of female students in design (65 per cent), journalism (58 per cent) and arts (45 per cent) is higher than in the other streams, the least number are enrolled in business management (11 per cent), hotel management (11 per cent) and engineering (10 per cent).

Nidhi Goyal, a disability rights activist, says, "Being a female with disability makes life a lot harder. A woman is supposed to be perfect in our society. We need to focus on the rights of women with disabilities."

Javed Abidi at the launch of the report

NCPEDP SURVEY

For disabled students, the disability units in educational institutions play a significant role. Of the institutes that responded, more than 100 had a disability unit on campus whereas more than 130 institutes have a disability policy or follow the provision of the government.

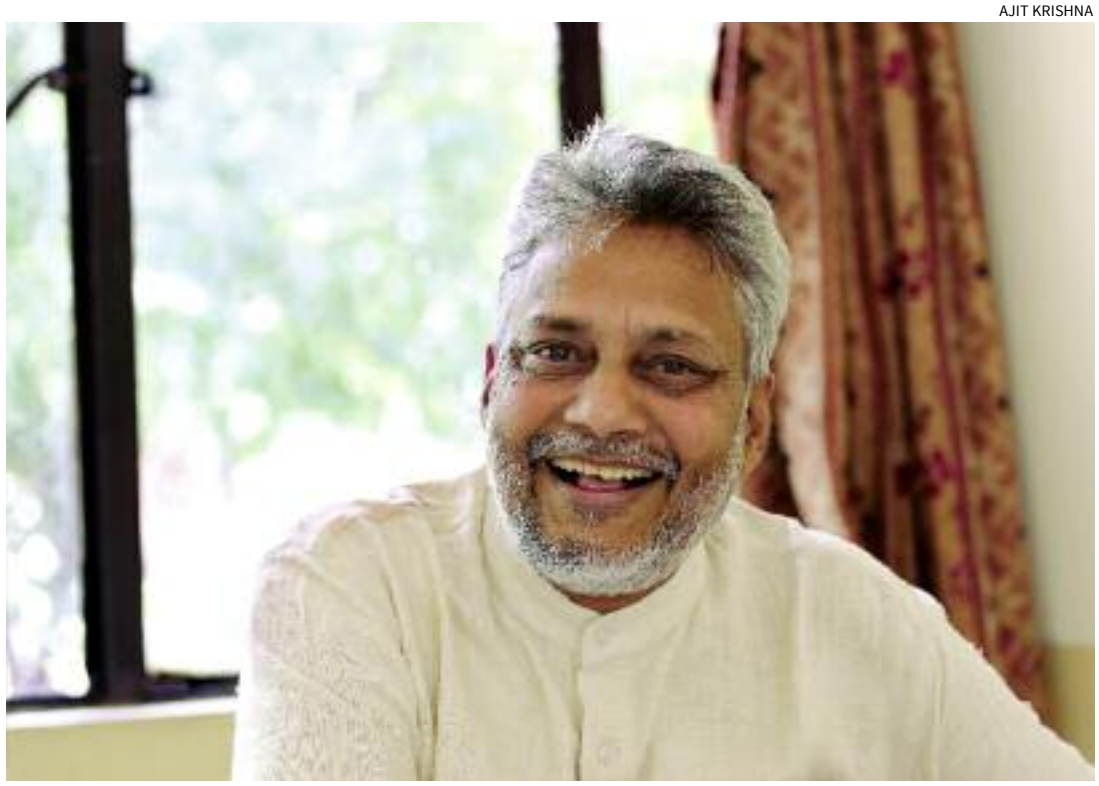
Universities like Delhi University have taken significant steps by having a vibrant Equal Opportunity Cell (EOC). This is evident from the responses of Pratishtha and Ankita of Miranda House College, Delhi University. "The administration is very supportive, I have not faced any discrimination so far, they have taken good care of all our needs," said Pratishtha, who is visually impaired. Her views are echoed by Ankita. While Delhi University and Jawaharlal Nehru University have taken significant steps, other universities need to do a lot.

In the year when, for the first time, the government sent a positive signal by including sign language in the broadcast of the Republic Day Parade, similar signals will hopefully be sent across the higher education sector to benefit disabled students. ■

‘Contractors can’t save the Ganga. Only people can’

Civil Society News
New Delhi

AJIT KRISHNA



Rajendra Singh: ‘Don’t build dams but recharge the catchment areas of rivers instead’

RAJENDRA Singh is popularly known as India’s Water Man. It is for his work in reviving rivers and traditional water-harvesting structures in Rajasthan’s Alwar district, close to the Sariska Wildlife Sanctuary.

His journey began in 1985, when as a young man he set out to work for village communities. Over these 30 years, five rivers, beginning with the Aravari which had been dead for 60 years, have been brought back to life and the water security of innumerable villages restored in Rajasthan, thanks to the efforts of Rajendra Singh and the Tarun Bharat Sangh, the organisation he founded.

A key member of the high powered National Ganga River Basin Authority (NGRBA), a regulatory body set up in 2009 by the UPA government to reduce pollution and conserve the Ganga, Singh resigned, citing differences. He has been fighting with other anti-dam activists against building dams on the upper reaches of the Ganga.

Singh was awarded the Magsaysay in 2001. Last month, he received the prestigious Stockholm Water Prize. *Civil Society* spoke to him on cleaning the Ganga and issues surrounding water availability.

What are your expectations from the Narendra Modi government’s initiative to clean the Ganga?
Before Narendra Modi became Prime Minister, he said that he was the son of the Ganga. When I heard this, my heart was filled with hope. I thought to myself that like a true son he would find the right doctor to restore the Ganga to health.

But after hearing what had transpired in the last two meetings of the National Ganga River Basin Authority (NGRBA), I began to feel let down. When the government declared the Ganga a national river, it should also have put in place a national protocol law for it.

They talk about making the Ganga a clean and free-flowing river. But they have not explained how they will do it. Cleaning the Ganga seems to be their main focus. When we try to understand how they will clean the river what emerges is a contractor and company-driven plan.

If all the work relating to the Ganga is to be handed over to contractors and companies, then I am afraid we are not heading in the right direction.

From what we understand, companies have only been requested to assist the government in cleaning the Ganga.
I still can’t understand how this will benefit the river. Viewed from one angle, it appears the Prime Minister has respectfully called for help to cure the Ganga. His appeal seems to be: my mother is ill, I don’t have money to cure her, please contribute. His message has been delivered to companies, contractors and the Indian diaspora. If you want to do good work you also have to assess what you will do with this help. Where will you spend the money?

> **‘Municipal corporations and panchayats should be totally involved in cleaning the Ganga. They are, in reality, the first tier of government and not the third.’**

In the last two meetings of the NGRBA, discussions were all about how Sewage Treatment Plants (STPs) can be built on both sides of the river. Their emphasis should be on how people can be involved. If you can’t involve people, the Ganga will not be cleaned.

So what should the government do?
In my opinion, the government should, first of all, prevent all dirty drains from disgorging into the Ganga. This government is strong, it is powerful and it has the zeal to do it.

Secondly, I am concerned about the floodplains of the river, its banks. Municipal corporations and panchayats should be totally involved in cleaning the Ganga. They are, in reality, the first tier of government and not the third. This has not been done till date.

The people living on both sides of the banks of the river should be formed into Ganga panchayats. Their job should be to supervise and monitor execution so that there is complete transparency and accountability. This work should not be left to government officials. People should be vested with this responsibility.

Fourthly, we need to augment the flow of water in the Ganga. Its catchment has around 15,000 small rivulets, 1,000 smaller rivers and around 17 to 18 rivers like the Yamuna. Altogether, there are six classified rivers. If we help recharge these rivers and increase their underground flow, this water will flow into the Ganga, increasing its sub-surface level. More water in the Ganga will improve the quality of its water.

How can the river be a free-flowing one when dams and barrages are being built?
They are dividing the Ganga into 16 ponds by building 16 barrages. But I have some good news too. In Bihar we recently led a campaign against a barrage being built across the Ganga. The then chief minister, Jitan Ram Manjhi, promptly wrote a letter to the Central government objecting to the construction of the barrage. The river is under the jurisdiction of the state through which it flows. The letter went to the Union Cabinet. Legal experts said you can declare the Ganga a national river but when the river flows through Bihar it belongs to the state. The Centre cannot impose its writ. The barrage was stopped. The people of Bihar backed us completely.

You led an agitation prior to the Commonwealth

Games to protect the floodplains of the Yamuna. But the Games village came up there and so did other structures.
Our fight was against construction on the floodplains. We did not win the case in the Supreme Court, but our efforts were not without impact.

When we began the Yamuna Satyagraha, both sides of the river had 9,700 hectares. The government gave around 6,000 hectares to various companies and so on. The remaining land can at least be used to recharge the Yamuna.

You now have an activist government, the Aam Aadmi Party in Delhi. How do you expect them to augment water for the city? During elections, water was a key issue.
Around 18 drains disgorge into the Yamuna. The deadliest one is the Najafgarh drain. The filthy water from these drains should be diverted and treated. The treated water can be used for gardening, for parks, for some domestic purposes and for industry. But don't put this water back into the river. The river and the sewer should be separated. Instead, rejuvenate the river with fresh water from its upper reaches, its catchment area.

Five types of trees, like *kadamb, peepal* and so on, should be planted on both sides of the river. These will absorb pollution and prevent erosion.

Land along the Yamuna is of three types and it should be classified — as green land, yellow land and red land. The kind of activities that can take place in these zones must be clearly spelt out. This way people will become aware of the river. Right now they see it only as a dirty drain.

How can water supply in Delhi be augmented? Do you think the Renuka Dam is a solution?
Arvind Kejriwal considered himself a water activist. He campaigned against privatisation of water in Delhi and was awarded the Magsaysay. Delhi has got a good chief minister. Many states are involved in building the Renuka Dam. They say it will augment the flow of water into the Yamuna. But this is a devious plan and untrue. When the Hathnikund Dam was built, the flow of water in the Yamuna actually declined. My advice is, don't build dams but treat the catchment area of the Yamuna. That will ensure continuous flow of water in summer to the river.

Generally, by the time the river reaches Delhi it is already three km lower.

The aquifers in the catchment area of the Yamuna are open, sub-surface and fractured so they can be recharged with small structures like check dams, anicuts and so on. Large structures will just get silted and prevent recharge of the river.

You are the fourth Indian to receive the prestigious Stockholm Award. What is the message you would like to broadcast to people in India?
This award has not been given to me but to the people whom I imbibed this knowledge from — our farmers. If people in Stockholm can discover and endorse this knowledge, why can't our people in Rajasthan or Delhi?

The 21st century is the era of water wars, they say. Complicated engineering, technology and science are not the solution. Society, with its resilience, inventiveness and innate strength knows the answer. The solution lies with the people. They can use their own strength to resolve this issue. And what people can do, their governments can also do. ■

CONFLICT ZONE

A DEADLY DELUGE

Basharat Hussain Shah Bukhari
Jammu

THE recent incessant rains in Jammu and Kashmir (J&K) brought back memories of the devastating floods that took place in the state last year. "In the dark, the rain on the rooftop not only created fear among us but made us all sit together and pray that Mother Nature does not punish us again," said 12-year-old Nagina Kouser from Bariari village in Mandi *tehsil* of border district Poonch.

Nagina lost her right leg up to the knee due to an injury caused by tin sheets during the torrential rains last year. She and her family were forced to seek support from activists and non-profits to get an artificial limb that may help her get rid of her crutches. But will she ever be able to forget the incident?

CHARKHA

Nagina Kouser lost her leg in the rains

Twenty-eight-year-old Fatima Bi was seven months pregnant and already a mother of four when her husband, Mohammed Farid, a labourer, was washed away by the devilish waters in Poonch. Forty-year-old Parveen Akhtar, who had lost her husband three months before the floods, was robbed of everything else she had by the downpour. Today, she does menial jobs to feed her three children.

And the list of such heart-breaking stories is endless.

All these women come from a region where life has never been easy and with unseasonal rain causing floods and destroying whatever little there is by way of development, it is going to be a tough road ahead. Located 250 km from Jammu, Poonch is a border district surrounded by the Line of Control on three sides.

With the floods damaging roads and other pathways, fetching water is going to affect women's health even more.

This district grabs media attention whenever there is a ceasefire violation but otherwise Poonch remains missing from the larger picture. Even during the floods, not much attention was given to Poonch which was the worst-affected district in Jammu region according to the assessment by the government. There was massive devastation of public and private property, and loss of over two dozen lives.

In a state where women have less freedom and mobility to look for alternative sources of income, the effects of such an event should be examined through the gender lens as, even before the floods, these women — irrespective of age — were carrying the onus of the water crisis over their heads, literally.

Women from various villages in Poonch, especially in Mendhar *tehsil*, had to walk a distance of two to eight km on hilly terrain daily to fetch drinking water for their families and livestock. It impacted their health, especially causing spinal and vision problems. With the floods damaging roads and other pathways, the drill is going to affect women's health even more in the coming years.

For 60-year-old Sarwar Jahan of Keerni village, the day would begin with feeding her cattle and goat before turning to household chores. She treated her livestock on a par with her children but the entire lot was killed, leaving only one injured cow, during the floods. "We were completely unprepared. My family made every effort to save the animals, but was no match for the floodwaters. We had just two cows. One died and the other is gravely injured. Our one goat also died. Our house, livestock and fields are entirely gone," says her son, Nazam Din Mir, a social activist in the region.

His worry reflects the fact that livestock rearing and agriculture contribute largely to the livelihood of the villagers with women playing major roles. In the state, women conduct 80-85 per cent of the agricultural operations, either alone or with men. But with floods destroying 28,369 *kanals* of land in Poonch alone, with no estimated figure of loss of livestock available, a large population of women involved in agriculture and livestock rearing have been left bereft of their contribution to the household. They have been left jobless.

Other than the floods, what is bothering these women is that they do not know the reason behind the loss and are clueless on what to do if such a situation repeats itself. According to Sunita Narain, Director-General, Centre for Science and Environment (CSE), the disaster happened due to a combination of unprecedented and intense rain, mismanagement, unplanned urbanisation and a lack of preparedness. But all these terms have no meaning in the lives of these women who have never been taught about or made aware of phenomena like climate change, adaptation, mitigation of the effects of changing environment, disaster management et al.

The flash floods of 2014 and the untimely rains in the region have again brought to the fore the necessity for women in rural areas to be educated about climate change and its consequences. Policies should be designed keeping in mind their role in society. It is better to involve them at the planning level than to sympathise with them after every disaster. ■

Charkha Features

Doon and its dumps

Rakesh Agrawal
Dehradun

DEHRADUN, once known for green fields, litchi orchards and free-flowing canals, is a stinking city today. It generates 250-300 tonnes of solid waste daily, of which around 40-60 tonnes lie around on roads, parks and vacant plots.

The Dehradun Municipal Corporation (DMC) is hamstrung by lack of funds, staff, leadership and motivation. The city has only 222 dustbins for 60 wards to serve 5.74 lakh people, according to the 2011 census. This means it has just one dustbin for 2,585 persons. Since garbage collection is erratic, people throw their litter on roads.

Jodie Underhill bravely cleaning mounds of garbage in Dehradun

The staff crunch is a big problem. "As there aren't enough sanitation workers, each sanitation employee is burdened with extra work and that affects their efficiency," says Madan Valmiki, leader, Uttaranchal Swachchkar Karmachari Sangh, DMC, an association of sanitation workers.

According to the the municipal corporation's own norms, at least 28 sanitation workers are required for every 10,000 people in an urban municipality. For 5.74 lakh people, there should be around 2,000 conservancy workers. But the DMC has only 646 permanent sanitation workers and 115 contractual workers. As for ward supervisors, who monitor sanitation workers, the DMC has 60 when at least twice that number is required.

There are machines for only 45 out of 60 wards in the city for proper garbage disposal. These were bought under the Jawaharlal Nehru National Urban Renewal Mission's solid waste management project in 2011.

The DMC entered into a public-private partnership with Doon Valley Waste Management, a Delhi-based private firm, in August 2011 to collect waste for a fee from 60 wards, recycle and sell it for a profit. However, the local bureaucracy sabotaged the plan and the firm quit in 2014 because of reported losses after its plans got entangled in red tape. The solid waste disposal plant at Sheeshambara, on the outskirts of the city never became operational.

Since March 2014, the civic body has been scooping up trash from its 60 wards and happily dumping it on the city's outskirts. Even this is a job half-done as the DMC has 40 mini-trucks for door-to-door garbage collection, of which only 30 are road-worthy. So they don't cover all the wards and are irregular. Often, they collect a monthly fee of ₹40 from households without any receipt and pocket the money. Out of the eight dumpsters the DMC uses to lift garbage from dustbins, only five are functional.

The residents add to the mess by dumping garbage outside their homes, not bothering to walk even 100 yards to a dustbin. They have turned pavements and vacant plots into dumpyards where mosquitoes breed and rats feed.

"Stringent action against residents is welcome, but the DMC should also collect garbage efficiently and tell people to segregate their waste," says Rashmi Sharma, a homemaker in Indira Nagar.

In many colonies, as the pickup trucks don't turn up for days, residents burn the garbage. This open burning of waste is illegal under the Municipal Solid Wastes (Management and Handling) Rules. "Garbage is often burnt in our colony, not only creating a foul smell but also toxic fumes," says Sunil Dobhal, a shopkeeper on Kanwali Road.

Political bickering has worsened matters. The Congress is in power in the state, but the BJP controls the DMC. The Congress accuses the civic body of not taking its job seriously and the DMC, in turn, blames the Congress for not providing enough resources and supportive manpower.

The squabbling reached a zenith when Harak Singh Rawat was transferred from the post of Mukhya Nagar Adhikari of the DMC, apparently at the behest of the land mafia as he was taking on builders indulging in unauthorised construction and encroachment. BJP councillors accuse the state government of weakening the civic body, not releasing the required budget on time and frequently transferring officials.

Meanwhile, citizens' groups are trying to create awareness among residents and clean up the city. Making a Difference by Being Different (MAD), a group of students, has been carrying out cleaning operations, meeting expenses out of their pocket money, since June 2011. Then there is Waste Warriors (WW), an NGO, started by Jodie Underhill who is from Britain. She came to India as a tourist in 2008 and was aghast at the dirt all around. She decided to clean the city and settled in Dehradun.

MAD keeps filing RTIs, enquiring about the recycling facility, waste collection mechanism, equipment provision to workers and other such issues. "It was revealed through our RTIs that there was no facility for recycling waste in the city and ultimately all waste is thrown together without segregation," said Abhijay Negi, founder-president, MAD. Apart from weekly cleaning drives, the group cleans walls of posters and paints murals on them by collecting paint, buckets, and water from local residents.

"We prepared a 76-page garbage disposal report, covering over 16 garbage hotspots in Dehradun city in December 2011. This report has been handed over to all three chief ministers by hand and twice to the mayor, but no action has been taken despite MAD having identified the 16 spots. Also, we suggested some very practical and cost-effective solutions," says Negi. MAD also writes regularly to the Nagar Nigam on issues such as providing gloves and other safety equipment to its staff.

Their efforts have been widely appreciated, by ordinary people and celebrities such as actor Tom Alter and writer Ruskin Bond. Even the national media took notice when their work was recognised by the NDTV Greenathon last year and by Governor Aziz Qureshi.

Waste Warriors has involved the community in its clean-up drives at Dalanwala, an upscale residential locality, and Rajpur, a middle-class locality on the outskirts. "We involved RWAs here as community involvement is a must to clean an area. People realise that not just their homes, but public spaces too should be clean," says Underhill.

Although the DMC, facing bad publicity, recently penalised 173 residents, it had penalised 279 earlier. On 13 April, the mayor launched a control room to deal with grievances about garbage disposal. Citizens can complain about garbage and the DMC promises to pick it up. On the first day, DMC received 37 complaints and all were addressed. Further, a cash incentive of ₹5 lakh will be given every two months to the cleanest ward. ■

Waste Disposal Complaint Cell Logon: www.nagarnigam-dehradun.com
E-mail: comnnd@gmail.com Toll-free: 18001804206

Helping hand for small farms

Bharat Dogra
Bundelkhand

THE farmers of the Bundelkhand region, like elsewhere in India, are increasingly facing the brunt of climate change. The weather is becoming erratic and unpredictable. Rainfall, especially, has become unseasonal. So farmers need schemes to help them adapt to the vagaries of the weather.

They also need help in making farming more profitable. For instance, if the costs of cultivation were reduced, small farmers would make more money.

In Naraini block of Banda district in Uttar Pradesh, a project supported by the Jamshedji Tata Trust and implemented by the Vidyadham Samiti, an NGO, is showing potential in improving farm productivity through low-cost, risk-reducing methods.

Lallu Ram, a farmer of Narsingpur village, says, "Now we are able to get two to three crops a year. Earlier, we used to practise single-crop farming. So even if it doesn't rain on time, at least we get one crop."

Lotan Bhai, another farmer, says his unproductive land refused to yield anything. But, as a result of land-levelling, bunding and irrigation taken up under this project, his field now has a bountiful crop. Lotan's wrinkled face lights up with a smile.

Land-levelling enabled several farmers to cultivate their uncultivated land. Bunding helped in soil and water conservation. It is now possible to retain rainwater in fields for a longer period. Water was lifted from the Rani river which flows near the village and taken to fields through underground pipes. A coupon system was introduced for farmers to ensure that water was distributed in turns and no quarrels erupted. The water distribution system functions smoothly with farmers cooperating with each other.

Land levelling, irrigation and bunding is making the land fertile

'Now we are able to get two to three crops a year. Earlier, we used to practise single-crop farming. So even if it doesn't rain on time, at least we get one crop.'

Soil testing was introduced on a regular basis among all participating farmers to ensure that crops are selected in conformity with soil conditions. Organic and natural farming practices are encouraged and assisted.

As a result, the farmers' cost of cultivation has reduced and their dependence on chemical fertilisers and pesticides bought from the market has also declined. Several farmers were able to increase production while reducing costs. The introduction of SRI (System of Rice Intensification) farming technology also helped to achieve this goal.

Rajkumar, pradhan of Sahbajpur panchayat, says that more diverse crops are grown now. Nathu, a farmer from this village, says that, earlier, if rainfall was average he would get 16 maunds of gram and arhar pulses from his 16 bighas of land. If rainfall was inadequate, he would consider himself lucky if he managed to harvest some seeds. Now production has increased by four to five times, he says. In addition to crops grown earlier, he is now cultivating wheat, groundnuts, several vegetables and even some sugarcane.

Suneeta, an activist working with Vidyadham Samiti, says: "Often, women farmers are neglected despite their important contribution to farming. We've organised women's self-help groups and this helped us to get the enthusiastic participation of women farmers."

The close involvement of farmers is the biggest strength of this project. "Similar technology can be provided elsewhere but if the keen and close participation of farmers including women farmers and farmers from weaker sections is not ensured, the results of our efforts will not be sustainable," says Raja Bhaiya, a key member of Vidyadham Samiti. "We built a relationship of trust because of the dedicated work we did with the farmers over the years. That is why they participated wholeheartedly and we could get excellent results in a short while."

However, Raja Bhaiya warns about the ecological ruin of rivers caused by heavy sand mining. If rivers are not protected, the possibility of micro-irrigation for small farmers will reduce drastically. River conservation has to get more attention, he emphasises. ■

SAMITA'S WORLD

by SAMITA RATHOR

Village sub-centre helps women

Kavita Charanji
New Delhi

EVERY 10 minutes, an Indian woman dies during pregnancy or childbirth from causes like haemorrhage, hypertensive disorders, sepsis, obstructed labour and complications resulting from unsafe abortions.

Traditional efforts to reduce such deaths have focused on antenatal care, training traditional birth attendants and community mobilisation.

Social activists believe the solutions now lie in better emergency obstetric care, quality maternal health services, women's awareness about entitlements provided by the government, greater political will and overcoming cultural barriers.

"The fact is that 70-80 per cent of maternal deaths are preventable," says Dr Aparajita Gogoi, executive director of Centre for Catalyzing Change (formerly CEDPA India) and national coordinator, White Ribbon Alliance India (WRAI), the Indian wing of the White Ribbon Alliance, a global network of over 8,000 organisations that promotes every woman's right to safe childbirth.

The Indian government draws comfort from numbers. In 1990 India's maternal mortality ratio was 560 maternal deaths per 100,000 live births. That has plummeted to 167 maternal deaths per 100,000 live births according to the 2011 Census. And while total maternal deaths in 1990 were 1,48,000, according to latest official estimates, now each year 44,000 women die during pregnancy and childbirth.

At a recent brainstorming national event called "Nothing About Us, Without Us", WRAI in partnership with the Centre for Catalyzing Change, Family Planning Association of India, International Planned Parenthood Federation, Save the Children and World Vision India sought to draw public attention to the need for safe motherhood and the key role of citizens in improving women's and children's health.

The speakers included Gogoi, Raghav Chadha, spokesperson of the Aam Aadmi Party, Dr Rakesh Kumar, Joint Secretary (RCH), Ministry of Health and Family Welfare, Amitabh Behar, Executive Director, National Foundation for India, Meera Devi, ward member, Loma Panchayat, Muzaffarpur, Bihar, and Geeta Regar, former sarpanch, Rajsamand, Rajasthan.

The meet also saw a discussion between representatives of prominent NGOs working on women's and children's health. Among the panelists was Smita Bajpai, Project Director, Centre for Health, Training and Nutrition Awareness (CHETNA) and State Coordinator, WRAI, Rajasthan, whose secretariat is CHETNA. Drawing on the NGO's experiences in Rajasthan and Gujarat, she said that SUMA-Rajasthan, WRAI and its partners have had success in training members of Village Health Sanitation and Nutrition Committees (VHSNCs) for monitoring and strengthening maternal health services and observing Village Health Nutrition Days.

One of the leaders of the VHSNCs and CHETNA's local partner is Geeta Regar, former sarpanch, Junda village, Rajsamand, Rajasthan. She has used her space as an elected representative to get members of the VHSNC to use checklists to monitor the services at anganwadis and sub-centres. In Junda, she took up the issue of women's demand for deliveries at the village sub-centre which was in reasonably good shape and had a trained Auxiliary Nurse Midwife (ANM).

However, women still preferred to go long distances to the better-equipped district hospital for deliveries and often had to use their own transport to get there, a luxury which most of them could ill afford.

The sub-centre now has a labour room and women have been mobilised to use the health facility. The first delivery took place at the sub-centre on 8 March.

Regar used her status as sarpanch to mobilise women for a gram sabha meeting on reviving the local sub-centre. There was a turnout of 40-50 women. For the first time, maternal health featured on the agenda and even men, used to discussions on road repairs and buildings, came for the gram sabha.

Regar's efforts have borne fruit. Based on a list prepared by the ANM, the Community Health Centre staff agreed to provide facilities like medical instruments and supplies. The sub-centre now has a labour room and women have been mobilised to use the health facility. On 8 March this year, the first delivery took place at the sub-centre. It was a proud moment for Regar, CHETNA and its NGO partners.

Says Regar, "Earlier, women couldn't be motivated to come for gram sabha meetings or demand their rights. My village sub-centre was far from effective. I told the women that I would use my position as sarpanch to help them. Now we have succeeded in building greater awareness of the need for maternal health."

However, such success stories need more replication. Says Bajpai, "There are a lot of gaps in the public health system like the shortage of human resources, competencies and there is the larger issue of corruption as well." She is also concerned about the influx of poor women into private hospitals because they are wary of the quality of government health centres. ■

Dam in a

The inexpensive check dam is made with sand and plastic sheets

Shree Padre
Kasargod

IN 2000, Pidamale Govinda Bhat, 63, a middle-class areca nut farmer, rigged up an experimental check dam with sand and plastic sheets. For decades, his family had been constructing a temporary check dam across the Okkethoor river with stones and soil to irrigate their farm.

"The government constructed a vented dam for us in place of our temporary check dam," recalls Bhat. "But the *sarkari* dam leaked and leaked. By 2000 it had become virtually useless."

Bhat knew very well that if the flow of water in the river wasn't checked, the whole area would face drought in summer. That had happened in 1983. The check dam didn't get filled, wells dried up too and farmers stared at crop loss.

So, in 2000, Bhat stepped in and invented his own dam with sand and plastic sheets. It served its purpose. This type of check dam can be rigged up in just one day with the help of an earth mover. Not much labour or skill is required.

Inventing low-cost check dams with locally avail-

day using plastic sheets

PICTURES BY SHREE PADRE

PG Bhat, inventor of the dam

able material seems to have caught on among farmers in the district. The dams are temporary, sturdy and the material used can be recycled the next year.

The decline of the traditional *katta* dam seems to have sparked a small revolution in check dam technology. Until some decades ago, Dakshina Kannada district had thousands of *kattas* or temporary check dams. They had to be constructed every year. The process was laborious but farmers paid for their construction.

When the monsoon begins in June, most of the stones and part of the soil used in *kattas* gets washed away in floods. Before that happens, farmers remove the soil and keep it for the next year's *katta*. But in recent years both labour and skill started becoming scarce. So farmers began experimenting.

Bhat's inventive dam appears to be replacing the *katta*. Its benefits are many. His innovative check dam captures about 10 crore litres of water and irrigates around 120 acres on both sides of the river. The income of the families here comes to about ₹3 crore annually. They spend about ₹60,000 on water. No family in the vicinity now suffers from a shortage of drinking water.

To construct Bhat's sand-and-plastic-sheet check dam, a solid foundation has to be built the previous summer. This is done by digging a trench at the site till the level of the bed rock or layer of soil devoid of any sand. The trench is extended a bit on both sides of the river's banks to avoid seepage at a later stage. Then a plastic sheet is lowered into the trench before it is refilled. The upper end of the sheet is rolled like a calendar. Weights are placed above this roll so that the sheet doesn't get damaged or dislocated during the monsoon.

After the monsoon is over and the flow of water in the river recedes, it's time to construct the check dam. An earth mover is commissioned to heap the sand in a specific manner. A vent is provided for the water to flow out during the time of construction. After the earth mover heaps the sand like a small hillock nine feet high, a second, bigger, plastic sheet is spread from the inner side over the whole heap. The width of the check dam is 150 feet. The rolled upper edge of the plastic sheet used in the foundation is now joined with the inner free end of the new sheet. The two sheets are joined by rolling them together and stones are placed to weigh them down.

The other end of the plastic sheet is used to cover the entire check dam. This is to prevent any damage if there is unexpected heavy rain or floods. "This year, there was a burst of rain and water overflowed like a waterfall for three weeks," recalls Ramachandra Sharma, Bhat's son. "But there was no damage to the check dam."

Interestingly, there is very little seepage in this layman's check dam. "Whatever seepage is there, we pump the water for irrigation instead of draining stored water from the check dam," explains Ramachandra. Their 18-acre areca nut garden requires 350,000 litres of water a day. So, for the entire irrigation season of six months from December to May, their farm needs 60 million litres of water.

Apart from Bhat's family, 12 families nearby use water from this check dam. More than 75 horsepower is used to lift water for irrigation of about 120 acres on both sides of the river. The water level increases to 2.5 km in length. The total water that is stored would be about 100 million litres. This works out to about ₹6 for a kilolitre of stored water.

The plastic sheet gets damaged every year because of the sand heaped on it. So the Bhats have to buy a new one every year. A 120 gsm (grams per square metre) sheet costs them ₹20,000. The neighbours who use the water voluntarily pay Sharma. "This takes care of half the cost every year," he says.

In contrast, the state government's minor irrigation department constructed a new dam to replace an old dilapidated cement vented dam last year at a cost of ₹1 crore. But the structure leaks very badly. "With just the interest from the money the department invests for such concrete dams, we could have constructed two to three dozen sand-and-plastic check dams that are far more effective in checking water flow," remarks Sharma.

Inspired by Bhat's check dam, two neighbours, Pidamale Govindaprasad and Balipaguli Rajaram, together constructed a sand-and-plastic-sheet check dam this year. It cost them very little and they are very happy with its performance.

Other farmers are innovating and building similar check dams in adjoining areas.

One such successful effort is the Varanashi check dam invented by Dr Varanashi Krishnamurthy nearly a decade ago. The Varanashi Research Foundation (VRF), a charitable trust headed by Dr Krishnamurthy, named it the Varanashi check dam. The innovation is that, instead of using a lot of soil to stop seepage, a silpaulin sheet is used in this sandbag check dam.

Inspired by the Varanashi check dam, Vasanthkumar Darbe, a farmer, went a step ahead and stopped using sandbags to make the check dam. Instead, he constructed a sand-and-plastic-sheet structure. Noting his success, a few farmers near him followed suit. ■

Kallol Ghosh with children in Anandaghar. Around 456 children are tenderly looked after in four homes

OFFER FROM THE HEART

A happy home for positive children

Subir Roy
Kolkata

THE large mug in which I have my tea, two cups at one go, has done its time and is ready to be passed on. But it is a bit of a favourite, designed by the alumni association of the old college with an impression of the famous façade, and to let it go I want a new mug which also says something.

The journey for a new mug began unknowingly with a day long visit to Anandaghar, an hour into the semi-urban sprawl beyond the south of Kolkata. It houses 71 HIV positive children (those with the HIV infection in a dormant stage, not full-blown AIDS), mostly abandoned and rescued, and is run by the NGO which goes by the acronym OFFER (Organisation for Friends Energies and Resources).

It was conceived in 1986 by Kallol Ghosh and today looks after 456 children in four homes in West Bengal. Other than the HIV positive children in Anandaghar set up in 2006, there are 56 who are handicapped in some way or the other (many are spastics) and live in a home called Apanjan set up in 2000. The rest, who live in another home called Apanghar, set up in 1998, are "socially orphaned" their parents are either gone or too poor to take care of them.

Two stories illustrate how children end up under the care of OFFER. A village woman, abandoned by her husband, looked after her two young children and herself by milking cows for several families. Then, one day, she was asked not to come any more as word had gone round that she was HIV positive, thus leaving the family not just without any means of livelihood but also socially ostracised. That night she committed suicide by hanging herself from the ceiling.

In another instance a child was found abandoned on a pavement with a bandaged wound from a freshly performed surgery. It later became clear that he had been adopted by his foster parents who had taken him for appendectomy surgery when the need arose. Routine tests during the procedure revealed he was HIV positive. The parents paid the hospital bill, got him discharged and then left him on the pavement.

Ghosh, who spends the better part of the day on work for OFFER is able to do so because he has a family business, a diagnostic lab, which is his main source of personal support. Now touching 50, he wants to take the Anandaghar idea national. OFFER has a core team of 16 and an annual budget of ₹3 crore to ₹3.5 crore. It gets capital grants from corporates and donor agencies.

That is how the buildings and the bakery plant, for example, for vocational training are possible. But at the end of the day OFFER has to rely mostly on the support of individuals for day to day running. It has no regular income stream. And private help is critical as there is no serious official effort to mainstream the HIV positive.

The idea of setting up something like OFFER came to Ghosh when three decades ago he read in the papers that 13 children were buried alive on the outskirts of Kolkata in a mini landslide. Ash with remnants of coal, discarded by steam railway engines, was being brought in by contractors to raise the ground level for a new expressway being built on the city outskirts and the destitute children would forage in the dumped stuff for little bits of unburnt coal.

In fact, Ghosh began it all when, still in high school, he started a pavement school for a handful of migrant workers' children. Ever since then his focus has been on children and giving them some kind of education. Today, other than the permanent homes, OFFER runs 19 community centres where 3,500 children with some kind of home but little else are schooled and offered basic healthcare.

Ghosh sees a major problem in the high level of dropouts from regular schools, mostly of children who are first-generation literates. A key reason is being unable to relate to the way things are taught at

The dormitories are clean and well- equipped with all facilities

The children are lively and have lots of places to play

school and their parents' inability to pay for private tuition which is "rampant".

So OFFER has created a system of community teachers by recruiting graduates at a monthly salary of ₹6,000. In the first place, they are imparted communication skills needed to reach out to such children. Part of their job is to visit the homes of these children both to understand where they come from and also to convince the parents that sending the children to school is a must. Another part of the teaching is taking children for visits to places like a Mother Dairy plant, an FM radio station or to see the inside of a commercial aircraft.

The visit to Anandaghar happened because a networking organisation, Kolkata Gives, which bridges well-run NGOs and philanthropes, took a 40-odd team of mostly middle-aged businessmen and spouses and a couple of scribes on a day's visit.

Right at the beginning the teachers explained to us to be prepared for the children to respond a bit slowly, though surely, as they are under heavy medication (anti-retroviral drugs) which they have to be on all their lives to keep the infection dormant.

It was also important for us to touch them, and hug them if need be. Building their self-confidence is a key part of seeking to ensure a normal life for them as they have faced the silent trauma of being treated literally as untouchables. Widespread social ignorance makes people unaware that it is perfectly safe to touch an HIV positive person.

The boys among the children first did a yoga demonstration for the visitors. Then the boys and girls together did two group dance numbers, set to a Bengali and a Hindi tune — the latter rather vigorous with touches of *bhangra*. Then came the big part, a tour of the facilities. There was a bakery where the more grown up children are given vocational training. The oldest among them is now

PICTURES BY PRASANTA BISWAS

There are regular medical check-ups

The children had been well- trained to look after the visitors. Two of them held me by my arms and marched me around the facilities.

preparing for the school-leaving higher secondary examination.

The next building housed the handicapped children, including two who were seriously ill. As a nurse prepared an intravenous feed for the child, we were told her name was Adarani (adorable) and her main achievement has been to come back from the brink several times after all had given up hope.

And finally, there was this roomy, airy, well-lighted building, Anandaghar, where the HIV positive children live, play and continue their tryst with a life almost gone and then partially given back by a few handfuls of socially dedicated people and their backers.

The children had been well-trained to look after the visitors. Two of them held me by my arms and marched me around the facilities. They were sorely disappointed that I could not play a quick game of chess with them as I confessed I was a total ignoramus. I could take a few shots at carrom but expectedly, there was too big a crowd around the board.

At the end of the tour the girl among my two escorts asked: Uncle, why didn't you bring Aunty? When will you come again? Bring Aunty with you the next time.

After a sumptuous lunch which the visitors and children shared, the departing were given a little gift package each. Opening it on getting back home, I realised I had received what I had been looking for — a new tea mug which meant something. The image on the mug was of smiling children and hands painted with smilies in many colours with the legend, "Let's paint our lives". It was not just a happy looking new mug but represented something truly special. But my wife promptly took it away and placed it prominently in the glass case which has some of the nicer artifacts we have collected during our married life.

Far from feeling put off by finding and then having to give up a nice tea mug, I felt hugely light hearted. Why? On looking a little within I realised that the thought of those children who had been dealt such a loaded card by fate, made all my problems and concerns absolute trifles for some time. ■

AYURVEDA'S TIME IS NOW

Four big moves India must make

BY DARSHAN SHANKAR

AT the age of 31, Dr Dhruv Vyas was the head of new product initiatives and operations of a natural foods company. He was robust and worked long hours. His health was the last thing on his mind. All of a sudden, he was laid low by the prolapse of a lumbar disc. Such was the neurological damage to his spine that he found it difficult to stand up. Specialists did an MRI and advised immediate surgery. Since Vyas had done a PhD on the use of traditional plants for cardiovascular health, he decided instead to seek out an alternative therapy. He went to the I-AIM Healthcare Centre of the Trans Disciplinary University (TDU) in Bengaluru, which offers specialised Ayurveda treatment. He recovered fully without surgery and ended up as the chief operating officer of the I-AIM centre.

Integrative healthcare is the mantra of the 21st century. Studies show that, like Vyas, around 60 per cent of all patients worldwide seek out natural remedies and alternative lines of treatment. An increasingly technologically world has found liberation in the connections between mind and body. Yoga and meditation often deliver what modern allopathic drugs cannot. For neurological problems, metabolic disorders, palliative care, old-age illnesses and so on, many answers lie in the holistic approach of traditional systems of medicine originating in India and China. It has, in fact, become obsolete now to think in terms of a single system for healthcare.

India, as the home of Ayurveda and with its rich biodiversity, has the opportunity to play the role of a global leader in integrative healthcare. But for that to happen Ayurveda should in India be given the status it deserves as a science and system of medicine. Its capacity to take Western medicine forward needs to be recognised.

A 10-year road map is needed to strengthen the four pillars of Ayurveda: formal health services, education, research and manufacture of Ayurvedic medicines. As a first step, the Union government should adopt a National Integrative Health Policy, which will give Ayurveda a defined role in the public health system.

In their everyday lives, vast numbers of Indians turn to Ayurveda for their basic health needs. They either go to village-based community healers or to physician-scholars. Pharmaceutical companies selling Ayurvedic medicines in modern packaging and dosages do brisk business. The Union government has a department for traditional systems of medicine. It is called AYUSH — an acronym for Ayurveda, Yoga, Unani, Sidha, Swa-rigpa and Homeopathy.

But there is simultaneous neglect of Ayurveda as a result of the public health system's focus on Western medicine. Little has been done to let a rich repository of knowledge renew itself. Ayurveda is a generic term meaning the 'knowledge of life'. It has been dynamic and evolving for over two millennia. The 'knowledge of life' has acquired over the centuries different specialisations and sub-cultures. There is Yoga, Siddha, Unani, and Tibetan medicine. Hundreds of local health traditions exist that are specific to ecosystems and ethnic communities.

The challenge before policy-makers is to restore this process of discovery and adoption, recognise community knowledge and give to Ayurveda the status of an evolved medical science.

From the first Five-Year Plan in 1947 to the recent Draft Health Policy of 2015, abundant lip service has been paid to Ayurveda. But policy-makers have had a poor understanding of its depth and potential. Spending on healthcare on the whole is less than one per cent of the GDP of which just three per cent goes towards traditional medicine. China, by comparison, allocates 20 to 30 per cent of its health budget to traditional healthcare.

The sub-critically funded health services of Ayurveda in the public sector are located outside the main public health system as a small parallel stream. An estimated 24,000 community dispensaries around 3,000 primary and secondary hospitals are supported across the country. The health services of these institutions are not aligned to the national health goals and therefore their performance does not matter to policy-makers. The innovations, quality and reach of their services have never been measured.

The education system boasts of around 300 undergraduate and 50 plus postgraduate colleges and has churned out an impressive 700,000 licensed physicians. These colleges follow a rigid 19th century curriculum, classroom teaching and evaluation methods regulated by corrupt medical councils. In the early 1970s, the University Grants Commission introduced autonomous colleges in university education. Ayurveda education, however, remains shackled by unrealistic regulations and a uniformity that permits zero innovation.

India, as the home of Ayurveda and with its rich biodiversity, has the opportunity to play the role of a global leader in integrative healthcare. But for that to happen Ayurveda should in India be given the status it deserves as a science and system of medicine.

Darshan Shankar is the Vice Chancellor of the Trans-Disciplinary University (TDU), which is dedicated to building bridges between India's traditional health sciences and modern biology and medicine.

Ayurveda research programmes funded by public funds are largely 'intra-mural' which means that they are conceived and implemented by the state and national research institutes established by the government. Actual expenditure by the government on research by non-government institutions is negligible. Government sector research outputs over the last 40 years or so have impacted neither domestic nor international healthcare.

Manufacturing of Ayurvedic drugs is largely in the private sector. It receives no government support. It is the healthiest aspect of Ayurveda, with a real consumer base and an estimated turnover of ₹15,000 crore per year.

A quality assurance system led by the Quality Council of India has since 2008-9 been commissioned by the Union Government to develop standards for health services. A handful of hospitals has been accredited so far. It's a good beginning. However no standards for measurement have so far been implemented for the other three pillars — education, research and manufacturing.

So here are the four big moves that India can make to build on its many strengths in Ayurveda.

AJIT KRISHNA

Manufacturing of Ayurvedic preparations is largely in the private sector

1 HEALTH SERVICES

Two key innovations suggest themselves in the health services sector. First, India should introduce, like China did several decades ago, integrative healthcare at all the primary, secondary and tertiary levels of the public health system. This was indeed the intent of the National Rural Health Mission but it is yet to become a reality. It should be a serious exercise involving dozens of adequately funded and well-designed pilot projects for which the best health institutes in both the non-government and government sector should collaborate. It should be an action-based research agenda over 10 years.

What would these pilot projects be like? There are several examples, born out of voluntary effort, that already exist. For instance, the Swami Vivekananda Youth Movement (www.svym.org) was started by a group of medicos of Mysore Medical College in 1984. They set out to influence policy and make it relevant to the needs of people at the grassroots through action in health, education, socio-economic empowerment, training, research and advocacy.

SVYM has had three decades of experience in delivering healthcare to the most needy, including displaced and dispossessed indigenous tribes, with its 80-bed multi-specialty hospital, Vivekananda Memorial Hospital at Saragur, in HD Kote taluk in Mysore district in Karnataka. A distinctive feature of this healthcare delivery model has been the functional integration of allopathy and Ayurveda.

SVYM has experienced over the past seven years how allopathy and Ayurveda can complement each other in treating liver diseases, gastritis, neurological disorders, musculoskeletal diseases like spondylitis and specific illnesses like psoriasis, HIV, TB and diabetes.

The founding doctors — all specialists in allopathy — say, "Working amongst the indigenous tribal groups since 1987 opened our eyes to the wealth of traditional knowledge and practices. Indeed, it helped us understand that medical pluralism is an accepted practice and an integral part of people's lifestyles, be they tribal or non-tribal."

A second innovation in health services is for India to add a fourth non-institutional tier to the public health system by giving accreditation to folk-healers to serve as community health-providers. Folk-healers can take care of the primary healthcare needs of 50 per cent of the population with no recurring costs.

Folk-healers' practices could be standardised through education modules based on the revalidation of low-cost herbal remedies and medical practices. The revalidation can be done by a large network of science and technology institutes, colleges and universities. Herbal remedies can be disseminated efficiently using the best of ICTs and social media.

LAKSHMAN ANAND

India is rich in biodiversity: The Ensete Superba is found in both the Western Ghats and the Northeast

There are hundreds of examples of the remarkable knowledge that communities have. The plant *brahmi* (*centella asiatica* and *bacopa monnieri*) is widely grown all over India. It has traditionally been used for memory enhancement. Both children and old people consume the plant. In Dakshin Karnataka, *centella asiatica* is made into tasty chutney by the Saraswat Brahmins and they are considered to be sharp. Recent experimental studies conducted by TIFR-NCBS Bengaluru by Prof. Shona Chatterjee show that consumption of *brahmi* brings about molecular and structural changes in the hippocampus region of the brain where short-term memory resides.

The use of copper vessels for storing drinking water is an outstanding example of the soundness of folk knowledge. Scientific studies conducted at TDU reveal that it is an inexpensive way of eradicating all pathogenic microbes, including rotovirus. Recent field trials, by TDU under a Canadian Grand Challenges Award in villages of Ramnagara district and in one urban and rural location in Kenya confirmed the results of lab studies.

In India knowledge of wholesome living has resided for millennia both in ordinary folk and in scholars making it perhaps the world's oldest unbroken, evolving health tradition. In villages health traditions are verbally communicated in ecosystem- rooted communities. Every community traditionally uses local plants (more than 6,500 species and 200,000 herbal formulations across India), seasonal ethnic foods, physical postures, customs and rituals to keep humans, livestock and agriculture healthy. Millions of households and around one million village-based folk-healers comprise the very large army of community-based health-providers.

2 MEDICAL EDUCATION

On the medical education front, innovation and pluralism are needed. This is the writing on the wall evident from trends all over the world. Medical schools in the US introduced modules on integrative healthcare about a decade ago. The future direction in medical education is therefore clearly towards integrative healthcare. For this purpose the first bold step, which

will invite huge resistance, should be to set up a National Council for Health Education and Regulation and create sections for different knowledge traditions in it. It is an extremely complex task that will have to be executed by experts in mission mode. Begin now and it could take all of 10 years.

3 RESEARCH

A research strategy for integrative healthcare is exciting and extremely critical to the success of both integrative health services and education because it is research that can provide conviction to proceed on the path of promoting medical pluralism with vigour. The requirement should be to focus on strategic, high-impact areas of healthcare and necessarily explore an interface of Ayurveda and modern science in an epistemologically informed manner.

Institutes of the class of the Indian Institute of Technology and the Indian Institute of Science should be set up by building upon existing institutes and universities that have track records of innovation and achievement.

The emphasis should be on merit so that institutions that aren't run by government are also eligible. To give integrative biology the status it deserves as a discipline, it would be a good idea to have chairs in universities and colleges. Committees led by visionary scientists, physicians and Sanskrit scholars should be constituted to select institutes to engage in path-breaking research.

It is not only drugs and therapies that traditional knowledge can provide but even sophisticated systemic perspectives, concepts and theories that can advance the world of science, which is incredibly advanced at the molecular level but limited by its structural and reductionist conception and outlook on nature.

The recent work of Bhushan Patwardhan, Visiting Professor at TDU and Mitali Mukerji, Professor at the Institute of Genomics and Integrative Biology, CSIR, New Delhi, is a pointer in this direction. Scientific papers published by them have shown the crucial role of the Ayurvedic phenotypes in mapping genome variation and susceptibility to diseases. This has advanced the emerging field of pharmacogenomics (personalised medicine) by at least a decade.

4 AN AMUL FOR HERBALS

To grow the manufacturing space, a start-up culture is needed. We would do well to create incubation centres to support innovative entrepreneurs on the lines of the successful Department of Biotechnology's (DBT) BIRAC programme — perhaps managed by the same institutions that lead the DBT programme because they have already created an ecosystem for start-ups. Industry-academia links need to be supported on the lines of best global practices.

The Indian herbal industry needs to be incentivised to invest in R&D to enter global markets. The supply chain for medicinal plants needs to be professionally managed and bodies like the National Medicinal Plants Board strengthened for the purpose.

A strategic programme, similar to Amul in the dairy industry, can promote community- owned herbal enterprises. These enterprises could employ tens of thousands of women. They would grow and process medicinal plants and manufacture scientifically validated and standardised herbal products. SEWA in Ahmedabad could be the anchor for such an initiative with its vast experience in creating enterprises and livelihoods for women. SEWA could be backed up by reputed institutions which have knowledge of Ayurveda product development.

The success of an action plan to promote and strengthen Ayurveda will depend on competence and speed. In this journey of change it is important that governments allow civil society initiatives the space they need to deliver results. Governments are best suited to be catalysts and enablers. Policy and legislation should come from them. Innovation in services, education, research and manufacturing should be led by non-government and not-for-profit institutions and where appropriate by cooperatives and the private sector. These efforts should receive the same level of funding that is poured into inefficient government institutions.

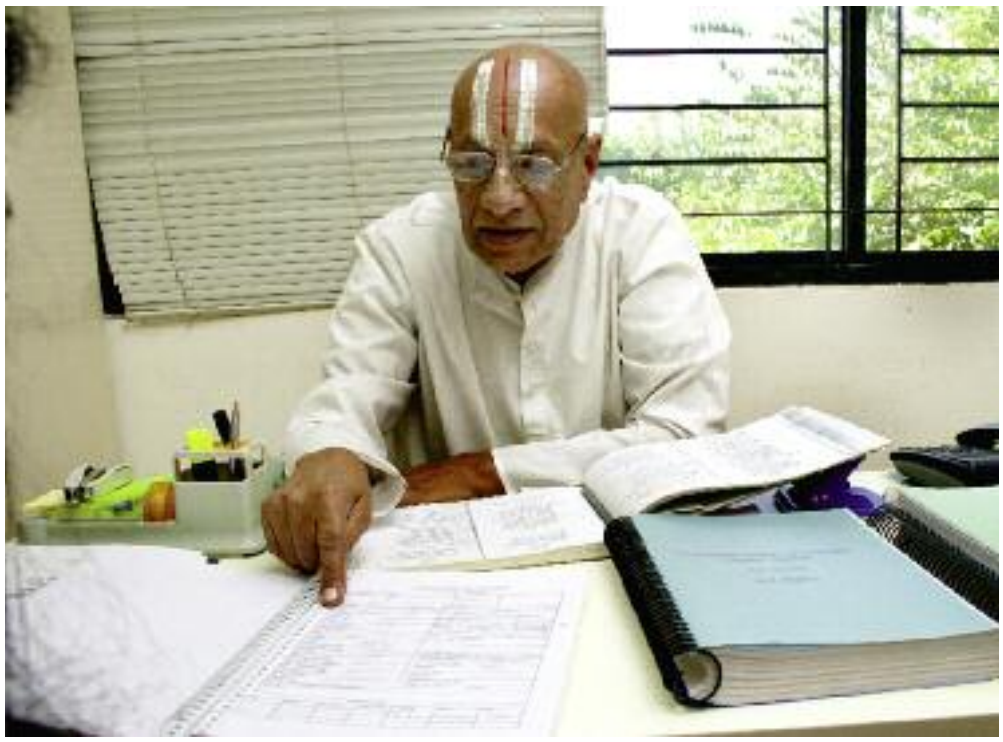
It is important to appreciate that, as the 'knowledge of life', Ayurveda has been evolving for over two millennia and has acquired different specialisations and sub-cultures. There is yoga (focused on mental health in ways far beyond the frontiers of neurobiology), Siddha (the brilliant and intuitive elaboration by Tamil saints of the Saivaite cult), Swa-rigpa (the in-depth Tibetan expression, translated in Pali by great Buddhist monk-scholars), Jain treatises on Ayurveda by meditative wandering monks, Unani (the integrated version with Islamic medicine).

But in modern India, Ayurveda has experienced marginalisation. Its evolution and depth have been forgotten. Policy-makers, lay persons and even practitioners tend to hold a static perception of Ayurveda.

One reason for the marginalisation of Ayurveda is confusion in the Indian mind about the primary source of modernity. The confusion stems from the myth that modernity as a process is divorced from tradition when the historical and sociological reality is just the opposite. Just as the present is inevitably derived only from the past, in an exactly similar manner modernity cannot derive from anything other than an 'evolving' tradition.

A colonial mindset in India has looked only to the West even in domains like healthcare where our own roots are deep and potent. It has been the colonised mind that has disregarded Ayurveda as a source of modernising health sciences, biology and India's public health system in the 21st century. ■

LAKSHMAN ANAND



AJIT KRISHNA

Professor Lakshmi Thattachar, a scholar with knowledge of ancient texts, and (below) the poster- splattered cabin of a present-day physician at the Arya Vaidya Pharmacy outlet in Delhi

TATA

Opportunity A TATA ENTERPRISE

Over the years,
the Tata Group has given some of India's brightest people the chance to achieve their full potential. The illustrious list of Tata Scholars includes Dr. K. R. Narayanan, former President of India, Dr. Raja Ramanna, former Director of BARC, Dr. R. A. Mashelkar, Director General CSIR, and Prof. V. V. Narlikar, India's pioneering relativity physicist. Furthermore, in 1944, we enabled Dr. Homi Bhabha to set up the Tata Institute of Fundamental Research, the laboratory for India's atomic programmes.

The belief:
"What advances a nation is... to lift up the best and the most gifted so as to make them of the greatest service to the country."
- JN Tata

TATA

Leadership with Trust

www.tata.com

Smart cards, water for slum

Solar power helps cut costs

Subir Roy
Kolkata

PICTURES BY PRASANTA BISWAS

Dipayan Dey: 'The World Bank wants us to scale up the project'

AN integrated project is delivering both safe drinking water and sanitation with virtually zero environmental cost (in fact, the overall impact is positive) in an east Kolkata slum, home to 570 households. What is more, it is meeting its current running cost and plans to break even in five years, if not three and a half.

The Kalikapur slum on the Eastern Metropolitan Bypass, which connects the city to its airport, is typical and distinctive in some ways. It has come up around a water body which would have remained a part of the east Kolkata wetlands, recognised as a Ramsar site, had not the building of the bypass brought development. At the slum's outer periphery is one of the many canals which take out the city's dirty water as also rainwater.

The slum is official, 'recognised', and has had some government help. Its main walkway is paved. The community has banded together to get power from the city's distributor and on one occasion when the power equipment burnt out due to overloading the community collected what was for them a large sum and paid for replacement. While 78 per cent of the people in the slum are 'below poverty line', in keeping with high literacy rates in urban areas in West Bengal, 83 per cent are literate.

The water and sanitation project, named WASH-UP (Water Sanitation Hygiene for Urban Slums), has been conceived, implemented and is now watched over by the NGO, South Asian Foundation for Environment (SAFE). Project cost funding has come from the $100 million five-year water programme of global bank HSBC. At ground level, the project has been approved by both the Kolkata Municipal Corporation and the state's power and non-conventional energy department.

The key element in the project is an 8 KW solar power plant which powers a Eureka Forbes water treatment plant, working on reverse osmosis technology, with a capacity to produce 10,000 litres of safe drinking water per day, compatible with WHO standards.

Slum-dwellers get two litres of water per head per day free which they can draw through dispensers operated by smart cards which are periodically recharged. Extra water is charged at 25 paise per litre up to 10 litres and thereafter at double that rate.

The "refusal" water thrown out by the water treatment plant is piped to 20 public bio-toilets with bio-digesters which ensure odourless effluent. The odourless extract is collected in pits with sand and oil, yielding organic manure rich in NKP nutrient. There are also four conventional toilets whose effluents feed into a biogas plant to produce biogas for cooking or lighting.

There is a proposal to sell excess water at current market rates for packaged water to the neighbourhood beyond the slum but this is still being debated and a cap on commercially selling not more than 25 per cent of the total water consumed is being considered.

The water for the water treatment plant is taken from the 3.8 hectare water body and also from the topmost aquifer. There is a decision not to go below 500 feet to access ground water which gets recharged through the 13,000 gallons of rainwater harvested at the water body and the carbon offset of the project is measured at 28 metric tonnes per annum.

Water for the treatment plant is taken from a 3.8 hectare water body and also from the topmost aquifer. There is a decision not to go below 500 feet to access ground water which gets recharged with rainwater.

The energy requirement is mostly met by the solar power plant whose batteries can create six-hour backup during sunny weather and two-hour backup during rainy weather. Till now the batteries have never entirely run out. This is ensured by using a bit of grid power to run the one HP submersible pump with which the ground water is brought up. The system is designed to run both the water treatment plant and the water pump on solar power but a bit of grid power is used so as to always maintain some battery backup. So the project does not have absolutely zero non-renewable energy footprint but

it is almost there.

The cost of the project, including both hard (equipment) and soft (training of local residents) elements, has come to ₹75 lakh. The running cost of ₹12,000 per month comes out of the money people pay for the extra water beyond their free quota. Joint liability groups, formed from the slum-dwellers, have taken ownership of the project and effectively run it.

SAFE, which is active on a range of environmental issues since 2004, has been founded by Dipayan Dey, its chair, a doctorate in biotechnology from Delhi University who is in his early fifties. "The project is considered so successful that the World Bank has asked us to scale it up," says Dr Dey. A similar project is complete and is being inaugurated in Guwahati. Another, using runoff water, is under construction in Shillong.

The regional footprint of SAFE stretches to Bangladesh, Bhutan and Nepal and also the Philippines. Bhutan is where Dr Dey first honed his ideas as he spent a decade at Delhi University's campus there. SAFE employs 25 people and has an annual budget of around ₹3 crore to ₹3.5 crore. It operates out of the rented ground floor of a residential house in Panchashayar in the extreme south-east of the city. The neighbourhood is famous for its idyllic atmosphere, owing to the five lakes that make it up (it takes its name from them) and the total absence of high-rises.

A feedback survey found that 99.5 per cent of the women surveyed said the quality of water was good and tasty. Almost all of them, 98.5 per cent, are now saving up to four hours a day which they would have had to spend to get water to drink and cook. A high 97 per cent feel empowered through being able to use proper toilets. But some women are apprehensive about the future. A total of 83 per cent love the present system but 15 per cent are apprehensive that the good times may not last because of problems of social dominance.

A significant change has come in the quality of life of the people, foremost the women, who live in the Kalikapur slum. When SAFE staff first started interacting with them to do the baseline survey, the women told them, "First of all, give us water." (A toilet came next in their list of desirables.) "Other than the time taken to get the water, we have to face the hazard of crossing and re-crossing the busy bypass with its fast traffic."

Then, within two months of the project starting, water ceased to be mentioned. The primary concern of the women then became acquiring livelihood skills. That is progress, if you like. ■

Women use smart cards to buy clean drinking water


The east Kolkata wetlands

Hemp with a different high

Shweta Vitta
Bengaluru

Boheco team: (Back) Yash Kotak, Jahan Peston James, Sanvar Oberoi and Sumit Shah (Front) Chirag Tekchandaney, Avnish Pandya and Delzaad Deolaliwala

SANVAR Oberoi, 23, was in a village in Maharashtra when a farmer he knew committed suicide. Oberoi, an Ashoka Fellow, was shocked. "The farmer had borrowed heavily and couldn't pay on time since the monsoon was delayed. This had ruined his cultivation cycle. The fear of shame drove him to consume industrial alcohol. He was one of the best cotton farmers I ever came across."

Farmer suicides routinely hit the headlines in India. According to the country's National Crime Records Bureau, around 296,438 farmers have taken their lives since 1995. In Maharashtra alone, the number stands at 60,750.

"There is a need to radically reform the agricultural sector," says Oberoi. "But the problem is that educated people don't consider agriculture a sexy industry. We get scared, seeing the magnitude of the problem, but fail to see the immense scope for innovation."

Moneylenders charge farmers outrageously high interest rates, ranging from 20 to 50 per cent, he explains. Farmers find it hard to pay on time because they earn a low income from agriculture and the erratic weather might well turn their crops to dust.

But Oberoi believes that innovation, technical advice and value-building can bring about an agricultural revolution. Along with six friends, he set out to find out how the lives of farmers across the country could be changed.

The hemp plant

Oberoi and his friends searched for solutions, travelling across the world. They stumbled upon industrial hemp or *Cannabis sativa* — a low-cost, annual crop that has over 25,000 uses across varied industries and is a $500 million industry in the US alone.

But why is the hemp industry absent in a country where 60 per cent of the population cites agriculture as the primary source of income, they wondered. First, due to lack of awareness. There is confusion between marijuana (*Cannabis indica*) and industrial hemp (*Cannabis sativa*) as both come from the same plant family of cannabis and both are often referred to as narcotic drugs.

Chemically, marijuana grown for recreational purposes has between 5 to 20 per cent of THC (tetrahydrocannabinol), the intoxicating substance that gives hemp its hallucinogenic properties. Industrial hemp, on the other hand, has a negligible zero to 0.3 per cent of THC.

Second, the Narcotics Drug and Psychotropic Substances (NDPS) Act of 1985 permits industrial hemp to be cultivated for horticultural or industrial use but only under certain directives. But these directives haven't been issued until now. So there is confusion about cultivation of the crop. Ultimately, all of this has contributed to India not having a hemp-based industry.

But Oberoi and his friends were convinced that industrial hemp had the potential to radically redefine India's agri-business segment and improve the lives of farmers.

In 2012, they founded BOHECO (Bombay Hemp Company), India's first industrialised hemp company, to build a sustainable industrial hemp ecosystem and create social and environmental impact. At present, they are focusing on developing innovative solutions in basics: food, clothing and shelter.

MANY USES

If we go back in history, Ford's first car was built with industrial hemp plastic. Celebrity designer Georgio Armani makes clothes of hemp. Most green buildings in Europe use hemp since it is cheap and eco-friendly.

One advantage is that the plant has a short cultivation cycle and great adaptability. It can be grown in most soil types, from the Himalayan foothills to the warmer climate in southern India. Hemp requires limited water and pesticides or herbicides so its carbon footprint is negligible.

"India is sitting on a gold mine of industrial hemp as there are hills and hills of it," says Avnish Pandya, Director of Research and Development, BOHECO. "Three months is all a farmer needs, from sowing to reaping. Keeping in mind the concept of rotational cropping, even if a farmer grows one cycle of hemp annually, which is what we are encouraging, he would earn double than what he would earn if he grows, say, sugarcane."

"Imagine if the entire packaged bottle industry switched to hemp to manufacture its bottles," muses Pandya. "It could be a great solution to solving most of the environmental issues we face today."

With about 25,000 uses in industries such as clothing, food, industrial machinery, construction, cosmetics and more, hemp can "shake up the sector".

"This is why it's called a trillion-dollar super crop," says Oberoi.

GETTING THERE

Since industrial hemp has never been domesticated in India, there is no standardisation of the seed. BOHECO has built the first hemp seed bank of the country with 81 unique seed varieties. The company is currently developing the best hemp seed which can be mass multiplied.

The present focus is innovating products around the basic necessities of life — food, clothing and shelter. The company is working with hemp-growers in the Himalayan region.

BOHECO currently produces hemp seed, protein and oils in the food category, body creams and lip balms in the cosmetics category, and fabrics ranging from ₹600 to ₹800 per metre in the clothing category. It is also in the final stages of developing hempcrete, an environment-friendly alternative to red bricks.

Jahan Petson James, Director of Strategy and Collaborations, BOHECO, says, "We are still in a nascent stage of developing products and spreading awareness of the benefits of hemp. Once there is mass acceptance, production will naturally increase and costs will come down."

Finally, BOHECO is working closely with the government and policymakers to revisit the NDPS Act, make amends and expedite relevant sections of the policy that would be hugely beneficial to the country's economy.

As soon as BOHECO develops its standardised seed, it plans to give it for free to farmers. By 2017, the firm aims to work with at least 450 farmers and create a replicable, scalable model.

"The Chinese government is actively cultivating hemp to lift three million people out of poverty by 2020," says Oberoi. "They are providing hemp seeds and technical expertise to farmers across China which is already doubling the income of many farmers. There is little doubt why China is the largest producer of hemp in the world. It's time India recognised the benefits of hemp and started capitalising on the crop for a better and greener economy." ■

To know more, visit www.india.ashoka.org.

Liberate farmers from fields

RAJIV KUMAR

Land acquisition is an issue for less than 10 per cent of farming households

INDIA FIRST

THE NDA government should be commended for reissuing the ordinance to amend the Land Acquisition Rehabilitation and Resettlement (LARR) Bill, an anti-development piece of legislation passed by the UPA government in 2013. More commendable is the recognition by the BJP's top brass that this is quintessentially a political issue, which requires large-scale public mobilisation in support. We must all recognise that it is not merely land ownership but the much bigger question of modernisation of Indian agriculture that is at stake here.

Prime Minister Narendra Modi did well to highlight this in his speech at the Bengaluru conclave. He pointed to the miserable living conditions of the vast majority of our farmers who are trapped in an unending cycle of drudgery, back-breaking labour, rising debt and suicides. LARR-2013 guaranteed that this vicious cycle would continue. Therefore, it needed to be amended to liberate the landless and marginal farmers from deprivation and poverty.

As many as 59 per cent of rural households do not own any land. Another 28 per cent have land holdings of less than 0.5 hectares, on which they simply cannot eke out an acceptable living. Therefore, 87 per cent of the rural population is desperate to end their dependence on agriculture. By and large, these people also belong to Scheduled Castes and other backward classes that face social oppression in addition to economic deprivation. They would take any non-agricultural employment that came their way.

LARR is therefore relevant for a mere 10 per cent of rural households — those who have land holdings in the vicinity of urban centres and face the genuine threat of acquisition. Only 0.5 per cent of India's farmers who have more than 10 hectares will be adversely affected by these amendments.

Clearly, Sonia Gandhi and Jairam Ramesh were out to appease and enrich this class of rich farmers. Modi has done well to assure 90 per cent of farmers of a better deal through rapid economic development and modernisation of agriculture and asking his ministers to take this message far and wide.

Recently, the results of a survey of 5,480 farmers have become available (*The Hindu*, 3 April, "Missing the Big, Bleak Picture" by Sanjay Kumar and Pranav Gupta). The survey was conducted in late 2013, after the passage of the LARR by the UPA government. Its findings show that 62 per cent of farmers were willing to leave farming if they found an alternative job; 37 per cent did not want their children to continue with farming; nearly half of the surveyed farmers believed their conditions were bad; and 22 per cent have actually begun to dislike farming.

This reflects a growing reality that agriculture is no longer a viable occupation, best shown by the average outstanding debt of ₹47,000 per farmer's household. Unsustainable farming and the vulnerability of farmers have driven them to tragic suicides in times of crisis. The findings should hopefully bring some realism to the leadership of the 14 political parties which trooped to Rashtrapati Bhavan behind Sonia Gandhi to lodge their protest against the proposed amendments.

Two brief points emerge: First, acquisition is an issue for less than 10 per cent of farming households, which are being pampered by the Congress leadership for vote-bank reasons; second, Indian agriculture in its present state is simply not economically viable as an occupation for the vast majority (nearly 85 per cent) of the rural population which is locked in a vicious circle of grinding intergenerational poverty.

Unfortunately, we cannot expect the Congress leadership to take cognisance of these cold facts. The party's leadership is historically adept at twisting ground realities to suit their immediate political objectives regardless of how severely out of sync they may be with the nation's priorities. This can be more acutely seen in the Congress's treatment of minorities that has continued their marginalisation while paying lip service to them at election time.

Their attitude towards Dalits smacks of populism without any attempt to ensure their economic advancement; their legislative overturning of the Shah Bano judgment shows the party's sheer cynicism towards women; and their approach towards child labour required a Kailash Satyarthi to wage a bitter struggle largely against Congress-led governments.

Congress luminaries like Sonia Gandhi and Jairam Ramesh are of course not expected to pay any heed to these facts in their pursuit of political opportunism. For Manmohan Singh and Anand Sharma to have also succumbed to Jairam Ramesh's skulduggery makes one feel hopeless about the Congress party.

In these circumstances, Modi has done well to not flinch from his clearly expressed resolve to take the battle to the Congress party and its allies. He should see this as perhaps the most important political struggle in post-Independence India to wean the peasantry off unviable agriculture and connect farmers with the dynamic modern Indian economy.

This will be a tough battle but one which must be won for saving the vast majority of our farmers from penury. But first and foremost Modi, Amit Shah and Arun Jaitley will have to take the necessary steps to build the required trust between the BJP, widely perceived as a party for the urbanites, traders and busi-

Continued on page 26

No prizes for MoEFCC

KANCHI KOHLI

WHEN I finished reading the 44-page document related to the achievements of the Ministry of Environment, Forests and Climate Change (MoEFCC), I was not surprised. *Towards Transparency and Good Governance* is a publication by the ministry listing all that they have got done from June 2014 to January 2015 since the new government came to power.

I asked myself why that document sounded like business-as-usual reporting. Cutting down delays for strategic projects, avoiding time and cost overruns, expeditious implementation of linear projects, improving governance for faster growth were all terms which figured in the first four achievements.

The fifth one set out statistics. Since the ministry launched its online system for project applications in July 2014, it has received "more than 700 applications for Terms of Reference and 400 applications for EC". This was the achievement related to the section on transparency in decision-making. Before I could ask how this could be so, the document provided an answer. It said, through this new method, project proponents could access and track their proposals for environment clearance and approval for the use of forest land for non-forest use. Therefore, it has brought "transparency and predictability in the system".

I was still intrigued. I re-read the document to see if I had indeed missed something. But that was not the case. I had covered the first six out of 13 achievements the ministry had listed, and the word environment had hardly figured. Where it had, it was used as a prefix to the word 'clearance', explaining to the reader what the ministry's achievement was with regard to 'environment clearance' for industrial and infrastructure projects.

The second way in which the word was used was when the Minister of Environment and the Secretary to the MoEFCC described the need to balance development and environment, and how growth and the environment should go hand-in-hand. This could only be a play of words, but I thought to myself, what if we change the placement of what the minister and the secretary were trying to say.

If we start bringing environment before growth, would that change the way we view transparency and good governance? This way, growth priorities would need to fit into the environmental agenda and not vice-versa. But then, wasn't that what the MoEFCC was meant to do? What happened along the way was that the very thrust and language of a ministry entrusted with the task of protecting the environment is almost justifying to everyone that it was not in the way of the country's development and growth.

I gave the document another chance. Perhaps the narrative will change in the latter half. I saw words like 'protecting and promoting cleaner environment', 'control of pollution', 'protection of wildlife, biodiversity' figure in this section. Surely the ministry would have undertaken specific tasks related to this and one will see an array of achievements.

> **The more mining you do, the more tax you collect, and then we develop clean technology while our forests, grasslands and rivers succumb to the pressures of mining.**

Here is the list for all to judge. For protection of the environment and ensuring a clean environment, the ministry has, first, doubled the coal cess by the mining companies. This money, once collected, will be used to develop clean technology. In effect, the more mining you do, the more tax you collect, and then we develop clean technology while our forests, grasslands and rivers succumb to the pressure of increased mining.

After all, this should be read with the first set of achievements, which have created transparent and efficient regulatory systems for investments and approvals. The second measure for environment protection, pretty much on the same lines, relates to the ministry trying to release ₹33,000 crore to state governments, collected for compensatory afforestation of the forests that have been diverted for non-forest use.

For the protection of wildlife, the ministry's only achievement has been reconstituting the National Board for Wild Life (NBWL) and its standing committee, and amending the NBWL rules. This is followed by stating that the NBWL has looked into 165 matters and taken decisions on 133 proposals.

The NBWL, as per law, has several powers to promote wildlife conservation, advise the central government on wildlife conservation strategies and so on. However, the only emphasis in the MoEFCC document was related to clearing projects and the achievements of the NBWL's work related to this. The impact of this, according to the MoEFCC, is that these clearances will "ensure implementation of long pending important projects".

Where is the proactive work related to protection of environment, I thought to myself yet again? Since when has the primary task of the ministry become justifying approvals, so much so that they dominate the landscape of their prized list of achievements?

Who was this document talking to, really? Why is the report bending backwards to please all those claiming their projects are stuck because of environmental approval? Why were the only proactive measures to protect the environment in the form of monitoring technology and collection of taxes?

My not being surprised — that is the problem. Though I felt troubled, I realised that this is what has become of a ministry which is supposed to be the environmental voice of the country. It had, till its 2006 policy, spoken about mainstreaming environment into other social and economic sectors. How can we now let it succumb to being a synonym for project clearance? ■

Kanchi Kohli is a researcher and writer.Email: kanchikohli@gmail.com

Continued from page 25

nessmen, and the farming community.

The trust will need to be built on the basis of persistent and multifaceted engagement with the farmers. To be successful, Modi should give up his exclusive reliance on the bureaucracy and instead use civil society and think-tanks to engage with them directly. This has to be done with a political and not a bureaucratic mindset. The farmers have to be convinced that rapid development and modernisation of agriculture is the only way forward to end the continuing dualism between Bharat and India.

It is up to the BJP and its allies to articulate this development urge in the countryside and use it to mobilise the poor farmers in support of the proposed amendments. Indian farmers have always been staunch nationalists. They will whole-heartedly support an honest development effort. But they want to be treated as partners and not as policy objects.

The mobilisation of farmers can be achieved in three steps. First, they have to be convinced, through a massive awareness programme conducted by the newly minted 60 million BJP members, that they will benefit from faster and sustained infrastructure development. Second, it should be clarified that compensation being offered together with the promise of employment for those whose livelihoods are affected is a good deal which will be honestly implemented. Third, district administrators should be asked to draw up in the shortest possible time an inventory of land holdings by the government, its associated agencies, and public sector units in their districts. This would help in convincing the farmers that existing land holdings will be used for new projects where possible and the government will actively discourage land-grabbing.

Finally, state governments should consider declaring the land in the vicinity of urban agglomerations open for multiple uses and not continue with the current practice of project-specific change in land use. This will drive up the price of land to its market-determined level in a most transparent manner and ensure that no acquisition can take place at lower than market rates.

It will also disprove those who assert that the compensation package under LARR does not raise land prices to abnormally high levels. A land market must emerge in India. This is a necessary condition for agricultural modernisation. An efficiently working and properly regulated land market is a far superior mechanism for protecting farmers' interests than a harassed and often compromised bureaucracy. ■

The author is a Senior Fellow at the Centre for Policy Research and Founder Director, Pahle India Foundation.

From school to college

DILEEP RANJEKAR

It is unfathomable why the RTE Act decided to limit itself to making education as a right only upto Class 8. It would have been so logical to cover education upto Class 10, making it a fundamental right of every child.

BACK TO SCHOOL

IT is high time we stopped compartmentalising education. Even at the government level, we need to view education as a continuum. I fully recognise that each stage of education has different needs, nuances and different issues associated with it and we must focus on those needs to successfully meet them.

Education has been rightly categorised into pre-school, primary (within that lower and higher primary), secondary and tertiary education. However, these distinct parts must be viewed together as integrally linked with one another. Illustratively, the quality and equity issues at pre-school affect the child's development at primary education level — which in turn affects the quality at subsequent stages. One of the reasons we find many teachers lacking subject matter expertise is the kind of school education they themselves received. And because teacher education is currently in a poor state, the quality of school education in turn gets adversely affected.

STEPPING STONE

Practically all educationists and child development experts across the world accept that four to eight years of age is extremely critical for the overall and especially the psychological development of the child. In fact, many argue that if we take care of a lot of basic needs of the child during this stage, many subsequent "development-related problems" can be prevented. One molecular biologist once rebuked me, saying we are ignoring this important stage of the child's life and trying to "repair" the problems subsequently in school education — which is completely unproductive. In principle I agreed with him. He was advocating better nutritional supplements (including Omega 3 fatty acids) for children in that age span.

However, look at this curious fact. Pre-school education or early childhood care is not even an integral part of the Ministry of Human Resource Development (MHRD). It is currently under the Family and Child Development ministry. So when we met the then MHRD minister a few weeks before the Right to Education Bill (RTE) was tabled before Parliament and fervently appealed for pre-school education to be covered by the Bill, he simply dismissed the plea, saying, "But it belongs to a different department and I have no powers to influence that."

More than 60 per cent of children between three to six years of age have either no or very poor access to any structured developmental or nutritional input. These are typically rural children of socially and economically disadvantaged parents. The inequity begins from their entry into Class 1 — since they are so severely underprepared to compete with other children who were fortunate to have had such developmental exposure. And for both groups the final assessment in the Class 10 exam is the same.

THE SECOND RUNG

The next issue is the sub-categorisation of primary and secondary education within school education. To begin with, it is unfathomable why the RTE Act decided to limit itself to making education a right only upto Class 8. It would have been so logical to cover education upto Class 10, making it a fundamental right of every child to receive basic education upto professional education.

The chasm is further enhanced by two critical factors: First, two different programmes (Abhiyans) deal with these two stages — the Sarva Shiksha Abhiyan (SSA) upto Class 8 and the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for education thereafter. Secondly, currently the qualifications that are allowed for teachers for these two are also different. While primary education can be dealt with by a teacher with a Diploma in Education (D.Ed. — a diploma after Class 12), secondary education needs teachers with Bachelor of Education degrees (B.Ed. — awarded after a one-year course after basic graduation in Science or Arts).

Again, I fully understand the differences in the stages of education. However, the least the government could have done was to launch SSA and RMSA concurrently and not with a gap of over nine years after the SSA was launched. While the basic objective of the government may be to focus on those specific issues and strengthen them, in the mind of the administrators, two different silos have been created and all that they have to do is juggle the budgets and resources that are available under these two programmes.

The issue of qualifications of teachers has been discussed with me by so many administrators, the key dilemma being: is it not important to have a better qualified teacher at the early stages of education such as the lower primary school? In other words, should we not insist that all teachers must have a B.Ed. degree to ensure basic quality? Should we not add the element of how to deal with children in the age bracket of six to 10 in the B.Ed. course itself?

AT THE TOP

In 2013 the MHRD launched the Rashtriya Uchchatar Shiksha Abhiyan, directed at education beyond Class 12. There is nothing against launching such a programme to help focus on higher education to enhance enrolment and offer a lot of help to some of the states that have special status linked with their socio-economic development. Once again the issue is, all these programmes were neither thought of nor announced together. Therefore, they were almost perceived as after-thoughts and in

Continued on page 28

Smart cities for the aged

MATHEW CHERIAN

GREY LINES

PRIME Minister Narendra Modi recently announced that 100 smart cities would be created across India. Immediately after the announcement, HelpAge India wrote to the Prime Minister on the need for cities for aged and disabled persons and not only for smart people. Do we need smart cities or cities for all age groups? Is it universal design or design only for the young and the smart? We need to ponder and decide which way to go.

Similarly, in tune with universal design, the Finance Minister has allocated ₹300 crore in the recent Budget for assisted devices for the benefit of such persons. He said "that there is a need for products, which were really meant for elderly and specially challenged people". Out of 1.2 billion people, about 100 million are elderly and 60 million are disabled in India, some visually, some physically and some with other forms of disability. There is no concept of inclusive design for these people, excluded from Indian society.

"The idea of universal design, although nascent in India, has been practised globally for many years. Strong, powerful forward-thinking economies which have democratic laws and equality for all the citizens have embraced universal design in a big way," said Sanjay Jayavarthanavelu, Chairman of the Lakshmi Richter group, while inaugurating an international conference on Universal Design and Development in Coimbatore, organised by Prof S. Balaram, Director of the DJ Academy of Design. Many older people still complain that today's new infrastructure like roads, flyovers and shopping malls are not accessible.

HelpAge India released a report in 2010 called the Age-friendly Cities Index which measured Delhi against other cities. This report was released by the former Lt Governor of Delhi, Tejendra Khanna. It said "the bulk of Delhi's new infrastructure was not age-friendly, neither bus stops nor buses. The only relief was on the Delhi Metro which was age-friendly. Many elderly are still unable to cross the roads."

I conducted an accessibility audit with Shyam Kishore who is visually challenged and an alumnus of the Blind Relief Association (BRA) near Hotel Oberoi, an important school for training the blind. He indicated that as soon as he comes out of the portals of the school, the problem of accessibility begins. The roads outside Hotel Oberoi and the Golf Club do not have any accessible pavements or crossings or accessible bus stops which indicate obstructions and elevation drops. The ramps to the bus stands which make them accessible begin nowhere and end nowhere. Many elderly people have been hit by speeding traffic at zebra crossings in Delhi. No wonder Delhi received the lowest ranking among international cities, in spite of claiming to have world-class infrastructure. If this is the situation in India's capital city, what about other cities in India? Forget the 100 smart cities of the future!

One of the first principles of universal design is 'equitable use' so that the design is useful and marketable to people with diverse abilities. We should not segregate or stigmatise any users.

How does the principle of universal design work? Designers, engineers, planners and architects are not trained in these concepts. Only very recently has some training for them started. All buildings are built with large staircases where a simple ramp could have helped wheelchair users and the elderly gain access. The National Building Code which is used by most architects did not have an accessibility design code until very recently. Even toilets built under the Swachh Bharat Abhiyan do not have designs for accessible public toilets or accessible individual toilets in rural areas. The situation in public toilets for the disabled in cities is revolting for both men and women. A study of public toilets in Gujarat done by Prof Abir Mullick, Vice Chancellor and Provost in Manav Rachna University in Vadodara, showed the sorry plight of the disabled.

We are yet to evolve a universal design for toilets. The situation in public buildings in most cities is far worse. There is a ruling that all public buildings must have accessible toilets. Prof Mullick is the father of universal design principles in India and has promoted a society to propagate these principles. But less than 10 per cent of India's public buildings are accessible. So much for universal design.

India's curriculum in engineering, technology and design schools have introduced universal design only at the turn of the millennium. It is yet to take root in the thinking of India's leading designers. About 11 per cent of India is left-handed. My nephew, Anand Cherian, had difficulty procuring products for the left-handed. It was Fiskar's (a foreign company) who brought a pair of scissors for the left-handed to India. We need many more products for them and for the disabled and elderly. One of the first principles of universal design is 'equitable use' so that the design is useful and marketable to people with diverse abilities. We should not segregate or stigmatise any users.

Javed Abidi, convener, NCPEDP (an organisation which works for the disabled) and Sanjeev Sachdeva, a rights activist, who are both wheelchair users, have been promoting universal design and barrier-free design for years. They won an award for prototypes such as an innovative design for a taxi and a universal design for an ATM. Their designs are very useful, but many have remained prototypes. It is high time industry came forward to make them viable products.

With the support of the Ministry of Science and Technology and the Technology Innovation for Disabled and Elderly (TIDE) programme, several innovative prototypes have been created but none are in production. It is time all of us came forward to push government and industry to pay more than lip service to inclusion and universal design. Or we will remain excluded for another decade and universal design will be a far cry in India. ■

Mathew Cherian is CEO of HelpAge India.

Continued from page 27

many ways stand disconnected from one another.

At the higher education level, we have several global examples before us. Higher education in developed countries has the following key differences:

- The responsibility of learning is primarily on the learner
- The teacher's role is that of a facilitator, mentor, problem-solver, coach and not that of a knowledge imparter
- The education system is so designed that the learners are forced to independently read, refer to multiple sources and spend considerable time in the library for interpreting multiple views
- Assessment is not of one kind and at one point of time. It is continuous and on multiple issues such as presenting a case, analysing a case, specific assignments and so on
- The focus includes developing abilities, such as ability to analyse, communicate, present, listen to others' views, work in groups and so on, in addition to developing deeper academic understanding. The overall assessment also factors in these issues.

The real challenge is how we change the culture in our higher education institutions and have faculty that, in addition to their subject matter knowledge, are well versed with the issue of 'how adults learn'. There are many examples of faculty members who are outstanding as far as academic excellence goes but are very poor as teachers.

It is appreciable that, in a nation of 1.25 billion people with such diversity and inequity, issues are never easy to deal with. What is, therefore, needed is a long-term, comprehensive and coherent vision about our entire education system in an integrated manner, clearly identifying the linkages and viewing them in tandem and not in separate pieces. Our vision must link the current reality with the future that awaits the next generations. And this must be done keeping in mind the overall framework of our Constitution. ■

Dileep Ranjekar is CEO of the Azim Premji Foundation.

Big film fest by big school

Children watch the best in global cinema at ICFF

Saibal Chatterjee
Lucknow

FILMS on children from around the world and young showbiz celebrities converged on the main campus of the world's biggest school in the second week of April. What followed were nine memorable days of meaningful entertainment.

The 7th International Children's Film Festival (ICFF 2015), organised by City Montessori School (CMS), Lucknow, in collaboration with the UN Information Centre for India and Bhutan, provided over 100,000 students of the city with the opportunity to view hundreds of acclaimed titles sourced from every corner of the globe.

"Cinema is a powerful medium that transcends all boundaries. It is a creative means that has the potential to transform people and a society by being educational yet entertaining," says 78-year-old Jagdish Gandhi, founder-chairman of CMS, explaining why he came up with the idea of a children's film festival on the campus.

"I felt it was pointless to complain about the lack of quality entertainment for this country's children," he says. "So I decided to do something about it."

The entirely privately funded film festival, first held in 2009, has grown steadily over the past seven years, keeping pace with the expansion of CMS as an institution.

CMS is the world's biggest school in terms of the number of students enrolled. It made it to the Guinness Book of World Records exactly 10 years ago with a record enrolment of around 30,000 students, beating a school in the Philippines.

Since then, the CMS attendance numbers have crossed the 50,000 mark. The school now has 23 campuses across Lucknow.

ICFF, too, is by far the world's largest annual children's film festival. Says Gandhi: "This year, in the course of nine days, over 100,000 youngsters watched more than 480 films from 80 countries."

Gandhi credits the UN Information Centre's partnership this year for the dramatic jump in the number of participating countries. "Last year, we had only 31 nations taking part in the festival," he says.

Ambassadors of several countries — Belgium, Croatia, Laos PDR and Israel, among others — and filmmakers from Finland and Germany attended the festival this year, lending it a truly international flavour.

ICFF is a competitive festival, with two juries — one of film professionals and the other made up of students — judging pre-nominated films that vie for various prizes with a purse of a total of ₹10 lakh.

Flying Paper is about Palestinian children and their kite flying achievement

Gunja tells the story of a girl who wants to go to school

Tender is the Sight is a brilliantly cinematic film

This year the festival had a five-member main jury headed by the director of the UN Information Centre for India and Bhutan, Kiran Mehra-Kerpelman. It included three film- makers — Katharina Woll from Germany, Golam Rabbany Biplob from Bangladesh and multiple National Award-winning Kannada-language director P. Sheshadri.

The main jury viewed 15 films of lengths ranging from 50 minutes to about two hours to decide on three prizes.

A Young Jury, made up of three CMS Class 10 students, watched 80-odd short films to pick award-winners in three separate categories — short fiction, documentary and animation.

The festival was held from 7-15 April, with many celebrity guests, including well-known child actors, in attendance.

The atmosphere in the CMS World Unity Convention Centre was carnival-like, with thousands of students queuing up every morning for daily shows of both feature-length films and short fiction and documentary films.

Nearly 80 buses were pressed into service to ferry students from various schools to the venue. "Our aim this year was to take the festival beyond the regular schools to reach out to alternative centres of education and also to economically deprived children who might never have seen a film before," says Gandhi. The quality and thematic range of the films on show reflected the official CMS motto, *Jai Jagat* (Glory to the World), in every sense of the term.

At one end of the spectrum were works such as Iranian director Amir Hossein Asgari's feature-length film, *Borderless*, which explores the deleterious effect of war on its young victims, and Indian-German filmmaker Zubin Sethna's *Where is My*

Continued on page 30

Continued from page 29

Tent?, a 100-minute personalised documentary about a search for both identity and the meaning of human connections.

On the other hand, there were short fiction and documentary films that took viewers on a journey through diverse geographies and mental landscapes, in ways both disturbing and life-affirming.

In this category was the Israeli film, *Where is Elle-Kari* and *What Happened to Noriko-san?* in which Dvorit Shargal searches for the real-life heroes of books that shaped her childhood.

Kurdish-British director Kae Bahar's *I Am Sami,* a short fiction film about a 10-year-old boy in an unspecified war-ravaged Middle East nation and his innocent friendship with an American soldier, who served on the Young Jury. "It shows us how unjust the world continues to be and how everybody in this nation isn't as lucky as we are."

One of the finest films in the festival this year was the brilliantly cinematic, *Tender is the Sight,* a Films Division production helmed by Torsha Banerjee.

Tender is the Sight, winner of the National Award for the Best Non-Feature Film of the year, focuses on a visually impaired blind boy who relates to the world wholly through the sounds emanating from things in his surroundings, ranging from running trains and sewing machines to an ironsmith's anvil and a weaver's loom.

Vijay S. Jodha's six-minute documentary, *Poop on Poverty,* focuses on a little-known phenomenon that unfolds at the widely covered camel fair on the edge of the Thar desert where every year many extremely poor families make a living by turning camel dung into biofuel.

A still from The Silent Heroes

struck a chord with the Young Jury.

Other remarkable films in the vast selection were Nitin Sawhney and Roger Hill's *Flying Paper,* a documentary about a bunch of Palestinian youths in the Gaza Strip who defy all odds in a quest to set a Guinness World Record for the most kites ever flown in one place. It is a story of war, but it is also a celebration of the tenacity that helps children to cling to their dream of freedom even in the most trying circumstances.

Poop on Poverty turns its lens on the camel fair

ICFF caters to children from three to 17 years of age so it isn't only limited to films that touch upon grave social issues.

The opening film of ICFF 2015 was Mrinal Dev's 28-minute fiction short, *Gunjaa*, about a spunky village girl in Bihar who craves to be in school but is thwarted by grinding poverty and caste discrimination that continues unbridled despite the many government schemes aimed at eliminating the hurdles that lie in the way of children like the titular character.

Gunjaa's father is a maker of funeral stretchers and earns money only when someone dies in the village. So the girl pleads with God to kill people so that her father can put her in school. A dark but understated tale, it captures a reality that privileged children are rarely allowed to see.

"Gunjaa is an eye-opener for us," said a CMS girl

ICFF is a festival that caters to children from three to 17 years of age, and therefore it isn't only limited to films that touch upon grave social issues that impact children.

As always, the latest edition of the festival showcased several uplifting and feel-good short films aimed at children in the younger age bracket.

So it had the story of a street kid who aspires to be a boxer (Praveen Singh Rathore's *I Am Raghu*), the adventures of a group of deaf-mute children who undertake a mountaineering expedition (Mahesh Bhatt's *The Silent Heroes*), and the experiences of a boy left alone at home by his mother (Soham Sen's *Who is your Superhero?*).

According to Kiran Mehra-Kerpelman, the decision of the UN Information Centre to come on board was influenced by the sheer size of the festival. "It would be wonderful if this model could be replicated elsewhere in the country," she says.

"This festival will keep growing and we will do whatever it takes," promises Gandhi. Knowing what he has done with a school that he founded in 1959 with only five students, it is easy to believe him. ■

'We face

Fieldwork is full of surprising challenges for anthropologists

IT isn't the research but the researcher who is in the spotlight in *Fieldwork in South Asia: Memories, Moments and Experiences.* Edited by Professor Sarit K. Chaudhuri and his wife, Professor Sucheta Sen Chaudhuri, the book consists of a series of papers about the experiences anthropologists undergo while doing their fieldwork.

Many anthropologists travel to remote regions to collect material. Sometimes they live with communities who might be tribal, marginalised and not very well known. Or they may set off to deal with a subject that a community is prickly about. Some of them work in regions riddled by war or insurgency. The situations they handle, as depicted in the book, range from sensitive to chilling.

The book isn't about the Indian experience alone but relates to South Asia. Anthropologists from across the world have contributed. There are papers from Bangladesh, Nepal, Sri Lanka and Pakistan, though Northeast India appears to dominate.

In the first section titled, "The South Asian Experience", Ellen Bal writes an excellent paper on the Garos of Bangladesh. A.C. Sinha in "Story of My Research in Bhutan" talks about how despite many frustrations his research turned out to be prophetic. Robbins Burling goes back to Rengsanggri in Meghalaya 40 years after doing his initial research and describes the changes he witnesses. He is welcomed like a long-lost cousin.

The second section is titled, "The Indian Experience". Eric de Maaker writes about how he managed to tactfully research Garo death rites. Of interest is Debojyoti Das' hair-raising encounter with gun-toting militants in the jungles of Nagaland. There are also papers on researching Madhubani art and another on "Tales of Everyday Politics in West Bengal".

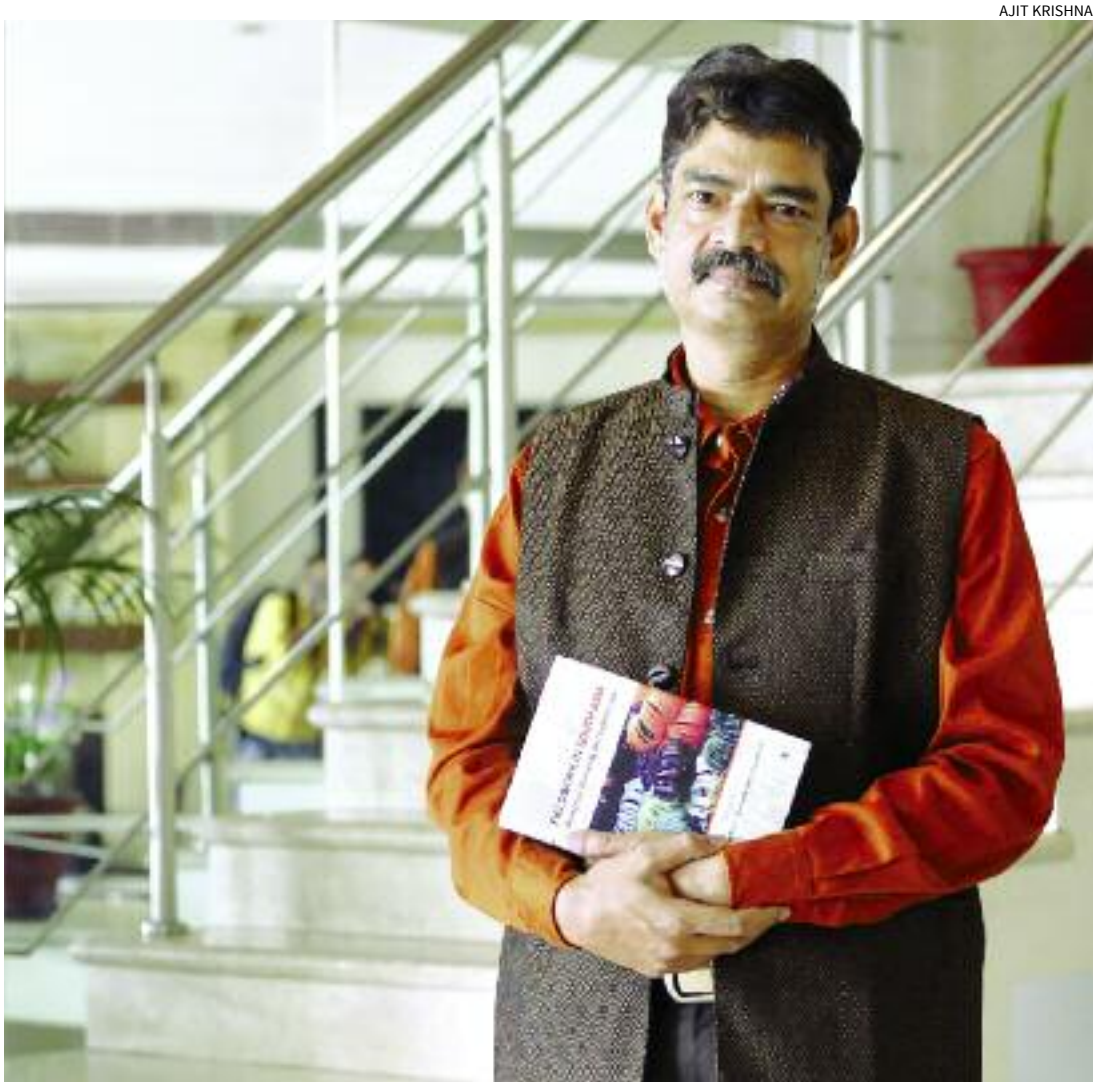
The book is interesting and enlightening. Professor Chaudhuri heads the Department of Anthropology at the Rajiv Gandhi University in Arunachal Pradesh. Currently on deputation as Director of the National Museum of Mankind in Bhopal, Professor Chaudhuri spoke to *Civil Society.*

How did the idea for such a book come about?

One major component which makes anthropology very distinct is fieldwork. We have core texts and this is one way of teaching. But we noticed that what got our students really interested were narratives — when they or anthropologists talked about their own experiences. It was very effective in understanding the complexities of doing fieldwork and the issues

dilemmas and dangers'

AJIT KRISHNA



Prof. Sarit Chaudhuri: ' Our responsibility is to portray the voices of people and these are not monolithic'

relating to communities.

We nurtured the idea of bringing more contemporary experiences to students, not just from India but South Asia. We discussed this idea with senior faculty, and other anthropologists. We did a five-year collaborative project with the School of Oriental and African Studies, the British Museum and the government of Arunachal Pradesh. We also got in touch with the Asian Borderland Research Network in the Netherlands. All this put us in touch with international scholars.

We chose eminent scholars and younger scholars who were making a mark. The Northeast is well-represented, being one of the focus areas of international research. It took us three years to put the papers together.

Is it becoming more difficult to do fieldwork of this kind? There are so many sensitivities involved.

It depends on how you approach the issues and the people. I have worked 19 years in Arunachal and my wife now works at the Centre for Indigenous Culture Studies in Ranchi. You know the sensitivities involved there. If you are going to cooperate. You have to follow a procedure. It should be a long-term journey. Any kind of instant approach may lead to problems.

NGO activists also go to villages, live with the people, understand their issues but they also take up their causes. Anthropologists don't despite understanding the community so well. Why?

It depends. We have also had action anthropologists or applied anthropologists who focused on certain issues and tried to resolve problems. Or they may work on different development agendas. People are engaged with specific objectives.

Any examples?

Well, for example, the earliest is Haimendorf (an Austrian ethnologist) who worked on the Apatamis of Arunachal Pradesh in the colonial situation and the post-colonial situation. His work made the Apatamis known all over the world.

But if we look today at the Northeast, there are so many issues it faces — from the Bodo issue to the anti-dam movement. What is the contribution that anthropologists would like to make?

To a large extent it is to portray people's voices but these voices are not monolithic. There are fragmented voices within the community also. Many times it occurs to me that the people have multiple perceptions on issues.

As anthropologists, that remains one of our responsibilities. We then look at people's issues in relation to the state.

What is your favourite memory of your fieldwork?

It depends on the context. For example, in Arunachal I was working with a small community called the Aka in the interior villages. I took my students there.

We stayed for three weeks. At the end of our programme, an important member of the community who contested many elections and lost every time, instantly composed a song as we sat around a campfire.

Remember, he was seeing me — a person not from his region — but he sang that I had come with my students from another part of the country to his village. The sun will now shine on our art, our songs, he sang, our people will get enlightened by interacting with us.

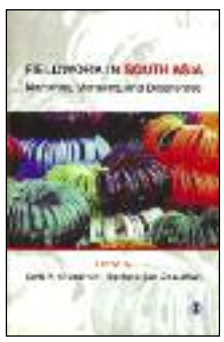
This is symbolic because it shows how people reciprocate ideas if you can penetrate their lives, this is how they accept a complete stranger into their lives.

So people are keen to talk about themselves, to tell their stories. But not many are listening?

Not many because the Northeast has this illusive image. In the fashionable mainstream, when China makes claims on Arunachal's territory, the media talks about it, it is all over the newspapers. But, in the process, what is not circulated is the lives of the people who live there, the issues they are involved in, the everyday nuances of their existence and how they feel. This is not reflected. ■

experienced in the craft of doing fieldwork, you can handle critical situations.

But there is a problem. Debojyoti Das' article on doing fieldwork in Nagaland in a conflict setting reflects the ethical dilemmas a field worker faces in relation to the state and the community. We did want to underline these issues. Debojyoti's article is very important to understand how the field worker is left to his or her own wits in handling such situations. I mean, they negotiate these dangers themselves.



FIELDWORK IN SOUTH ASIA

Memories, Moments, and Experiences

Edited by Sarit K. Chaudhuri, Sucheta Sen Chaudhuri

₹995

Sage

How do they cope in a conflict situation?

It is difficult but not impossible. My wife, for instance, has done a study on women's participation in the Bodo movement in Assam. She had to travel and stay in the interiors of Bodo-dominated areas with people involved in the movement, deal with them and their leadership. How you handle such a situation depends on your approach and that determines the accessibility and cooperation you get.

You need to know from where to start. If you suddenly land up in a village and start asking questions, people are not

SUSHEELA NAIR

The wondrous paintings of Bhimbhetka

Rock art tells a story

SUSHEELA NAIR

Intricate carvings on the facade of the Bhojeshwar temple

Susheela Nair
Bhojpur

FROM Bhopal, a 28-km detour took us to Bhojpur where the massive Bhojeshwar temple, located on a rocky mound in a desolate landscape, loomed into view from a distance. Bhojpur was founded by Raja Bhoja, the legendary Parmar king of Dhar, and named after him. In comparison to Bhimbetka, Bhojpur does not flaunt such a hoary past but is steeped in history.

Also known as the Somnath of the East, the Bhojeshwar temple is deceptively simple but remarkable in size. Rectangular in plan, its four colossal pillars support an incomplete dome decorated with rich carvings. As we neared the temple entrance, we were awed by the magnificence of its massive lingam — 7.5 feet in height and 17.8 feet in circumference, set upon a large platform measuring 21.5 feet. Though incomplete, it still attracts a large number of pilgrims who come to pray at the Shivling installed within.

The temple is designed in massive proportions with steep stairs. It is said to have never been completed, and an ancient scaffolding used for lifting the stones, can still be seen, beside the new scaffolding put up in an effort to restore and complete the temple.

The Bhojeshwar Temple is renowned for the remains of its magnificent Shiva temple and cyclopean dam. To the west of Bhojpur there once lay a lake and the remnants of a magnificent dam built around it can be seen even today. The site, which was chosen with great thought, has hills enclosing the entire area like a natural wall. Nearby, and also incomplete, is the Jain shrine with three figures of the Tirthankaras, of which one is a massive statue of Mahavira. One can even ascend the short flight of stairs and observe the images, which are close enough to touch, from various levels. It is easy to miss these temples, for the signboards are not exactly conspicuous.

The next halt on our itinerary was Bhimbetka, a UNESCO World Heritage Site tucked amidst the verdant forests of the Rata Pani Sanctuary in Madhya Pradesh. If Vishnu Shridhar Wakankar, an archaeologist, had not observed these unusual sandstone rock formations in 1957 in a forest while travelling by train to Bhopal, Bhimbetka might have remained in obscurity. Intrigued, he alighted at the next station, and walked back to the forest. There, he stumbled upon a treasure trove. Before him were rock shelters with paintings in a medley of colours, believed to be among the oldest in the world, dating back to the Neolithic Age.

The name Bhimbetka, however, is associated with Bhima, the Pandava prince from the *Mahabharata* famed for his immense strength. The word is said to be derived from Bhimbaithka, meaning the *baithak* (sit-down) of Bhima.

As I gazed at the ochre and fire-engine red paintings drawn by human hands several thousand years ago, I was caught in a time warp. Within massive sandstone outcrops, above a comparatively dense forest, are clusters of natural rock shelters, displaying paintings that appear to be from the Mesolithic period. The uncommonly shaped rock formations in this area and the natural formation of shelters and caves are due to the enlargement of cavities through physical and chemical weathering and erosion.

There are over 700 rock shelters in Bhimbetka, of which only some are open to tourists. An archaeological treasure, the paintings depict the everyday life of prehistoric cave-dwellers. Scenes such as hunting, dancing, music, horse and elephant rides, animal fights, honey collection, decoration of bodies, masking and household scenes are portrayed vividly. The cultural traditions of the inhabitants of the adjacent villages bear a strong resemblance to those represented in the rock paintings.

We stumbled upon a rock mass resembling a tortoise. In one of the caves, we saw paintings of geometrical designs. In another cluster of rock shelters, called the 'Zoo', we came across a profusion of animals and birds in the most vivid colours and lifelike forms. Animals such as gaur, tigers, lions, wild boar, elephants, antelope, dogs, lizards, crocodiles and so on have been portrayed in some caves. Popular religious and ritual symbols also occur frequently.

The paintings are mainly in red and white with occasional use of green and yellow. A gamut of figures spills across the rocks: scenes from everyday life, childbirth, initiation ceremonies, drinking sessions, burials, men carrying dead animals, people playing musical instruments and communal dancing. Apart from the paintings, 10,000-year-old flint and stone tools made by the hunting and food-gathering people of that time have been found in the area. The paintings of human figures and hunting scenes depict a clear picture of the weapons they used: pointed sticks, barbed spears, bows and arrows.

Interestingly, the superimposition of paintings shows that the same rock surfaces were repeatedly used by people in different periods. The drawings and paintings are classified under seven different periods. Twenty-one colours have been used in the rock paintings in Bhimbetka, including white, ashy white, creamy white, yellow, yellow ochre, raw sienna, raw umber, orange, dark orange, vermilion, scarlet, burnt sienna, emerald green, black, crimson lake and purple.

These natural colours were made by crushing different coloured natural rocks and stones found in nearby places. The colours used by the cave-dwellers were prepared by combining manganese, soft red stone and charcoal. Sometimes, the fat of animals and extracts of leaves were also used in the mixture. The colours have remained intact for many centuries due to the chemical reaction resulting from the oxide present on the surface of the rocks. Most of the paintings in Bhimbetka were painted using a finger. ■

FACT FILE

GETTING THERE: Bhimbetka is 46 km south of Bhopal and surrounded by the northern fringe of the Vindhyan ranges. The nearest airport and rail-head to Bhimbetka are at Bhopal (26 km away). Both Bhojpur and Bhimbetka are connected by bus with Bhopal.

WHERE TO STAY: Highway Treat in Bhimbetka. For online reservations, log on to www.mptourism.com

The floral therapist

PICTURES BY AJIT KRISHNA

Rama and Tanvika Baru

Kavita Charanji
New Delhi

FRENETIC lifestyles come with a price tag: stress, anxiety, anger, panic attacks, depression, fear, loneliness, insomnia. Take your pick.

You can choose to suffer in silence, rush to a psychiatrist for those toxic pills or opt for safer, gentler options. There are many alternative therapies to choose from, ranging from reiki, crystal healing and pranic healing to emotional freedom techniques.

Still in its infancy in India is Bach Flower Therapy. Tanvika Baru is a trained and certified Bach Flower Therapy Practitioner (BFTP) who uses the healing power of flowers to restore emotional balance to troubled minds. Working out of her home in New Delhi and as a consultant to Zehen and Ravissant spas in New Friends Colony, the 25-year-old comes across many stressed and anxious individuals struggling to cope with the pressures of modern-day living.

"I mainly get cases of anxiety, insomnia and stress. Some of them are parents of children with Attention Deficit Hyperactivity Disorder (ADHD) or autism. People with chattering minds, serious relationship issues or in the midst of messy divorce cases also come to me. Of course, there are many adolescents going through those crazy teenage years," says Baru.

Sheer loneliness can trigger off episodes of withdrawal and even drug addiction among the young. Baru recalls a friend in his twenties who was addicted to drugs, became violent and started hurting not just himself but people around him. "That was scary because we weren't sure whether he should be institutionalised or go on to more allopathic drugs. When he came to my home I prescribed separate therapies for de-addiction and violent impulses. This helped him calm down. I can't say that he is perfectly normal now but he has come a long way from the state he used to be in," she says.

Baru has personal experience of the wonders of flower therapy. She recalls that, as an art student at Laselle College of the Arts in Singapore, she had episodes of panic attacks and stress because she wasn't able to cope with academic pressure. "I would often come home crying and my mother encouraged me to go in for flower therapy. I realised then that going in for allopathic medicines would only complicate things because they have so many side effects. I decided I would try a blend of flower therapy and homoeopathy. It really worked. I have been taking flower therapy tinctures for five years now; it took me at least six months to become a little stable and less stressed out. Now I am off it but I do take it on and off for my mood swings," she says.

"Many of us have emotional issues which manifest themselves in the body. Once, when I had knee pain, the doctor said it was the result of accumulated stress," says Baru.

Her mother, Rama Baru, professor of public health at Jawaharlal Nehru University and a trained psychiatric social worker, has been a constant support. She not only encouraged her daughter to train as a flower therapist in India, at the Bach Centre in Oxfordshire, UK, and in Singapore, but also helped build her practice as she knew many neighbours with their share of emotional stresses. Baru's practice has grown by word of mouth. She has helped people and even animals.

"I have a non-judgemental questionnaire which basically needs Yes and No answers. On the basis of responses, I prescribe one of the 39 flower tinctures that I import from the Bach Centre in Oxfordshire. Lifestyle diseases are predominant and I basically use a lot of sweet chestnut and white chestnut because there is so much mental anguish that needs to be dealt with. White chestnut is for the chattering mind which causes insomnia while sweet chestnut is for mental anguish and depression," says Baru.

The best part of flower tinctures, she says, is that they are not habit-forming, can be taken with other medicines, and have no side effects. Should the wrong choice be made, no harm would ensue.

It works like this: drops of the floral tincture are diluted in a glass of water or beverage and sipped when there are passing moods or emergencies. The drops can also be taken directly on the tongue from a pipette and kept in the mouth for a short period while visualising positive energy. Another alternative is a "treatment bottle".

Bach Flower Therapy was developed nearly 100 years ago by the British physician, Dr Edward Bach, who gave up a successful Harley Street practice to focus on developing alternative medicine. While his 38 floral remedies and one rescue remedy were inspired by homoeopathy, they diverged in the distillation, extraction and potency processes. Moreover, while the side effects of homoeopathy were debatable, flower therapy was a gentle remedy for the alleviation of unhappiness and physical distress as it unlocked the healing potential of people's bodies and allowed them to work again.

"I think that Bach could make a very important contribution to caregivers," says Dr Rama Baru, who is keenly interested in complementary medicine. Allopathy, she believes, has an important place in medicine but doesn't have all the answers to lifestyle issues that emerge from the pace of modernity and dramatic transformations that Indian society has undergone in the past 30 years.

"It is a very broad category but they could be parents of children who have learning disabilities or are emotionally distressed; they could be caregivers for the elderly who in a sense take away from their own selves and give to others. It could even be homemakers who juggle multiple roles and don't sit back until they have a physical collapse, particularly during menopause or middle age. Menopause is a huge area in which Bach works. I take Tanvi's prescriptions also for insomnia which occurs when I am under a lot of work pressure and have a chattering mind," she says, pointing out that many people say they feel more relaxed, calmer and are able to sleep peacefully after taking Bach flower remedies. ■

Floral tinctures can help heal the mind

'The best part of flower tinctures is that they are not habit-forming, can be taken with other medicines, and have no side effects.'

PICTURES BY AJIT KRISHNA

Madhubani art

SURROUNDED by baskets, trays, photo-frames and mirrors, Gambheera Devi and Seema Singh appeared engrossed in painting Madhubani, dipping their brushes into inky black and blue. The two women had come all the way from their village, Khatika Basant, in Madhubani district of Bihar, to sell products made by their self-help group of around 15 women at Dilli Haat.

"In the old days we did not earn much from Madhubani," reminisces the elderly Gambheera Devi. "We painted when we got the time, creating products that we were familiar with. Middlemen would come and buy our ware at our doorstep, going house to house. They used to pay us very little. Then, somebody told us that in Madhubani town the government had started a centre for our craft. We went there, got registered, received identity cards and since then there has been no looking back."

The Madhubani centre, says Gambheera Devi, has done wonders for the incomes of Madhubani artists in their village. The women were helped to organise. They were trained and provided finance and marketing support. Their children now go to school. Seema Singh says her children have a choice of careers and they don't want to paint Madhubani. For Gambheera Devi, painting Madhubani is her family's sole 'rozi roti'. "Madhubani district is now synonymous with art," says Seema Singh.

The women say their group receives occasional orders to paint on walls, saris, scarves and salwar kameez sets. ■

CONTACT: Gambheera Devi: 09311160005,
Seema Singh: 09718948444

Creative toys

ALTHOUGH Channapatna in Karnataka is India's hotspot for traditional toys made of wood, artisans in Odisha are also inventing similar toys.

Prashant Subhojit of Sri Gopal Arts & Crafts in Nayakpatana in Puri says their traditional style of painting, called *pattachitra,* is being used on many other products including toys. He was in Delhi to participate in CAPART's exhibition, Saras, at Dilli Haat in April.

Subhojit says his organisation trains self-help groups (SHGs) of women in villages in Puri district to paint *pattachitra* and make products for urban markets. His pretty tortoise with its nodding head and tail attracted children to his stall. He had a paper puppet, a black skeleton with orange and green eyes, which danced when shaken. It cost just ₹20. There were also paintings and glass bottles with tribal art.

Subhojit's team is financed by the Odisha Rural Development and Marketing Society which arranges for their travel to cities across India to sell their products. Subhojit's guru is Harihar Prusty, a master craftsman who has been awarded a state design award and a state merit award. ■

CONTACT: Prashant Subhojit
Phone: 09778707373, 07381604300
Email: satyanarayanprusty2@gmail.com

Changing Lives

Introducing Tablets for better education

SST has started using tablets in schools to help children improve their learning levels. This has attracted many children coming to the schools.

S. Latha, a girl student studying in class 4 of Panchayat union primary school, Thirukkurungudi village, Tirunelveli district was irregular in attending school. Therefore she was not able to keep up with the rest of the students in class. After introduction of tablets, she enjoys coming to the school and uses tablet every day. She finds the school interesting. She is no longer a slow learner. She is one among the best students in the class.

SRINIVASAN SERVICES TRUST
(CSR Arm of TVS Motor Company)

TVS MOTOR COMPANY

Post Box No. 4, Harita, Hosur, Tamil Nadu Pin: 635109
Ph: 04344-276780 Fax: 04344-276878 URL: www.tvsmotor.co.in

RNI No.: DELENG/2003/11607 Postal Registration No.: DL(S)-01/3255/2015-17.
Registered to Post without Pre-payment U(SE)-10/2015-17 at New Delhi PSO.
Dates of Posting: 3 & 4 of May. Date of Publishing: 1st of every month.