

HORIZONS



Renewal in Rajasthan

Livelihoods and nutrition, health and education, migration and skilling
— the state is the stage for a clutch of impactful social uplift efforts

SPICY SUCCESS

Tribal farmers in Andhra Pradesh turn to turmeric for an income boost

INTERVIEW

UNDP's India head Shoko Noda on development, democracy and more

SPRINGING TO LIFE

Natural springs and village communities star in Uttarakhand water project



EDITORIAL

In these times of worldwide suffering and unending tragedy, the effort to put together a publication such as *Horizons* may seem trivial. But we all have to — if we can and as best we can — try to get on with the everyday matters of life, of work, of finding purpose and pluck. And that is not trivial.

There are plenty of lessons to be learned from the Covid-19 contagion, none more important perhaps than the importance of togetherness for the human race. The virus of individualism is being cast aside, at least temporarily, its place taken by a spirit of solidarity. That sense of togetherness is what informs the cover story in this edition of the magazine.

Rajasthan has for long been a laggard in human development indices but that is changing, not as rapidly as could be hoped but certainly for sure. Joining hands to make that possible are government institutions, nonprofits and philanthropies, as well as, most critically, the people and communities their initiatives are targeted at. The multiple social development programmes showcased here offer glimpses of how that is happening, and the part being played by the Tata Trusts in the endeavour.

We have packed in plenty more in this issue. Our special report explains how farmers in Andhra Pradesh are turning turmeric into a 'golden' opportunity for growth. Additionally, there are feature stories on a variety of subjects: an open-data platform providing Pune's citizens with better access to civic services; a water project in Uttarakhand that is working to revive and protect natural springs; an ecotourism scheme, in the same state, delivering an income source for women; and a clean-cooking solution in rural Uttar Pradesh aimed at making kitchens and homes safer.

From across the border in neighbouring Chhattisgarh, there's an article about how tribal communities are using an ingenious radio service to connect with one another and to resolve local concerns. Also on the menu are an intervention in Mumbai where cricket is the enabler for children from poor and difficult backgrounds, and a quirky campaign to promote road safety.

Expert insights are the order of the day in our interview with Shoko Noda, resident representative in India for the United Nations Development Programme. Then there are subject specialists Percy Menzies and Abhishek Ghosh casting light on addictions to drugs and alcohol and Shikha Srivastava of the Tata Trusts on migrant labourers and their need for help.

We round off with a photo-feature on animal care initiatives being supported by the Tata Trusts. That, we believe, is appropriate at a time when our exploitation of animals, for food and worse, is squarely in the spotlight.

Christabelle Naranta

We hope you will help us make Horizons better with your valuable feedback. Please do write to us at horizons@tatatrusters.org.

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EDITOR

Christabelle Noronha
Email: cnoronha@tatatrusters.org

EDITORIAL TEAM

Philip Chacko
Gayatri Kamath
Shubha Madhukar

EDITORIAL COORDINATORS

Kainaz Mistry
Sonia Divyang

EDITORIAL ADVISORS

Debasis Ray
Laxman Sivasubramanian

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DESIGN

Shilpa Naresh
Abraham K John

CONTACT

Tata Trusts
World Trade Centre 1
26th Floor, Cuffe Parade
Mumbai 400 005
India

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NEWS

Tata Trusts, Tata Sons join Covid-19 fight

The Tata Trusts has committed ₹5 billion and the Tata group ₹10 billion to India's fight against the Covid-19 virus.

"The situation in India and across the world is of grave concern and needs immediate action," said Ratan Tata, chairman of the Trusts and chairman emeritus of Tata Sons. "In this exceptionally difficult period, I believe that urgent emergency resources need to be deployed to cope with the needs of fighting the Covid-19 crisis, which is one of the toughest challenges the human race will face."

The funds will be employed to provide protective equipment to medical personnel, testing kits, respiratory systems, modular treatment facilities and for knowledge



Ratan Tata, chairman of the Trusts, and Tata Sons chairman N Chandrasekaran

management and training of health workers and the public.

The Trusts and Tata Sons and other Tata group companies are joined by local and global partners as well as the government to fight this crisis on a united platform, which will reach out to sections that

are underprivileged and deprived, the Trusts said in a statement. "We will work together with the Tata Trusts and our chairman emeritus, Mr Tata, and would be fully supporting their initiatives," Tata Sons chairman N Chandrasekaran added. ■

Maharashtra, Goa top list

Maharashtra, among large and mid-sized states, and Goa, among small states, have come out on top in India's first-ever ranking of states on their capacity to deliver justice.

The rankings were published in the India Justice Report 2019, supported by the Tata Trusts along with the Centre for Social Justice, Common Cause, the Commonwealth Human Rights Initiative, DAKSH, TISS-Prayas and the Vidhi Centre for Legal Policy. ■

#TwoBinsLifeWins turns the lens on conservancy workers

The Tata Trusts have launched #TwoBinsLifeWins, a campaign to engage citizens to adopt improved waste management practices. The campaign urges citizens to segregate waste at source and to bring dignity to the lives of India's conservancy workers.

Mission Garima promotes safe and humane working conditions for conservancy workers in Mumbai. Under it, the Trusts have procured technologies to reduce human intervention in waste management.

The Trusts have provided personal protective equipment (PPE) to more than 150 conservancy workers.



A model station for conservancy workers and more PPE sets have also now been provided.

The model station, located in Kurla, comprises office space, separate rooms for men and women, improved sanitation facilities and a storage area. ■

Collaborative commitment on climate action

The India Climate Collaborative (ICC), a first-of-its kind effort that seeks to direct funding and visibility towards climate action in the country, was launched recently. The collaborative, founded by the Indian philanthropic community, is aimed at crafting a joint response to the climate crisis in the country.

The coalition aims to shape a response to climate change that is attuned to the needs and development priorities of India. The intent is to stitch together an ecosystem to counter the climate-change threat and this brings into its fold government agencies, corporate bodies,



communities and civil society.

The ICC's roadmap for the future includes convening relevant entities to battle air pollution, conducting technical training on

climate change for government officials from Rajasthan, and funding research studies to ascertain how philanthropy can build climate-resilient communities. ■

Award-winning startup ideas stand tall to aid the disabled

Slip-proof crutches, an electric wheelchair designed for Indian terrain, a gaming tool for autism screening and a \$1 speaking device are among the 14 products that have won awards under a programme run jointly by BIRAC, Mphasis and Social Alpha, the nonprofit startup incubator funded by the Tata Trusts.

The products in the programme, the idea behind which was to identify and support technologies that can improve the lives of people with disabilities, came from startup enterprises. The winners were chosen from more than 100 applicants and were based on parameters such as business model, technological innovation, product-market fit, affordability and accessibility, and socioeconomic impact.



The winners were awarded grant prizes of up to ₹5 million each and factors like completion of clinical trials, improvements in design-for-manufacturability and fulfilment of work orders were considered. They were also enrolled in the 'Social Alpha accelerator for inclusive solutions', a comprehensive and rigorous three-month programme. ■

Back to class in Assam

The Tata Trusts have started implementing a programme in four districts in Assam to bring dropouts back to school.

The programme, part of the Trusts' Assam state initiative (education), involved house visits and community meetings in targeted villages to identify dropouts and un-enrolled children in the 7-14 age group.

The objective of the programme is to bring 1,200 out-of-school children back into the formal education system. Remedial support is also planned for the children to ensure their retention. ■



Women at a meeting of self-help groups in Nana Bali in Pali district

Rajasthan **rising**

Inclusive, inventive and durable social development programmes are making a difference in a state that demands special attention

By Philip Chacko and Gayatri Kamath

Multi-thematic approach

The social uplift programmes supported by the Tata Trusts in Rajasthan and their impact

OVERALL

179,000+ households in **14** districts

TRANSFORMATION INITIATIVE

(livelihoods, education, maternal and child health, water and sanitation)

48,000
households

295
villages (3 districts)

3,600+
self-help groups

433
childcare centres

287
schools

LIVELIHOODS

120,000+
households

2,000+
villages

9,000+
self-help groups

NUTRITION

10,000+
childcare centres
(supported)

205
childcare centres
(refurbished)

46,000+
children and mothers

MIGRATION AND SKILLING

61,000
households and youth

6
districts

Rajasthan is the largest state in India by geographical size — and among the last in its human development index. The first fact is of little consequence; the second is an enduring concern that has defied policies and policymakers for long. The ground is shifting, though, as social uplift programmes that have come through the experiment-implement-supplement grind take hold across the state.

Collaborations have been critical in making these programmes effective and self-sustaining for increasingly larger numbers of Rajasthan's populace. The state administration is a key player here, as is the central government. Complementing their efforts are a slew of nonprofits, NGOs and philanthropies that have done pioneering work in diverse spheres



“Community institutions, women and participatory development ... are the pathways to progress.”

— Malika Srivastava,
regional manager, Tata Trusts

through inclusive, inventive and durable initiatives that are making a difference where it matters most — in the lives of people and in the overall health of communities.

The Tata Trusts have punched above their weight in contributing

to the cause, and in a spectrum of spheres, including health and education, nutrition and sanitation, livelihoods and skilling. There are common elements in the method that underlines each of these: scale and sustainability, measurable impact, community involvement, a focus on women, and governmental support at every level.

“We have placed households at the centre of the matrix,” says Malika Srivastava, the regional manager for Rajasthan with the Tata Trusts. “Community institutions, women and participatory development are very important in this context; they are the pathways to progress. Our partners, particularly the state and central governments, are vital to the process. The Trusts don't own the programmes they have initiated. We all do, together, and equally so.” ■



This self-help group member from Kala Para village in Alwar district now rears an improved breed of goats



A self-help group meeting in Gharat village in Pindwara

Time to thrive

Women self-help groups are the fulcrum of a livelihoods endeavour that has let in the light for more than 120,000 households in 12 districts

A hut – and hardship – was all that we had when I got married and came here,” says Kamlesh Jatav, casting an eye around the marble-floored drawing room of her two-tiered home in Pathroda Ka Bas village in Rajasthan’s Alwar district.

Her well-appointed dwelling aside, the 37-year-old Ms Kamlesh runs two garment shops and a beauty parlour and is the chairperson of a federation of self-help groups (SHGs) with a sisterhood of more than 2,500 women in its hospitable fold.

From a past of near destitution to a present of once-inconceivable comfort, Ms Kamlesh and her family have never had it so good.

The story of how Ms Kamlesh found her way out of want, and her place in the world, is a capsule in a chronicle of collective social development that has advanced the cause of more than 165,000 women across 12 districts of Rajasthan over a period of two decades.

The theme is livelihoods and SHGs are the vehicles of delivery in an inclusive initiative with multiple dimensions: financial inclusion through microcredit schemes; improving agricultural practices; seeding alternate income generation opportunities; food security and nutrition; maternal and child health; and digital literacy.

Promoted and nurtured by the Tata Trusts, the Sakh-Se-Vikas (SSV)

programme banks on women, the majority of them from scheduled caste and scheduled tribe communities living in Rajasthan’s most backward regions.

SSV translates into ‘development through credit’ and that’s the centrepiece of an effort which kicked off in 2003, consolidating the concept of SHGs as instruments of progress. The Trusts had been employing the SHG method in the state from about 1998, and this was refined and expanded under SSV. The need driving the deed was stark.

Passed on from generation to generation, poverty can seem like a hereditary disease in places such as Alwar, inevitable in the toll that it

takes and immune to quick-fix solutions. Ms Kamlesh and her SHG stablemates have broken the cycle, thanks to their resilience and toil, and with a little help from SSV.

“When I initially heard of the SHG in my village — this was 13 years back — I was working day and night stitching clothes in order to make money,” recalls Ms Kamlesh. “I went for one meeting and my mother-in-law was livid. ‘Don’t go outside the house; you’ll get spoiled,’ she yelled. But I had made up my mind, spoiled be damned.”

Ms Kamlesh and nine other women formed a SHG and there was no turning back for the mother of four. “The first loan I took through the SHG was ₹30,000 and I used a third of it to buy a sewing machine,” says Ms Kamlesh. “Then I installed a tap in my house. That mollified my mother-in-law. And things got better when I took a second loan and built a toilet for our family.”

With peace restored on the home front and her husband by her side, Ms Kamlesh grabbed the

chance to bloom. She became a leader and was a natural at it. “I learned how to talk to a gathering, how to interact with people.” Ms Kamlesh also discovered in herself a streak of combativeness, and the courage to make it count.

Fiery fight

She gathered together women from nearby villages to tackle what is a recurring nightmare in rural Rajasthan: abusive husbands high on moonshine. “We set the [local alcohol still] on fire,” says Ms Kamlesh, who would go on to spark another women-led uproar, this time to block a highway.

“The village roads were filthy, the drains were choked and there was putrid water about,” says Ms Kamlesh. “Our children had stopped going to school. We had complained to everybody but to no effect, so we decided to take matters into our own hands. People said we would get beaten up but that did not deter us.”

The blockage brought the police and — when that failed to

stop the women — the district collector to the protest site. “We got him to come out of his car and see the state in which we lived,” adds Ms Kamlesh. “He asked us to stop the agitation and open the road but we refused. Finally, after about three-four hours and a traffic jam that stretched miles, he committed funds for a clean-up operation.”

There is a line that leads from SSV to village-level activism of the kind that has brought Ms Kamlesh and so many other women onto the radar of *panchayat* (village council) heads and state government officials. “They talk to us with respect now,” says Ms Kamlesh. The underlying structure and resultant strength of the SHGs in the programme are the prime reason for that.

The SHGs are organised into clusters and, further on, into federations. The principal objective is to enable poor communities to meet their credit requirements. Making these entities financially reliable, stable and sustainable was a necessity, and that has happened to an ever-greater extent with the passing of the years, so much so that mainstream banks have no hesitation now in lending to them.

It has been a long and fruitful haul for SSV. From 2003 till 2007, the programme concentrated on putting the SHG edifice on a firm footing. The 2008-2012 phase was about adding sinew and muscle to the federations, getting them to function with minimal outside assistance and having them become financially sound.

The 2012-2017 stage looked at



Krishi sakhis Susheela Devi (centre) with women from Bhayadi village in Alwar

enhancing farming- and livestock-based opportunities while linking up with the Indian government's National Rural Livelihoods Mission and various schemes of the state government, principally the Mitigating Poverty in West Rajasthan (or MPOWER) project. SSV's horizon has broadened from 2017 to include spheres such as digital literacy and child nutrition.

Ladies first

The dynamic that has stayed consistent throughout has been the wholehearted participation of women in the programme. That is not surprising. Surrounded by taboos and shrouded in *ghunghats* – a veil worn, mainly in North India, to cover head and face – Rajasthan's women have for ages suffered the slings of patriarchal prejudices. Sequestered from the harsh traditions of a male-dominated society, SHGs and the women who sustain them have seized the opening to showcase their capabilities.

A standout figure among these women is Saroj Jatav, a 33-year-old homemaker, businesswoman and SHG leader from Dadar village in Alwar district. She owns a sewing shop, a clothes shop and a dairy enterprise, and is a progressive farmer as well. In between all this, Ms Saroj has risen to become secretary of the Savera Mahila Manch, a federation comprising 250 SHGs with some 2,600 members in 46 villages.

Powered by her aptitude and ambition, Ms Saroj's family has prospered in spades over the course

By, of and for women

Launched in 2003, the women-centric Sakh-Se-Vikas programme has enabled community institutions to drive economic and social change by...

- Nurturing self-help groups, clusters and federations
- Delivering access to credit facilities
- Enhancing farming- and livestock-based livelihoods
- Improving food security, nutrition and mother-child health
- Connecting villagers to government schemes and facilities
- Promoting digital and internet literacy

The numbers

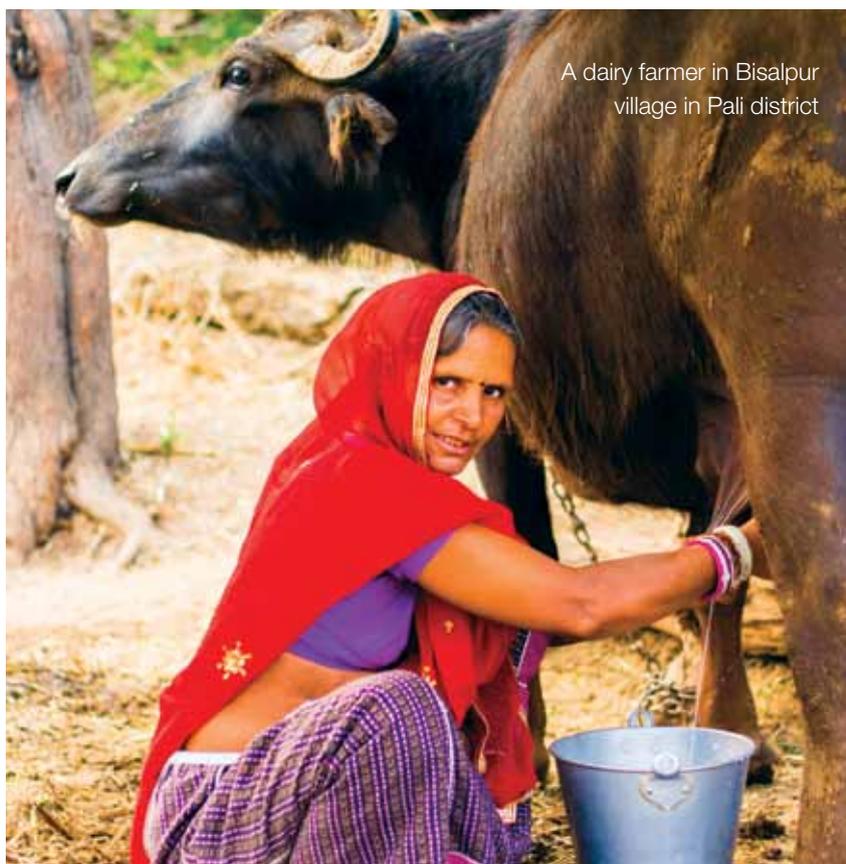
9,000+ self-help groups

165,000+ women

2,000+ villages

of her association with SSV. In her case, the mother-in-law was not a handicap. "I followed her lead and joined the SHG," she says. "The first loan I took, ₹15,000, was to buy buffaloes. I used to stitch clothes from home and I wanted to turn that into a business, so I took another loan and started a shop."

Ms Saroj has pumped the money earned into enlarging her small businesses and into the education of the children in her joint family. They study at a private school, "English medium," she says with a hint of pride. Gone are the shyness and hesitancy that characterised her early days in the



A dairy farmer in Bisalpur village in Pali district

Friends of a feather...

They go by the terms *krishi sakhis* and *pashu sakhis* (friends of farming and friends of livestock) and they have been an essential feature of the Sakh-Se-Vikas (SSV) programme.

As with the rest of the SSV initiative, the protagonists here are women and they are groomed to provide training and extension services — at the doorstep within villages — in agricultural and animal husbandry practices.

Delivering such services is not new but women doing it is. The cadre of *sakhis* are paid for their work and they visit various parts of the state, and outside as well, to educate villagers on how to improve productivity on the farm and with livestock.

“We were taught about sowing, soil and weather conditions, planting patterns, the pesticides to use, etc. and we pass on the knowledge,” says 50-year-old Susheela Devi, a *krishi sakhi* from Bhayadi village in Alwar district.

The responsibilities were similar for Meera Devi, a 45-year-old *pashu sakhi* from the same village. Getting village women to change their traditional ways was a task but it’s part of the *sakhis*’ job to convince them — and their husbands — of the merits of their methods. ■

SHG. In its place is a vocal confidence about what has been achieved, for herself and her family as much as the SHG movement.

“I’ve got our village women together to tackle common issues: improving agricultural output, getting our girls to go to school and ensuring they don’t drop out, helping women start dairy farming and other small enterprises, building toilets, etc.” says Ms Saroj. “We focus on helping our women members become self-employed. We reckoned that making money for the family ought not to be an exclusively male preserve.”

Issues aplenty

There are sundry subjects crowding Ms Saroj’s agenda. “We want to make certain not a single member of group or federation has to relieve herself in the open,” she adds. “The dowry burden that weighs down our women is another issue we have placed in the forefront. Then there’s making villagers aware of the many schemes instituted by the government for their benefit, be it with rations or pensions.”

Ms Saroj is the eldest of the three daughters-in-law in the family and her ideas for the future include all of them. “I have no doubts whatsoever that we — my family and I as well as the other women in our SHGs — will continue to progress. I’ve been with the programme for seven years and these years have changed by life and my prospects.”

Ms Saroj’s mother-in-law, Muthridevi Jatav, remembers the times before SHGs were set up in

their village. “The condition of our women, in particular, was pathetic,” she says. “Awareness was absent and the issues that really concern us were rarely discussed. When the first SHGs were set up, we had no idea how to save collectively, whether loans taken would be repaid or if the concepts being discussed would ever be turned into reality. We saved little by little and we learned little by little.”

Ms Muthridevi began 20 years back by contributing ₹5 a month to the common pool. “It was a lot for many of us, and the men in some families would not even let their wives join the SHG. But then they saw that being an SHG member meant a source of money and they started supporting us. We paid our dues and we had money to set aside. We understood how to work together and to love one another. It seems incredible today.”

There have been challenges galore in putting SSV on an even keel. “It was not easy trying to convince banks to lend money to the SHGs and federations,” says Malika Srivastava, the Tata Trusts’ regional manager for Rajasthan. “Secondly, finding literate people in the village to keep accounts and the rest was a huge challenge (in fact, SHGs were the place where many women learned to count money and to sign their names). Thirdly, the resistance from a feudal society to women stepping out of their homes.”

Ms Srivastava credits the Tata Trusts with always being one step ahead in the livelihoods space in Rajasthan. “We were the pioneers



Self-help group stalwart Saroj Jatav (left) and her mother-in-law, Muthridevi, an early convert to the cause, in the courtyard of their home in Dadar village in Alwar

in SHG promotion and with interventions like high-value agriculture. But beyond livelihoods and income increases, there are aspirations in poor households on access to quality education for their children, safe drinking water and better medical facilities at the village level. That’s what we are working towards.”

Fostering for the future

“When we started in 1998, the vision was to build institutions of women which would be self-sustaining, which would work on women’s rights and microfinance and livelihoods,” says Rajesh Singhi, the chief executive of Ibtada, a key implementation partner in the programme. “We had a broad idea that these institutions, if fostered properly, would last for many, many years. And that is what has unfolded.”

Mr Singhi’s regret is the time it has taken for SSV to attach additional facets to the programme. “We were too focused on SHG and livelihoods. We

could, perhaps, have diversified earlier into rights and entitlements and into non-farm occupations.”

What has been accomplished thus far, though, is worthy of applause, not least with the intangibles. “SHGs have provided women a platform to seek financial resources and to come together, to be a forum for mutual learning,” says Ms Srivastava. “These women now have mobility, they take decisions for the family, and they have a voice in interactions with village councils and government departments. SHGs have become a force to be reckoned with. This is SSV’s biggest contribution.”

“We are watching a dream unfold in our villages and women are creating the change,” says Ms Kamlesh. “And we don’t exclude men; we call them for our meetings, especially the ones who crib a lot. As for the future, I would like to be a *sarpanch* [village council head] someday.” How about active politics, maybe becoming a member of the state legislature? “It’s on my list.” ■



Visitors at the Apna Seva Kendra in Jawaja in Ajmer

Far from home

The dignity and security of migrant labourers is at the heart of a project that has unfolded in multiple dimensions and to telling effect

Pass toh zindabad, fail toh Ahmedabad (rough translation: if I pass it's great, if I fail I'm off to Ahmedabad). The reference is to students from the margins taking their Std X exams in Rajasthan, and their prospects thereafter. Coming through the test means a chance to get ahead; flunk it and your best option is migrating from your homestead in search of a job, most likely menial. And therein lies the rub.

Migrating for low-skill, low-pay work, within the state or to regions outside, means a future of dislocation, uncertainty and,

increasingly, peril for those forced to do so. Rajasthan has been hit particularly hard in this regard, with mounting agricultural distress and limited employment opportunities driving people to whichever place they can find employment, and to whatever job they can hold down.

Between 80% to over 90% of India's 500 million-plus workforce — there is no consensus on the figure — labours in the informal or unorganised sector, the mainstay of the country's economy. Migrant workers could constitute up to 30% of the whole, and there is no certainty on the number here either.

What's definitive is that people in both categories lead precarious lives, a hand-to-mouth existence the norm.

Rajasthan ranks among the states that account for the largest outflow of migrant labour in India. Mainly men and mainly young, their most common destinations are Gujarat, Maharashtra and, during the farming season, Punjab and Haryana. Interstate aside, migrating for informal work inside Rajasthan is widespread. Add the two and the figure could be as high as 50% of able-bodied men among the rural populace.

Labour migration of this kind is a recipe for sorrow and suffering,

individual and social. Given the nature of work — informal, frequently outside the regulatory framework and lacking any sort of safety net — it is also a source of high risk. There's the ever-present threat of losing the job itself and, worse, of disability and even death caused by worksite conditions.

Mohan Singh survives, and barely so, with first-hand experience of the extremes such work can result in. A 51-year-old from Bagta Ka Badiya village in Ajmer district, he contracted silicosis — a deadly form of lung disease caused by exposure to silica dust — after toiling for two decades in the sandstone mining industry in Bijolia in Bhilwara district.

"I can't do much physical work now; I potter around in my field but I soon start panting," says Mr Singh, who looks a lot older than his age. "We never wore masks and there were no preventive measures at the site. I did not know I would end up with silicosis. Nobody told us about it."

Mr Singh has received ₹100,000 from the state government through a relief scheme for silicosis patients. He is entitled to a further ₹200,000 and a monthly pension, neither of which have materialised as yet. Even if this does, it would be scant comfort for Mr Singh, now staring mortality in the face while living with the fact that he has a family of five to support.

The miseries of Rajasthan's migrant workers, as a whole, may not be as grim as those confronting Mr Singh but their everyday battle for sustenance is just as real.

Bringing succour to these seemingly invisible people has been the objective of the migration programme of the Tata Trusts.

Instituted in 2006 and currently operational in Rajasthan, Odisha and Uttar Pradesh, the programme is designed to help deliver security and dignity to migrant labourers, essentially those making the unsteady journey from rural regions to India's urban centres in search of livelihoods. The logic for it is solid.

Force for good

It is estimated that close to 50% of the country's citizens will be residing in cities by 2040. That is not necessarily bad news.

Urbanisation is a force for good, it has often been argued. Rapid and irreversible, urbanisation is fuelled by migration, the hidden hand in global economics and national development.

The problem here is the quality of life rural-to-urban migrants,

particularly those who labour in the informal sector, are able to wrest for themselves and their families.

Exposed to occupational, residential and social vulnerabilities, such migrants have minimal access to welfare schemes, their living conditions are frequently filthy and, to top it all, they face discrimination on a variety of fronts, not least from the so-called natives.

Addressing these and other issues is central to the goals of the migration programme. In Rajasthan, this has resulted in financial support for house construction and repair, food security and health needs; the building of migration resource centres — called Apna Seva Kendras (ASKs) — to help migrants access government schemes, legal services and linkages to training in skill development; and, under the Udaan initiative, day-care centres that cater to the children of brickkiln workers and pregnant women.



Wives of migrant labourers in Jawaja in Ajmer

The financial inclusion component in the programme, undertaken in partnership with the Rajasthan Shram Sarathi Association, Avanti Finance and others, includes the facilitation of credit, savings, insurance and pension services, as also education

and counselling in financial matters. The package also takes in assistance for the treatment of tuberculosis patients and lately, those burdened with silicosis.

Providing a range of services to migrant workers and their families close to their home villages is the

task assigned to ASKs. Migrants are mobilised to register with the centres — there are six of them in five districts of the state — they are made aware of and connected to government entitlements, and provided with legal help to settle disputes with employers.

Brick by brick

Bricks are the building blocks of the construction industry and brickkilns are the places where they come from. That much may be known, but there is precious little knowledge of the people who keep the engine of this business running, and less so of the conditions in which they work and live.

Brickkilns tend to employ seasonal migrants and that means people who travel far from their homes to work for meagre salaries, and in an environment where their welfare and the wellbeing of their children are hardly ever a consideration.

Helping change that sorry reality is the goal of Udaan (or flight), a standout component of the migration programme in Rajasthan. There are an estimated 4,000 brickkilns in the state, with an average strength of 150 workers in each of them. The families of these workers, particularly their children, is the concern uppermost in the Udaan agenda.

Udaan focuses on early childhood care and

education, nutrition and maternal health. Launched in August 2017 as a pilot project at two centres in Sri Ganganagar, a district that hosts some 400 brickkilns, Udaan offers an array of amenities: pre-schooling for children in the three-to-six age group, nutritious meals twice a day for the kids, health and hygiene monitoring, linkages to the formal education system for children in the 7-14 age bracket, maternity and new-born care, and the facilitation of institutional delivery.

The project began with an orientation package for brickkiln owners and soon picked up pace. Supported by the district administration and the brickkiln owners' association, Udaan has demonstrated all that can be done — and without breaking the bank — for children and mothers in migrant families. The district administration acknowledges this is essential and worthy of replication at the national level. ■



Children coming to the Udaan centres get nutritious meals twice a day and their health and hygiene are monitored

Additionally, there is skills training aimed at securing jobs for people near where they hail from.

Nearly 54,000 migrants are enrolled with the ASKs, which have been modelled to be sustainable community institutions. There is a ₹100 contribution per year by each migrant family and this may seem stiff for people stretched on resources, but becoming self-sufficient is vital for the long-term survival of the centres. The money collected has gone a long way in ensuring that.

Link to entitlements

Crucially, ASKs have delivered where it counts, especially in enabling migrants to access government schemes (about ₹210 million in money transfers have been facilitated thus far). Manju Kanwar, a 28-year-old mother of five from Surajpura village in Ajmer, is one such beneficiary. “I ran from pillar to post trying to get the yearly scholarships that my son and daughter are eligible for, to no avail,” she says. “This came through after I became an ASK member.”

“The ASKs are a big help for people around here,” says Dharmendra Singh, who heads the village council in Lotiyana in Ajmer district. “Going directly to the labour department and government officials means problems for them, and there are all these middlemen and brokers. It’s different at the centres. They do a great job in reaching out to migrants, explaining government schemes and getting people what they are entitled to.”



Suman Kanwar, a nursing assistant, and Dhulee Grasiya, who is training to be one, are beneficiaries of the skilling component in the migration initiative

The skilling subset in the migration programme takes a different tack. The intent here is to find suitable – and nearby – jobs for young men and women through linkages with quality training institutes. Skill *mitras* (friends) fan out into villages to identify and convince these disadvantaged youngsters to get trained, and then put them on the road to long-term employment.

Launched in 2016 in Ajmer and Sirohi districts, the skilling project for informal sector workers has gathered momentum in the years since. The pathway is clear: outreach, counselling, training and job placements. Dhulee Grasiya, a 23-year-old tribal from Ajari village in Sirohi district, did not need prompting to grab the opportunity.

“I chose this nursing course [at the Balaji Soni Hospital in Jaipur] because that’s what interested me the most,” says Ms Grasiya. “I was more than willing to take the chance. This is not an easy job but I’m sure I will be a good nurse. I want to earn money and send it back to my parents, who have supported me all their lives. Also, my kids will get better education.”

Suman Kanwar, a 20-year-old from Viroli village in Sirohi, has

completed the same course and now works as a nursing assistant at the Mahatma Gandhi Hospital in Jaipur. “Moving out of my home for the training was very scary at first but I grew to like it,” she says.

Beyond the minutiae of the migration and skilling programme, there is the impact it has made where it truly matters. “What has gone really well is the recognition by the central and state governments that migrant workers face various difficulties, and this despite the enormous contribution they make,” says Ashish Gautam, area manager for the programme in Rajasthan. “Secondly, the work that we and our partners are doing has triggered interest from a lot of other donors in this whole space of internal migration.”

Mr Gautam is quick to emphasise the criticality of getting governmental support for the effort to fetch greater dividends. “We are trying to influence the government so that we can hit on a more efficient and systemic engagement, one that can be replicated in other geographies. Importantly, government bodies have to scale up these interventions. But there are mindset issues when it comes to labour welfare.” ■



Growth parameters being monitored at a childcare centre in Nichlagarh village in Sirohi district

Eat right, start bright

The battle against child malnutrition and high-risk pregnancies has brought about a bunch of breakthroughs in Sirohi district

A rough map showing about 200 hut icons hangs on the wall of the *anganwadi* (childcare) centre in Nichlagarh village, about 70km from the district headquarter of Sirohi in south Rajasthan. Each icon represents a house in Nichlagarh and most of the houses are dotted with colourful *bindis* (a decorative dot worn in the middle of the forehead by Indian women): red, pink, yellow, blue and red-on-yellow. There's a lot of red and yellow and that is a matter of concern.

The map and *bindis* are a *nazri naksha* (visual aid) that, at a glance, shows the health status of pregnant women and infants in the area. The blue *bindis* indicate homes with pregnant women, pink means homes with a new-born baby, red is for high-risk pregnancies and yellow for malnourished children. Red-on-yellow is a severely malnourished child, nine times more likely to die than a healthy child.

A preponderance of red and yellow implies women and babies at risk. In Nichlagarh's 193 houses,

there are two high-risk pregnancies and 37 malnourished children. The very fact that this data is available makes Nichlagarh a success story for the Tata Trusts and its nodal agency, Centre for microFinance (CmF), which works to improve maternal and child health as part of its health interventions in Sirohi.

Rajasthan — and Sirohi in particular — has struggled with the battle against malnutrition. CmF is fighting to change this situation through a grassroot approach that focuses on processes and capacity building while monitoring the

work of frontline workers.

At the village level, the responsibility of dealing with red and yellow cases rests on – not a doctor or a hospital – but on three women: the accredited social health activist (or ASHA), the auxiliary nurse midwife (ANM), and the *anganwadi* worker (AWW). Known as the AAAs, these women are the last-mile service providers of the government’s maternal and child health and nutrition (MCHN) programmes.

Mother, child and more

To keep women and babies healthy, the three need to work closely together. ASHAs go house-to-house to check on pregnant women and new mothers and babies. ANMs are responsible for providing pregnant women with antenatal health checkups, ensuring they get to a hospital for their delivery, and the immunisation of children. AWWs hand out the government-provided nutritional inputs (known as take-home rations) to the women and children.

Training, monitoring and supporting the AAAs have been at the core of CmF’s efforts to improve maternal and child health in Sirohi over the past four years. The biggest positive to emerge from the health intervention in the district came about because of a CmF survey of infants and children. Finding that nearly half the children in the villages surveyed showed signs of wasting and stunted growth, the survey brought the rampant malnutrition

Booster dose

Rajasthan has a long way to go on child health and nutrition

36%
children
under 5 are
underweight

39%
are stunted

13
districts with
high burden of
malnutrition

Source: National Family Health Survey, 2015-16

The Tata Trusts’ health interventions in Abu Road and Pindwara subdistricts

433
childcare
centres
opened

115
childcare centres
refurbished

720
childcare centre
workers trained
in growth
monitoring

174
childcare centres
equipped with
growth monitoring
instruments

290
community workers trained
in home-based baby and
young-child care



to the state government's attention.

"We raised the issue at the subdistrict, district and state levels and they finally acknowledged the dire situation and requested our technical support in the field," says Vijay Singh, general manager, CmF. "We realised that there was an alarmingly high incidence of malnutrition amongst the tribal population. CmF supported us in tackling this situation," says Nitin Gehlot, the child development project officer for the Abu Road

subdistrict under the government's integrated child development services (ICDS) programme.

To deal with the crisis, the government rolled out the Integrated Management of Acute Malnutrition (IMAM) project in 40 villages of Abu Road block. An intensive endeavour, it comprised a three-month exercise involving identification, treatment and checkups.

To identify malnourished children, the CmF team spread out

with ASHA workers and screened some 8,600 children, measuring their mid-upper arm circumference (an indicator of malnutrition). Of these, some 1,450 children fell short on the required parameters and needed to be checked more thoroughly by ANMs.

A total of 400 children were identified to be severely malnourished. The government machinery responded by allocating energy-dense nutritional supplements for three months. The

The three 'As' score high

Meva Rata is 28 and has four children. For the fourth baby, she received the full complement of government health services: four antenatal checkups, institutional delivery and immunisation for the child. Unlike with her first three pregnancies, Ms Rata was on the 'due list' this time around.

The due list is maintained by Champa Bai, the accredited social health activist (ASHA) for Nichlagarh. Ms Champa visits every household to check whether any woman is pregnant and how mothers and babies are faring. She maintains a daily diary and carries around a kit for pregnancy tests, registration forms for pregnant women and contraceptives.

Every month, she shares the due list with Anusuya Angadi, the auxiliary nurse midwife (ANM) for the area. Ms Angadi's role is to monitor the health of women like Ms Rata. Regular blood tests, physical checkups and the monitoring of other parameters are part of the course. She also identifies high risk pregnancies: women who are underweight, having their first baby or whose blood tests show a problem.

The high-risk cases are closely tracked by Ms Angadi and Ms Champa. When a baby is due, one of them will climb a slope to catch the mobile signal

(because of its hilly terrain, Nichlagarh has poor network connectivity) and call 108, the government ambulance service.

When Ms Rata's baby, Khusba, was born, the mother was counselled to only breastfeed and to maintain basic hygiene. Khusba was monitored regularly for the first 42 days of her life and has received all her vaccinations as per schedule. It's Ms Champa's duty to remind the mother and Ms Angadi's to administer the shots.

Ms Rata and her baby get the regular rations of nutritional inputs at the *anganwadi* centre. Once Khusba is three years old, she will visit the centre for four hours a day. There she will get a freshly prepared hot meal, some fun activities to do, and the care of Nokhli Bai, the *anganwadi* worker.

Once a week, mothers, babies and children arrive at the *anganwadi* centre. Here, Ms Champa measures and documents the height and weight of every child in the neighbourhood. Malnutrition indicators are flagged and data recorded.

Ms Champa, Ms Angadi and Ms Nokhli are the fulcrum of the village health system that is at the core of Sirohi's fight against malnutrition. These women bear a huge responsibility and they are the cadre of three 'As' that CmF trains and supports. ■

weight of the children was carefully monitored every week. Another 500 children, poised precariously on the borderline, were put on a regimen of double doses of the regular nutritional inputs. Twelve critical cases had to be sent to the Malnutrition Treatment Centre (MTC) at Sirohi for medical care.

Weighing it up

CmF also took on the onus of strengthening health systems and capacity building. A large part of the work involved training ANMs, AWWs and ASHA workers on the processes to be followed for weighing and measuring children, and documenting the data. Many *anganwadi* centres did not have weighing scales and stadiometers (to measure height), or even mats for the children to sit on. CmF extended the project plan to buy and install equipment where necessary.

Concerted efforts by CmF over the years have led to welcome outcomes. Today, more than 80% of the children less than five years old in Abu Road and Pindwara are being monitored regularly. The intensive exercise benefited many of the children but the challenge lies in changing the poor diets followed in the predominantly tribal households of the region.

This is why even after the three months of the IMAM project, in excess of 130 children were still severely malnourished and had to be referred to the MTC. “Parents are not aware of what constitutes a healthy meal,” says Rakesh Panwar, CmF’s anchor for health and nutrition. The team is now working



Mother and child at a counselling session in Nichlagarh in Sirohi

to change local food practices by organising community meetings on the importance of balanced diets using local foods.

CmF also supports the government’s efforts to organise *poshan melas* (nutrition fairs) to build community awareness on the link between food and health. The *gram panchayat* (village council) system has committees that are supposed to monitor health, water, sanitation and nutrition. CmF has trained members of 68 committees to effectively monitor health and nutrition services in their villages.

CmF’s health teams support

ASHA and *anganwadi* workers in organising a MCHN day every month at *anganwadis* in Abu Road and Pindwara. On this fixed date, women and children come in and ASHA workers document the height and weight of every child.

Food traditions and poverty mean that the red and yellow *bindis* continue to mark the map. But the difference is that the government health system is now alert and active, and the tribal community is slowly waking up to the importance of nutrition. ■

Images courtesy: Ravi Kant

Children at the Government Upper Primary School in Kalabor in Pindwara



Learning anew

Reading, writing and maths are becoming easier to grasp for Sirohi's tribal children, once on the margins of the education system

It's story time and as 48-year-old Chetna Vishwa takes a group of second graders through the lion-and-mouse fable, the children happily yell answers in Hindi. They know this tale well and that's surprising — because the children belong to the Grasiya tribe and Hindi is not their mother tongue.

Ms Vishwa teaches at the Government Senior Secondary School in Sivaya in Rajasthan's Sirohi district. This is what the NITI Aayog, the central government think tank, calls an

'aspirational' district, which means districts which show slower socioeconomic progress and, hence, require policy attention in areas such as education.

In 2015, when the Tata Trusts planned education interventions in the area, they focused on capacity building, developing teaching-learning material and technology to improve the education experience for thousands of young minds in more than 250 schools in tribal villages of Sirohi and Pali.

The biggest impediment was

the language barrier. Grasiya is the main language spoken by the tribals but the textbooks and teaching material were in Hindi. "We realised that teachers were struggling because the existing textbooks made little sense to the children," says Vijay Singh, general manager of Centre for microFinance (CmF), an associate agency of the Trusts.

The children found the material almost alien. "They had no exposure to other languages or cultures, not even through media

such as television,” says Vineet Panwar, CmF’s programme manager for education. The teachers had stopped trying, deeming the children too slow to learn. There was no parental pressure as most of the kids are first-generation learners. Instead of sending their children to school, parents would send them to gather wood for cooking or to look after their goats.

It took more than three years for the Trusts to develop new teaching-learning material. These had illustrations that mimic local culture and use a vocabulary that comprises Grasiya and Hindi. For example, the children first read *rupru*, the Grasiya word for tree, before they learn the Hindi equivalents *ped* and *jhad*.

Effective learning

The newly designed material for Hindi and maths for Stds I to V has proved to be remarkably effective. This has been affirmed by the external learning assessment conducted as part of the programme. Std II students at CmF’s project schools in Abu Road and Pindwara subdivisions exhibited higher levels of comprehension (28% and 45% respectively) when compared with non-project schools (2.7%).

CmF also conducts teacher training workshops on the new resource material and sensitises teachers on building a rapport with the children. The interventions are delivering visible results. “Teachers now see that the same children they had written off earlier are picking

Turning the page

The education interventions of the Centre for microFinance have been implemented in the Abu Road, Pindwara, Sirohi and Bali subdistricts



287
schools
covered



48,655
students have
benefited



150
school libraries
established



1,683
teachers
trained



11,120
preschool
children
benefited



398
childcare
centre workers
trained



433
community centres engaged
for capacity building

up reading and writing skills,” says Mr Panwar.

Besides better learning outcomes, there have been other benefits too. Children are less distracted in class, more curious and more regular in attending school. “They now ‘listen’ to our teaching; for the first time, I see them interested in learning new things,” says Ms Vishwa. “The other day, my standard V students asked me to teach them English. I was touched.”

When 14-year-old Amiya Kumari picks up a textbook and starts to read fluently, it’s a happy story at several levels. First for Amiya, who had not had a day of schooling in her life until age 10, when she joined the KGBV residential school at Girwar, 65km south of Sirohi town. (KGBV stands for Kasturba Gandhi Balika Vidyalaya and is a pan-India

residential school programme run by the central government for girl children. There are 200 such schools in Rajasthan.)

At the Girwar school, where 108 girls study, Amiya’s success serves as a beacon for other girl students. Hailing from poor backgrounds, many of them are former school dropouts who are starting afresh in the system.

A load of help

“The girls come here with just one set of clothes, they are often in *ghunghat* [the traditional practice of women hiding their faces from men], and have no knowledge other than how to graze goats,” says school warden Mamta Kumari. “They get everything, from clothes to slippers, from the government.”

Amiya’s fluency is an advertisement for the teaching-

learning workbooks that CmF has developed for remedial students. Called *Buniyad* (Hindi for foundation), the workbooks are designed to make reading and maths simpler and more relevant to the lives of the local children.

It’s a small institution, with only 91 children, but the Government Primary School at Meghwalwas village, about 70km from Sirohi, has more than 900 books. The books are in demand and the children have learned to manage the library themselves. The biggest excitement, though, is reserved for when the children have a ‘tablet’ class.

The tablets are e-learning devices provided by CmF, 10 to a school and for 10 primary schools in all. CmF has loaded over 100 e-books on each tablet, a combination of textbooks (in Hindi, English and Grasiya), as well as animated lessons in Grasiya. The tribal students browse the e-library with complete confidence, play videos and take selfies.

The tablets have transformed the learning atmosphere and built the school’s reputation, says Rajesh Sharma, its 35-year-old principal. “I tried for years to increase enrolment but till 2015 we had only 45 children,” he adds. “Now parents themselves approach the school to get their kids admitted.”

Dalpat Rajpurohit, the chief block education officer for Abu Road, rates CmF’s tablet project highly. “It’s amazing to see the tribal children so confident with technology,” he says. “Today their parents and guardians can see that



A child at the Government Primary School in Moras village in Sirohi district

public education can have a better impact than private schools.”

CmF has trained more than 400 *anganwadi* workers on how to provide young children with key cognitive and social developmental inputs. The change is being recognised by the community and more parents now send children to these centres. Average attendance at the CmF’s project *anganwadis* has tripled, from 8-10 children to about 27-30 children now.

Anganwadi advantage

Ms Nani echoes other mothers when she says that the four hours the kids attend the *anganwadi* has a deep impact: “The children who attend are well adjusted and happy when they start primary school.” CmF’s *anganwadi* intervention has critical significance from both an education perspective and an overall developmental perspective, as getting the right developmental inputs at a young age is a big step on the road to education.

As a part of its education intervention, CmF and the Trusts are engaged in several aspects of the knowledge chain, from working with education department officials and training *anganwadi* workers, teachers and principals to designing teaching resources. In Sirohi, CmF has taken a step further to make the community see the school as a common asset.

“We realised the need to make the community an important stakeholder in school management,” says Mr Singh. The Nichlagarh Government Senior Secondary School has 16 members



A child engrossed in a storybook at the Government Primary School in Moras

in the school management committee (SMC). They meet every month to discuss issues that are important to the school’s functioning: are the teachers attending, do the children get their proper quota of milk and the midday meal, is the drinking water safe and, how are school funds being used?

Nana Ram, the SMC vice president, is one of the more engaged parents. “When the school needed a water filter, we villagers got together and contributed,” he says. “When a schoolteacher was maltreating the children, we reported him. When children drop out of school to help with farm labour, we convince the parents to send them back to class.”

Developing the SMCs is a focus area for Bodh Shiksha Samiti, one of CmF’s education implementation partners. Programme coordinator Bhagchand Balai explains that

about 300 SMC members across 60 schools have been given a one-day training on processes and responsibilities. “The training shows them how to monitor school activities, oversee the school budget, keep minutes of meetings, and other aspects,” he explains.

The training builds a much-needed bridge between the school and the community, and it is much appreciated by the SMC members, many of whom are school dropouts. Dhuli Bai, who runs a flour mill, is one of the women members on the committee. Asked why she joined, she says, “Because education is important. All the kids should go to school.”

That simple statement underscores the significance of CmF’s education interventions. But with 30% of the children here still out of school, it is clear that CmF’s work is far from done. ■

Images courtesy: Ravi Kant

A folk show at the government school in Siyava village in Sirohi on the importance of toilets and sanitation



It starts with **water**

Water at the doorstep is the first step in a programme that incorporates sanitation, hygiene, menstrual health and more in some 200 villages

The shimmering solar panels are an incongruous sight in Gharat, a remote village in Rajasthan's Sirohi district. They serve a crucial purpose, though, powering the water pump that supplies 24 houses in the village. That makes the water pump the dream child of the women of these houses. They discussed it for a year, saved for another year to pay for it, and now manage its operation themselves, through a committee of 16 women called a water user group (WUG).

The women are part of the Grasiya tribe and, along with the comfort of water on tap, they have

added a handful of English words to their lingo: meeting, bathroom, borewell, bank account and more. Both these changes in their lives are due to a water, sanitation and hygiene (WASH) programme undertaken by Centre for microFinance (CmF), an associate organisation of the Tata Trusts.

WASH is the basic premise for community health and CmF has been building relationships with local communities to enable access to water and improve sanitary conditions. For the last four years, it has worked to establish 153 WUGs to manage borewells and pumps. In all, about 2,300

households have come together in these groups, with funds collected for pump projects crossing ₹4 million. Of these, 26 water schemes similar to the one in Gharat have been completed and a further 31 are in the pipeline.

"Getting water to individual households presents both financial and technical challenges because the water table is low and homes are far apart, adding to the piping cost," says Pankaj Papnoi, the CmF anchor for WASH interventions. "It takes a lot of meetings to convince people."

In many cases, it's the women who are more than prepared to pay

for water, and that's because they bore the brunt of past water shortages. No water at home meant they and their children would bathe at wells that were kilometres away, facing the risk of snakebites and thorns. "When the men want to bathe, they simply say, 'Fetch water'," says Puri Bai, a member of the Gharat WUG. "We are the ones who had to walk for 30 minutes to the well, holding babies in our arms and 10-litre pots on our heads."

Solar-powered leap

The solar-powered water pump promised a huge improvement in the lives of the Gharat women. To get it, they came together to put in ₹200 a month, collecting about ₹1,800 per household. CmF got technical help to identify a spot for the borewell, but getting it dug was another challenge.

The road to the village was too narrow at one point for vehicles to pass and the borewell digging machine could not make it through. When the machine came and went back twice, the women went out to clear the road themselves. With all the roadblocks, the water project took two years to complete, but in March 2019 the precious liquid started flowing.

"We run the pump for four hours a day, which means about 40-60 litres per home," says Hansi Bai, the secretary of the water user group. The group is responsible for pump maintenance and collects ₹40 a month from each family for a maintenance fund.

Water on tap is a direct connect to better sanitation. Thousands of

household toilets built in Sirohi district under the Swachh Bharat Mission were lying unused as there was no water to clean them. Many of them were used for storage or as goat sheds. That is changing.

CmF has been working with

more than 10,000 households to revive toilet use, complete unfinished toilets, and to build some 400 new toilets. "We tied up with vendors who guaranteed doorstep delivery of construction materials, and this help was

KEEPING IT CLEAN

The Centre for microFinance's water, sanitation and hygiene programme is operational in Sirohi and Pali districts of Rajasthan. It covers...



200+
villages



120+
schools and
childcare centres



10,892
households and
18,764
students



2,311
households in
153 water
user groups



240,000
community
members for
behaviour change



24,546
women and girls for
menstrual hygiene
management

The stigma vanishes

The tribal women of south Rajasthan are more isolated than most. Even TV penetration is low and there is little exposure to sanitary products. “Women hide away during their periods because they stain their clothes and there is so much social taboo around the subject,” says Shweta Yadav, the anchor for the menstrual hygiene management (MHM) project being covered by the Centre for microFinance (CmF) through its WASH intervention. “We are trying to break the myths around menstruation so that women and adolescent girls are able to live with dignity.”

The MHM programme has reached out to more than 25,000 women and girls through open conversations that aim to break taboos. There are explanations of body functions, the need for hygiene, why there should be no stigma around monthly periods, the kind of products that are available, how to use and dispose them, etc.

The CmF team engages with the women to talk about menstruation at home so that they have a better chance of getting medical help when necessary. “It’s no longer a dirty subject,” says Dhani Devi of Malera village, who has attended several such sessions. “I talk to my daughter and teach her as well. We use cloth and now we dry the cloth openly in the sun. If we feel unwell, we feel confident to talk about it to the woman doctor.”

CmF also has a counselling programme on menstrual matters so that women feel more comfortable talking to their menfolk. “My husband did not know anything about it earlier,” says Navli Bai. “Now he understands and helps me with housework when I have my periods. I tell my friends to be open with their husbands. There is no shame in this matter.” Says her husband Reda Ram: “I buy the sanitary pads for her when I go to the market.”

The MHM programme is getting some traction amongst schoolgirls. CmF holds counselling sessions with girls aged 10-19 and picks the most communicative among them to act as peer mentors to spread the hygiene message amongst friends and female relatives.

The school programme fills a vital need. Though several state governments, including Rajasthan, have come forward with free sanitary products for girls in government schools, communication was missing. Most of the time, the girls were clueless what to do with the products.

“It is good that CmF is helping our girls become aware of hygiene,” says Indra Chauhan, the principal of the Government Senior Secondary School in Gharat. “Schools also need clean toilets and some method to dispose of sanitary products. This is something the government needs to improve.” ■

Students at the Government Senior Secondary School in Gharat in Sirohi district





A meeting of the 'water user group' — run entirely by women — in Gharat village in Sirohi district

appreciated by the villagers,” says Mr Papnoi.

A key element in making toilets sustainable is the twin-pit technology that allows users to compost waste in one pit while using the other. CmF has trained 700 masons in building twin-pit toilets. Several women joined the training and Megi Bai of Gharat is one of them. She came through the seven-day training and eventually built her own toilet.

Even after water and toilet projects took off, CmF found that the WASH intervention faced seasonal challenges, given that in a poor monsoon year about half the area's borewells would go dry. “We are exploring ways to make the water schemes sustainable,” adds Mr Papnoi. For that, CmF is piloting two groundwater recharge projects, one in Gharat. The project aims to collect rainwater in a trench so that it feeds into the water table and reduces run offs.

Hygiene is the third leg of the WASH intervention. CmF interacts with communities and schools to bring about behaviour change through basic cleanliness habits: washing hands before eating, using toilets for defecation, and menstrual hygiene.

Showtime for change

Behaviour change is critical, and the toughest to bring about. CmF has reached out to more than 240,000 people to improve daily hygiene habits. And it has made entertainment the vehicle to make hygiene interesting and ingrained. “We do this through two types of theatrical shows, large multi-thematic shows where we address groups of around 2,000 people, and smaller shows at a hamlet or school level,” says Mr Papnoi.

To ensure that the messages went over well, CmF has tied up with professionals and theatre experts who have helped design

the shows with lighting, music and live performances. Humour is another element that works, especially with schoolchildren.

At the Government Senior Secondary School in Sivaya, about 100 children sit giggling at the antics of a street artist. Over the course of an hour, the carefully scripted performance helps convey simple but important ideas: washing of hands with soap before cooking or eating, using a ladle in water utensils, covering pots to keep water clean and so on.

Changing ingrained and traditional community habits is difficult but advancing on WASH parameters is essential for social progress. Dealing with the challenge of one and the far-reaching advantages of the other is what CmF is chasing after, and with good results. ■

Images courtesy: Ravi Kant

An all-round **solution**

A ‘transformation initiative’ in South Rajasthan is slowly changing ground realities across the social development spectrum



Self-helps groups and microfinance are the starting point for much of what happens under the programme

Life is better in a number of ways for 43-year-old Puri Bai, a resident of Gharat village in Rajasthan’s Sirohi district. She no longer has to carry water in pots from wells far from home; her family has a functioning toilet, which she herself built, having learnt the skill in a masonry class; she has access to microfinance as a member of the village self-help group; and she is part of a community that is more aware than ever before about how to improve its collective well-being.

Ms Puri Bai is one of more than 48,000 beneficiaries of the

Tata Trusts’ transformation initiative, a wide-ranging effort to create conditions for sustainable socioeconomic development in South Rajasthan. Started five years ago, the initiative covers Sirohi, Pali and Udaipur, three districts stymied in social development by way of demography, geography and shortages in spheres such as education and healthcare.

Broader partnership

The Trusts have been active in Rajasthan since 2007, principally through their associate organisation, the Centre for

microFinance (CmF), and through collaborations with Rajasthan government’s departments for women and child development and rural development. It was the impact of this work that led, in 2015, to a broader partnership with the Rajasthan government for the integrated transformation intervention.

For five years now, CmF has looked at holistic community uplift through programmes in education, health and nutrition, water, sanitation and hygiene (WASH), and skilling. The objective is to have these programmes

complement ongoing interventions in livelihoods and microfinance.

The integrated development plan has several components. The most impactful of these relate to income enhancement and food security. Farming households are encouraged to take up cultivation of unconventional crops like fennel, castor and vegetables. Modern farming practices – drip irrigation and soil treatment among them – dairy and goat farming are encouraged to enable households to supplement their earnings.

Another boost comes from organising farmers into cluster-level federations and producer companies to bring them closer to the market and, thus, find superior values for their produce. Women are organised into self-help groups that enable them to access finance.

Drawing youth into the employment net is another focus area. CmF has launched skilling initiatives such as Skill Mitra and Udyog Mitra to open up new

employment and small business options for thousands of youngsters.

Under its health initiatives umbrella, the organisation is engaged in capacity building for frontline health workers in the Abu Road and Pindwara subdistricts, the biggest beneficiaries here being women and children. CmF is also involved with helping arrange treatment for men who work in the local sandstone carving industry. This is toxic labour that invariably leads to lung disorders.

WASH to wellness

Across homes, schools and *angamwadis* (childcare) centres, CmF's WASH project focuses on improving access to safe water and toilets, and encouraging basic hygiene habits. Another significant programme is in education, where CmF is helping improve learning outcomes for more than 48,000 students through interventions in *angamwadis* and schools (remedial education is also part of the mix).

For effective implementation and to spread its footprint, CmF works with a number of partners, among them Pradhan, Srijan, the Ambuja Cement Foundation, Doosra Dashak, Bodh Shiksha Samiti, the Foundation for Ecological Security and, not least, the state government.

Since 2018, CmF's work has received support from the NITI Aayog, the Indian government think tank, which has classified Sirohi as an 'aspirational district' (one of 112 such districts across the country that have some distance to go to catch up with their more developed counterparts).

The integrated basket of interventions that forms the transformation initiative is helping to do what the Tata Trusts envisioned – create lasting impact and trigger sustained development in the tribal-dominated pockets of South Rajasthan. ■

Images courtesy: Ravi Kant



A community-led drinking water supply scheme in Gharat village in Sirohi district

Blooming **beginning**

Improving nutrition outcomes is the goal and childcare centres are the setting in an initiative that involves the entire community

Time was when Ankita Devi knew as much about nutrition as she did about nuclear physics. The latter bit remains a mystery for the 26-year-old mother of two from Kakor village in Rajasthan's Tonk district, but good food and the need for it have become so ingrained in her knowledge bank now that she has made a career of spreading the eating right message.

"When my son was a small child, I used to give him milk and biscuits all day; that's what he liked and I did not know better," says Ms Ankita, a *'suposhan sakhī'*

(community mobiliser) in 'making it happen', the flagship programme of the Tata Trusts in the nutrition sphere. "I have changed a lot since then, and the change began when I started getting trained, 18 months back, as a *sakhī* through the PLA [participatory learning and action] meetings in my village."

It did not take much for Ms Ankita to be convinced but that was not how it went with the rural women she was tasked with convincing once her training ended. "It was difficult initially to get people to attend the meetings, so I began doing home visits.

Participation slowly increased, to the point that these days we have women coming with their children, and we have adolescent and grandmothers as well."

Building up enthusiasm is par for the nutrition course that has been set and *anganwadis* (childcare centres) are the critical piece in the effort. These centres, which come under the Indian government's Integrated Child Development Services programme, are the setting for making it happen, which is being implemented in Rajasthan by The India Nutrition Initiative (TINI), a Tata Trusts initiative.

There are four parts to the *anganwadi*-centric approach: upgrading the centres to make them beneficial for children and their mothers; training and encouraging the people running them; getting the community involved through a variety of nutrition events; and pulling government officials and institutions into the endeavour.

TINI's *anganwadi* initiative is currently operational in Rajasthan, Maharashtra and Andhra Pradesh. In Rajasthan, where the project is being implemented in five districts (Alwar, Dholpur, Karauli, Tonk and Dausa), 205 *anganwadis* have been refurbished to make them more child and mother friendly and about 12,500 frontline workers



Linking pregnant mothers with health services in Nichlagarh village in Sirohi district

from 8,600 of these centres have been trained.

Most importantly, more than 46,000 children — ranging in age from six months to five years — pregnant and lactating mothers, and adolescent girls have gained as a result. The number of those the project has reached out to through advocacy interventions is much higher (about 670,000).

Supply-side start

The ‘making it happen’ initiative, which kicked off in late 2017 in partnership with the Rajasthan government’s Department of Women and Child Development, has demand- and supply- side components. “We began with the supply side and this was about improving the *anganwadis*,” says programme manager Shelly Dutta.

TINI took up 100 *anganwadis* in the first phase of the project and the rest in the second. “We refurbished the centres and provided artwork, books and educational toys to attract the children,” adds Ms Dutta. “Basic facilities were made available and we built up the capacity of the workers running them.”

The training sessions for the *anganwadi* workers focused on monitoring the growth of children and on counselling pregnant mothers. “The workers and helpers at the centres have done wonderfully well in involving children in meaningful activities,” says Ms Dutta. “The aim was to demonstrate that our *anganwadis* were no less than a proper playschool.”

Roping in village councils has been a big help. “Many of them have come forward to repair their *anganwadis* with their own funds,” says Ms Dutta. “We have also tapped self-help groups to spread

awareness about the importance of the first 1,000 days in a child’s life. More than 1,900 women leaders from 840 villages have been trained for this. The goal is to ensure the sustainability of the project.” ■

MAPPING THE MAKEOVER

The ‘making it happen’ project in Rajasthan has made its mark in different ways:



205
childcare centres
refurbished



46,000+
children and
mothers benefited



12,500+
frontline community
workers trained



10,000+
severely malnourished
children treated



840+
village organisations
oriented on nutrition



1,800+
village councils made
nutrition-aware



A tribal farmer in Panasalapadu village in Paderu region with her freshly harvested turmeric crop

Gold in the fields

Turmeric is the spicy solution a group of tribal farmers in Andhra Pradesh have turned to as the means to improve incomes and their lives

It's hard to get Dharma Rao to smile for the camera but the reticent 50-year-old has plenty to be happy about. A 'progressive' farmer from Lingaputtu village in Andhra Pradesh's Visakhapatnam district, Mr Rao's prospects have improved considerably in recent times. And he has turmeric to thank for it.

Mr Rao is part of a two-year pilot project being implemented by the Tata Trusts in Paderu, a predominantly tribal region in Visakhapatnam. The turmeric project is a comprehensive attempt to improve the incomes of tribal farmers through training in new crop practices, the introduction of high-yield varieties and by expanding market access for growers.

At the heart of this 'agriculture experiment', as it is called, is turmeric, the golden spice. The turmeric grown in Paderu is naturally high quality and, hence, fetches a premium in the market. The wrinkle is the time local farmers use up to harvest the crop: about two years, which compares poorly with the average nine months it takes elsewhere in India.

Launched in early 2018, the turmeric project involves more than 500 farmers. The objective is to help put more money in the hands of farmers. Shortening cropping cycles, enhancing the

yield of local turmeric varieties and introducing new strains of the spice — many methods have been pursued to take the incomes of these farmers to a higher level.

Turmeric is in demand globally and right through the year. The flavour of the popular seasoning has always been its biggest attraction but, of late, many of its health and curative properties — attributed to the curcumin content in it — have come to light.

India never needed convincing about turmeric's goodness, in food or inside the body. The country is the world's largest producer, consumer and exporter of the spice, and the varieties here are



“The economic development of tribal communities is a priority for the Trusts.”

— Abhay Gandhe, head, special projects, agriculture, Tata Trusts

high in curcumin. Andhra Pradesh is a big producer of turmeric and Paderu accounts for a sizeable share of the harvest. That made the region an apt choice for the pilot exercise.

A rich haul

Paderu grows about 4,000 tonnes of turmeric in a year and the variety here has an exceptional 5% curcumin content. This fetches Paderu's turmeric a premium in the market. “The tribal community follows traditional agricultural practices and organic inputs are used during cropping,” says DK Balaji, a project officer with the state government's Integrated Tribal Development Agency (ITDA). “But the gestation is long and that affects farmer incomes.”

The Tata Trusts are being partnered in the project by the Society for Elimination of Rural Poverty (SERP), an autonomous society of the state's Department of Rural Development. The initiative comes under the umbrella of the Andhra Pradesh Rural Inclusive Growth Project (APRIGP), a multisector effort supported by the World Bank. The Trusts' principal role here is to provide knowledge and technical support, and this is delivered through the Vijayavahini Charitable Foundation (VCF), an



Farmers in Panasalapadu harvesting their turmeric crop

Groups on the go

Farmer producer organisations (FPOs) are a critical cog in the turmeric pilot project in Paderu. At the heart of this initiative is a niche group of farmers who champion the cause of building and sustaining farmer collectives – the FPOs, promoted by SERP under the World Bank funded Andhra Pradesh Rural Inclusive Growth Project (APRIGP).

Small and marginal farmers have been mobilised into farmer producer groups (FPGs) in villages, with FPOs acting as a federated structure at the sub-district level. Adopting a commodity-centric approach to value chain development, FPOs rally farmers in the project and help them through a range of services across the value chain, such as extension services, capacity building in production and post-harvest practices, and marketing. Last year, about 12 tonnes of turmeric, worth more than ₹1 million, were sold by the turmeric FPOs of Paderu.

Registered under the Andhra Pradesh Mutually Aided Cooperative Societies Act, these FPOs are led by a 15-member board

of directors who, in turn, are assisted by FPG leaders at the village level. Modelled on women self-help groups (SHGs), these farmer collectives meet once a month and maintain proper books of accounts. At the FPO level, the board meets once in a month to discuss and plan activities.

Each FPO is supported by a six-member team comprising a community coordinator, an agriculture extension specialist, a veterinary extension specialist, two *rythu mitras* (progressive farmers) and an accountant. The team works to enhance the capabilities of FPO members in institution building and provides them with technical knowledge.

So far, 168 FPOs have been formed by SERP across Andhra Pradesh under APRIGP, with some 290,000 small and marginal farmers as members. Each FPG has access to a revolving fund and an activity fund for agriculture and allied activities. Based on the seasonal activity plan prepared by an FPO, the initiative also provides working capital to implement these activity plans. ■

associate organisation.

“The economic development of tribal communities is our priority,” says Abhay Gandhe, head, special projects, agriculture, Tata Trusts, as he begins explaining the logic of the project. “Turmeric, along with coffee and pepper, is the most commonly grown cash crop in Paderu. And it is safer and easier to grow than other crops.”

These natural advantages were being eroded by the reluctance of Paderu’s tribal farmers to adopt modern and scientific techniques. Rooted in tradition, the farmers were apprehensive about employing new methods. For instance, when Mr Rao was first approached to join a demonstration exercise, he allocated only a small portion of land for the purpose. This, he said, was to limit his risk.

Underwriting change

The attitude of the farmers took time — and a lot of coaxing — to change. They were trained in scientific farming practices through the local Horticulture Research Station (HRS) in Chintapalle. Better farming practices, such as the use of bioagent inputs, land preparation, efficient irrigation systems and intercropping with pulses, became a feature of the project.

Meanwhile, high-yield varieties of turmeric, developed by the Indian Institute of Spices Research, were introduced for field trials.

The project also identified ways to improve the post-harvest process. The traditional way was to boil raw turmeric in large tar drums. This led to the skin of the



A farmer in Kodapalli village with the lucrative Pragati variety of turmeric

spice turning blackish due to dirt deposits it gathers. Farmers would polish the dried turmeric by scrubbing them inside gunny bags, a time-consuming procedure.

Four sets of mechanised boilers and polishers were provided during the 2018-19 harvest season and this has made a noticeable difference to

the appearance and quality of the processed turmeric. Moreover, farmers can process 50kg at a time now as opposed to the old method, in which just 20kg could be handled. “We spend only half the time we used in boiling the turmeric,” says Seedhari Samba, the village head of Paradesi Puttu.



Dharma Rao from Lingaputtu village with the Pragati turmeric that he farmed

Linking the farmers to the market, rather than leave them to the mercy of middlemen and agents, has been a crucial feature of the turmeric initiative. Farmer collectives function in cohort with farmer producer organisations (FPOs) to sell the turmeric. Previously lukewarm to the FPO concept, the farmers veered around after seeing the success of local women self-help groups (SHGs).

“Our experience with SHG-related work helped us bring the group discipline of savings, monthly meetings and internal lending to these male-led farmer groups,” says Remya Devan, a consultant with SERP. The Trusts have pitched in as well, developing the capacities of FPOs and training influencers among the farmers. They were also taken on field trips to visit successful FPOs in the

region and in neighbouring Odisha.

Paderu’s farmers are no longer limited to selling their produce in the local market. Events like a buyer-seller meet, organised in March 2018, have made them aware of other opportunities. “We once thought we could sell our produce only here; now we realise there are buyers in other places, too,” says Kimudu Swami Naidu, president of the Paderu FPO.

Room for improvement

It is evident that the Paderu turmeric project is showing signs of success on multiple fronts, but there are aspects of it that could improve. For instance, the small-scale introduction of a new variety, Pragati, has delivered quicker and better yields, but this is offset by the fact that it fetches a lower price in the market.

The different partners in the initiative are, for the future, pinning their hopes on an upcoming ₹850 million programme funded jointly by the central and state government. This will involve controlled farming across 5,000 acres in the region before spreading the intervention over a larger canvas.

“The Tata Trusts are going to be vital going forward and we are looking to scale up this initiative with their help,” says Ms Devan. As for the Trusts, the turmeric project is just the beginning. “We expect to replicate this approach with other commodities,” says Satya Narayana, senior executive, programmes, with the Trusts. ■

By Vikas Kumar



Shoko Noda (second from left) during a visit to Ladakh

‘India has resources, ideas and initiatives’

Shoko Noda could have got involved with her family’s business of distilling sake — the Japanese alcoholic beverage made from fermented rice — or she could have, as she was inclined to do through her growing-up years, pursued journalism. But the Resident Representative in India for the United Nations Development Programme (UNDP) had a change of heart following a life-changing visit to Cebu in the Philippines during her university days.

That’s when Ms Noda, an only child raised in affluence, came face-to-face for the first time with poverty and its victims. “I was shocked and saddened,” she says. “It was the moment when I changed my dream and set my mind on working in social development.” The episode was the spark for a career with UNDP

that has lasted more than two decades and seen her serve the organisation in 10 countries around the world.

Ms Noda, who took up her present position in May 2019, opens up to Christabelle Noronha on UNDP, its social uplift objectives in India and elsewhere, and the importance of the organisation's work in a connected world. Edited excerpts from the interview:

How has UNDP's efforts in India evolved over recent years?

UNDP has had an incredible journey in India's social development sector. In the 1960s we were developing important institutions and then we moved to policy work, the focus being on people and, importantly, women's empowerment. With reference to the past decade, this has been the era when the UN first defined the 'Millennium Development Goals'. In the context, UNDP's mandate is driven by the concept of human development. We try to offer integrated solutions by bringing together different strands of the UN's Sustainable Development Goals [SDGs].

In India, more than in any other country, we are bringing innovation to our work. We have a few global flagship programmes such as the 'electronic vaccine intelligence network' (or eVIN), where we are collaborating with the Indian government's Ministry of Health and Family Welfare. Together, we have developed the universal immunisation programme through eVIN, a unique platform that brings together technology, people and processes to strengthen the vaccination supply chain. The system is operational at 27,000 vaccine storage centres across 29 states and seven union territories of the country.

We have also started to work in the 'circular economy' to facilitate the recycling of plastic, a new area for many countries. It is important here to support the people who collect waste plastic. We are looking to institutionalise this labour; then the men and women who pick up and sort plastic waste can sell it through a local partner at the right price and thereby get the income they deserve. We are empowering these people by providing them with training and information. We work with state governments and local partners to ensure recycling happens.

UNDP is no longer a donor agency; we are partners in social development and we bring in global expertise and the knowledge gained through our vast experience.

Helping India get ahead on the SDGs is among UNDP's most vital objectives and much has been achieved here. How has the country fared?

I think India has done pretty well. Of course, it still has a long way to go but the numbers are impressive. For instance, from 1994 to 2012 the proportion of people living below the nationally defined poverty line fell

"We try to offer integrated solutions by bringing together different strands of the UN's Sustainable Development Goals."



India's scale is what makes the development challenges facing it so daunting, says Ms Noda

from 45% to 22%. Between 2005-06 and 2015-16, India lifted about 271 million of its citizens out of poverty. That is, I believe, quite remarkable.

India has demonstrated its commitment to, and ownership of, Agenda 2030 [the timeframe for getting to the 17 SDGs] from the beginning. It was an early volunteer for a national review at the UN's 'high-level political forum', which enables countries to share their experiences in implementing Agenda 2030 in a way that is participatory, transparent and accountable to citizens.

India has finalised the 'national indicator framework' for the SDGs, which will help in outcome-based monitoring and reporting on progress with the goals. The data from national-level framework is crucial and forms the basis for the compilation of global indicators. Given India's size and criticality to the global development project, data from the country will determine if the world is meeting its goals.

The key to achieving the SDGs is political will and the government's capacity and innovation quotient. India has these ingredients. I always say that if India can achieve the SDGs, then the world can as well. India's scale and size mean that it is definitely playing a crucial role on reaching the goals, for its own people and also globally.

India has the resources, the ideas and the initiatives. I have worked in 10 different countries but I have not come across such a dynamic place. There is a good chance that India can achieve the SDGs.

Collaborating with the government, at the centre and in the states, would be critical to the outcomes UNDP is working towards.

How well has this gone?

UNDP always works with governments. I do believe that for our work



in India to be successful, our collaboration with governments has to be successful. The Indian government is a large institution and we work with different parts of it. This demands a lot of coordination, but I think that we have had fantastic partnerships with the government at both the central and state levels.

What about partnerships with NGOs, foundations and other civil society organisations?

They have been a part of our efforts; they are the eyes and ears that determine what's happening on the ground. I have been meeting civil society organisations, listening to them and seeing how we can work together and bring our strengths together. In addition, the private sector is now an important ally. I recently attended a CSR [corporate social responsibility] conference and it was very encouraging to see the private sector interested and keen to work in social development. Twenty years ago, when I started my career, I could not have imagined a conference room full of people from the private sector coming together to talk about SDGs. That's happening now and it gives us hope.

In which spheres has UNDP done well in India?

I think UNDP's strength, globally as well as in India, is that we are a flexible organisation that helps meet the evolving needs of different countries. We have different packages that we offer to a country. The key

is our flexibility and our ability to focus on policy work, instead of just on project implementation. We have created a number of national and state human development reports and that has been our flagship work.

What about the challenges?

The development challenges are different in different states, but I think it's the scale of the country as a whole that makes the task daunting (Uttar Pradesh, for example, has a population that is larger than of my country, Japan). There is room for improvement, and I welcome feedback from the government, from NGOs, the private sector and civil society. I am always open to having discussions in case we need to make adjustments in our approach.

The environment and climate change have gained a lot of importance in the UNDP agenda. What is the challenge in the Indian context and how is the country coping?

When I first arrived in May 2019, I was surprised to see a large number of natural disasters happening; severe droughts in some regions and cyclones and floods in others. India is definitely one of the countries being severely hit by climate change and we take this as one of our most important portfolios. It's no longer about climate change; rather, it's a climate crisis.

Climate change is not only about having an adequate disaster management system in place but also about adaptation and preparing the community. Varied methods have to be tried and there are so many phases of work that we need to do. What we are trying for is to provide appropriate and sustainable solutions.

On the human development indices, where can India learn from? And is there anything that the developed world can learn from India?

I think the developing world can definitely learn from India on poverty reduction. But India cannot be really compared with other countries, not many of whom have the kind of social uplift schemes that India does. As for learning from other countries, India can do that as well and UNDP lends a hand in the process.

This seems to be a difficult time for global institutions, especially those in the United Nations fold, with many powerful voices questioning their relevance and effectiveness. What is the counter to such criticism?

I agree, it's not an easy time. Given that reality, multilateralism is even more relevant today than before. The root causes of poverty are not merely domestic; they are international as well. Inequalities and disparities at the global level have combined to create this crisis. We need to deal with these root causes and that makes the work of the UN and UNDP important.

“The root causes of poverty are not merely domestic; they are international as well.”

“The traditions, the cultural diversity, the food, the people, everything — India is like a universe in itself.”

The world has seen an overdose of political upheaval in recent years? How has this affected UNDP and its mission?

UNDP’s mission — rather its mandate — is broad and it’s basically about human development and poverty reduction. Now, no development work is completely apolitical, but whatever the surrounding environment, our focus remains on people. You have to build the peace and keep it for progress to happen.

Funding, too, has become a challenge globally. Traditional donors tend to contribute more when disasters strike, and less so when the crisis eases. But that is the moment when we have to invest more to ensure that the governmental system becomes strong, that democracy is rebuilt.

The growing extremism and fundamentalism we are witnessing is a reflection of the disparities within countries and communities. This gets politicised sometimes, with narratives coming to us discreetly.

How important are diplomatic skills in the position that you hold?

It is important, but the more important thing for me is to be honest about what is happening — and to be optimistic. If we lose hope in the work we do around the world, we can’t really make any progress.

You have worked with UNDP in 10 countries. Which did you enjoy working in the most, and why?

Maldives. I worked there for four-and-a-half years before coming to India and it was an extremely difficult time there — it was less democratic, to say the least. I was the resident coordinator in Maldives, covering not only UNDP but the UN as a whole. I was also in charge there for political dialogue and human rights. That’s where the UN was in the best position, bringing different strengths to support the government but also the people of Maldives. Democracy is back now in the Maldives and that makes for a rewarding feeling. Our persistence and patience helped.

How has the experience in India been for you personally? How different has it been compared with your other postings?

I don’t know who came up with the phrase ‘Incredible India’; that best describes this country. The tradition, the cultural diversity, the food, the people, everything — India is like a universe in itself. I’m very grateful that I have this opportunity to work here. I have not seen anything like it.

Which part of India did you like the most?

Each state is so different but for me Ladakh is a place I will always remember (it reminded me a little bit of Mongolia). I’m trying to travel as much as possible to understand the country. I will not learn anything by sitting in a room and reading reports and speaking to colleagues. I like to meet project beneficiaries and check with my own eyes whether the support we are providing is actually helping. ■

Villagers from Chureddhar in the Tehri Garhwal district learn about springshed management



Springing to life

Natural springs are the stars in a water project that has got benefits flowing to more than 1.2 million people in Uttarakhand

It's difficult for people who take such matters for granted to grasp what water in a tap and in the house truly means. For Guddi Devi, a 38-year-old from Silkoti village, about 95km from Uttarakhand's state capital Dehradun, it means the world. Where once she had to endure hard labour and deadening drudgery to secure the elixir from far-away sources, she now has water at her doorstep.

That also means Ms Devi gets more time for her family, as does her school-going daughter, 12-year-old Seema. "We had to walk for hours every day to collect

water from springs located deep in the forest," says Ms Devi. "My husband works in the fields and has no time to help, so I would ask my children sometimes to skip classes to fetch water."

Easily available water has changed the lives of Ms Guddi and scores of other women like her in Uttarakhand's Tehri Garhwal region. Guiding this change has been Himmotthan, an associate organisation of the Tata Trusts. Beginning in 2001, Himmotthan has through its WATSAN (drinking water, sanitation and hygiene) — reached more than 25,000



Flow chart



Uttarakhand has
20,000+
springs spread
across its 10 hill
districts



More than
30,000
habitations depend
on these springs
for water



The WATSAN
project has helped
25,000+
households (1.2
million+ people

households and 1.2 million people living in the upper reaches of Uttarakhand.

By adopting modern water and energy technologies and engaging continuously with the community, these programmes have worked to rejuvenate and protect sustainable water sources such as natural springs and to provide piped water to villagers. There have been other efforts as well and the common thread running through them has women as primary beneficiaries.

Water scarcity has been a long-running story in the high ranges of Uttarakhand, despite the state being the origin of many mighty rivers that flow across north India, including the Ganga and the Yamuna. That much needs to be done in dealing with the dearth of water is not in doubt (a 2018 report by the United Nations Development Programme found that hilly Uttarakhand was in the throes of an acute water crisis).

“The primary struggle of life in rural India is *roti, kapda aur makaan* (food,

clothing and shelter). Here in Uttarakhand, *paani* (water) is added,” says Vinod Kothari, regional manager with the Tata Trusts. WATSAN, with its community-based orientation, was created to lend a hand in the struggle.

The water dimension

The programme has promoted 250-odd water schemes over three phases from 2002. Under these schemes, each dwelling in a project village gets a toilet and a piped water connection close to its doorstep. The water is sourced from natural springs and tapped through gravity-flow systems. In places where natural springs are absent or not a viable option, the programme incorporates rainwater harvesting structures with tanks to collect water.

WATSAN was successful in delivering mountain communities with doorstep supply, but the enterprise faced a near-unsurmountable hurdle with the region’s water table. Overexploitation of

A win with water

Uttarakhand has more than 20,000 natural springs spread across its 10 hill districts, with about 70% originating in designated forest areas. Most of the drinking water accessed by people living in the state's mountainous regions are from springs. It makes good sense, in the context, to protect and nourish these invaluable sources. That's what the Tata Trusts and its associate entity, Himmotthan, have tried to do.

It became clear early in the springshed management project that to ensure sustained water supply it was essential to recharge natural springs through interventions. That meant aligning the work of multiple agencies, a huge challenge in itself.

The forest department has charge of natural springs as most of these are in reserve forests. The Jal Jeevan Mission, the Indian government's flagship water project, is entrusted with providing tap connections to rural households. To add to the pot, the state's district authorities and its soil and water conservation department have a stake.

The logic of having an apex body to bring different stakeholders together led to the formation of the 'springshed management consortium' (SMC) in 2018. SMC is a critical cog in Uttarakhand's efforts to rejuvenate its springs. It has 20 members, among them representatives of state and central

agencies, nonprofits and technology institutions. The principal chief conservator of forests, Uttarakhand, is the consortium's chairman.

Himmotthan is member secretary to SMC, providing much-needed expertise derived from long years of experience. "Himmotthan's scientific inputs have helped us adopt a targeted approach," says Prasanna Kumar Patro, SMC's principal coordinator and an Indian Forest Service officer with the state forest department. "This has provided us with economy of scale, delivered cost savings and facilitated effective monitoring."

Established by the Tata Trusts in 2001, Himmotthan manages and implements the Himmotthan Pariyojana programme, which targets the root causes of underdevelopment in Uttarakhand's Central Himalayan region.

Besides Uttarakhand, Himmotthan currently has projects in Himachal Pradesh and Leh. It works with rural mountain communities to develop sustainable enterprises linked to livestock and agriculture, improve educational outcomes and access the energy, and most importantly, bring water and sanitation to villages.

Says STS Lepcha, the state's former principal chief conservator of forests: "Himmotthan has helped policymakers know what they did not know." ■

groundwater, altered land-use patterns and widespread deforestation have led to the drying up of traditional water resources like springs and ponds. A big question mark hung at this point on the sustainability of the water supply scheme.

"In the early 2010s, we noticed that perennial springs were becoming seasonal, and seasonal ones were becoming inactive," explains Sunesh Sharma, a programme officer with Himmotthan. "Rampant development, declining green cover and increased consumption were depleting Uttarakhand's natural water resources."

Himmotthan was forced to recalibrate its approach. A plan was chalked out and

this covered a spectrum of activities, from rainwater harvesting to recharging of the water table. The services of a specialised team of geologists and hydrologists was requisitioned and a mapping of more than 300 springs across the hill regions of Tehri Garhwal and Pithoragarh was done.

The team studied the porosity of the rocks and the gradients of inclines. It also identified sites for check dams and groundwater trenches to arrest surface water run-off. Himmotthan's springshed management project has drawn heavily from the work that the team did.

Village communities — the centrepiece of the WATSAN programmes — were enlisted

A hydrologist at the site of an aquifer in Chureddhar village



to ensure proper implementation. ‘User water and sanitation committees’ (UWSCs), comprising village elders and other influencers, were handed charge of managing water distribution facilities, including solar pumping systems, village catchment taps, piping equipment and household sanitation and rainwater harvesting units.

The committees were also entrusted with the task of other water-conservation work: constructing brushwood check dams, digging trenches and monitoring the efficacy

of various efforts. Since, as the maxim has it, what can’t be measured, can’t be improved, Himmotthan has designed ‘*Dhara janma patris*’ (water cards) to record the flow rate of the springs and help with data collection.

A notable achievement has been the formation of the ‘Springshed Management Consortium’ (SMC), an umbrella body that includes state and central government officials, nonprofits and technical experts. The consortium oversees the project, works to ensure the revival of springs in the state, and brings together different partners for effective implementation.

It’s in the results

The springshed management project is being implemented in six districts of Uttarakhand and there are plans to extend it across the 10 hill districts of the state. The reason is in the results. Data collected by Himmotthan reveals that water levels have increased in the project areas and springs have regained their natural flow. In Gangolihaat in Pithoragarh district, for instance, water discharge from springs during peak summer (May-June) has increased by 48%.

“The National Rural Drinking Water Programme (NRDWP) considers 55lpcd [litres per person per day] as optimum for the needs of rural habitations,” says Mr Kothari. “We are confident that by 2030 most habitations in Uttarakhand will be self-sufficient in water.”

For women like Ms Devi, the project is already a success, with water shortages and the hardships they impose a thing of the past. And it’s a history 48-year-old Ramlal Dabral, a member of the UWSC in Jadipani, will remember. “When I have grandkids, I will tell them about the difficulties women here faced due to water scarcity,” he says. “I’m sure they won’t believe it.” ■

By *Jairam Pai*



Slow down, the spirits say

‘Ghosts’ come to life in a quirky campaign that drives home the message on road safety

For 24-year-old Prasad Khawadkar, the daily 23km bike ride from his home in Mumbai’s Dombivli suburb to his workplace in Airoli in Navi Mumbai is filled with anxiety – and road accidents. “I see an accident nearly every day,” he says.

Navigating India’s chaotic and lethal roads is not for the meek. There were more than 150,000 deaths in about 400,000 road accidents across the country in 2018. That amounts to some 400 fatalities every single day and this is only the officially recorded toll. The suffering and trauma of victims and their families aside, road accidents bled India an estimated ₹4.2 trillion (about \$58 billion) in the period.

The grimness of the situation has served as the catalyst for an inventive

‘defensive driving’ programme launched in December 2019 by Tata STRIVE, the skill development initiative of the Tata Trusts, in partnership with Tata Elxsi, a design and technology services company. Called *Badhti Ka Naam Gaadi*, this is a behaviour-change campaign that aims to educate drivers and, through them, make our roads safer.

Relearning to drive

Defensive driving itself is a form of training that aims to improve a person’s driving skills by anticipating situations, reducing road risks and making safe decisions. Drivers are made aware of their personal responsibility when on the road and the need to be alert to human error. Also covered are psychological factors



Mayhem on the roads

The toll that road accidents take in India*



400,000+
Road accidents



150,000+
Road fatalities

11% 
India's
burden of global
accident-related
deaths



66.5%
Accidents due
to speeding



70%
Victims in the
18-45 age group



₹4.2 trillion
The financial cost of
road accidents

Sources: *Data for 2018 Union Ministry of Road Safety and Transport;
United Nations Economic and Social Council

such as stress, fatigue and road rage and the importance of safety equipment. In short, defensive driving is about mobility with responsibility.

Animated characters populate the 24 videos in the campaign and the response has been positive, with more than 2,500 people registering on the mobile app created for it.

The effort has been focused on

changing the attitude of drivers while generating greater impact through social media. "We wanted to get into the psyche of people and focus on emotions and behaviour instead of just driving skills," says Anita Rajan, the chief executive of Tata STRIVE.

Experts were consulted and research conducted to better understand what could make the campaign effective. A common

thread in some of the best public interest campaigns globally is the use of humour to convey the message. A light touch laced with humour of the darker kind was the path the programme took.

The premise was out of the world, so to speak: a talk show asking ghosts of accident victims to narrate their experience and counsel 'living' drivers to adopt safe driving practices. The idea of using the ghostly theme works as a reminder that thrill-seeking driving is potentially fatal, and it was executed sensitively.

The videos feature actor Vijay Raaz as a talk show host who chats with the ghosts. The animated characters who underscore the importance of defensive driving are based on stereotypical personalities, a boisterous Punjabi and a flashy Mumbai businessman among them.

A quiz and a certificate

The videos with Vijay Raaz were shot at a studio in Tbilisi, Georgia, and on the streets of the city over a week and later integrated with animation back in the studio in Mumbai. An online quiz was designed to reinforce the learning. Successful completion of the quiz merits a 'defensive driver certificate' for participants.

The videos were released on multiple platforms, including a YouTube channel and a microsite. Social media was employed extensively to maximise the appeal of the videos. The campaign kicked off in the run-up to the 'national road safety week' in January 2020 and, down the line, the team organised an event on TikTok, the video-sharing service, where participants from 41 Tata STRIVE centres rapped to the campaign's signature song.

Scheduled to run for six months, the *Badhti Ka Naam Gaadi* campaign has notched up impressive numbers: close to 4 million impressions (the number of times viewers were exposed to social media posts

that contained the videos) and 0.95 million video views. However, the campaign's bigger accomplishment has been in bringing about a mindset change among the people it has reached. "After watching the videos I realised that India as a nation is very casual about road safety," says Rourkela native Sudhanshu Kishan, who is training to be a wireman.

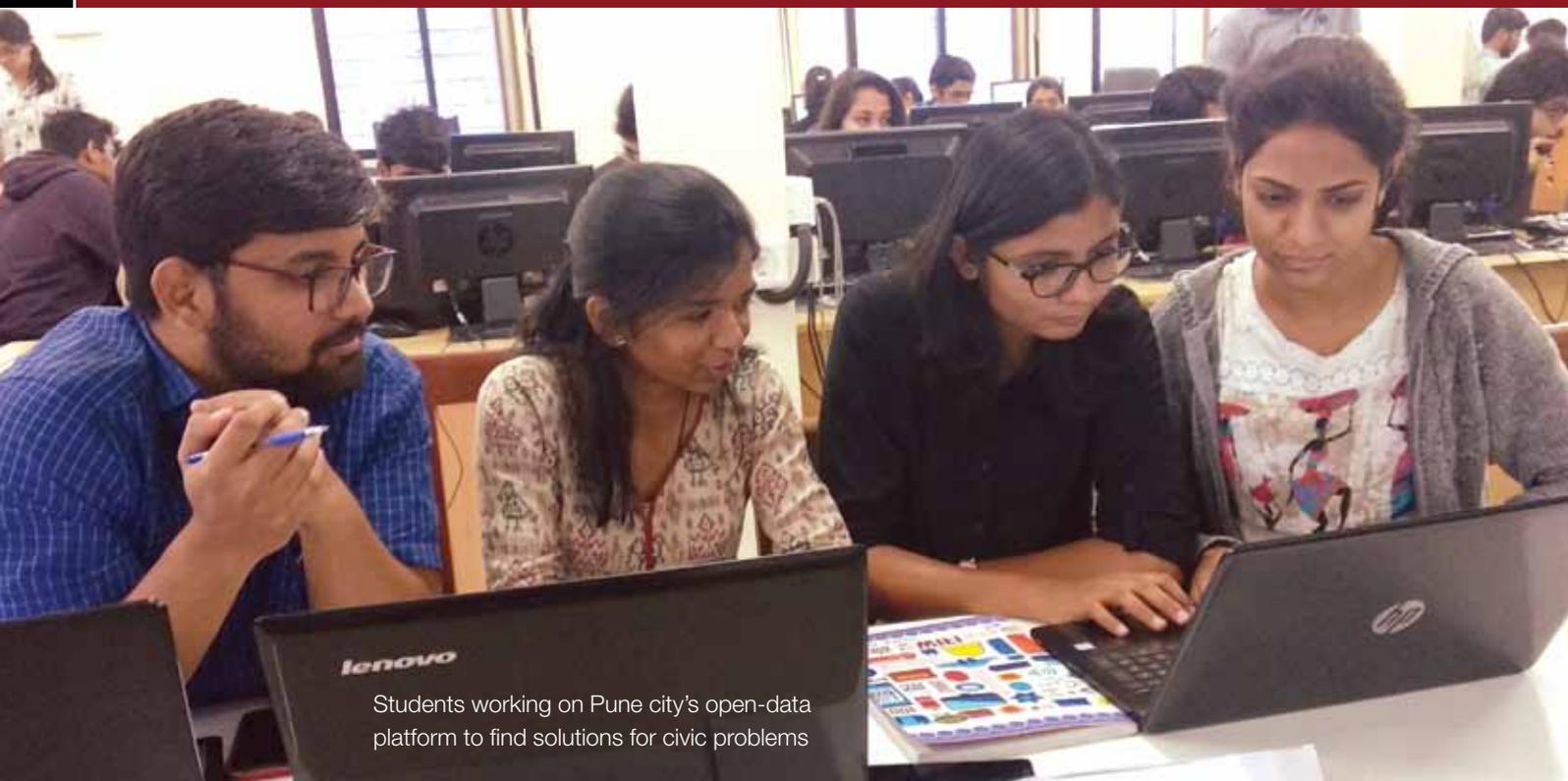
Tata STRIVE's involvement in the campaign is unusual, given that it was established to provide skills training to unemployed youth and to spark entrepreneurial thinking in them. Ms Rajan has an explanation: "Many people ask us how a driving campaign relates to our work. Since we work primarily with youngsters, their safety on the road is an important part of our relationship with them."

Mr Khawadkar has become a convert on road safety after being introduced to the programme. "When I find drivers switching lanes without using the indicator, I reduce my speed — that's defensive driving," he says. "I don't mind reaching my destination late, but I can minimise the risk of accidents."

The campaign is also providing seasoned drivers with a reality check. Among them is Mumbai-based Manohar Yadav, who has been driving a car for 15 years. "I knew all the road rules but I would not pay attention while driving," he says. "Now I know the importance of being alert about what is going on around me when I am on the road."

Ms Rajan is upbeat about what the initiative has achieved. "We hope people will see the ghost characters in the videos, and say, 'Oh my God, if I am not careful, that could be me.'" India has plenty of need for care and concern on its roads and help is welcome from all quarters, even poltergeists. ■

By Priyanka Hosangadi



Students working on Pune city's open-data platform to find solutions for civic problems

Making numbers count

An open-data platform is providing Pune's citizens with improved access to civic services and offering solutions to resolve urban challenges

In his final year of an MBA course at Pune's Symbiosis Institute, Suyog Shanbag developed an app that mapped the city's 1,600 schools by location and performance. This open-data platform enables citizens to choose a school based on proximity, facilities, its teacher-child ratio and the like. Extend the idea to a range of other civic services and it becomes an education to understand why and how the platform is being put to pointed use by the Pune Municipal Corporation (PMC).

Pune Open Data Store, as the platform is called, was born out of the Maharashtra government's

open-data policy, which calls for making data collected by municipal bodies available for the public good. The PMC portal is a manifestation of that idea, offering citizens access to 475 data sets that cover water, sewage, traffic, property tax and much more. The objective is to use the data to improve civic services while also generating business opportunities.

The platform is part of the Tata Trusts' data-driven governance programme, which supports evidence-based civic planning and helps administrations cement innovative data policies (see *An enabler like no other* on page 57). That means simplifying for citizens

the once-arduous task of tapping the information they need.

The Pune project has evolved from a 2016 initiative where the Trusts surveyed the data capabilities of eight India cities on aspects such as air and water quality, infrastructure, green cover, schools and hospitals to determine how urban administrations could utilise data in policy planning and decision making.

Pune was ranked first in the survey, followed by Surat and Jamshedpur, and won itself a platinum rating. Pune is also part of the India government's 'smart cities mission' and home to an entrenched technology ecosystem.

This combination of factors made it a magnet for the Trusts and their data-driven governance initiative.

It began with the Trusts partnering PMC in a pilot project with the big-picture target of fostering an open-data culture. It became clear soon that for the project to have legs, a dedicated resource was necessary onsite, someone who could assist with processes and protocols, advocate the need for freely available data and support the administration in ensuring data transparency.

“We realised that advocacy and support at the local level are necessary to boost data-based government service delivery,” says Shruti Parija, who heads the Pune initiative and is a programme officer with the Trusts. That led to PMC and the Trusts picking a ‘city data officer’ (CDO) – a first for India – and the job went to Anita Kane.

On deputation from Tata

Consultancy Services, Ms Kane came on board knowing she would be breaking new ground as there was no clear roadmap of the way forward. PMC did have an open-data platform back then but it was sparsely populated. A trickier challenge lay in working with, and through, the corporation’s hierarchies and convincing its 60-plus departments to collaborate.

Standardised quality

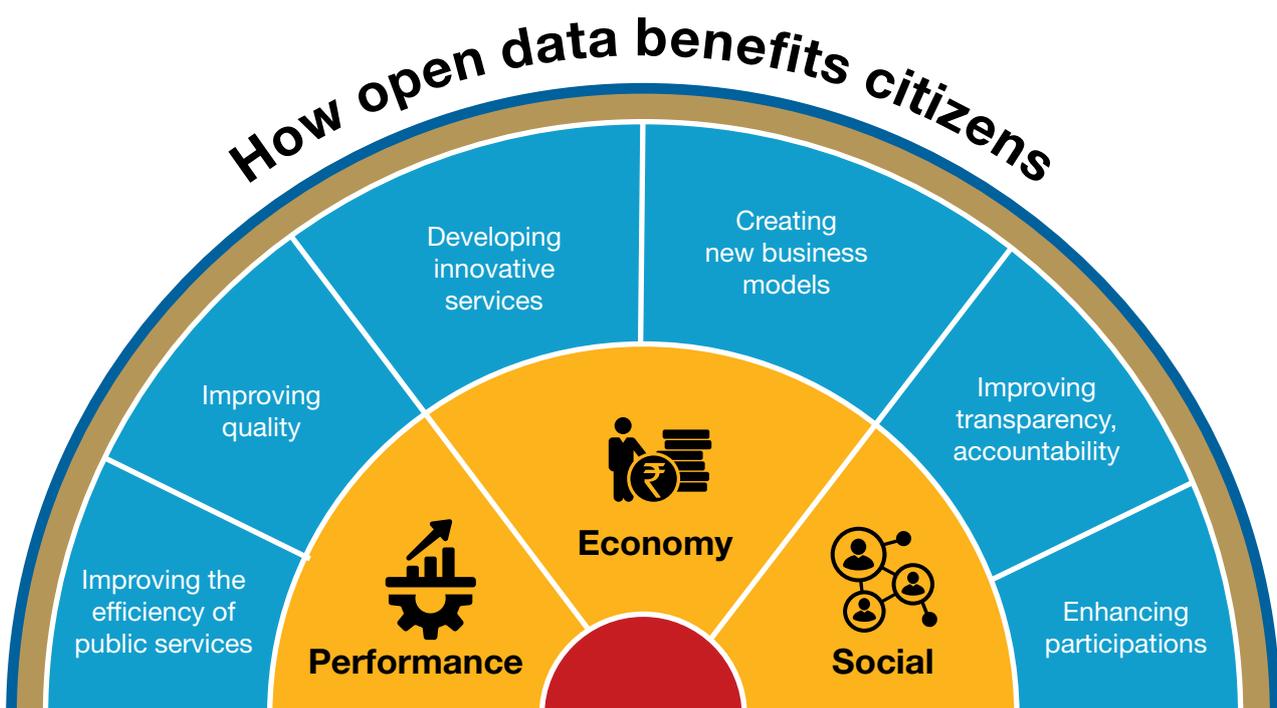
Each department had a different format of collecting and storing data. “Mining data to get qualitative insights requires that they be standardised and of good quality,” explains Ms Parija. “Also, data was often entered manually and that meant errors creeping in either at source, or during the digitisation exercise. This was a difficulty that had to be tackled.”

The privacy of users was another critical piece. Data

published on the open platform had to be screened to ensure that personal information was stored securely. Consequently, this placed a restriction on the kind of data sets that could be published.

That the initiative took off and gathered momentum in spite of the roadblocks is in no small measure due to the strong support it has received from PMC, particularly commissioner Kunal Kumar and Rahul Jagtap, head of its IT department.

Problems persist two years into the current phase of the project, but Pune city has woken up and smelt the potential of data-based solutions, not to mention the business opportunities offered by the platform. Mr Jagtap, who has taken over as CDO from Ms Kane, says the platform has had a ripple effect, with the initial reticence of PMC’s employees and departments giving way to openness on data.



Source: European Data Portal

Significant here, adds Mr Jagtap, is the potential to pull in additional revenue. “We now have data on land records, on building permits that have been issued for construction, and on property tax being paid at an individual level. If we can correlate these three sets of data, we can check whether citizens are paying the right quantum of tax.”

For now it’s all about delivering data to citizens on everyday services: analysing bus routes to make peak commuter travel smoother and faster; gauging the water quality in rivers to determine pollution sources; and

figuring out where new schools and hospitals are needed. There are a plethora of subjects and issues on which the data platform seeks to inform and enlighten.

The Trusts realised early in the project that it was essential to spark public interest in the resource being provided. “Merely uploading data on the open platform is not enough,” says Ms Kane. “It has to be analysed to generate actionable insights and this requires immense effort and qualified personnel.”

The acute need was for a bigger public-private ecosystem to smoothen the last mile for the

platform, and for civic solutions to emerge from the data. The project solicited support to better understand how to take the platform forward and one answer was the ‘Pune open data hackathons’ — sessions comprising students, academia and private industry where participants compete to create solutions around a problem through the use of open data.

Dashboard for parents

The first such hackathon, held in January 2019, was with the Institute of Electrical and Electronics Engineers (IEEE) and Symbiosis Institute.

Participants were given the data sets on education and a problem statement. The goal was to create a dashboard for parents to access information on schools.

The hackathon led to Mr Shanbag’s remarkable school dashboard, with its GIS mapping of Pune schools and data visualisation features. It affirmed the fact that public-private data hackathons could generate useful applications. Since then, PMC and the Trusts have participated in several more hackathons that have led to promising results.

The Pune data genie is well and truly out of the bottle. What wishes can it grant? What good can it deliver? That part of the story is still unfolding and may lead to new discoveries over time. What PMC’s successful dance with data has already accomplished is make the city a torchbearer for urban India. ■

Data rush for denizens

How does open data benefit citizens? Here are some examples:

- Using its open data platform, the Pune Municipal Corporation (PMC) has geo-mapped postal pin codes to accurately indicate the lanes and houses that come under each ward in the city.
- Pune’s population figures varied widely but comparing election and census data has helped peg the figure at 4.3 million.
- Insights on air pollution came from correlating the number of vehicle registrations and the rise in pollution as reflected in Pune’s air quality index.
- An app that collates data on 4 million trees to shed light on areas with maximum green cover, places to find rare trees and those with medicinal properties, where to focus conservation efforts, the kind of trees that need to be planted, etc.
- A city health meter that collates ward-wise data using both positive figures (tree cover, number of hospitals, waste management services) and negative figures (air quality index, number of citizen’s grievances) to give Puneites a better idea of the areas they live in.
- An app that uses machine learning to analyse the language used by citizens posting grievances on Twitter and assigns these to the relevant PMC department.

By Gayatri Kamath



An enabler like no other

India's first 'city data officer' Anita Kane (fourth from left) with the open data team

Data mining may seem like an unusual venture, on the face of it, for a philanthropy such as the Tata Trusts. It is not, because, as Poornima Dore, programme head of the data-driven governance programme at the Trusts explains, transformation scenarios playing out across the world reveal the potential of harnessing data and technology for social development.

“There’s a lot of money that gets channelled into development, through government funds, the corporate social responsibility projects of companies and philanthropic organisations,” says Ms Dore. “We saw a strong role for data in improving service planning and decision making at the granular level, and with its use in enabling analyses of last-mile services and impact.”

The catch was the requirement: clarity on what kind of data, tools, processes and protocols are necessary at every level in the government hierarchy to help the system perform better.

With a vision to “activate rural and urban governance systems, including communities and associated stakeholders to move towards a data reliant culture of decision making, and enhance the data and technology discourse in Indian governance,” the Data Driven Governance (DDG) portfolio at the Trusts aims to strengthen decision systems affecting development and planning, through the use of data and technology.

In the rural component, the Trusts have carried out extensive data collection drives and launched planning dashboards for select district administrations in Maharashtra, Odisha, Jharkhand and Andhra Pradesh. This was followed by a large

scale partnership with NITI Aayog, the policy think tank of the Indian government, for data collection and validation in 85 of India’s ‘aspirational’ districts using the DDG portfolio’s proprietary DELTA platform.

The DELTA platform and methodology has also been leveraged to build model Gram Panchayat Development Plans (GPDP) in 472 gram panchayats across five districts in the Jamshedpur Kalinganagar Development Corridor. This has been done in partnership with Tata Steel Foundation.

In the urban space, the Trusts tied up with Canada-based World Council for City Data and PwC in 2016 to rank eight cities on quality of data collection and data capabilities. That led to the engagement with the Pune Municipal Corporation, a gargantuan institution with dozens of departments and thousands of employees providing services to millions of citizens and managing highly valuable infrastructure.

The Trusts’ open data framework, for its part, is a high-level guide for urban bodies on how information under 50-odd urban themes should be collected, cleaned, secured, standardised, updated and published.

The success of the Pune project has led to the Trusts collaborating with the Indian government’s Ministry of Housing and Urban Affairs to define data strategies for the countrywide ‘smart cities mission’ and in developing capability-building processes for city data officers, a newly minted position.

“Data has a valuable role to play in helping civic systems perform better,” says Ms Dore. “The intent is to make urban systems more data savvy.” ■

Hills with a view

An ecotourism project in a remote corner of Uttarakhand has delivered an income source, and confidence as well, to its all-women crew



Students from Mussoorie International School make seedballs in Chopdiyal village in Tehri Garhwal district during a 'rural immersion' camp

Suman Devi is busy milking her buffalo and she has an audience of four children watching her in rapt attention. It's a routine chore for Ms Devi, a 42-year-old native of Jadipani, a picturesque village that nestles in the mountainous Tehri Garhwal district of Uttarakhand. For the kids, part of a group of tourists, it's a vignette of the pastoral life, on offer for those seeking unusual travel experiences.

Ms Devi is part of an ecotourism project in Uttarakhand that is providing livelihood opportunities and augmenting the incomes of about 100 households. Backed by Himmotthan, an associate organisation of the Tata Trusts, this is a women-centred project and participant families earn between ₹2,000-₹10,000 a month by providing homestays and other hospitality services to visitors. "It has been a life changer for my family," says 38-year-old Guddu Devi, also from Jadipani.

The state's Himalayan setting is an advantage for these women. Famous for its snow-capped mountains and rolling meadows, lakes, forests and pilgrim centres, Uttarakhand has for long drawn tourists and travellers from India and around the world. Their numbers have jumped in recent times — from 19.45 million in 2006 to 31.78 million in 2016 — and this despite shortfalls in infrastructure and amenities for tourists.

The sector's potential to grow further is not in doubt either, especially since the Uttarakhand government sees tourism as an important source of jobs for locals



Student visitors participate in a best-out-of-waste workshop in Jadipani village

and also as a way to stem migration from the hills. Jadipani, where the project is based, has shown how this can happen and the difference it can make to communities.

An attraction now

The first-time feel of the initiative is evident. Jadipani was never considered an attraction for tourists. Situated at an altitude of over 2,000mt and with a population of some 1,200 people, the village rarely figured in tourist itineraries. But changes in tourist preferences and travel trends — fuelled by the never-ending search for unusual destinations, experiential holidays and the like — have put relatively undiscovered places like Jadipani on the map.

The ecotourism venture was off the beaten track for Himmotthan, which has been involved with a series of social development

programmes in Uttarakhand, most prominently in water and sanitation. That has not stymied the effort at Jadipani, which is essentially about cementing a sustainable livelihood pathway for local women and their families.

To begin with, Himmotthan enlisted the support of some 700 women members who are part of its HimVikas Federation, a collective of self-help groups (SHGs), to put the necessary infrastructure in place. These women are the face and the force behind the rural tourism initiative.

Recruiting the locals was easy but training them to become hospitality service providers has been an uphill task. Low education levels and a tradition-bound society had confined the women of Jadipani to a life of domesticity. The idea of managing tourists was alien to them.

Finding their feet

It has been a good beginning,” says Shaila Devi, a 37-year-old from Jadipani about the project that has put her village on the tourism map. She is confident the project will grow further and generate more income, a belief shared by the other women striving to make the ecotourism initiative a success.

Setting up a tourism project in the hills of Jadipani and making it a viable proposition seemed improbable in the beginning, and the failure of similar initiatives in the past added to the doubts. “There were people here who had individually started homestays but they didn’t do well,” says 42-year-old Suman Devi. “We knew we would have a better chance if we worked as a group.”

The women had to overcome plenty of doubts before setting out. “The project would mean investing time and effort and we wondered how we

would manage this along with our daily chores,” says Ms Devi. “We were also not clear about how we were going to look after the tourist groups. We had never done anything of this sort in our lives.”

Training workshops helped in allaying the fears of the soon-to-be tourism entrepreneurs. Proof that the project could find its feet came when the first group, a batch of students, came to Jadipani. “Despite language barriers, the children were keen to listen to our stories and experiences,” says Bashu Devi, 49. “They were fascinated by life in the hills.”

Running the project and dealing with tourists has increased the confidence as well of the rural women in the ecotourism initiative. “We have learned how to interact with city dwellers on an equal footing,” says Sasi Devi, 43. ■



Women self-help group members demonstrate how to use a tiller to schoolchildren in Chopdiyial village



A self-help group
from Jadipani

“The women SHG members were apprehensive initially,” says Mridula Tangirala, head, tourism, Tata Trusts. “To bolster their confidence, Himmotthan organised workshops where the women were educated on various aspects of handling tourists and volunteers and the soft skills they would require.”

Alongside the training programme, a collaborative resource identification and mapping exercise was carried out to identify tourism themes, plug infrastructure gaps and formulate operating procedures. In the finalised package were themes such as nature trails, local arts and crafts, heritage and cultural traditions, agriculture and animal husbandry.

“The Jadipani tourism model is based on experiential tourism,” adds Ms Tangirala. “The objective was to provide deep, meaningful and vibrant tourist experiences by offering visitors the chance to get immersive experiences about the place and its people.”

Sustainability is crucial and this has been worked in by the dividing of risks and the sharing of profits. All members contribute: some provide boarding for the tourists, some cook meals and some — like Ms Suman with her buffalo — are responsible for the slice-of-life scenes that make up the ‘experiential engagements’ piece.

Women and their stories

For many of the women in the project, telling their story is an opportunity in itself. Bashu Devi, a 49-year-old disinclined to hold back, is one among them. She regales tourists with her village folklore and fables of mountain gods and ghosts. And Ms Bashu’s tales have many takers.

The rural tourism initiative received its first big break in November 2018 when a team of 70 students from the Mussoorie-based Woodstock School, among the oldest residential schools in Asia, trudged up the hills for a six-day study tour. The enthralled students

got to try their hands at tilling the fields, collecting fodder and tending cattle, with jungle trips and learning about local flora and fauna also on the menu.

Students from Woodstock are regular visitors now, as are children from other schools in Mussoorie, and from Dehradun and even Delhi. Group tours such as these are the mainstay of the Jadipani initiative, which has attracted more than 200 tourists thus far and netted revenues in excess of ₹1.5 million.

The amount may appear meagre but the project has opened up a new vista for once-remote Jadipani, which promises to attract a greater number of guests as it finds its way into more tourist itineraries. “Ecotourism has opened a new revenue stream for rural households in Uttarakhand and the Jadipani tourism model also supports other initiatives run by the Federation,” says Anil Ramola, the manager of HimVikas Federation. ■

By *Jairam Pai*

On a winning **wicket**

Cricket is the medium of education and life lessons the subject for a band of Mumbai children coping with difficult circumstances

The young boys practicing cricket on the grounds of the Borivali Municipal Secondary School, Rajda Nagar, in the Mumbai suburb of Borivali have a lot more than the game on their minds. Besides a shared love for India's favourite sport, they have one other thing in common: they come from less than privileged backgrounds and the slings of fate have hit them hard.

Most belong to families living below the poverty line, some are

being raised by single parents, a few have to work after school hours to pull in much needed income, and one child has a mother stricken by cancer. Off the pitch, the boys, aged between 10 and 18, are shy and hesitant to talk, but their demeanour changes as soon as they start playing. That's when cricket takes over, cutting through barriers to offer recreation, respite and a future.

The boys are part of Life Through Cricket (LTC), a life skills

training programme run by the Tata Trusts in partnership with the Cricket Live Foundation (CLF), a New Zealand-based nonprofit. Currently operational in Sri Lanka and India, CLF's objective is to give children from poor families with limited opportunities, the chance to learn cricketing skills, as well as lessons of life and living.

The life lessons component is as important as the cricket itself. And that's welcome for the Rajda kids, many of whom suffer from

An official conducts the toss before a league match



depression and anxiety, behavioural and emotional disorders. School and studies were not priorities and their academic record was poor. But that was before they joined the programme, which was launched at their institution in 2017.

The concept of cricket as a life-altering force found many takers at the Rajda school, as also three other neighbouring schools that are part of the initiative. Currently, close to 90 students are being trained in four batches in what is a three-year programme. The students, studying in Std VI to X, have 90 minute sessions thrice a week after school.

Best of coaching

The cadets learn all about batting, bowling, wicket-keeping and fielding in these sessions. They also learn, through special classes held by counsellors and trainers, about the need for education, gender equality, social etiquette and more. The Trusts have spared no effort to ensure the children get the best in coaching, enlisting the help of coaches such as Nigel Marsh and Dan Vann from New Zealand and Stephen Taylor from Australia.

The LTC programme has a code that its wards have to adhere to: respect for family and friends; nutrition and healthy living; self-discipline, teamwork; and punctuality and time management.

“We believe in using cricket as a vehicle to develop the life skills and education of underprivileged children from marginalised communities,” says Alex Reese, CLF’s founder. “To make any social or global change, you need a



A bunch of girls enjoying their first bout of competitive cricket

vehicle to drive that particular change. Our vehicle is cricket.”

“There has been a significant improvement in the children since the project started,” says Neelam Babardesai, head, sports portfolio, Tata Trusts. “Now they are regular at school and they perform relatively well academically. They want to complete their studies and get employed. Cricket has helped them dream of a better life.”

Kushal Gawde, one of the head coaches attached to the school, recalls that many of the students were initially reticent and had to be coaxed to come out of their shell. “Earlier, they were nervous but today they are a more confident lot,” adds Ms Babardesai. There is a limit, though, to the number of children the programme can accommodate. “We give priority to children with single parents and those from troubled families, especially those who are irregular at school.”

Alongside cricket proper, the students are encouraged to learn

about other aspects of the game, such as scoring and umpiring. That opens up career options for them: if not as a player, they can continue in cricket later in life as an umpire, a scorer or a coach.

The improvements in the children are clearly visible. Their attendance in school has improved, as have their discipline and sense of responsibility. Rajda Municipal School has benefitted too. “Over the past two-and-a-half years of our association, the school has attracted more admissions,” says principal Dinesh Tripathi.

The success of the initiative has spurred the Trusts to consider expanding the initiative to other municipal schools in Mumbai and its neighbouring regions. Rajda and its students are proof that the gentleman’s game has more to offer than sixes and fours, passionate fans and spectacular stars — it can mould young lives for the better. ■

By Nitbin Rao

‘It was humbling to see their passion’

Sir Richard Hadlee, former New Zealand ace and patron of Cricket Live Foundation

I was fortunate to visit both India and Sri Lanka in my capacity as patron of the Cricket Live Foundation [CLF]. There were several moments that stood out for me. Often, through an interpreter, I could tell them a little about my life in cricket. I could see I made some sort of impact on these kids.

I was able to see first-hand just how powerful sport can be in the lives of young children. In Sri Lanka, I spent one afternoon with a group of promising children from the Foundation. It was humbling to see their passion, excitement and love for the game. Not to mention their manners, smiles and discipline. I hope CLF and the Tata Trusts in India can continue



to provide these life-changing opportunities for children who deserve it so much.

After I retired from cricket, I started the Sir Richard Hadlee Sports Trust with the objective of supporting individuals under 25 who were in hardship or

needed assistance. The aim was to enable young children to experience the opportunities that sport presents, and learn life skills to go with it.

When I first met [Alex Reese], I knew that his vision for CLF was a powerful one. At a personal level, I have fond memories of touring India and Sri Lanka, and it was clear that I owe it to these incredible countries to help bring a vision like Alex's to life.

Being the patron of the organisation means that I can play a part in ensuring children from difficult backgrounds can be exposed to the game that shaped my life. I really hope it can shape theirs too. ■

‘I would like to see them grow into good citizens’

Alex Reese, founder and chairman of Cricket Live Foundation

As a youngster straight out of school, I came to Mumbai from Christchurch in New Zealand and worked at a local cricket academy in the city. It was one of those experiences I'll never forget.

It opened my eyes to two things: first, there was a significant disparity of wealth in India, with those less fortunate lacking even the basic education and opportunities to grow in life. Second was the country's passion for cricket.

In Sri Lanka, we work with over 500 children in five locations. We have been operating over there for six years. This is



probably the main success for us: getting the idea off the ground. The other highlight is seeing the children pass through the programme.

Our first intakes, who started as 12-year-olds, have spent six years in our care. They have

graduated now, with 43 of the 48 transitioning into full-time employment. We have had huge successes, with children being awarded sports scholarships to prestigious schools around the country, boys and girls making under-age representative teams and some of the trainees taking up coaching.

Whilst it would be great to have some of our kids playing international cricket, I would like to see them grow into good citizens, following their dreams in whatever direction in life they decide on, be it sport, business or education. ■

All tuned in

For the tribal communities of Abujmarh in Chhattisgarh, Bultoo Radio is far more than a medium of entertainment

Is Bluetooth difficult to pronounce? It was for the people of Abujmarh and so they improvised it to 'Bultoo'. The improvisation has gone a long way further for Bultoo Radio, a Bluetooth-based radio platform that allows the predominantly tribal populace of the region to share stories, raise issues and bond with one another.

Bultoo Radio is broadcast by CGNet Swara, a voice-based online portal that was created to serve and connect people from across Chhattisgarh, especially the state's remote and underserved areas (CG stands for Central Gondwana, a tribal region that encompasses portions of modern-day Madhya Pradesh, Telangana, Odisha, Andhra Pradesh, Maharashtra and Chhattisgarh; and swara means voice).

Abujmarh certainly can do with connecting. A forested – and barely developed – region spread over 1,500 square miles in Chhattisgarh, and covering the districts of Narayanpur, Bijapur and Dantewada, it is home to a mix of indigenous tribes, including Gonds, Muria, Abuj Maria and Halbaas. Development has barely made a dent in Abujmarh and, to make matters worse, it is the setting for a bloody Maoist insurgency that has raged for long years.

Developed as an app with grant support from the Tata Trusts, among others, Bultoo Radio aims to address the everyday challenges faced by tribal communities in Abujmarh and beyond. Poor access to the outside world and lack of education have left locals in the dark about issues that are



Villagers in Bastar being trained on how to report stories using mobile phones

central to their lives, not least their rights as inhabitants of forest land.

Bultoo Radio was launched in 2019 and it has since then played an unconventional role in, most importantly, spreading awareness among tribals. For all its backwardness, Abujmarh does not lack for one symbol of technological advancement, the mobile phone. That's what the station tapped into for reach and easy access.

Valued by tribals

Using technology tools such as IVR, Android apps and Bluetooth, CGNet Swara, as a whole, has grown into a community service that is deeply valued by tribals in one of India's most backward regions. With over 1 million phone calls logged, it has helped resolve numerous longstanding community problems.

In Marmara village, for instance, the CGNet Swara platform has helped sort out issues relating to road repairs, waterlogging and teachers coming in late at the government schools. When problems are reported, members of the CGNet Swara team follow up with administration officials to get the concern addressed.

CGNet Swara's appeal lies in the fact that it can be accessed through mobile phones. Users do not have to type; they

can upload their messages as voice recordings. The portal acts as a news site where people can report local happenings that the audience can listen to, as a grievance forum to report issues, and as a platform where people can record local folklore and songs. In short, it gives tribal communities a voice.

The challenge for the CGNet team, with its portal as well as the radio platform, lay in getting villagers to upload content. This was tackled through a combination of training and incentivising. The training was handled by the CGNet team with a blend of song, dance and street plays. From that has emerged a cadre of *bolgars* (speakers).

Bultoo Radio also helps connect tribal communities who have migrated to neighbouring states. There are as many as 55,000 such migrants in settlements in Telangana and Andhra Pradesh, where they often face the wrath of locals and the police, who view them as outsiders. To address their needs, CGNet Swara operates a different Bultoo Radio service in the Dorla language (a variant of Gondi mixed with Telugu).

The impact generated by Bultoo Radio has been substantial. Within a month of deployment, there were nearly 21,000 transfers of content via Bluetooth to more than 2,400 phones. This content ranges from folk songs to community problems, such as non-functional handpumps and delayed payments in government work schemes.

The app has also enabled citizen journalism. From October 4 to December 24, 2019, a total of 528 stories were reported through the app by 117 unique users. Of these, 156 were fact-checked and published on the cgnetswara.org website, broadcast on social media, and also distributed back to the community through CGNet's app and IVR system.

Ground-level affirmation and support from local and state government officials have strengthened the radio station and the



CGNet Swara founder Shubhranshu Choudhary (left) explains citizen journalism and its merits to Afzal Khan of Bhopalpatnam

portal. “On a larger level, this is a peace project and it is linked to development and democracy,” says CGNet Swara founder Shubhranshu Choudhary, a former television and radio producer for BBC.

Mr Choudhary started CGNet in 2004 as a ‘mailing list software’ where stories from the interiors of Chhattisgarh were highlighted, stories which the mainstream media could not access or did not find important enough. “It was an early experiment in creating a democratic platform on the internet,” he says.

Voice for natives

By 2010 the idea of extending CGNet into a voice-based service was taking shape. The plan was to include those who were comfortable speaking and listening rather than reading and writing.

Another barrier was of language: most of the intended beneficiaries were comfortable only in their native language. That’s where swara, the voice component, came in, in the form of a toll-free telephone number that enabled beneficiaries to record and listen to stories in Gondi.

In 2014, Mr Choudhary decided to extend the platform to connect with tribal communities living in Maoist-controlled areas. “Communities thrive when communication flows freely,” he says, “but the flow of communication isn’t easy in an environment of violence.”

CGNet Swara aims to transform itself into a self-sustaining network. “Our business model is grant-based but over the next five years we want to make it a sustainable one,” says Mr Choudhary. That could translate into a buying-and-selling platform for farmers. The underlying vision for the portal remains clear, though: to solve problems and generate social impact for Chhattisgarh’s tribal communities. ■

By Vikas Kumar



Adivasi girls recording a folk song in Surajpur

Broadcasting now

For CGNet Swara, the backend team is all-important. This is the group of people that helps create the content that goes on the site and also works to resolve the problems reported by users. The portal has a process to manage these two tasks.

First, the facts of each recorded message are verified and validated through a phone call to the person who called it in. These are posted on the website by trained editors working out of multiple locations in Chhattisgarh, among them Raipur, Narayanpur, Chatti and Rewa.

Then comes the follow-up stage. The CGNet Swara team uses its phones to call concerned administration officials to get community issues resolved. “Sometimes, even saying we are calling from Raipur makes all the difference,” says Geeta Tekam, an editor based in Raipur. The team has been trained to come up with creative ways to get problems resolved. Editor Bhan Sahu, for instance, occasionally claims to be a journalist looking for an update on a specific issue. Another colleague, Ashok Kumar Kori, sometimes says he is calling from Delhi in order to get answers.

Typically, problems take days or, in some cases, months to get fully resolved. That’s par for the governmental course. All that the CGNet Swara team can do is keep up the pressure and follow up consistently to get the job done. ■



Out with the **smoke**

A 'clean cooking programme' is improving the health of thousands of village households by getting them to ditch their polluting kitchen stoves

Umatul Nisha spends plenty of time in her kitchen and that once was a serious health hazard for the 57-year-old matriarch of a 14-strong joint family from Rawakhanipur village in the Ayodhya district of Uttar Pradesh. The source of Ms Nisha's misery was the *chulha* (a stove that burns wood and biomass) she used to cook food.

For Roshani Mishra, a college student living in Anjana village, also in Ayodhya, every meal made at her home brought with it coughing bouts and watering eyes.

Ms Mishra, who aspires to become a doctor, felt helpless watching her mother, who did most of the cooking for the family, suffer every day. "Our *chulha* spewed smoke and my family had frequent health problems," she says.

'Black roofs, black lungs'

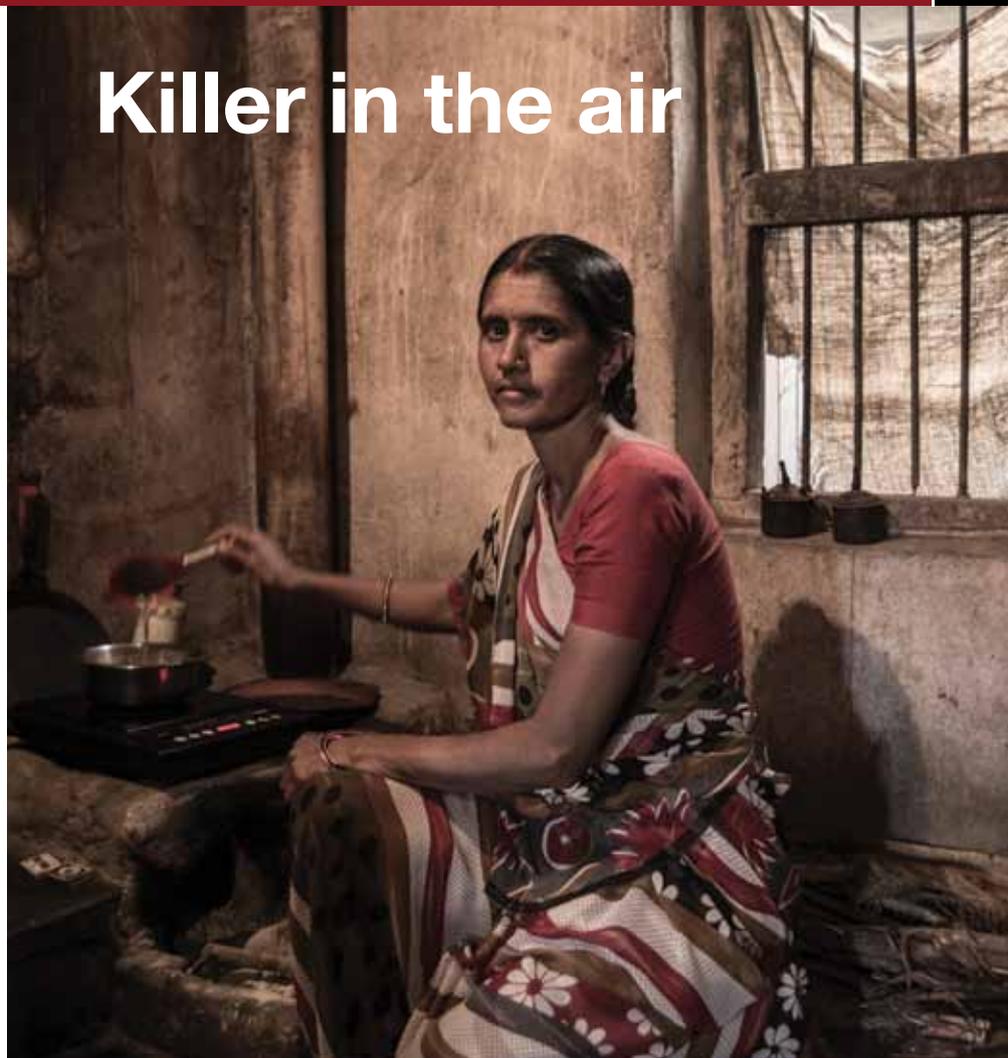
In tens of thousands of village homes in India, women use *chulhas* to cook, and they bear the brunt of the 'black roofs, black lungs' blight that eats into their health. Ms Nisha and Ms Mishra are done with the ordeal and they are part of a health-

affirming change in Rawakhanipur, Anjana and other villages that have made the shift from smoke-filled to safe and comfortable. "No longer does cooking mean suffering," says Ms Nisha.

The spur has been the 'clean cooking programme' (CCP) of the Tata Trusts, launched in 2015 and currently operational in select districts of Uttar Pradesh, Bihar, Rajasthan and Gujarat. Implemented in collaboration with a clutch of different partners, the programme promotes safe, efficient and affordable cooking solutions.



A public meeting in Ayodhya in Uttar Pradesh on clean cooking



Killer in the air

The objective is to reduce household pollution in rural communities and there is a long road to cover.

A mixed-method research approach, with monitoring technology (sensors) for quantitative analysis and field surveys for qualitative understanding, has been designed to study a group of 500 households, some using clean cooking solutions and others traditional cooking methods. The intent was to better understand and contextualise the drivers and barriers in the adoption of clean cooking solutions.

India sees nearly a million deaths every year due to health issues arising from smoke inhalation. The number of fatalities is large because about half of the

4+ billion

people around the world are affected by air pollution caused by cooking indoors

4+ million

people die prematurely each year, globally, from illnesses attributable to smoke-filled kitchens

800+ million

Indians are affected by air pollution caused by cooking indoors

1+ million

Indians die each year because of household air pollution

Household air pollution...

...can cause lung cancer, chronic obstructive pulmonary disorder, heart disease, stroke and childhood pneumonia



The cooking contest was organised to change traditional ways

Cooking up change

It can sometimes take a cooking competition to change cooking practices. Dharma Chef, a cooking contest held in the villages of Uttar Pradesh where the clean cooking programme is operational, has worked wonders in triggering the adoption of safe cooking methods among rural women.

Launched by Dharma Life and supported by the Tata Trusts, the competition has helped create awareness about the causes of indoor air pollution, its impact on human health and the need for clean cooking solutions. This multi-stage contest sees village and district-level winners competing to become the 'Dharma Chef state winner'.

"Our people go around the villages and get people to participate," says Suryansh Nagar, a project manager with Dharma Life. "In each such event, around 200 people turn up to watch 10 participants cooking on induction cook stoves. The cooked food is then served to the audience."

Dharma Chef contests have encouraged a large number of villagers in Uttar Pradesh to opt for clean and safe cooking methods and buy induction cook stoves. "Previously, the adoption of these stoves was slow, but Dharma Chef has made a difference to sales," adds Mr Nagar. ■

country's population, mainly in rural regions, cooks indoors on stoves and open fires where the fuel is wood, biomass and coal. It's a social practice with a huge impact on health (tuberculosis, heart disease and stillbirths are all linked to smoke inhalation).

Rural thrust

While promotion of clean cooking solutions is the aim, the programme incorporates other elements as well through an approach that banks on awareness, access, affordability and adoption. It encourages, cajoles and convinces rural communities to opt for smoke-free cook stoves, with implementation models varying in different regions based on the local context.

Induction cooktops are the preferred option in villages with electricity and gas-based stoves are offered in other locations. Making villagers aware of the advantages of solar energy for lights and stoves is another way that has been explored.

Creating awareness in the community has been an important part of the overall initiative. This has been quite a challenge, with village women reluctant initially to give up the traditional *chulha*. To counter such hesitance and to educate the rural populace about the dangers of indoor air pollution and smoke-related ailments, the Trusts and its partners, Dharma Life in Uttar Pradesh and SEWA in Gujarat, rolled out a behaviour change communication plan.

A host of campaigns, including door-to-door visits, workshops, street plays and even a state-wide

cooking competition were organised to promote clean cooking. Adoption of the cleaner stoves has improved consequently, with younger members of the household leading the way. “They understand the benefits of clean cooking and are keener to try them out,” says Suryansh Nagar, a project manager with Dharma Life.

The access and affordability part of the transformation task falls to teams of local women trained by Dharma Life as village-level entrepreneurs. These Dharma Life Entrepreneurs (DLEs), as they are called, have been critical to the clean cooking initiative. Apart from safe stoves, these women also sell products such as solar lights, water purifiers, mosquito nets and sanitary products.

Cost roadblock

In the beginning stages of the programme, the Trusts found that the cost of the clean cooking stoves was a big roadblock for rural communities. As a way around this, financing solutions were brought in to make the stoves affordable for villagers. “Revolving funds and consumer credit were offered to potential beneficiaries to help them adopt these solutions,” says Mr Nagar. “This has helped boost sales.”

Adoption is a major challenge, though. “This programme has been designed around the understanding that unless there is sustained use and adoption of clean cooking solutions and subsequent reduction in usage of traditional stoves in the household cooking stack, improvements in health and



Roshani Mishra from Anjana village in Ayodhya breathes easier these days

quality of life cannot be achieved,” says Ganesh Neelam, zonal head, Tata Trusts, and executive director, Collectives for Integrated Livelihood Initiatives, an associate organisation of the Trusts.

No precise figures are available to measure the improvement in health in the rural communities where the programme has taken root, but anecdotal evidence suggests there has been a change for the better. For instance, in Amsin

village in Ayodhya, where more than 90% of residents now have gas connections, there has been a sharp fall in tuberculosis cases.

The clean cooking campaign will take time to cover more extensive ground, but it has shown how rural communities can be prompted and persuaded to say goodbye to gas-chamber kitchens. ■

By Nitbin Rao



Shiva, a rescued leopard cub, gets a bottlefeed at the Indian Herpetological Society (IHS) in Pune. The cub was just one month old when it was rescued from a nearby area.

CREATURE COMFORT

The human-animal relationship is complicated. Love and companionship go hand-in-paw with cruelty and exploitation. India's record on animal care is particularly poor, and this despite cultural traditions celebrating, even venerating, creatures that are less — some would say more — than human. But the country does not lack for people who have the wellbeing of animals at heart. The Tata Trusts are a votary of the cause, supporting organisations that work for animal welfare in a variety of ways, with different species and in different states. These are their stories:

Animals Matter To Me



From skin and bones to a majestic, fluffy presence, War's survival is nothing short of a miracle. When the Saint Bernard was rescued from a garbage dump in Mumbai and brought to the Animals Matter To Me (AMTM) rehabilitation centre in 2014, he weighed less than 20kg and had maggot wounds all over. It took months of tender care to nurse him back to health. War was AMTM's mascot till he passed away in 2019.

Mary relaxes at the rehabilitation centre, where she shares space with 100 dogs. The six-year-old stray was rescued after being run over by a train. She underwent a four-hour surgery on her leg but the limb had to be amputated to save her life. The loss has not dampened Mary's spirit or her enthusiasm for the schoolchildren who visit the centre.

About AMTM

Animals Matter To Me (AMTM) was set up in 2010 to provide medical help, food and shelter to stray, abandoned and mistreated animals. Its rehabilitation centre in Malad in Mumbai houses more than 300 animals, including dogs, cats, birds and goats. The organisation's focus area is sterilisation and vaccination programmes for strays, but it also handles critical medical cases. AMTM conducts animal sensitisation programmes in municipal and private schools and is setting up a 17-acre sanctuary in Kolad in Maharashtra to provide refuge to around 1,500 old and disabled animals.



People for the Respect and Care of Animals



Millie is a golden retriever who was found roaming the streets of Kolkata. Abandoned by her family, she became malnourished as she did not know how to survive on the street. The five-year-old Millie has now joined the pack of 150 dogs who are permanent residents of Chhaya, an animal hospital and shelter set up by People for the Respect and Care of Animals (PRCA).

Photo: Worthycanvas Photography

Staff at Chhaya fix a prosthetic limb on Shivaji, a young horse whose leg had to be amputated after he broke it during a race. Unlike most animals, it is difficult for horses to survive even one leg short. The team at Chhaya worked with Tapes Mathur, a veterinarian, to get Shivaji a prosthetic limb. The stallion now leads an almost-normal life and is always looking for someone to feed him bananas. Shivaji will spend the rest of his days at Chhaya.

Photo: Worthycanvas Photography



About PRCA

People for the Respect and Care of Animals (PRCA) is a charitable trust that runs Chhaya, an animal hospital and shelter, around 20km from Kolkata. Set up in 2008, Chhaya is home at any given time to about 200 animals, the majority of them dogs. The shelter takes injured animals and provides a space for them to recover. It also runs a neutering programme under which some 9,800 animals have been spayed or neutered. Chhaya has trained about 30 young men as caregivers to help local villagers with injections and saline drips for their animals and to assist in the births of goats and cows.

People For Animals



Mana, a female blackbuck, nuzzles a staff member at the People For Animals (PFA) centre in Wardha in Maharashtra. Part of an endangered species, she was being raised, illegally, as a pet in a village close by. In 2017, Mana was rescued by forest department officials and brought to Karunashram, the PFA shelter (also a government-approved wildlife rescue centre). The doe resides with Shambhu, a rescued male blackbuck. Mana gave birth to a fawn, named Shiva, in February 2020. Mana, Shambhu and Shiva will eventually be released into the wild.

Photo: Worthycanvas Photography

An injured porcupine receiving treatment at the Wardha centre. In February 2020, the animal was found in a well by residents of Paloti village and pulled out with the help of nylon ropes. The rope got stuck in the quills and hurt the animal, which had to be sedated before it could be freed. That porcupine remained at the centre under watchful eyes for a month, before being released into the wild.

Photo: Worthycanvas Photography

About PFA

Human-wildlife conflict is common in villages close to the Bor Tiger Reserve in Maharashtra. Farmers are particularly affected when their crops get destroyed by wild animals. The team at People For Animals (PFA) works towards minimising such conflicts. The team helps educate farmers about techniques to protect crops without hurting wild animals. This has led to a significant reduction in the damage of crops by wildlife. PFA also spearheads the formation of Vanyajiv Mitra Mandals, teams that build awareness among villagers about the importance of wildlife and work with forest officers in conflict situations. Additionally, it works to create safer livelihood opportunities for villagers, who are at risk every time they enter the reserve to procure forest produce.



World For All



Mia found her 'forever' home in 2019 through Adoptathon, an adoption camp organised by World For All (WFA) in Mumbai. The playful kitten is one of the many 'indie' (or Indian breed) animals who find themselves at WFA's adoption camps, the hope being that they will find a loving home. Mia was lucky: she caught the attention of the adopting family and became a companion for their first cat, her best friend now.



WFA's ambulance team treats a stray dog during their daily rounds in Mumbai. This is one of the three ambulances that run daily for WFA, which in 2019 was involved in more than 8,000 rescues.

About WFA

World For All (WFA) is a Mumbai-based organisation that focuses on the rescue and adoption of stray animals, especially infant, old or disabled dogs and cats. Since 2010, WFA has facilitated the adoption of more than 7,500 Indian-breed puppies and kittens. The organisation relies on social media and word of mouth to find homes for its rescued animals and it works with stray animals through sterilisation, care and vaccination programmes. Through its cat sterilisation programme — Happy Mews — WFA spays at least 100 cats every month and it also has a facility for dog rescues and sterilisation. WFA runs Teach Co-Exist — an awareness programme in schools to sensitise children about strays. The WFA office is always home to a bevy of lively puppies and kittens, all jousting for their share of attention.

Indian Herpetological Society



A leopard rescued by the Indian Herpetological Society (IHS). Increasing instances of human encroachments in forest areas and shortage of prey often forces wild animals to stray into human habitations.

IHS staff rescue a sick monkey from the MIDC industrial area near Pune.



About IHS

The Indian Herpetological Society (IHS) was set up in 1986 and it has since then rescued and rehabilitated nearly 2,000 wild animals, including reptiles (snakes, crocodiles, turtles); mammals (leopards, monkeys, sambar, hyenas); and protected birds. The Society works in the areas of education, research and conservation and it also runs the Pune Snake Park and the Wild Animal Rescue and Rehabilitation Centre. IHS is involved with local communities — whose traditional livelihood activities depend on wildlife but are deemed illegal — in livelihood training.

Welfare of Stray Dogs



Sterilised and vaccinated by Welfare of Stray Dogs (WSD), Periappa was a common sight in King's Circle in Mumbai for over 15 years. He was adored in the locality and he relished eating idlis and dosas (he was a regular outside the South Indian restaurants that dot the area). Periappa passed away in December 2019 but locals still have fond memories of him.

About WSD

Welfare of Stray Dogs (WSD) is a Mumbai-based organisation that was set up in 1985 to help street dogs. It works to eradicate rabies and control the street dog population through mass sterilisation programmes, and to get abandoned pets and strays adopted. WSD, which follows the World Health Organisation's recommendations on rabies eradication and dog population control, has helped more than 170,000 street dogs and cats since its inception. WSD pioneered the adoption of street dogs through its 'adopt a street dog' campaign in 2000.

Five-year-old Popsicle, who lives in Babulnath in South Mumbai, is one of the many street dogs who have benefited from WSD's mass sterilisation and vaccination programme. Looked after by street-dwellers, Popsicle loves sitting on bikes and scooters.



FRIENDS OF THE FAMILY

As with the Tata Trusts, so too with Tata employees. Featured here are four dogs and two cats — all rescued — who are part of the families of four Tata people. If they could talk, they would tell tales of care and companionship, love and belonging.



Eddie is part of Amita Ramachandran's family



Peggy is the apple of everyone's eye in Delnaz Bhathena's household



Elsa in the home she shares with Oindrilla Roy and her family



(clockwise from above left) **Dora**, **Angu** and **Djinji** complete the picture in Paroma Sadhana's extended household



An adult literacy class for migrant workers in Karla Khutna in Odisha's Balangir district, among the places where the Tata Trusts migration project is being implemented

Nowhere people

Faceless and nameless, rural migrants to India's urban centres deserve far better than being pushed to the margins and into poverty

According to the 2011 census, there were 454 million migrants in India. As for the future, it is estimated that 46% of the country's populace will be living in cities by 2025. As Chinmaya Tumbhe says in his recently published *India Moving: A History of Migration*, the great Indian wave of semi-permanent, male-dominated and remittance-based migration is the world's largest and longest voluntary stream of relocation.

Much of this growth in numbers is fuelled by rural-to-urban migration, wherein an increasing number of people

move in search of economic opportunities. A large part of the exodus comprises poor and unskilled workers, seasonal or semi-permanent migrants working in multiple destinations during their lifetime and returning to their village homes at the end of their working life.

Migrants who move from rural to urban areas are the hidden force in the Indian economy, regularly sending money home to their families. Estimates put the country's domestic remittances at about ₹10 billion a year, 60% of which are interstate transfers, with around 70% being channelled through the informal sector.



Shikha Srivastava heads the urban habitat and migration portfolio at the Tata Trusts

National Sample Survey Organisation data reveal that 41% of consumption in migrant rural households is funded by income generated through migration. But migrants to urban India inevitably face a hard time. The reasons are many: occupational, residential and social vulnerabilities resulting from a loss of identity; absence of social security; exploitation at the workplace; lack of access to welfare schemes; tough working and living conditions; poor health indicators; and low awareness.

The move away from their homes deprives migrants of access to subsidised food and health benefits. Their children are unable to gain from a host of government schemes. The portability of these benefits is a challenge for intra-state migrants and an even greater one for their interstate compatriots.

Falling through the gap

In fact, issues related to urban migration underlay all development interventions, in education, nutrition, health, housing, water and sanitation. The migrants in our cities are unaccounted for at their destination and, consequently, they fall through the gap. They deserve better.

The growth and development of urban centres owes much to the labour of migrant workers, yet they are often considered part of the problem that cities have to cope with. Migrants are the ubiquitous cab drivers, watchmen, household help or construction workers in India's urban centres. But they are faceless and nameless, a class that works without any recognition from or acceptance by a society that keeps them on the fringes.

In the informal labour market, migrant workers have scant protection in worksite conflicts and disputes, with the legal system providing little recourse for the

unorganised sector. With limited access to health services and high incidences of occupational diseases, the migrant's working life is often limited. At the end of it, they make their way back to their village homes. It is often so that the next-generation male will step in as the family breadwinner, retracing the well-trodden path to the city.

“An ideal society should be mobile, should be full of channels for conveying a change taking place in one part to other parts,” said BR Ambedkar, the architect of India's constitution, which guarantees all citizens the right to move freely about and settle down in any part of the country.

This means, in principle at least, that there should be no reason for specific legislation to protect migrant workers, interstate or otherwise, particularly so given the wide representation of these workers in all sectors of industry. However, there is a need for precisely such legislation and that has been recognised by governments.

One important legislation of the kind is the Interstate Migrant Workermen Act. This provides for the registration of establishments employing interstate migrant workers and the licensing of contractors, while detailing the obligations placed on them.

The Building and Construction Workers' Welfare Act relates to particular sections of unorganised work. Under this Act's ambit are construction workers — a category of labourers facing constant exploitation — and it includes brickkiln workers. There is a mandatory cess here that goes into a fund, managed at the state level, that is supposed to deliver a variety of services to construction workers. While the cess is dutifully collected, little of it is actually spent.

The ever-growing numbers of the urban poor and the fact that migrants could be

Worker woes

A study showing the lifecycle of migrant workers in South Rajasthan

EARLY ENTRY

14 to 20 years

- Youth enter labour markets as manual labour
- Secondary wage earners

PEAK WORK LIFE

21 to 27/30 years

- Hard labour for 12-14 hours a day
- Become primary wage earners
- Get married and start family

BEGINNING OF EXIT

27/30 to 35/40 years

- Manual labour takes toll
- Frequent return to village with chronic illnesses

RETURN

35/40 years onwards

- Take up local labour opportunities
- Lower earning capacity
- Children start migrating
- Slide back into poverty
- Illnesses start mounting

defined with regard to all three categories of vulnerabilities – residential, occupational and social – led the Tata Trusts to focus on migration as a crucial subject within the larger canvas of urban poverty.

The Trusts have been involved with the migration issue since 2006. By 2011, their migration programme had grown to comprise 34 partners across nine states and the work undertaken touched more than 300,000 migrants. During the June 2012-January 2016 period, the Trusts' efforts resulted in direct monetary benefits of about ₹160 million accruing to nearly 350,000 migrant workers.

Hands-on approach

The current phase of the Trusts' migration programme, which began in 2016, builds on what has been accomplished in the earlier initiatives. This phase has covered in excess of 600,000 migrants, a vital difference being that the Trusts have moved in the migration theme to a more active, hands-on implementation mode.

The migration programme of the Trusts operates in three source states, Uttar Pradesh, Rajasthan and Odisha, and in related destinations. The intent is to link migrants and their families to entitlements and services through self-reliant delivery platforms, facilitating financial inclusion and the reduction of vulnerabilities, especially in brickkilns and the construction sector. Additionally, the programme uses innovative means to provide migrants with basic services – housing, water and sanitation, nutrition, etc – and it makes space for advocacy and research.

Migrants and their families have, through the programme, gained access to various entitlements and financial services. Day-care and early-education centres have been set up for the children of migrant



Growth monitoring at a childcare centre under the Trusts' Udaan project for migrant workers in Sri Ganganagar in Rajasthan

workers at brickkilns. Partnerships have been forged with governments and employers have been brought on board.

The endeavours of the Tata Trusts in addressing the multiple troubles that confront migrant workers have been recognised by different state governments as well as civil society organisations. The objective is to mainstream the many elements of the initiative into government and community development projects.

Benefits at both ends

An important learning to emerge after nearly 15 years of the Trusts' work with internal migrants at the bottom of the pyramid is that migration is a livelihood strategy that can benefit people at both the source and the destination. The need is to view migration not a problem to be wished away, but as an opportunity and as the way of the future.

Development programmes have to be designed and implemented to address the vulnerabilities of poor migrants. A large proportion of seasonal migrants move from one state to another. Their entitlements have to be protected and transferred across locations and states.

At the source, programmes have to be designed to prevent distress migration and

to empower people in a manner that makes for safe migration. At the destination, local authorities and state governments need to broaden the reach of their projects to ensure that migrants are not excluded from social benefits and welfare programmes.

For that to happen, we need data on short- as well as long-term migration trends. Official agencies tend to underestimate short-term movements, and thus play down or miss seasonal migration. This, according to recent field studies, accounts for the bulk of migration for work.

It is imperative that migrants have unrestricted access to all government schemes and entitlements. That is their right as citizens of the country. For the portability of entitlements, it is essential that state governments work out the modalities of delivery, the financial implications and the monitoring of implementation. In general, governments at the destination should accept the principle that they are responsible for providing social benefits to people who migrate to their states for work.

Rural-to-urban migrants are a critical component of India's economic engine. It is only fair that the country give them their due — and now. ■

When basic instincts take a beating

As addiction to drugs and alcohol climbs new highs in India, it is essential to treat the condition through a multifaceted approach

The statistics are staggering and cause for alarm. According to a recently conducted nationwide survey, nearly 57 million people in India are estimated to be impaired by alcoholism and need treatment. Nearly 8 million people are affected by opioids such as heroin and opium and by drugs such as codeine, dextropropoxyphene, diphenoxylate and buprenorphine.

Natural opioids, which once dominated the scene, have been replaced by heroin and pharmaceutical drugs. High-risk patterns of opioid use – injection and the sharing and reusing of needles and syringes – are on the rise, increasing the risks of overdose and blood-borne infections. There is wide variation in drug and alcohol use across India's states, which could be attributed to sociocultural, economic and geographical differences. In some states the problem of drug addiction is endemic.

The cost to society is equally staggering. People in their prime years, between 17 and 55, are hit the worst and we could potentially lose a generation to the addiction problem. The Global Burden of Disease (2016) study estimated that mortality due to drug use disorders peaks before age 40. Alcohol is not a lesser evil. The Global Status Report on Alcohol & Health reported that 5.3% of global deaths are related to alcohol use.

This is more than the combined death toll attributed to tuberculosis, diabetes and



Aids. Direct costs related to health, infections, accidents and hospitalisation run into thousands of crores and indirect costs from diminished productivity, job loss, absenteeism, and law and order problems are about as high.

Addictive disorders should be viewed as a non-infective epidemic. The 'pathogens' are drugs and alcohol and the two major factors spreading the 'contagion' are supply, or access, and price. If supply is plentiful and the price low, the epidemic spreads and makes treatment challenging.

Addictions are often described as chronic, progressive conditions, much like



Percy Menzies is the president of Assisted Recovery Centres of America, a medical treatment facility for alcohol and drug use disorders based in St Louis, Missouri, USA.



Abhishek Ghosh is an assistant professor at the Postgraduate Institute of Medical Education & Research, Chandigarh.

hypertension, asthma or diabetes. There may be some similarities but there are radical differences. Addictions impact the basic survival instincts so essential for life. Humans are endowed with a 'mind', or the thinking brain, that controls the primordial brain involved in survival. The intricate dynamic between mind and brain is essential for thriving.

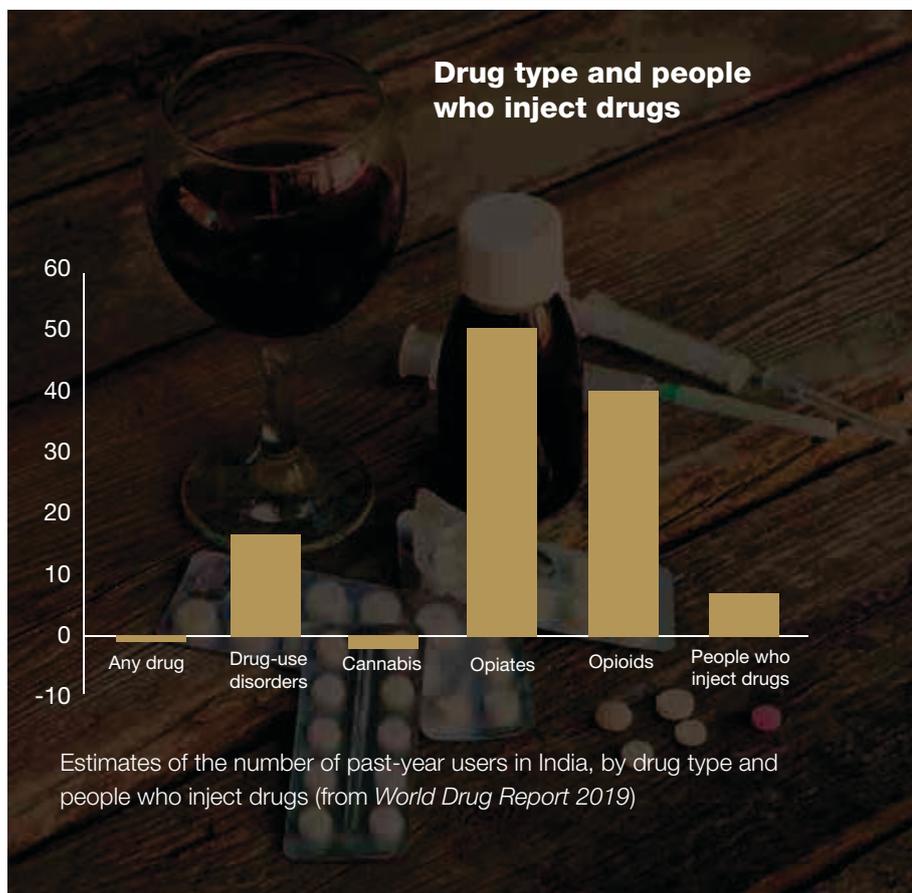
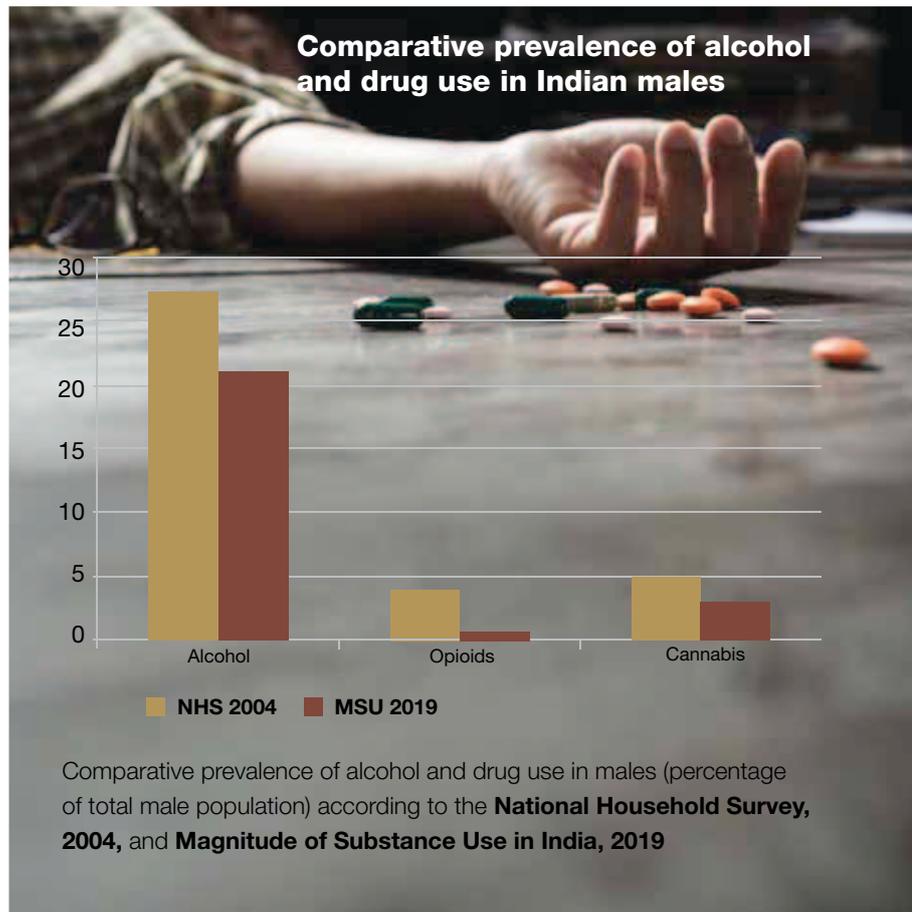
Humans are created to thrive, not survive. Addictions disrupt this critical balance and throw patients into survival mode, a dangerous state to be in. The brain is tricked into believing that the only thing needed to survive is the drug or the alcohol. The aspects of thriving – jobs, family, personal safety and behaviours – have little or no relevance. There are no rules of engagement. Do whatever it takes to survive. Lie, cheat, steal, sell your body to obtain the drug or alcohol to feel 'normal'.

Punishment trap

Over time this behaviour get entrenched and becomes an obstacle to long-term recovery. Obviously, such behaviours have no place in society and the common reaction to bring about change is punishment and stigma.

Repeated bouts of punishment, like arrest, jail and unproven 'treatments', don't work and patients relapse quickly. This has often led to the conclusion that addiction is an 'incurable disease', one that is best treated through the criminal justice system or through self-help and spiritual groups.

Why do patients relapse despite the trauma and pain to themselves and their families? We must look again at how fundamentally different addiction is from other chronic conditions. Addiction impacts the basic instincts of survival by getting embedded in the memory, motivational and emotional circuits of the



brain. It is driven by conditioning and reinforced by cues and triggers.

The cues most often associated with addiction are sights, sounds, places, people and the time of day associated with drug or alcohol use.

There is the misconception that taking patients away from the cues and triggers will cure them. The widely used treatment model is to send the patient away for 28 days or longer to a residential facility where they have minimal exposure to myriad cues and triggers. Patients and their families may feel good for a while and get their hopes up for a cure.

This well-studied phenomenon is called the 'deprivation effect'. In the simplest of terms, the longer the patient is deprived of his/her favourite high, the stronger the desire to use when access is restored. We have not found a strategy to curtail or cut off the supply of drugs and alcohol, making relapse prevention considerably difficult.

Hope still shines

Is there hope for patients to get well? The answer is a resounding 'yes'. Advances in the fields of neuroscience and behavioural science have led to the development of highly effective medication to treat addictions, and behavioural therapies to help patients regain their lives. India is fortunate to have access to such medications and therapies. However, the treatment gap in the country is enormous.

Among mental illnesses, alcohol-use disorders have the highest treatment gap – nearly 90%, which means only one in ten people with problematic alcohol use seek medical help. For drug-use disorders, barely 25% of patients seek any type of professional help.

The reasons for this could be summarised by the 4 'As': lack of 'availability' of treatment centres delivering

evidence-based care; poor 'accessibility' because of services being concentrated in cities; less 'affordable' care due to the small numbers of publicly funded treatment facilities; and poor 'awareness' of addiction as a treatable medical disorder. There are silver linings, though, such as the Mental Health Care Act (2017), which termed addiction as a mental illness and promised patients the right to publicly funded healthcare.

India scenario

Unlike Western countries, in India most patients affected by drugs and alcohol have family support. Addiction is often described as a family disorder. It impacts the entire family and, as such, treatment should involve family members. They can play a key role in bringing patients to the clinic, in ensuring that they take anti-craving medication, and in providing the emotional and spiritual support so essential in recovery.

The treatment of addictions is not complex and does not require sophisticated and expensive devices and equipment. What it requires is a multifaceted approach involving physicians, nurses, therapists, social workers and family members. By the time the patient seeks treatment, the needs are multidimensional. They are likely to have medical and psychiatric problems, along with legal, marital, financial and employment issues.

Each of these challenges need to be addressed to prevent the patient sliding into relapse. It may take several attempts before the patient fully recovers. A good example is helping patients quit smoking. Few quit at the first attempt, but every slip becomes an opportunity to work harder and smarter and finally achieve the goal of recovery. This debunks the myth that addiction is incurable. ■

