

**IMPACTING  
CHANGE  
ADVANCING  
SOCIETY**



**TATA TRUSTS**  

---

**ANNUAL REPORT  
2019 - 2020**



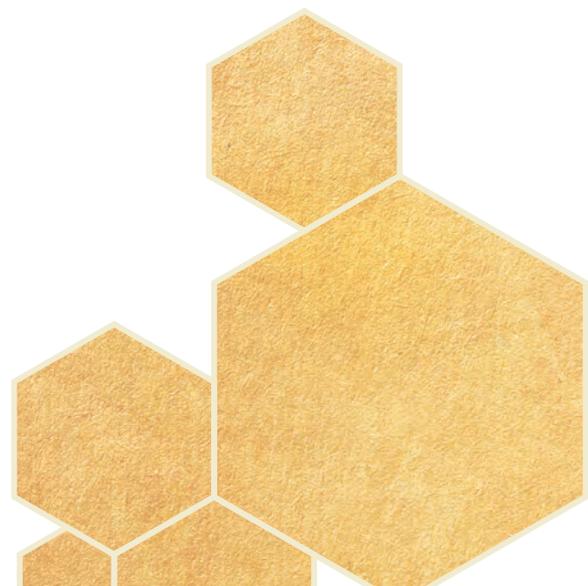
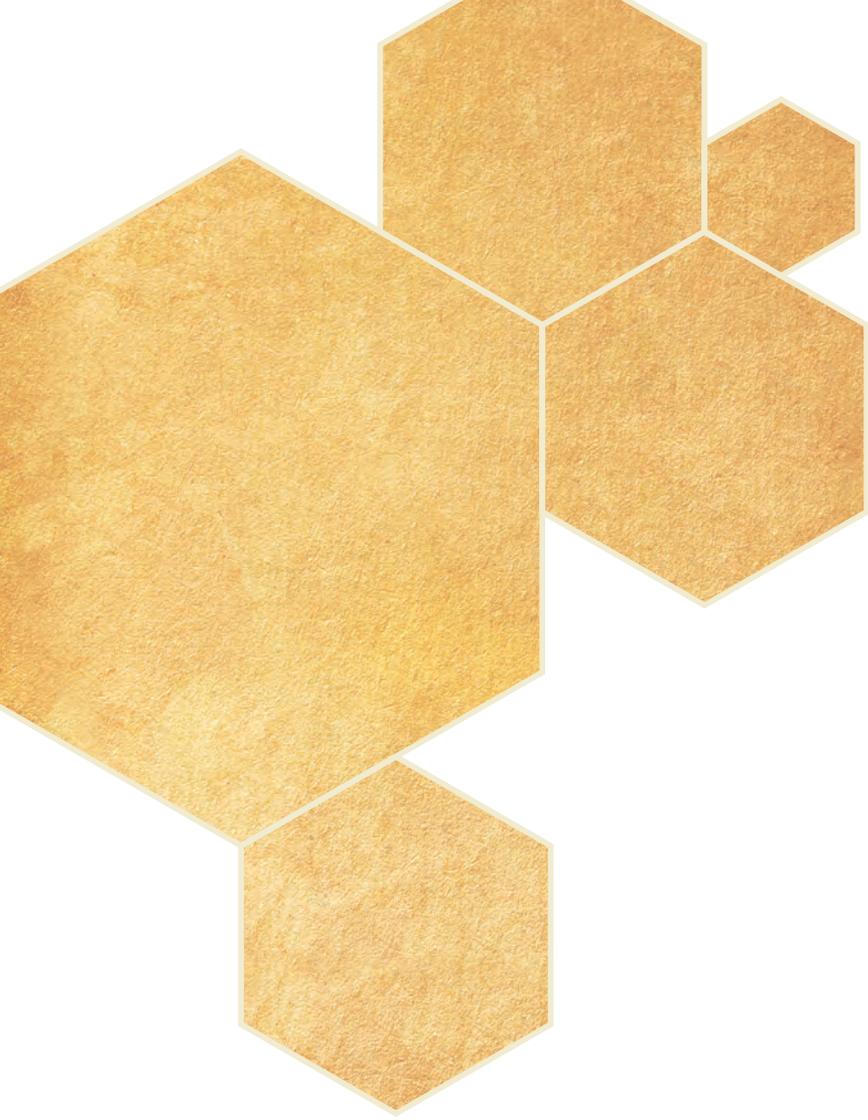




## THE GUIDING PRINCIPLE OF TATA TRUSTS

“There is one kind of charity common enough among us, it is that patchwork philanthropy, which clothes the ragged, feeds the poor, and heals the sick. I am far from decrying the noble spirit, which seeks to help a poor or a suffering fellow being. However, what advances a nation or a community is not so much to prop up its weakest and most helpless members, but to lift up the best and the most gifted, so as to make them of the greatest service to the country.”

~ JAMSETJI TATA



## MESSAGE FROM THE CHAIRMAN



The year under review saw the Sir Ratan Tata Trust – which along with Sir Dorabji Tata Trust is the key institution comprising Tata Trusts - completing 100 years of existence. Established in 1919, the Trust has come a long way from being a reactive charity to a proactive philanthropy during recent times.

Collaboration, partnerships, action on ground and scale to size guided the Trusts during this financial year, which also saw the onset of the Corona pandemic. Given the challenge that mankind faces in the wake of this pandemic, and, the impact that it has had on growing economies, such as India, the Trusts have strived to rise to the need of the hour, with the aim of assuaging the suffering of fellow Indians. The Trusts have strengthened the development narrative by actively designing and implementing programs that go towards enabling a healthy, vibrant, young and educated India. In the year gone by, the Trusts have leveraged technology to bring benefits of their programs to different parts of the country, touching the lives of millions. Innovative initiatives such as setting up mobile medicine units and adoption of telemedicine have delivered on unexpected situations of crisis created by the onset of the pandemic. It is satisfying to see that some of the programs were able to expand quickly and meet the requirements of our communities.

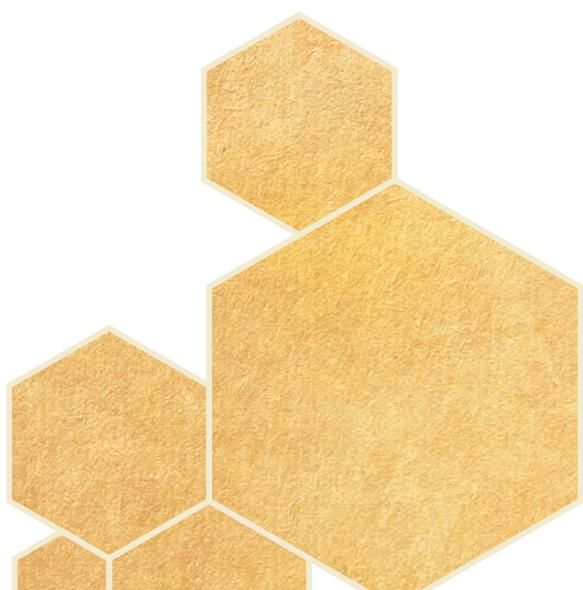
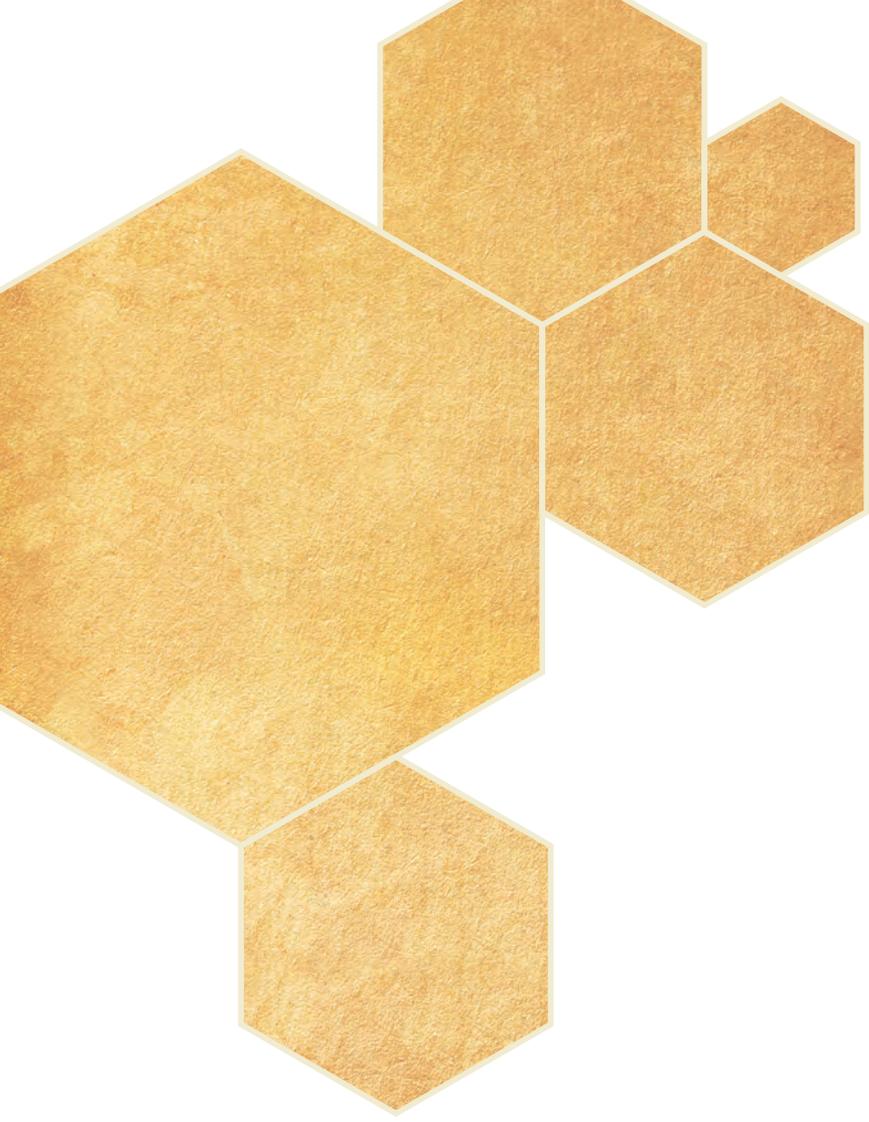


It is also pertinent to note that the teams have worked closely on the strategic priorities of the central and state governments to develop programs that influence education, nutrition and water and sanitation related goals. Be it screening for non-communicable diseases and cancer, supplementing the efforts on digital training capacity for teachers, enabling fortification of staples like milk and wheat, improving access to drinking water, influencing sanitation practices, it has indeed been a fulfilling journey. Relief and rehabilitation efforts in the wake of natural disasters in Kerala, Odisha and Mizoram have been prompt and meaningful. I would like to thank our partners and the Government that accepted and supported us in implementing our solutions.

And, as we live through a year of aberration, seeking opportunities of reducing misery and offering help, we hope that the long simmering issues of development will find accelerated attention, converting the challenges into opportunities with the aim of making a difference. I would like to thank the dedicated teams at the Trusts that have worked selflessly during times of peril so as to reach out and make that difference to the lives of millions of disadvantaged fellow Indians.

What started as an attempt to enhance lives of those not so fortunate over a 100 years ago, continues today manifold.

**Ratan N. Tata**



# CONTENTS



 **Financial Overview 2019-20.....01**

 **Health Care.....05**

 **Nutrition.....21**

 **Water, Sanitation and Hygiene.....27**

 **Environment and Energy.....33**

 **Livelihood.....39**

 **Education.....51**

 **Digital Transformation.....59**

 **Sports.....67**

 **Skill Development.....73**

 **Migration & Urban Habitat.....79**

 **Social Justice & Inclusion.....87**

 **Arts & Culture.....91**

 **Disaster Relief and Rehabilitation.....95**

 **Institutions.....99**

 **Individual Grants.....107**

 **Our Partners.....111**

 **Financial Highlights\***

-  **Sir Ratan Tata Trust & Allied Trusts**
-  **Sir Dorabji Tata Trust & Allied Trusts**

\*Included separately as a brochure.



## FINANCIAL OVERVIEW 2019-2020

### SIR RATAN TATA TRUST & ALLIED TRUSTS

#### **The year that was:**

The total disbursements made by the Trusts during the year were ₹ 9,198.81 million (US\$ 122.65 million). Disbursements of ₹ 8,567.32 million (US\$ 114.23 million) were made on all programme grants during the year. Endowments to the tune of ₹ 6.75 million (US\$ 0.09 million) were made and small grants touched ₹ 3.01 million (US\$ 0.04 million). The total disbursements to individuals amounted to ₹ 621.73 million (US\$ 8.29 million).

### DETAILS OF GRANT DISBURSALS: 2019-2020

TYPE OF GRANT	₹ IN MILLION	US\$ IN MILLION
Institution: Programme grants	8,567.32	114.23
Institution: Endowment grants	6.75	0.09
Institution: Small grants	3.01	0.04
Individual grants	621.73	8.29
<b>Total</b>	<b>9,198.81</b>	<b>122.65</b>

₹10 million is ₹1 crore; 1 US\$ is approximately equal to ₹75

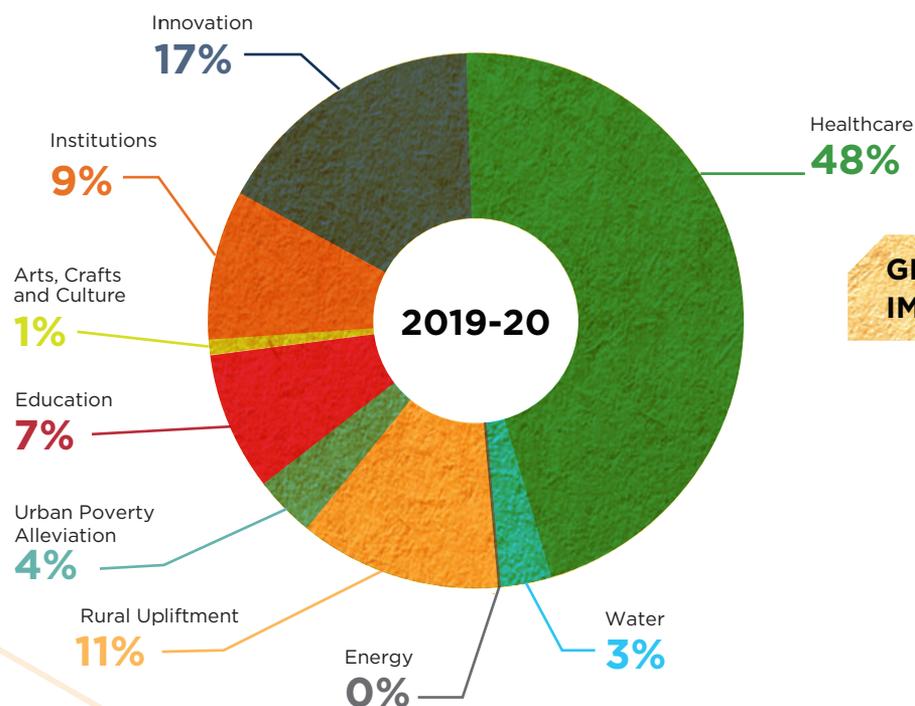
### INSTITUTIONAL GRANT DISBURSALS (THEME WISE): 2019-2020\*\*

THEMATIC AREA	₹ IN MILLION	US\$ IN MILLION
Healthcare	4,115.00	54.87
Water	246.90	3.29
Energy	26.24	0.35
Rural Upliftment	969.51	12.93
Urban Poverty Alleviation	333.53	4.45
Education	595.27	7.94
Arts, Craft and Culture	80.39	1.07
Institutions	786.30	10.48
Innovation	1,423.94	18.98
<b>Total</b>	<b>8,577.08</b>	<b>114.36</b>

\*\* The figures in the table reflect institutional grant disbursements in the financial year

### INDIVIDUAL GRANT DISBURSALS: 2019-2020

TYPE OF GRANT	₹ IN MILLION	US\$ IN MILLION	%
Medical	242.99	3.24	39
Education	378.74	5.05	61
<b>Total</b>	<b>621.73</b>	<b>8.29</b>	<b>100</b>



### GRANT DISBURSEMENTS AND DIRECT IMPLEMENTATION PROJECTS: 2019-2020



## FINANCIAL OVERVIEW 2019-2020

### SIR DORABJI TATA TRUST & ALLIED TRUSTS

#### The year that was:

The total disbursements made by the Trusts during the year were ₹ 3,780.89 million (US\$ 50.41 million). Disbursements of ₹ 3,378.61 million (US\$ 45.05 million) were made on all programme grants during the year. Small grants touched ₹ 35.37 million (US\$ 0.47 million). The total disbursements to individuals amounted to ₹ 366.91 million (US\$ 4.89 million).

### DETAILS OF GRANT DISBURSALS: 2019-2020

TYPE OF GRANT	₹ IN MILLION	US\$ IN MILLION
Institution: Programme grants	3,378.61	45.05
Institution: Small grants	35.37	0.47
Individual grants	366.91	4.89
<b>Total</b>	<b>3,780.89</b>	<b>50.41</b>

₹ 10 million is ₹ 1 crore; 1 US\$ is approximately equal to ₹ 75

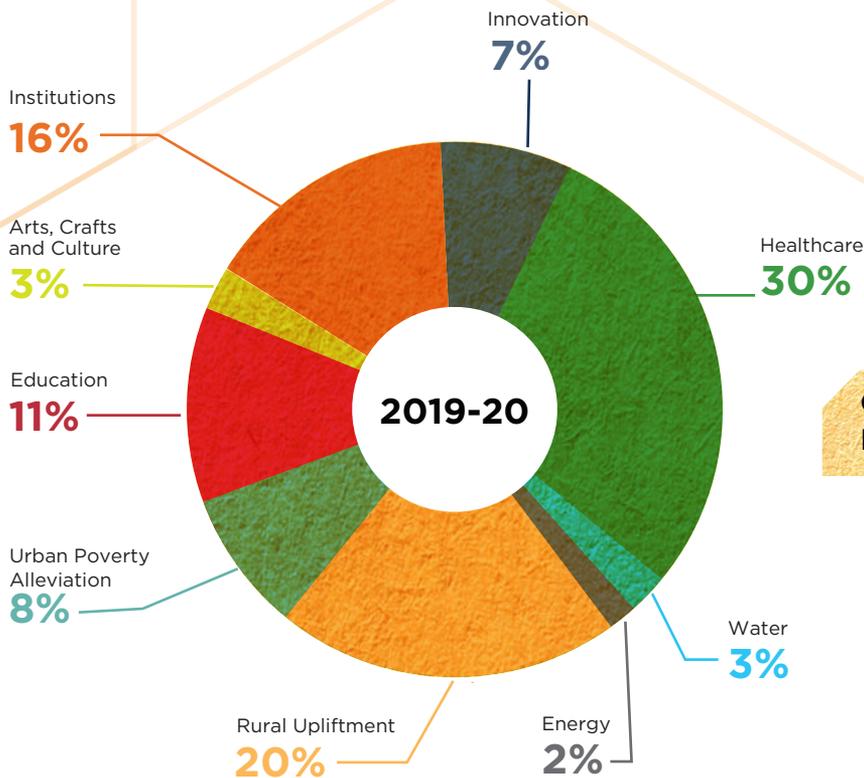
### INSTITUTIONAL GRANT DISBURSALS (THEME WISE): 2019-2020\*\*

THEMATIC AREA	₹ IN MILLION	US\$ IN MILLION
Healthcare	1,027.29	13.70
Water	87.61	1.17
Energy	68.75	0.92
Rural Upliftment	680.35	9.07
Urban Poverty Alleviation	285.76	3.81
Education	390.33	5.20
Arts, Craft and Culture	87.21	1.16
Institutions	538.05	7.17
Innovations	248.63	3.32
<b>Total</b>	<b>3,413.98</b>	<b>45.52</b>

\*\* The figures in the table reflect institutional grant disbursements in the financial year

### INDIVIDUAL GRANT DISBURSALS: 2019-2020

TYPE OF GRANT	₹ IN MILLION	US\$ IN MILLION	%
Medical	248.84	3.32	68
Education	118.07	1.57	32
<b>Total</b>	<b>366.91</b>	<b>4.89</b>	<b>100</b>



### GRANT DISBURSEMENTS AND DIRECT IMPLEMENTATION PROJECTS: 2019-2020

₹10 million is 1 crore; 1 US\$ is approximately equal to ₹ 75

# Health Care



A doctor examines a child while her mother watches happily.

## OUTREACH



31 states and union territories



673 districts



28,249 villages



7,312,297 households



45,331,425 million individuals



312 schools



1,356 teachers



48,054 children

## Overview

The modern Indian healthcare system has evolved with milestone achievements like polio eradication, creating world-class tertiary care hospitals, combating AIDS, etc. However, challenges like shifting disease patterns, shortage and unequal distribution of the health workforce, etc., make a strong case for a better healthcare system that is efficient in minimising disease burden, maximising its reach to a population of 1.3 billion and optimising the cost of healthcare delivery.

The private health sector in India comprises 70% of functional bed capacity and it caters to 75% of outpatient care and 55% of inpatient care. It is indeed the most preferred option, but not an affordable one for the majority of the population in the country. Inclination towards private facilities is forced due to the non-availability of resources and poor quality of services in Public Health facilities, in spite of being accessible and affordable to most. Whilst non-profit health organisations try to offer affordable care, they are faced with having to balance between huge demand with a financial crunch. This scenario reflects a “trust deficit” between the patient–doctor, patient–hospital, public–private sector and charitable–commercial approaches in the Indian healthcare system.

The Trusts endeavour to contribute towards building an efficient healthcare system by reducing such “trust deficit” through patient-centric care and health proof-of-concept interventions implemented with governments (public partnerships), non-government organisations (private partnerships) and directly with the community (direct interventions). The Trusts also support academic and research organisations (through grants) for encouraging research and advocacy for healthcare.

## Areas of Engagement

Considering the need for supporting public health systems and, parallelly, minimising disease burden in the community, the Trusts are implementing their health interventions under four thematic areas, with a short term goal of enabling health access to 100 million citizens by 2024.

## The four thematic areas under the Healthcare Portfolio include:

**Health Systems Strengthening:** It involves collaborating with central and various state governments and providing technical and the technological support for capacity building of the public health workforce, improved utilisation of health facilities and data driven decision making through technical support units. Interventions are ongoing in Maharashtra, Telangana, Madhya Pradesh and Chhattisgarh.

**Non-Communicable Diseases (NCD):** To prioritise early detection of non-communicable diseases across large populations, the Trusts partnered with the Government of India to provide technical support towards a pan India level NCD screening initiative. NCD technical support units provide expertise at the national level for policy making, issuing guidelines, as well as supporting over 25 state governments, in capacity building of staff and the adoption of technology for efficient NCD screenings. The Trusts are also implementing community-based screening initiatives with Mobile Medical Units and adopting telemedicine as an approach in Uttar Pradesh and Andhra Pradesh. Mental health initiatives under this theme are implemented for face-lifting government-run mental hospitals and undertaking district-level screening for mental health issues in the Nagpur region of Maharashtra.

**Communicable Diseases:** The focus here is on halting the spread of communicable diseases through various initiatives. For example, the Malaria-free Odisha Programme ensures community empowerment to fight Malaria with resources and awareness, while grants to academic organisations ensure research and advocacy to combat diseases like Tuberculosis and AIDS.

**Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A):** Considering the importance of interventions across life stages of women, the Trusts are engaged in programmes such as Mission ASHA that strives to strengthen community health workers, along with programmes to reduce maternal newborn deaths, such as ASMAN (Alliance for Saving Mothers and Newborns), in partnership with like-minded organisations.

## Key Achievements\*

- a.** Training 30,000 government health workers across 26 states under a pan-India NCD programme, whilst screening over 19 million individuals for non-communicable diseases across India.
- b.** Facilitating 223,000 medical consultations; the majority of which were in Andhra Pradesh and Uttar Pradesh.
- c.** The Andhra Pradesh Telemedicine intervention emerged as a private telemedicine programme with one of the highest (123,000) virtual consultations in the country.
- d.** Presenting over 25 research papers from 11 health programmes at various national and international conferences and securing 4 national level awards.
- e.** Improving the utilisation of public healthcare facilities and access to quality and affordable healthcare through the adoption of technology within the government health-worker machinery.

## Future Plans

- a.** Provide technical support to state governments to own and scale up ongoing pilot interventions in strengthening health systems in Maharashtra, Telangana and Chhattisgarh. Thereafter, to implement a programme in Madhya Pradesh to establish proof of concept for the provision of comprehensive healthcare services.
- b.** Extend ongoing partnerships with the central and state governments for ensuring sustainability of NCD screening skills, imparted to the staff through refresher trainings; simultaneously, coordinate with governments to strengthen post screening services; namely, referral, advanced diagnostics and treatment. Parallely, continue to extend support to the government to tackle Mental Health issues.

- c.** Continue support for the control of Malaria, Tuberculosis and Acute Encephalitis Syndrome, along with the ongoing COVID-19 pandemic.
- d.** Intensify programmes for combating COVID-19, focusing on raising awareness among the community, strengthening health systems through training and consumables and encouraging research to prevent spread through vaccination and medicines.
- e.** Continue enabling health access to 10 million citizens through emphasis on adoptable technologies, upscaling of the advocacy of successful initiatives with the government and working on newer healthcare models.

## Good Practices

- a.** Encouraging community ownership: Across the Trusts' interventions, community members are involved in designing and customising interventions; further, community members are encouraged and trained to become Community Health Volunteers and participate in health awareness, disease screening, etc.
- b.** Empowering local women: Recruitment of a local, village-level women workforce is encouraged for jobs in the service-delivery of medical, paramedical or community health activities. This not only empowers women, but also ensures adoption of the initiative by the local community. For example, out of 20 telemedicine clinics in the programme, 15 are "All Women Clinics" with telemedicine assistants, patient coordinators and pharmacists constituting women from local villages.
- c.** Technology for cost optimisation: Considering the cost involved in traveling across geographies of the programmes, conducting virtual meetings and training sessions have been encouraged.



Doctors and pharmacists interacting with patients at SVICCAR's Health Camp at Karveti Nagar, Chittoor, Andhra Pradesh.

## BUILDING COMMUNITY TRUST TOWARDS PUBLIC HEALTH FACILITIES

Umesh Gaud is a resident of village Sonbersha, Pipraich of Gorakhpur district. His seven-year-old son, Avshesh suffered from high fever. When the local ASHA worker came to know about this, she immediately advised the family to go to a block level facility – Community Health Centre (CHC) - for their son's treatment.

However, once their son started getting seizures and his fever increased, the family realised he was showing symptoms of Acute Encephalitis Syndrome (AES). Frightened, they took him to a private hospital instead of the CHC (govt. facility). The treatment in a private hospital added to a heavy financial burden of ₹15,000.

Gorakhpur district is an AES prone area in eastern Uttar Pradesh. In this region, the community didn't prefer to access govt. healthcare facilities due to an unavailability of medicines and referrals being made to a district hospital and medical colleges that are far off.

The Project Prayaas team, in discussion with the CHC team, tried to address the issues faced by the people. Project Prayaas was initiated in 2018 in partnership with Government of Uttar Pradesh, by the Tata Trusts, as a community-based health promotion programme in this AES prone region of Gorakhpur. The aim was to establish a 'Model Block' to strengthen primary healthcare delivery combining an innovative community mobilisation approach with early identification and prompt referral of illnesses being the keystone.

The need of the hour was quality care and the availability of medical staff even at night. To fully utilise the Encephalitis Treatment Centre (ETC) facility, the team and the Medical Superintendent decided to deploy 1 nurse specially to the ETC facility. A child-specialist was also made available during the day. At the same time, the Prayaas team kept in touch with the community and informed them of the improved facilities at the centre.

A few days later, Mr. Umesh's son was running a high fever again. The child was immediately referred to the Mobile Medical Unit (MMU) operated under Project Prayaas, where early primary assessment was done. Now convinced, the family visited the local CHC where an ETC facility was available.

After a week's treatment, Mr. Umesh's son regained his health. His family realised the importance of ETC and have become propagators of the project in their village.

Today, he proudly says, "If it had not been for them, I would have taken my child again to a private hospital and added to my debt. I'm not even sure if he would have been treated this well. The guidance of the ASHA workers helped save my child." In partnership with Government of Uttar Pradesh (GoUP), they have launched a community-based Health Promotion Programme in the AES prone Gorakhpur region by enabling and empowering the existing frontline cadre of ASHA workers.

*Umesh Gaud with his son, Avshesh, who was treated for Acute Encephalitis Syndrome at Gorakhpur, Uttar Pradesh.*

TRANSFORMATIVE JOURNEYS



Intervention undertaken by the Mission ASHA team has saved Archana and Rakesh's newborn daughter's life.



## THE BABY WHO SUCKLED ON HOPE

It took less than a week to realise that Archana and Rakesh's newborn daughter was a warrior. She was born four weeks premature, on the 2nd of January 2020, and ASHA (Accredited Social Health Activist) Sangini Mamta Patel filled up the mandated details and posted about the premature birth on the Mission ASHA's WhatsApp group. The baby weighed only 2100 grams and had trouble breastfeeding.

The following day, the 'Mission ASHA' team from the Tata Trusts reached the baby's home. First, ASHA Rita Devi tried to express milk from the mother's breast, but met with no success. The concerned parents were considering cow's milk to feed the infant, but since that could result in immediate complications and affect the healthy growth of the child, the team requested they try once again. The team calmed the mother and then followed the recommendations of their leader, including using a hot towel and massaging the breasts for a few minutes. To everyone's delight and relief, the mother could finally express two tablespoons of colostrum.

The Tata Trusts team coordinated with ASHA Sangini Mamta and ASHA Rita Devi, who, for the next six days, visited Archana twice daily to help her feed the baby and to record the infant's weight and temperature.

Meanwhile, being premature, the baby was also susceptible to hypothermia in the cold winter of Varanasi, Uttar Pradesh. Therefore, the team also taught Archana how to administer the Kangaroo Mother Care (KMC) for the infant's protection. There was still one more challenge the infant had to overcome - an infection that developed in the umbilical cord. ASHA, as advised by the Tata Trusts team, successfully took care of the umbilical cord using neomycin powder.

Despite the odds, the infant fought hard, as did her mother, with the support of the caring ASHAs. In fact, from the eighth day, the baby started breastfeeding on her own with adequate strength and, by January 28th, she weighed 2600 grams. During these four weeks, ASHA Sangini Mamta stayed in touch with ASHA Rita and the Tata Trusts team, regarding the well-being of Archana and the infant, while continuing to visit Archana to guide her on hygiene and neonatal care.

The reward? A healthy and strong baby, with parents who are proud of her tenacious nature.

## COMMUNITY PARTICIPATION FOR A MALARIA-FREE ODISHA



Kodihanda and Harguli are neighbouring villages in Bishamkatak block, Odisha. With 65 households and a population of 290, both these tribal-dominant villages are 35 kms away from the nearest Community Health Centre (CHC). Due to their remoteness, both these villages were deprived of basic healthcare services, forcing them to depend on traditional healers and quacks.

After seeing a reduction of cases in 2017 and 2018, June 2019 saw a sudden rise in cases of Malaria. It increased in the subsequent months, with 17 malaria positive cases reported during June-September 2019. The reasons for the breakout were many; not sleeping under mosquito repelling nets, non-management of breeding sites and lack of regular usage of Long-Lasting Insecticidal Nets (LLIN) by the community.

After understanding the causes that led to this sudden rise in malaria positive cases, the 'Malaria-free Odisha' programme team and community members organised meetings in both the villages to spread awareness of the issue. They decided to organise mass screening camps, monitor the regular usage of LLINs by villagers and destroy potential mosquito breeding sites.

National Vector Borne Disease Control Programme (NVBDCP) at the district level and CHCs were informed of the need for mass screening and indoor residual spray. NVBDCP agreed to provide all logistical support. Special mass screening for Malaria was conducted in

both the villages where 19 asymptomatic malaria cases were identified out of 267 people and all positive cases were treated with anti-malarial medical aid.

Indoor Residual Spray (IRS) was also facilitated by the field team and community volunteers with 100% coverage of rooms of all households. The community also pitched in and identified and destroyed potential breeding sites under the leadership of the Village Health Volunteers. After these interventions, no malaria cases were reported in the months of October, November and December 2019.

Mr. Dhabeleswar Bag, the Cluster Coordinator, relieved and satisfied with the results of the interventions, states: "I am really happy to see the positive outcome of so many days of our collective hard work. The villagers shouldered the responsibilities very well".

The community fought the war against malaria unitedly and have realised the importance of the regular usage of LLINs and IRS to protect themselves from malaria. With increased confidence, unity and capacity, they are now more vigilant and cautious.

Bali Dakpraska, a community leader in Kodihanda happily says, "I am very happy to see that we could win over malaria. No one has been affected recently and the village health volunteer is regularly visiting the houses to check whether we are using LLIN or not".



A community meeting to raise awareness on malaria prevention in village Harguli, block Bishamkatak, Odisha.





*Samsur, a patient treated at Regional Mental Hospital, Nagpur, engaged in tailoring.*



## BEING MINDFUL OF MENTAL HEALTH

Samsur was found wandering in Ramtek, a block of Nagpur district in 2017. Completely dishevelled, angry and potentially violent, he was brought to the Regional Mental Hospital of Nagpur (RMHN), in December 2017 by The Smile Foundation, an NGO. At the hospital, he was diagnosed with psychosis NOS (Not Otherwise Specified) and started getting treated for the disorder. Once stable, Samsur was moved to the chronic stable male ward. He was a high functioning patient and, thus, participated in routine ward management.

In June 2019, Samsur's case was allocated to Raj, a case manager under Udaan, a mental health initiative of the Tata Trusts. In 2016, in collaboration with the Government of Maharashtra, Udaan introduced, designed and developed psychiatric hospital reform for the Regional Mental Hospital at Nagpur.

The first thing that Raj did was to assess Samsur's current unmet needs and drew up an intervention plan. As Raj's rapport with Samsur grew, he began piecing together the jigsaw of Samsur's past. Samsur shared that he came from a small village called Amtoli, district 26 South Parganas of West Bengal. He was born in an agrarian family consisting of six brothers and his parents. They worked as embroiderers. Samsur's brothers worked in different parts of the country. However, his eldest brother and father had passed away. He could also recollect a cousin who lived in Nagpur. Samsur himself had been an embroiderer and, during his conversation with the mental health team, had expressed the desire to

reuse his embroidery skills. In addition, Samsur began working at the banana plantation set up in the hospital premises by the Udaan team as a re-skilling and employment pathway. He also underwent training in office support services.

Raj and the team of Koshish (a field action project of Tata Institute of Social Sciences and Udaan, a collaborating partner) traced and contacted Samsur's family, with the help of another NGO - Ishwar Sankalp, West Bengal. Samsur's cousin, who lived in Nagpur, visited Samsur and promised to bring his mother to meet him. And in the next few days, she did.

Soon, Samsur was reunited with his family.

The Udaan team worked with the family and with Ishwar Sankalp to put a re-integration plan in place. This included developing a mental health care and support network with timely access to medications.

After years of suffering and wandering the streets, Samsur is back home, but remains in close contact with Raj. He is also working again. Samsur's mother expresses her gratitude when she says, "We are lucky that Samsur was admitted at RMHN; otherwise, we would have never met him again."

Samsur's story indeed highlights how the different components of mental health services must come together to facilitate the journey of recovery and recreate a space for someone living with a mental illness in this wide world.

**Overview**

The past few decades have seen exponential growth in the population of the country. As per Census 2011, India had about 104 million individuals above the age of 60 years, constituting almost 8.6% of the total population of the country. As per various research documents<sup>1</sup>, this number is expected to reach 300 million by 2050, which, at that point, will constitute about 20% of the population. In addition to the overall increase in the number of the elderly, the number of people above 80 years is increasing rapidly, from being about 11 million in 2011. The demographic shift is going to be a huge challenge and new models of services will need to be developed to address the needs of the elderly in rural and urban settings.

Elder Spring, a programme of the Trusts, emerged as an endeavour to address the needs of the elderly population (60+ age) in India through multiple dedicated interventions in the sector. The objective is to improve the quality of life of the elderly by maintaining their dignity through caregiving, social & economic opportunities and an empathetic ecosystem.

The programme comprises three themes:

**a. Elder Spring Urban Programme** – It focuses on the happy and healthy ageing of the elderly population in urban areas through multi-activity centres at urban hubs, which include activities like yoga, meditation, health check-ups, etc. An engagement-based centre was set up at Bhubaneswar in September 2018, in partnership with the Government of Odisha. It helps create engagement opportunities for the elderly to spend time on - pursuing activities and participating in volunteering opportunities to ensure their overall well-being. A similar centre was inaugurated in March 2020 at Hyderabad to cater to women with the support of Tata Advanced Systems Limited.

**b. Elder Spring Rural Programme** – It works closely with state Public Health departments to facilitate the implementation of the National Programme for Health Care of the Elderly (NPHCE) guidelines in one district each of Maharashtra, Telangana and Karnataka. The programme emphasises on operationalising weekly dedicated geriatric clinics at the Primary Health Centre (PHC) level in these three districts. The programme also focuses on strengthening community engagement for the elderly through village-based activity centres, where the elderly participate in various engaging activities, such as physical exercises, awareness sessions, recreational activities, etc.

**c. Elder Spring Ecosystem Building**

**i. Elder Spring Response System** – Accessible through a toll-free number (14567), it is a free service that provides information, guidance and emotional support in order to improve the quality of life of the elderly.

*A healthcare worker carries out a routine test on a senior citizen during a rural pilot programme in Chandrapur, Maharashtra.*



**OUTREACH**



**4 states**  
Odisha, Maharashtra, Telangana and Karnataka



**37 districts**



**66,551 elderly individuals**

<sup>1</sup> UNFPA reports on elderly

ii. Elder Care Digital Platform – It endeavours to create a nationwide digital platform for elders with a focus on an easy-to-use, trusted, digital place for the elderly and their caregivers.

iii. Advocacy – It contributes to the development of a national plan for senior citizens by participating in the sub-committee that was set up by the Ministry of Social Justice & Empowerment, advocating the implementation of National Programme for Healthcare of Elderly, creating solutions for reporting and reuniting missing elderly persons and ensuring minimum standards in Old Age Homes. Further, the Trusts have been interacting with the National Institute of Social Defence (NISD) to address the needs of the senior citizens through training, awareness and sensitisation activities.

## Key Achievements\*

### Elder Spring Urban Programme:

- a. Besides the 115 members at the Spoke Centre, more than 2,500 elderly (55 years and older) were reached out to across Bhubaneswar through various citywide programmes.
- b. Over 400 children and youth were sensitised towards the elderly through structured programmes conducted in schools.
- c. The Digital Literacy Programme saw huge demand and over 60 elderly individuals were oriented on mobile applications and other internet/security features. Hands-on interactive learning on personal devices, personalised attention through volunteers and post learning support for query resolution were the key features of the programme.

### Elder Spring Rural Programme:

- a. 3,211 geriatric clinics were conducted across 89 health facilities in three districts under the programme, where 44,500 elderly were screened and given health cards. The clinics catered to over 134,750 out-patients.
- b. 58 activity centres were operationalised at the village level, in which more than 1,200 elderly were enrolled.
- c. The Chandrapur rural pilot programme was selected by the Ministry of Health & Family Welfare, Government of India, at the 6th National Summit on Good and Replicable Practices and Innovation in Public Healthcare Systems in India held at Gandhinagar, Gujarat.
- d. In a book titled “Ayushman Bharat Health and Wellness Centres – Accelerating towards health for all”, released by the Ministry of Health and Family Welfare, the programme was featured as a best practice in Maharashtra.



A group of elderly women participate in a yoga session conducted at Chandrapur, Maharashtra.

- e. The Public Health Department, Government of Maharashtra adopted the Trusts' model of elderly care; the model will be replicated in five districts of the state with funding from the National Health Mission.
- f. Basis the successful implementation of the Trusts' pilot programme in Medak district, the Health Department, Government of Telangana extended the implementation of NPHCE in 20 other districts. Capacity building of the health staff was undertaken in these districts and a government order for ensuring weekly geriatric camps at the PHC level was issued.

### Elder Spring Response System:

- a. The Response System was implemented successfully and scaled up across Telangana. Nearly 46,000 calls have been received and issues addressed. 370 elderly were provided emotional support; further, 355 abused elderly were also supported.
- b. 150 homeless elderly individuals were supported with shelter, food and healthcare at partner old age homes, post which, 37 were reunited with their families.
- c. Support has been extended to the senior citizens and old age homes during the lockdown due to COVID-19.

## Future Plans

- a. Understand the status and the needs of the elderly population in the wake of the COVID-19 pandemic in the country and recommend appropriate measures. Simultaneously, design an alternative strategy for implementing programmes amidst the need for maintaining social distancing.
- b. Consolidate and document the learnings of the elder care programmes for reference by others in the sector.
- c. Provide technical support to the Ministry of Social Justice for implementing a National Helpline for the elderly.

## Good Practices

- a. Sensitising children and youth towards the elderly by conducting structured programmes in schools.
- b. Facilitating the implementation of NPHCE and up-skilling government staff to understand the programme and serve elders better.
- c. Operationalising the Activity Centres at the

village level, where elders connect socially with each other and partake in activities such as indoor games, yoga, light exercises, etc.

- e. Partnering and collaborating with all stakeholders, whilst also playing the role of a catalyst.

## Challenges Faced

- a. Ensuring the participation of the elderly in various activities on a regular basis, given their health issues, difficulties in commuting and their absence over substantial periods during outstation visits to their relatives.
- b. Time taken by public health staff to own the programme along with their existing work load.
- c. Inability to address the numerous legal cases highlighted by the senior citizens, as they are pending before the courts.
- d. Finding accommodation for non-ambulatory homeless elderly in old-age homes at the time of rescue. In the event of their hospitalisation, it is difficult to take care of them without dedicated caregivers.

## A SLICE OF ANAND FOR OUR ELDERS

As per a 2011 Census, 9.5% of the population (4 million people) of Odisha were senior citizens. The latest Economic Survey estimates that this number will grow to 4.9 million (10.8%) by 2021, 6.5 million (13.4%) by 2031 and 8.3 million (16.6%) by 2041.

To address the challenges faced by them in the city of Bhubaneswar, the Social Security and Empowerment of Persons with Disabilities Department, along with the Tata Trusts and HelpAge India, launched a multi-activity centre (ANAND) on September 2018. Livolink Foundation, an associate organisation of the Trusts performed the role of a Project Management Unit (PMU). The objective of Anand was to keep the elderly engaged with well-designed activities and processes, keeping them both happy and healthy.

### The Anand Centre

Two scientific tools, CASP-19 and SF 36, respectively, were used to study the impact of the Anand initiative. Data was obtained from 27 judiciously chosen registered members and the results revealed a significant improvement in their happiness and well-being. The average

standardised CASP-19 score of 76, at the time of registration, increased to 83 after six months of time spent at the centre, representing 59% of the members. Similarly, the SF 36 score revealed improvement in health among 44%. 22% demonstrated improved emotional well-being; 4% a decline in fatigue; 18% a decline in pain and 7% showed improvement in general health.

One could attribute these encouraging results to a well-defined process and thought-out activities, as well as the counselling and physiotherapy services at Anand, an innovative multi-activity centre for the Elderly.

However, the most encouraging evidence came from an elder member, who commented, "It's a pioneering centre; we look forward to visiting. Our children are also happy to see us engaged and worry less about us."



## FROM DOWN AT 65 TO A RENEWED LIFE

65-year-old Vachhalabai Fulbhoge, who lived in Adarshkheda village, Mul block, Chandrapur district, Maharashtra used to be depressed. She had recently lost both her husband and their only son. Compounding this situation was her concern for the welfare of her daughter-in-law and grandchildren.

Vachhalabai came to know about an activity centre in her village, which was visited by the elders from her village. The village based Activity Centre is part of the Trusts' Elder Care Programme in Chandrapur to provide a space for the elderly. Vachhalabai too joined the centre. Here, she met others of her age, whom she could spend time with and talk to. Together, they practiced yoga, pranayama, light stretching exercises and recreational activities organised by the Activity Centre. She also began weekly visits to the geriatric clinic for a regular health check-up. The weekly Geriatric clinics had been initiated by the government to provide quality and sustainable healthcare services as per the National Programme for Health Care of the Elderly (NPHCE) guidelines.

Over time, Vachhalabai began to feel mentally stronger and managed to shrug off any unnecessary worries. Today she proudly says, "Coming to this centre and engaging in various activities relieved my pain to a great extent; we talk, discuss, laugh and share, all of which made me realise that whatever may be the situation now, I have to be strong and live for the betterment of my family. I would recommend the centre's services to all."

Many other elderly citizens in the rural areas have started recognising the need for seeking care. The programme has also helped in sensitising the community to the needs of the elders. Gram Panchayats have started organising and participating in various social activities for the elderly and encouraging other members of the community.

*Vachhalabai Fulbhoge (magenta sari) participating in a bhajan singing activity at the Activity Centre at Adarshkheda village, Mul block, Chandrapur district, Maharashtra.*

### TRANSFORMATIVE JOURNEYS



## Overview

With over 1.4 million new reported cases of cancer every year, India has an increasing burden of cancer. Most of these cases are reported in the later stages of the disease, leading to a high mortality rate of about 50%. In 2020, the numbers are expected to increase by over 1.73 million.

### This problem of high incidence and delayed detection is aggravated by:

- a. Poor infrastructure and low availability of skilled medical expertise to treat the disease.
- b. Existing cancer-care facilities being concentrated in metros and tier-1 cities, resulting in patients having to travel long distances to seek treatment and care. This leads to high out-of-pocket expenses and, consequently, high dropout rates along the treatment pathway.
- c. Increasing adoption and spread of unhealthy lifestyle habits.
- d. Lack of awareness related to benefits of early detection.

With a vision to strengthen and transform cancer care in the country, the Trusts are working on a novel 'Distributed Cancer Care Model'. Based on four pillars, the model will ensure affordable, yet high quality care, along with emphasis on awareness, screening, early detection and palliative care.

The Trusts are working in partnership with various state and central governments and like-minded organisations to develop a network of healthcare facilities for treating the most common cancers closer to patients' homes.

The team has an understanding with the National Health Mission to 'support, strengthen universal screening and control five common non-communicable diseases (NCD)'.

## Key Achievements\*

- a. Working with 173 health and wellness centres across 8 districts in Assam and conducting training for screening NCDs. So far, 165 Community Health Officers, 481 Multi-Purpose Workers and 694 ASHAs have been trained in Assam. In other states, 829 ASHAs, 467 Multi-Purpose Workers and 47 Community Health Officers (CHO) have been trained till March 2020.
- b. Providing palliative care services to over 5,500 patients across various districts in Assam. The cancer care team played a critical role in facilitating the implementation of the amended NDPS (Narcotic Drugs and Psychotropic Substances) Rules 2015, thereby simplifying the process to access the Essential Narcotic Drugs for medical usage across Assam.
- c. Initiating day-care operations at Sri Venkateswara Institute of Cancer Care and Advanced Research (SVICCAR), Tirupati, Andhra Pradesh in the beginning of 2020. The response to the facility has been enthusiastic and overwhelming.
- d. Commencing operations at the state-of-the-art Centre for Oncopathology (COP) in Mumbai in September 2019. The centre, within a short span of time, has handled about 7,700 surgical pathology cases and 300 molecular pathology cases. Even during the period of national lockdown due to COVID-19, the laboratory offered emergency services to cancer patients across the country. Besides this, the molecular pathology laboratory also introduced a new testing procedure in the form of "Liquid Biopsy" testing for lung cancer patients.
- e. Setting up Swasth Kiosks at Guwahati, Barpeta and Tezpur in Assam, where 4,244 individuals were screened during January – March 2020. Swasth Kiosks are bright and attractive set-ups in heavy footfall areas of select government medical college



### Over 85,000 people

in parts of Assam, Maharashtra, Odisha, Jharkhand, Andhra Pradesh, Karnataka and Uttar Pradesh have been screened for non-communicable diseases, including oral, breast and cervical cancers.

## OUTREACH



Demonstration for cancer care and administration of chemotherapy.

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

hospitals across Assam for conducting health check-ups of family members and accompanying relatives whilst creating health awareness in an easy to understand manner.

**f.** Initiating manpower skilling programmes for doctors and technicians; including: (a) clinical training at apex centres like Tata Memorial Hospital, Mumbai or Centre for Oncopathology, Mumbai; and (b) technical training at advanced centres like Advanced Centre for Treatment, Research and Education in Cancer (ACTREC). 5 doctors, 2 pathologists and 2 technicians received training during the year and are back at their respective centres to serve the patients.

**g.** Providing nurses with basic and advanced oncology training, ICU training and palliative care or community practice training. Basis their performance during the training, the nurses are also prepared to mentor fellow nurses by way of mentorship training. During the year, 25 nurses were trained for Assam Cancer Care Foundation, an associate organisation of the Trusts, and 7 nurses were trained for other cancer care projects.

**h.** Conducting cancer screening for employees of Brihanmumbai Electricity Supply and Transport (BEST) and Maharashtra State Road Transport Corporation (MSRTC) in Mumbai, in association with the Indian Cancer Society. The Trusts have also engaged with Mumbai Police for screening of NCDs through their association with Tata Memorial Hospital.

### Capacity Building Efforts Under The Cancer Care Programme:

**Structured curriculum for PG students and pathologists of Assam:** During the COVID-19 lockdown period, senior pathologists from the Centre for Oncopathology (COP) and Tata Memorial Hospital have been successfully conducting weekly webinars that are open to all PG pathology students across India on a variety of subjects that are of relevance. Some of the sessions have had an audience of up to 1,200 participants. The COP is also planning to host these talks on a webinar platform as a structured curriculum for the forthcoming year to benefit PG students across India. An oncology teaching webinar programme will also be initiated for pathologists in Assam and other parts of the country to enable knowledge sharing.

**Nursing Fellowship Programme:** With an aim to increase the number of oncology-specialised nurses, a 'Nursing Fellowship Programme' has been introduced. Upon completion of the 11-month-long programme, the nurses will be able to integrate knowledge of nursing and health sciences in caring for oncology patients, with consistent focus

on quality of care.

**Fellowship Programme in Oncology for Physicians, Surgeons, Radiologists and Pathologists:** To build a strong cadre of professionals in cancer care, a 'Fellowship Programme in Oncology' has been introduced. The incumbents will receive hands-on training over one year at apex institutes, such as Tata Memorial Hospital, Mumbai and Centre for Oncopathology, Mumbai, besides a clinical practice experience of over 1 year at cancer centres in Assam. This two-year fellowship programme will be followed by a 1-year mandatory job posting in respective Assam centres, to ensure that trained fellows use their enhanced skills for serving patients in Assam.

**Competency building:** In-depth training on contract management and project management was offered to personnel from the Trusts' cancer care team at National Institute of Construction Management and Research (NICMAR), Pune to enhance their competencies in critical areas.

### Future Plans

**a.** Four day-care centres for 'Onco Care' are being set up in medical college hospitals at Dibrugarh, Diphu, Silchar and Barpeta in Assam. Chemotherapy treatment and medical oncology consultation will be provided at the centres. Radiation therapy services at 6 programme sites will also be initiated.

**b.** Basis the encouraging response to Swasth Kiosks, more such kiosk-facilities are being developed in Diphu, Silchar and Darrang (in Assam), besides Chandrapur (Maharashtra), Ranchi (Jharkhand), Bhubaneshwar (Odisha) and Tirupati (Andhra Pradesh).

**c.** The team is setting up a network of cancer care centres in Assam, along with stand-alone cancer care facilities in Maharashtra, Jharkhand, Karnataka,

Gujarat and Andhra Pradesh. A host of these facilities are expected to commission operations beginning 2021-22.

### Best Practices

The team has started to work with National Health Mission in Assam to integrate palliative care services under the NCD screening programme. A pilot programme was run in Titabor block of Jorhat district to train the health personnel working in the Health and Wellness Centres (HWCs) under the aegis of the Director, NHM. The programme successfully trained 9 CHOs, 18 MPWs/ANMs and 76 ASHAs and developed a referral pathway for the palliative care services at the medical college. The team is planning to extend the programme to other districts in Assam.

# MAKING HEALTH EVERY PLANTATION WORKER'S CUP OF TEA

There are 21 Amalgamated Plantations Pvt. Ltd. (APPL) tea gardens in the state of Assam, with a total population of around 86,000. Among them, the tea plantation workers suffer from poor access to health because of financial issues and low literacy and awareness levels. This is potentially devastating because they are susceptible to a number of hazards due to physical, biological, mechanical, chemical and psychosocial factors.

Consequently, Assam Cancer Care Foundation (ACCF), an initiative of Tata Trusts and Government of Assam, collaborated with Amalgamated Plantations Pvt. Ltd. (APPL) to address the situation under the programme, 'Tea-Gardens Outreach Programme'. The collaboration focusses on screening all eligible population for Non-Communicable Diseases (NCDs), including cancer. The objective is early detection and timely treatment, eventually reducing morbidity and mortality.

To ensure that all the workers are screened, the gardens are divided into lines or sections, with 'Chowkidars' assigned to each. They play a crucial part in mobilising workers to attend the screening camps. However, at places, the ASHAs (Accredited Social Health Activists) were also engaged to spread awareness and motivate workers to get themselves screened.

Interactive awareness sessions on risk factors and preventive measures were also conducted in the field closer to their work area, in order to ensure maximum attendance. Soon, the team observed that women were more forthcoming for screening than the men. Here, the Welfare Officers of the tea-gardens came to the rescue. The team adopted a strategy similar to the awareness programme to promote screening amongst the menfolk and so, started conducting screening camps near their work area.

Meanwhile, a referral programme for the treatment of suspected cases has been put in place. Suspected cases of hypertension and diabetes are referred to the OPD of Chabua Tea Hospital. Those suspected for oral, breast and cervical cancers are referred to Referral Hospital and Research Centre (RHRC) with free ambulance services.

In Phase-I of the 'Tea-Gardens Outreach Programme', which commenced in November 2019, 2 out of 21 gardens situated at Chubwa and Nahartoli in Dibrugarh district have been covered. A total of 3,351 individuals had been screened till March 31, 2020.

There is a long way to go, but good health is surely brewing.



TRANSFORMATIVE JOURNEYS

Tea plantation workers attend a screening camp in Assam.

PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING

PROJECT ALIGNS WITH **SDG**  
**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

A Swasth Kiosk healthcare worker attends to a patient in Assam.



PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING

PROJECT ALIGNS WITH **SDG**  
**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

## SWASTH KIOSKS FOR HEALTH SCREENING

Assam has a high incidence of cancer.<sup>1</sup> 70% of the cases are reported at an advanced stage and the mortality rate is as high as 40-50%.<sup>2,3</sup> This can be attributed to the lack of awareness, proper screening and late detection.

Amongst the multiple initiatives that the Assam Cancer Care Foundation (ACCF) has taken in order to promote regular screening and awareness, a novel idea worth mentioning has been the 'Swasth Kiosks'. ACCF, in collaboration with different Medical College Hospitals in Assam, has developed these Swasth Kiosks - Health Screening and Awareness Centres. These kiosks are set up in the Out-Patient Departments (OPDs) of Medical Colleges, focusing on 'Opportunistic Screening', supplemented with interpersonal communication.

Bright and attractive, they are set up in heavy footfall areas of select Government Medical College Hospitals. Here, visitors and individuals accompanying the patients can avail of general health check-ups (including BMI), as well as screening for hypertension, diabetes and oral,

breast & cervical cancers. Awareness is also provided on lifestyle, nutrition and varied health-related topics, in an easy to understand manner. Managed by a kiosk manager, along with a doctor, nurses and support staff, every 'Swasth Kiosk' has been able to enhance proactive health seeking behaviour.

As a result, the 'Swasth Kiosk' concept has received an encouraging response from both the beneficiaries, as well as the authorities at the hospitals where they have been set up. Between January and March 2020, three such kiosks have been set up: Gauhati Medical College and Hospital, Guwahati; Fakhruddin Ali Ahmed Medical College and Hospital, Barpeta and Tezpur Medical College and Hospital, Tezpur. These kiosks screened 4,000+ individuals within a few months of being operational.

Suffering from poor health is upsetting but, by taking timely measures, one can enjoy good health. These four cheerfully painted Swasth Kiosks allow people to 'walk-in' to good health.

<sup>1</sup><https://www.thelancet.com/action/showPdf?pii=S1470-2045%2818%2930447-9>

<sup>2</sup>[http://www.business-standard.com/article/news-ians/70-cancer-patients-in-india-consult-doctor-at-terminal-stage-february-4-is-world-cancer-day-117020301268\\_1.html](http://www.business-standard.com/article/news-ians/70-cancer-patients-in-india-consult-doctor-at-terminal-stage-february-4-is-world-cancer-day-117020301268_1.html)

<sup>3</sup>Cancer burden and health systems in India 1, [lancet.com/oncology](http://lancet.com/oncology), published online, April 11, 2014

## A HOLISTIC APPROACH TOWARDS THE FIGHT AGAINST CANCER

In the state of Assam, every year, over 32,000 new cases of cancer are reported. 70% of them are reported at an advanced stage, with a 40-50% mortality rate.<sup>1,2</sup>

Among the key reasons for the delayed diagnosis of cancer are a lack of awareness of the symptoms, low uptake of screening and a dearth of cancer prevention programmes. Indeed, many cancers can be prevented by controlling the modifiable risk factors and defeated with early screening.

To address these concerns, Assam Cancer Care Foundation (ACCF), an initiative of the Tata Trusts and Government of Assam entered into a partnership with National Health Mission (NHM). The intent was to 'support and strengthen universal screening and control (of) five common non-communicable diseases.'

### The following interventions have been planned:

- Enhance the capacity of Health and Wellness Centres (HWCs) of NHM by training the staff on screening for NCDs
- Training of public/private general practitioners (Allopathy and AYUSH) for symptom identification and referral for treatment
- Community awareness for prevention, screening and early detection
- Implementation of tobacco-control programme
- Palliative Care Services at HWCs

Phase-1, initiated in November 2019, was when the programme was launched in Barpeta, Darrang, Dibrugarh, Jorhat, Karbi Anglong, Kamrup Rural and Nagaon districts of Assam. These were rolled out by teams comprising a District Health Manager, a Health

Camp Manager, a Dentist, a Nurse, a Data Entry Operator, as well as Patient Navigators.

ACCF's intervention team works with the staff of HWCs in conducting screenings of hypertension, diabetes, oral cancer, breast cancer and cervical cancer. The team also conducts field visits to reach out to the community and spread awareness to encourage both prevention and the early detection of cancer.

Activities such as the training of police personnel, school-based awareness sessions involving teachers and students, community awareness through NGOs and National Service Scheme (NSS) volunteers, mobilisation of beneficiaries at tobacco cessation centres have also been conducted in select Assam districts.

In a first-of-its-kind initiative, the teams also introduced palliative care services to HWCs. 76 ASHA workers were recruited and trained to help make palliative care accessible to patients.

The benefits have been manifold. At Health and Wellness Centres, the staff are more confident than before in conducting screening programmes; the footfall of beneficiaries seeking screening services has also gone up. There has been significant improvement in the knowledge of NCD risk factors and healthy lifestyle habits among both the HWC healthcare professionals and the frontline health workers. Finally, a group has been formed to ensure identification of patients who need palliative care and their navigation to Jorhat Medical College Hospital (JMCH) for accessing this care has been facilitated.

Holistic health is a crucial step towards the fight against cancer and Assam is already showing the benefits of this intervention.

A camp for healthcare workers in Assam to help them increase efficiency in cancer screening and prevention of other non-communicable diseases.



PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING



PROJECT ALIGNS WITH **SDG**  
**17** PARTNERSHIPS FOR THE GOALS

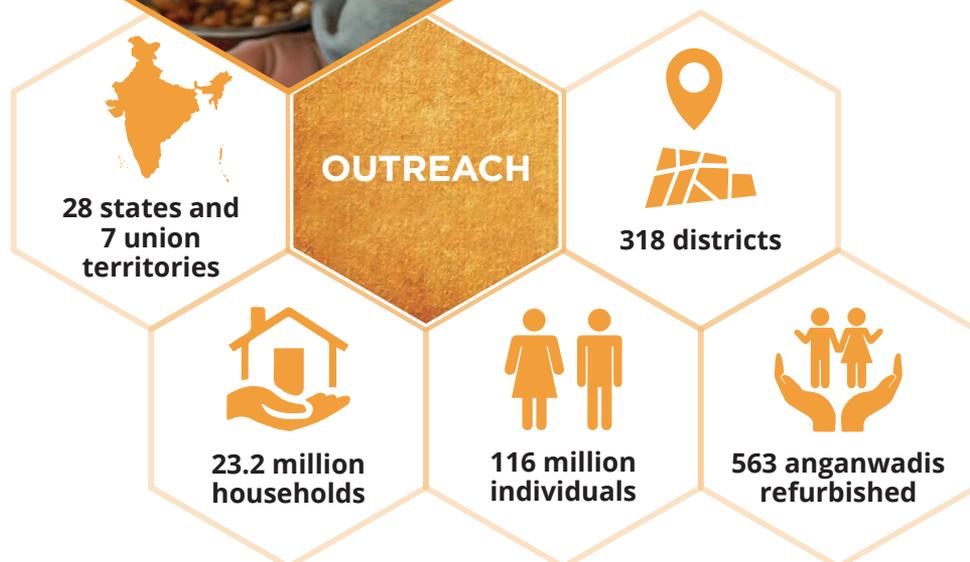


<sup>1</sup>[http://www.business-standard.com/article/news-ians/70-cancer-patients-in-india-consult-doctor-at-terminal-stage-february-4-is-world-cancer-day-117020301268\\_1.html](http://www.business-standard.com/article/news-ians/70-cancer-patients-in-india-consult-doctor-at-terminal-stage-february-4-is-world-cancer-day-117020301268_1.html)  
<sup>2</sup>Cancer burden and health systems in India 1, lancet.com/ oncology, published online, April 11, 2014

# Nutrition



*Children enjoying healthy and nutritious snacks at an anganwadi in Rajasthan.*



## A NUTRITIOUS FOUNDATION, A STRONGER FOUNDATION

### Overview:

Nutrition is a significant determinant of health, cognitive development, educational outcomes, and the social & economic productivity of a nation. India has many nutrition programmes to improve the health of children and mothers. However, poor nutrition outcomes, primarily among women and children, continue to remain prevalent. For instance, according to the National Family Health Survey-4 (NFHS-4), only 9.6% of children in the age group of 6-23 months in India receive adequate diet. NFHS-4 also identifies over 50% of women of reproductive age in India as anaemic. To mitigate the problem of malnutrition and anaemia, the critical window for intervention is the first 1,000 days of life – from conception till the child's second birthday. The foundation of good health, growth and neurological development across the lifespan is established during this period.

Additionally, India has a high burden of diseases arising from micronutrient deficiencies, also known as hidden hunger. Particularly, poor intake of iron, iodine, vitamins A and D has been linked to impaired health and diminished productivity. Alarming, a large percentage of the Indian population consumes less than 50% of the recommended dietary allowance. This begets the need for urgent remedial interventions targeting the improvement of micronutrient insufficiency.

The Trusts, along with their implementation partner, The India Nutrition Initiative (TINI), aim

to achieve the following outcomes in the communities they serve, by 2022:

- a. 25% reduction in stunting in children below 5 years in the target communities.
- b. 3% annual reduction in anaemia in children below 5 years and women of reproductive age.
- c. 2% annual reduction in low birth weight.

These objectives are aligned with targets under POSHAN Abhiyaan – India's flagship scheme on the improvement of nutrition outcomes in young children, adolescent girls, and pregnant and nursing women.

### The interventions of the nutrition portfolio are categorised thus:

- a. Development of affordable nutritious products at scale (such as GoMo Dal Crunchies) and support towards fortification of staples (double fortified salt, milk, oil, rice and wheat).
- b. Catalysing, innovating, supporting and strengthening existing government programmes, such as the Integrated Child Development Services (ICDS), through the Maternal, Infant, Young Child Nutrition (MIYCN) programme and Annapurna Central Kitchens.
- c. Collaborating with government agencies, development partners and other stakeholders to undertake data driven advocacy on pressing nutrition issues, such as with the National Institute of Nutrition and the Food Fortification Resource Centre (FFRC).



Raising awareness of the benefits of fortified salt at a community meeting in Uska Bazaar, Siddharthnagar, Uttar Pradesh.

## Key Achievements\*

**a.** The Trusts supported the establishment of FFRC to promote fortification efforts across the country. Subsequently, FFRC helped 17 states and 4 union territories vis-à-vis fortifying chosen commodities and distribution through safety net programmes. Interventions ensured fortification of 17.5 million litres of milk per day in the country, which is over 42% of the organised milk market, reaching 116 million beneficiaries across 22 States and 4 UTs.

Over 50 training and capacity building workshops on milk fortification were conducted for over 1,000 dairy personnel.

Production of over 26,000 metric tons of fortified rice in nine rice mills catered to 60 million meals in safety net programmes across two districts in Andhra Pradesh.

**b.** The MIYCN programme oriented 1,373 Panchayats across five intervention districts in Rajasthan to contribute towards the refurbishment of anganwadis and to monitor the nutrition status of children. In Andhra Pradesh, the government initiated plans to replicate similar refurbishments across 4,000 anganwadis.

**c.** The Trusts' partnership with Mars Inc. led to the development of GoMo Dal Crunchies. Over 2 million packs of GoMo were sold to about 8.7 million people across 4,626 villages in Maharashtra, Gujarat and Uttar Pradesh. Besides, over 55,000 packs were also distributed under the Maharashtra Floods Relief Programme.

**d.** Under the Swasth Bharat Prerak programme, The National Nutrition Fellows supported the implementation of POSHAN Abhiyaan in 318 districts. The Fellows facilitated community engagement through innovative strategies, especially leveraging high visibility platforms, such as Poshan Pakhwada and Poshan Maah for enhanced outreach and spreading messages of nutrition at scale.

**e.** Under a partnership with the Bill & Melinda Gates Foundation, the Trusts supported POSHAN Abhiyaan by setting up a Technical Support Unit at NITI Aayog to independently monitor and evaluate progress of the programme.

**f.** Under the Mid-Day Meal programme, 28,000 children across 67 ashramshalas in Palghar and Nashik districts are being provided with hot, cooked, hygienic, and nutritious meals daily.

## Future Plans

**a.** Focus on mandatory fortification of milk and oil in the open market, whilst undertaking impact studies on the benefits of food fortification.

**b.** Liaise closely with the Government of Andhra Pradesh to expand distribution of fortified rice to aspirational districts.

**c.** Hold discussions with the governments of Gujarat and Uttarakhand to distribute Double Fortified Salt through PDS.

**d.** Encourage communities under the MIYCN programme to promote diet diversity for women and children.

**e.** Launch a 'Young Women Product' - an affordable, multi-grain, sugar and trans fat-free, high fibre micro-nutrient snack.

**f.** Aim to reach 55 million children and 18 million women with affordable and nutritious products tailored around pregnancy and lactation needs, by 2023.

**g.** Sustainably source from nearly 3,000 farmers and provide regular income upliftment to up to 50,000 last-mile entrepreneurs.

## Good Practices

**a.** The recycling of empty packets of GoMo Dal Crunchies has taken the Trusts a step closer to realising the goal of zero-waste, whilst also resulting in some cost savings in manufacturing. The women entrepreneurs who sell these across villages are incentivised to return empty packets for recycling.

**b.** The frontline workers in the intervention blocks of the MIYCN programme in Maharashtra developed the Village Health Report Card, for community-based monitoring and planning of health services. This initiative was presented before the Panchayats, which helped raise the demand for improved services, whilst also facilitating greater mobilisation of locally available funds for improving nutrition delivery in villages.

## Challenges Faced

Several fortification projects require effective harnessing of the public distribution system to ensure last mile delivery. Logistical co-ordination to prevent leakages, and ensure a robust and continuous supply chain is an ongoing challenge.

## PUTTING THE SPOTLIGHT ON MONTH-OLD PALLAVI'S NUTRITION

Although teams of dedicated frontline functionaries, such as Anganwadi Workers (AWW), Accredited Social Health Activists (ASHA) and Auxiliary Nurse Midwives (ANM) (collectively called AAA) often worked in the same villages, they did so in silos. This created a need for a coordinated effort, which would, in turn, lead to greater efficiency and impact.

Under Project 'Spotlight Palghar' in Palghar District, Maharashtra, the Tata Trusts trained the AAA to follow step-wise guidelines on the convergence of the departments of Health and Family Welfare, and Women and Child Development. This was done through extensive cascade training, a follow-up mechanism, as well as by implementing joint household visits of the AAA. This synergy went a long way in motivating communities to recognise that health and nutrition outcomes are closely related.

One-month old Pallavi, in Sapane village of Wada was born to a family identified as 'Severely Acute

Malnourished'. The frontline workers swung into action and counselled her mother, Yashoda on effective breastfeeding practices. Anganwadi sewika Ms. Pranali Kale also contributed by demonstrating good nutrition practices through the digital tool launched by Government of India. Named Common Application Software (CAS), the tool enables improved nutrition service delivery by better monitoring and intervention. Pallavi, born premature and underweight, was considered high risk. The parents, however, were hesitant to admit their daughter to a hospital, but after two hours of perseverance, the AAA group changed their minds. The visits by the AAA continued and, with counselling and medication, Pallavi achieved 'normal weight' in just 22 days!

Yashoda said, "I wish such attention was paid when Pallavi's two older siblings were growing up! However, this time, the AAA made me realise the severity of the problem and the possibility of a solution."



TRANSFORMATIVE JOURNEYS

PROJECT ALIGNS WITH **SDG**

**2** ZERO HUNGER



Pallavi undergoing a routine check-up at home facilitated by the AAA [Accredited Social Health Activist (ASHA), Anganwadi Worker (AWW) and Auxiliary Nurse Midwife (ANM)].

Anganwadi workers and Swasth Bharat Prerak help build toilets at the anganwadi centre at Mansa, Punjab.



## WASHING AWAY SANITATION AND HYGIENE CHALLENGES WITH SWASTH BHARAT PRERAKS

Mansa ranks in the bottom 25% districts in Punjab (based on a composite health index) and is thus identified as a high priority district<sup>1</sup>. Here, bridging the gaps in sanitation and hygiene infrastructure is an urgent need. Although India has achieved near-complete coverage of toilets within households, water connections and hygiene promoting infrastructure continue to remain a challenge at anganwadi centres and schools. In Punjab, there are still 20% underserved anganwadi centres and, of this, 714 are in Mansa.

The Tata Trusts have been supporting the administration in the endeavour to close critical gaps in water, sanitation and hygiene (WASH) service infrastructure through the deployment of Swasth Bharat Preraks in select districts. In Mansa, the anganwadi centres lacked toilets, running water, handwashing stations and gender sensitive design, such as the storage of sanitary napkins in vending machines, and incinerators in the secondary schools.

Baljeet Kaur, an anganwadi worker, had to send the children outside (in the open) to relieve themselves, as there weren't toilets at her centre.

The Trusts deployed Aditya Madan, District Lead, Swasth Bharat Prerak programme in Mansa. Under the guidance of Ms. Apneet Riyat, Former District Collector,

and Ms. Kavita Singh, Former Director, Department of Social Security and Development of Women and Children (DSSWCD), Mr. Madan pursued the public-private-partnerships' path, specifically leveraging corporate social responsibility funds to address inadequate facilities at anganwadi centres. They struck a partnership with Bharat Petroleum Corporation Limited (BPCL) under the Mahatma Gandhi National Rural Employment Guarantee Act scheme and helped address the various sanitation issues.

As a result of this effort, 100 toilets and 53 soak pits, along with several handwashing stations, were built in the anganwadi centres, and 17 sanitary vending machines and incinerators were installed in secondary schools.

Baljeet Kaur, an anganwadi worker states, "We have received immense support from the district authority and the Swasth Bharat Prerak. I no longer send the kids outside to relieve themselves."

Another beneficiary from a secondary school added, "I use these pads and I do not miss school anymore, either."

<sup>1</sup><https://pib.gov.in/newsite/PrintRelease.aspx?relid=118620>

## FORTIFYING FOR HEALTH

According to the National Family Health Survey- 4, 2015-2016, anaemia is widely prevalent in Maharashtra. 53.8% of children below the age of five and 48% of women aged 15-49 are anaemic in the state. However, there is strong research to demonstrate that consumption of iron-fortified foods and other micronutrients can be effective tools in the fight against anaemia.

With the overarching objective of anaemia reduction, the Tata Trusts have effectively harnessed the public distribution system (PDS) in Gadchiroli district in Maharashtra to distribute fortified rice, using a domestically manufactured 'rice grain' called Fortified Rice Kernel (FRK). FRK is made from rice flour, highly enriched with iron and other micronutrients (folic acid and vitamin B12) and mixed into conventional rice in specified ratios. The blending of FRKs with micronutrients such as vitamin B12, folic acid and iron is done on miller premises at Gadchiroli, in accordance with guidelines outlined by the Food Safety and Standards Authority of India in 2016.

To assess the impact of the intervention, a pilot study was conducted with Kurkheda and Bhamragarh serving as intervention blocks and Etapali as the control block. The study subjects were assigned to a group, which received fortified rice, while a comparison group received regular rice. Distribution in both the cases was through PDS, and data for each group was collected prior and subsequent to the intervention.

The findings of the study were divided into three different categories – to highlight: (i) the attributable changes in consumer behaviour; (ii) the impact of fortification on

body chemistry (i.e. haemoglobin levels and presence of other micronutrients); and (iii) programme feasibility based on in-depth interviews conducted with key facilitators of the pilot programme.

### The findings revealed:

- 1) Positive changes in knowledge of practices related to fortified foods in both intervention and control blocks, as a result of the awareness campaigns;
- 2) The BMI status of mothers (19-49 years) and adolescent girls (10-18 years) had improved in the intervention blocks. They also had increased awareness of fortified foods, health, hygiene and WASH components;
- 3) Improvement was found in child rearing practices in the intervention blocks along with enrolment of more children at anganwadis; and receipt thereon of fortified hot cooked meals.

Going forward, these learnings will influence decisions to scale up fortified rice distribution to all blocks of the district. Discussions are also underway with the state government to fortify other food items like wheat flour, millet, vegetable oil and distribute them through PDS for greater strides in achieving an Anaemia Mukta Bharat.

Shri Shekhar Singh, IAS, District Collector, Gadchiroli adds, "The Gadchiroli pilot demonstrates a cost-efficient value chain model, which can be scaled across the district."

\*A total 121,637 individuals were covered during the pilot, with a total quantity of 68,000 quintals fortified rice produced and distributed over a period of 12 months.



A beneficiary from Gadchiroli, Maharashtra receives iron-rich fortified rice.

PROJECT ALIGNS WITH **SDG**

**2** ZERO HUNGER



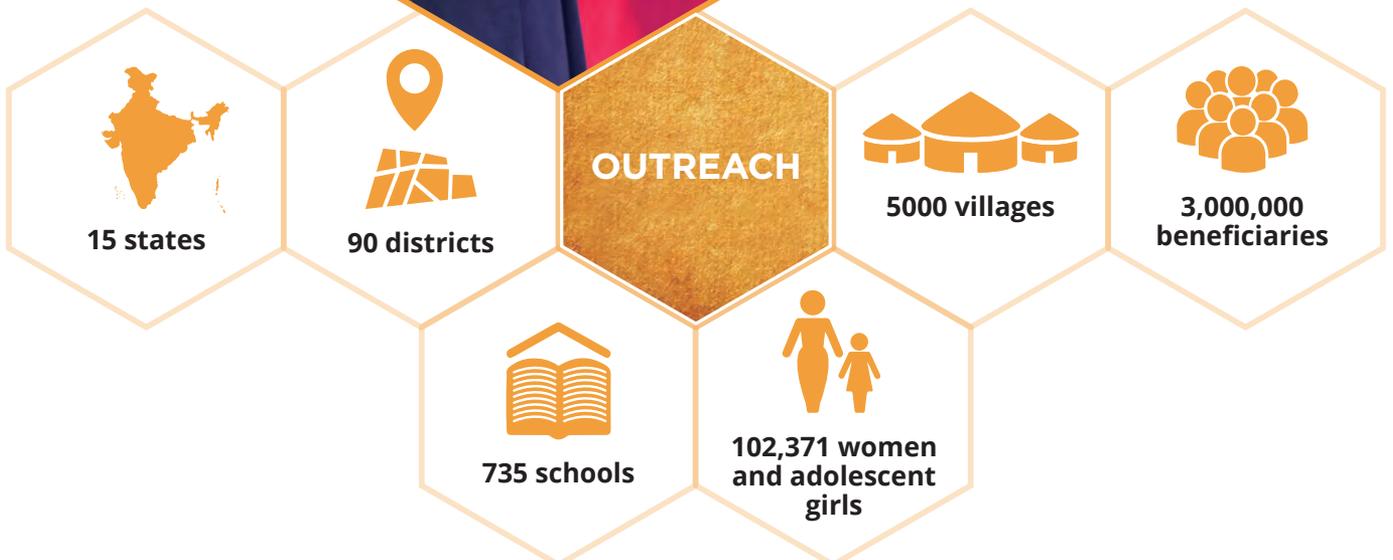
PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING



# Water, Sanitation & Hygiene



*A young schoolgirl demonstrates proper hand washing with the help of a Community Resource Person in a school at Dahod, Gujarat.*



# CREATING A HEALTHY FUTURE WITH WATER

## Overview

The Tata Water Mission (TWM) serves to create a healthy future for underserved communities through improved access to safe, assured and adequate drinking water and improved environmental sanitation. The mission advocates a decentralised, demand-responsive and community-managed approach to achieve the goal and is aimed at promoting innovative, technological and economically sustainable solutions. Integrated Water, Sanitation and Hygiene projects, comprising hardware and software components, ensure an overall increase in the quality of life of beneficiaries. The various sub-themes under TWM are listed as under:

**Water:** To address emerging challenges with regard to water availability and quality across underserved communities through innovative technologies and community-driven approaches.

**Sanitation and Hygiene:** To provide infrastructure and address behavioural issues with regard to sanitation related to usage and maintenance.

**Water Conservation:** To provide adequate infrastructure and enhance the capabilities of communities to adopt conservation measures through rainwater harvesting, groundwater recharging, etc., and meet the current demand for water, while focussing on ensuring judicious usage to ensure sustainability. Further, it is aimed at ensuring overall water management, creating awareness about the supply-and-demand gap and to make communities self-reliant for their drinking, domestic and agricultural water needs.

**Menstrual Hygiene Management (MHM):** To impart awareness and change the notion of impurity associated with menstruation, thereby normalising it. Additionally, to ensure that women make informed choices with regard to practices followed during menstruation from absorbents to myths, etc.

**Mission Garima:** To create safe, healthy and humane working conditions for the conservancy workers of Mumbai and to create awareness about the segregation of waste among urban communities leading to behavioural change.

## Key Achievements\*

**a.** 3 million individuals in 5,000 villages across 15 states were covered over a period of five years.

**b.** New environment-friendly and affordable technologies focusing on arsenic, iron and fluoride removal; in-line Chlorination; and household level

purification systems were successfully piloted.

**c.** Partnerships were built with like-minded foundations and CSRs of organisations such as Tata Global Beverages Limited (TGBL), Titan, Arghyam, Uday Foundation, HT Parekh Foundation, Bill & Melinda Gates Foundation (BMGF), London School of Hygiene and Tropical Medicine, NSE Foundation, Bharat Petroleum Corporation Limited (BPCL), Tata AIA, CEIL, HPCL, etc.

**d.** 99,795 women and adolescent girls in 962 villages across 8 states were covered under the Menstrual Hygiene Management programme. A 'Celebration of Menstrual Health & Awareness Day' was conducted on February 5, 2020 in 67 schools across 8 states, covering 4208 girls.

**e.** Under the Mission Garima project, the Trusts distributed Personal Protective Equipment (PPE), including hand gloves, masks, raincoats, safety boots, etc., to 60 sanitation workers in Goregaon, Mumbai working for the Solid Waste Management [SWM] department of the Municipal Corporation.

**f.** The Trusts released a communication campaign, Two Bins Life Wins, urging citizens to segregate their waste, which could help save the lives of conservancy workers. It garnered over 7 million views and support from influencers and prominent personalities of the country.

**g.** A first-of-its-kind model chowki was constructed by the Trusts in L ward in Kurla, equipped with washroom facilities. Conservancy workers assemble in the chowki for attendance and, post work, take a well-deserved rest. The facility has proved to be a morale booster for the conservancy staff.

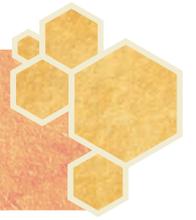
**h.** The WASH in Schools programme was expanded to Maharashtra with a planned intervention of 72 schools. The programme covered 45,000 children across India during the year.

**i.** Over 62,630 beneficiaries across 675 villages in Maharashtra benefited through the creation of over 10.5 billion litres of water storage potential, under the Trusts' 'Drought-free Maharashtra' project, in partnership with the Government of Maharashtra's flagship 'Jalyukt Shivar Abhiyan'. The government provided fuel, whereas the Trusts provided machinery such as excavators and backhoe loaders.

**j.** Over 318,500 litres of drinking water were dispensed to 21,200 households across 60 flood-hit villages in Sangli and Kolhapur districts in Maharashtra post flooding due to heavy rains in August 2019.

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

# A DETERMINED WOMAN CAN CHANGE BEHAVIOURS FOR GENERATIONS



Set in the deep tribal Pali district of Rajasthan, Bothara is a small village situated in the Amilya Panchayat of Bali Block. With a total of 170 households and a majority of them belonging to a Scheduled Tribe, today this village is making waves because of women like Nathi Bai, who wish to become proud owners of their own toilets. This has paved the way for her to avoid open defecation - and the lack of dignity that comes with it.

Living a life with no expectation of change, Nathi Bai was part of an enthusiastic audience of the Thematic Show on Sanitation initiated by Centre for microFinance, an associate organisation of the Tata Trusts, as a part of a behaviour change campaign in her village. To trigger a change towards adequate and sustainable WASH practices, CmF adopted a creative and participatory tool in the form of Social Art. Incidences, situations and themes were selected from day-to-day community life and were incorporated in the art forms using local jargon in order to resonate with the community and generate empathy. Further, the art forms ranged across different disciplines, including folk songs, drama, thematic shows and puppetry, and were accompanied by social commentary to build a conducive environment to ignite interest and retain the message, as well as create a willingness to construct toilets.

Nathi Bai was deeply moved by the thematic show, but she had yet to find a way to overcome the financial challenge she would face. Her husband, Moti Ram was not in good health and she was the

only earning hand in the family. However, during a follow-up to the thematic show, a Door-to-Door campaign by the CmF team, she found an opportunity to express her concerns. The team informed her of the sanitation financing process, which was initiated by CmF and partnered by the women's federation, Ghoomar. Under this process, the members of the Federation could apply for a loan to construct a twin pit household toilet. The Federation would procure construction material and disburse it to the members in the form of a loan @ 6% annual interest rate. The repayment of installment, construction and use of toilet were to be monitored by the concerned SHGs.

In a matter of days, Nathi Bai, upon applying, found construction material worth ₹12,000 delivered to her doorstep. The project team had already conducted a regular series of trainings for many masons to help with the construction of twin pit toilets.

Thus, getting the construction material in the form of a loan and a trained mason to construct the toilet basis her requirement was a win-win situation for Nathi Bai.

Today, Nathi Bai and her family are among the proud owners of a twin-pit household toilet, made possible by her sheer determination. This will not only benefit her entire family, but future generations too, as they can adopt healthier hygiene practices with ease.

## TRANSFORMATIVE JOURNEYS



Performance of social art as a tool to educate villagers for constructing toilets at Pali district, Rajasthan.

PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING

PROJECT ALIGNS WITH **SDG**  
**6** CLEAN WATER AND SANITATION

World Water Day celebrations at Pokhari village, Pithoragarh district, Uttarakhand.



## HOPE SPRINGS AGAIN

Pokhari village, located in Gangolihat block of Pithoragarh district, Uttarakhand is one of the many villages in the state facing water scarcity. A total of 60 households in Pokhari village are dependent on a natural spring for drinking water, as well as water for domestic use and irrigation. In 2011, however, a significant reduction was noticed in the spring discharge and, ever since, Pokhari village has faced acute water scarcity. Gradually, during the lean season (May-June), the spring discharge, which used to be 5 litres per minute (lpm) in the past, reduced to 2 lpm.

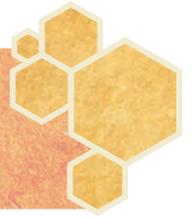
A study was conducted to understand this change, which included a preliminary (pilot) survey, a hydrogeological survey, the preparation of a hydrogeological cross section / maps and data analysis. The hydrogeological survey conducted for the demarcation of the recharge area of the spring, revealed that the entire ridge of springshed was made up of a sequence of metamorphic (hard) rocks. This sequence of rocks is overlain by a layer of Colluvial sediments or deposits (formed at the base of the ridge due to movement of rock mass under the influence of gravity). As a result, the water infiltrating at the top of the ridge flowed downwards through the fractures and along the dip of the rocks.

In 2016, the Pokhari village spring was selected for springshed management by Himmotthan Society, an associate organisation of the Tata Trusts.

The total recharge area of the spring was 4 Hectares (Ha) and treatment area was 3 Ha. The recharge area was occupied by pasture land, besides Oak and Pine trees. The geo-morphological slope of the hill was towards a South-East direction, while the slope percentage range of the springshed was 30-35 degrees. Interventions were carried out, which focused on water recharge structures known as Staggered Contour Trenches, along with the construction of a few percolation pits. A total volume of 769 cubic metres of recharge work was completed by 2016.

To ensure that the community would be empowered to look after their own springsheds, the User Water Sanitation Committee (a sub-committee of the Gram Panchayat (GP), entrusted to look after the water and sanitation related works at the village/GP level, was supported by Himmotthan Society to carry out the recharge interventions. The villagers were trained to form a pool of village level para-workers, who could manage the springsheds in the long run. These trained para-workers look after the operation, maintenance, protection, conservation and management of the springshed in their area. After the springshed management interventions, the spring discharge gradually increased. The discharge was seen to rise from 2 lpm back to 5 lpm, even during the lean season - proving that hope can indeed spring again.

## THE MAGIC OF SOIL AND SILT: UNEARTHED BY A TRADITIONAL METHOD



Natural or man-made reservoirs play an important role in water security in many parts of India. These are not only sources of drinking water and water for agriculture, but also promotes recharging groundwater. However, if these reservoirs are not regularly desilted, they tend to fall into disuse and can no longer be depended upon to provide water. There are quite a few such reservoirs in Maharashtra.

The Government of Maharashtra initiated the Gaalmukt Dharan Gaalyukt Shivar Yojana (GDGS) to revitalise small dams and reservoirs and rejuvenate their utility. The scheme, implemented by the Tata Trusts under its Tata Water Mission, with its NGO partners Yuva Mitra and Lokpanchayat, worked to desilt tanks and reservoirs, helping to increase not only their capacity to recharge groundwater but also to provide water for a longer duration during the summer months, whilst the silt removed from the tanks was used to rejuvenate the soil in the area, thus reducing the need for a considerable amount of fertilisers.

Ramesh Shankar Hande, hailing from Mirzapur village in

Ahmednagar, Maharashtra, owns a little more than an acre. His land was partially cultivable, remaining being wasteland.

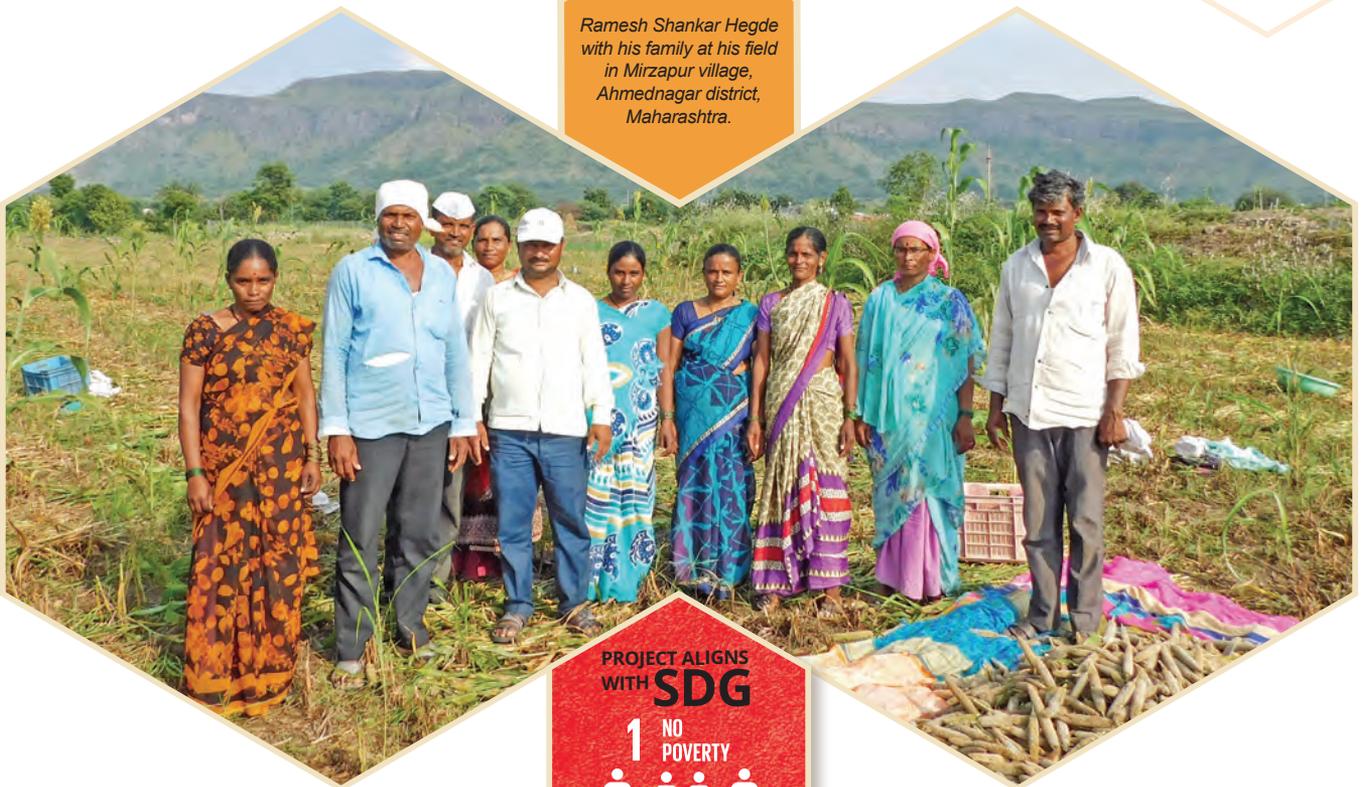
Inspired by the desilting awareness drive being conducted through the joint efforts of Tata Trusts, the Yuva Mitra team and the Lokpanchayat, Ramesh decided to improve the fertility of his land by adding silt from the water body sites, near his field.

With a one-time investment of ₹40,000, Ramesh managed to transport approx. 800 cubic metres of silt onto his wasteland. He was able to grow agricultural produce in the same season.

In the last season, Ramesh's land fetched him onion, bajra, jowar, wheat and maize. Compared to his usual income of ₹10,000, he earned ₹55,000 in just two seasons, fully recovering his investments in the first year itself.

Ramesh joyfully says, "Now I do not regret my decision of investing ₹40,000 towards improving the quality of my land. My dream has come true and I can finally fully utilise my whole land for agriculture and earn more."

*Ramesh Shankar Hegde with his family at his field in Mirzapur village, Ahmednagar district, Maharashtra.*



CRP Shyama Devi conducting a session with women at Bahraich, Uttar Pradesh, to raise awareness about menstruation.



## FROM APPREHENSION TO APPRECIATION: A STORY OF CHANGE

Ms. Shyama Devi, a Community Resource Person (CRP) under the project Astitva, a Menstrual Hygiene Management programme of the Tata Trusts, was conducting a session in the Gram Panchayat Saughan (Chamelipurva) in Fakharpur block of district Bahraich, Uttar Pradesh. She asked women gathered for the session about their “first experience” of menstruation.

Manju Devi, a fellow participant, shared her first story with great hesitation. She narrated that, in the beginning of menarche, for months she thought she had contracted a disease. Embarrassed, she didn't share this with anyone. She kept herself aloof, did not even eat properly on her menstruation days. This impacted her mental health and made her physically weak too. After six months, she visited her grandmother and opened up to her. That is when she first got to know that it's a

monthly cycle and happens to every woman.

After sharing at this session on MHM, Manju was a changed woman. She became a regular at these meetings and also helped the CRP in gathering other women from the village.

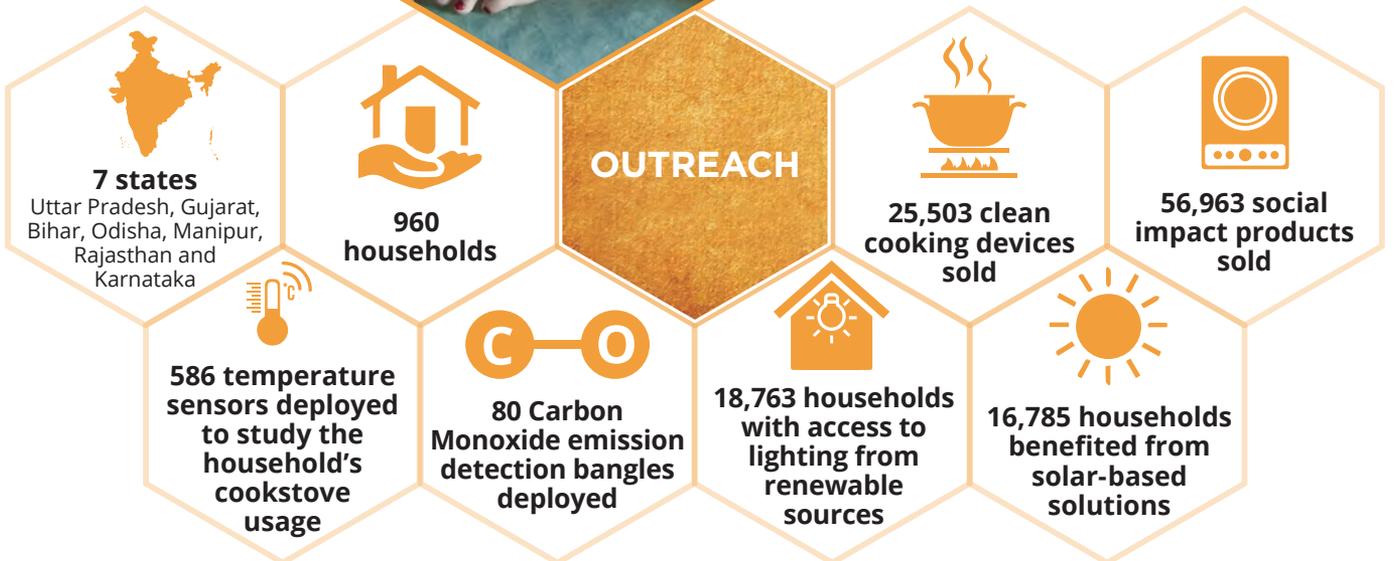
Today, she not only believes that periods should be discussed openly, but also propagates mother-daughter conversations before the onset of periods of the girl. She thinks that this will help girls to understand menstruation better and reduce panic and hesitation.

Manju now works as a 'period volunteer' in her village. She has shed off her veil of shyness and now openly discusses periods with women and adolescent girls and boys embodying the motto of 'Jaano samjho samjhao'.

# Environment and Energy



A college student at Anjana Village, Uttar Pradesh using a clean cooking device.



**Overview**

Climate-linked environmental issues are now the biggest risks of our time. Four of the top five global risks of 2018 are related to the environment.<sup>1</sup>

In 2012, only one of the top five risks was environmental. India is vulnerable to climate change due to its high risk-exposure and limited ability to respond.<sup>2</sup> Responding to the climate challenge, the government has led by setting ambitious targets. India is the only country among the top 10 emitters to conform to commitments made in Paris. Yet, India's climate response faces challenges across resources, awareness and expertise.

With this realisation, the Tata Trusts have striven to align and support solutions which create a stable climate, enabling sustainable development on all counts – ecosystems, economies and communities. It has committed resources to solutions which strengthen the resilience of vulnerable communities and make them adaptable to the impact of Climate Change.

In the case of land use, given the important role it plays in combating climate change, the Tata Trusts have focused on:

- a. Ensuring the conservation of terrestrial ecosystems and biodiversity
- b. Preserving and increasing forestlands and driving low-emission farm practices
- c. Promoting equitable land rights and the use of land resources
- d. Enhancing the water table; protecting and restoring water-related ecosystems
- e. Improving agricultural yields and food security
- f. Improving incomes and building the resilience of vulnerable populations

The Trusts have also focused on enabling solutions which impact vulnerable communities in urban areas. India's growing urbanisation challenges include air pollution and inefficient plastic and solid waste management, which have affected health, infrastructure and day-to-day living and placed immense strain on the environment. The Trusts' efforts include rapidly scaling action on air quality for the dual purposes of improving public health and accelerating decarbonisation. For efficient plastic and solid waste management, awareness



*Community involved in the restoration of pasture land for a sustainable future under MGNREGA.*

<sup>1</sup>Global Risks Landscape, World Economic Forum, 2018

<sup>2</sup>HSBC Report, Fragile Planet, 2018

and advocacy campaigns are being developed, targeted at key stakeholders, including civil society, to adopt environment-friendly practices and those which drive behaviour change.

In due course, what has become increasingly clear is the necessity to create societal platforms to address each issue in a way that was thoughtful and collaborative and would maximise impact. The Trusts acknowledge that solving these problems would be more effective if it could bring in partners – whether in government or the private sector – to maximise the sweep of the impact.

To meet this objective, the Tata Trusts have seeded the India Climate Collaborative (ICC) - an India-led platform bringing philanthropies together to accelerate India's development, while exceeding its climate goals. The vision of the ICC is a thriving world, where India shapes the global climate change movement. The Trusts' belief is that this platform will substantiate the necessity for India to contribute to the global climate agenda and its impacts on the populations of developing nations. The Trusts also collaborate with a wide range of NGOs, corporates, government agencies, communities, and climate experts to accelerate climate action.

In the long run, partnerships and collaboration will form a strong foundation for global progress. The goal of the Tata Trusts is to advocate for policy, and to facilitate alignment of solutions among international and local institutions and individuals, in which each leverage their strengths to accelerate change, solve the climate change challenge and ensure a sustainable future.

## Key Achievements\*

- a.** Preparation of two landmark knowledge documents; these being: (a) The State of Air in India, a primer on air quality management; and (b) Guide to Impactful Climate Philanthropy in India, a memo prepared for Jeff Bezos.
- b.** Convening with Shakti Foundation to facilitate an Air Quality ecosystem along with an Air Quality Funders Table to introduce over 30 Indian donors to air quality management.
- c.** Identification of 10 fundable opportunities for the Climate Leadership Initiative (CLI) to make impactful philanthropic climate investments in India by introducing them to 10 non-profit organisations.
- d.** Hosting a workshop on climate journalism with PARI (People's Archive of Rural India), where over 40 journalists were trained on climate and environmental storytelling, leading to recommendations that were adopted by the Ministry of Environment, Government of Maharashtra.

- e.** Proposing a set of recommendations to the Fifteenth Finance Commission to strengthen India's forest sector through inter-governmental fiscal transfers.

- f.** Hosting a sustainable land use convening that brought together 80+ cross sectoral actors to spotlight innovative solutions and champion land use as a climate solution.

- g.** Launching the India Observatory (IO), which aims to demystify and present comprehensive information on India's social, ecological and economic parameters to guide informed decision-making at local, regional and national levels.

## Future Plans

- a.** Facilitate alignment of solutions among international and local institutions and individuals in which each leverages their strengths to accelerate change.
- b.** Encourage other portfolios within the Trusts' areas of engagement to apply a sustainability lens across their programs.
- c.** Stimulate more widespread, informed conversation around climate change and climate action.
- d.** Develop knowledge products to improve theoretical understanding of climate change and simultaneously provide technical guidance to support real climate action.
- e.** Advocate for policy.

## Good Practices

- a.** Every intervention designed strives to integrate outputs which significantly improve Human Development Indicators, along with ecological indicators.
- b.** Striving to build capacity in small institutions to drive change at systemic and field levels.

### Overview

There is a strong connection between the reduction of poverty and access to sustainable and clean energy. The challenge in ensuring access to energy is to facilitate availability of energy and appliances, which are affordable and reliable, whilst also meeting user requirements and consumer preferences. Additionally, it is becoming increasingly imperative to develop decentralised renewable energy systems that are optimally utilised for household, livelihood and community needs. The Trusts' strategy is to identify the gaps, innovate solutions that are reflective of context, ground-test them through pilots and subsequently, upscale the most effective solutions in conjunction with sustainable financing models.

The two major initiatives under this theme are: (a) the Clean Cooking Programme; and (b) the Solar Energy Programme, both of which respectively aim to make sustainable clean cooking, social impact products and solar solutions available and accessible to underserved communities in rural, tribal and semi-urban areas. Designed with context to the geography, clean cooking solutions such as improved cook stoves, induction stoves and other social impact

products are promoted and sustainable financing is established as part of the chain. Research is also being conducted to define and increase the adoption of clean cooking solutions in rural and tribal households and facilitate displacement of traditional cook stoves. The efficiency of Carbon Monoxide Emission Level (COEL) bangles, as a behaviour change tool, is also being tested within a targeted sample. These bangles will measure carbon monoxide and warn women about indoor air pollution.

Solar energy is being used to address household, commercial and community energy needs in vulnerable off-grid and weak-grid regions, in conjunction with a variety of delivery models and financing systems.

Partnerships have been established through SUSTAIN+, a pan-India platform that focuses on decentralised renewable energy as an enabler for poverty alleviation. Through this platform, renewable-energy-technologies will be integrated with different thematic areas towards solving some of the pertinent challenges faced by rural, tribal and urban communities.



*A group of Manipuri women in their workshop equipped with solar-powered sewing machines.*

## Key Achievements\*

- a.** As part of action research on creating a shared framework and roadmap towards the sustained adoption of clean cooking solutions in India, two out of the four surveys planned were conducted and temperature sensors were installed in 361 households in Gujarat, Uttar Pradesh and Bihar, resulting in rich data, establishing the foundation of the research.
- b.** Following a literature review and stakeholder consultations, the Adoption Matrix was developed, which is focused on developing a shared understanding and definition of adoption along a multi-dimensional and multi-staged continuum.
- c.** A behaviour change communication campaign, geared towards raising awareness on the hazards of indoor air pollution and the benefits of clean cooking options, aiming to catalyse both the purchase and usage of several solutions, was executed in select districts in Gujarat and Uttar Pradesh. Over 24,000 households were covered through door-to-door interactions, nukkad natak, wall paintings, community and school events that were conducted in 16 villages.
- d.** 10,000 12-Watt solar LED street lights with motion sensors were installed in 183 villages of Pali constituency in Rajasthan. These automatic lights operate from dusk to dawn at two intensities of brightness for maximum efficiency. The aim of this initiative is to provide reliable, renewable lighting in rural public spaces.
- e.** In Manipur, the Trusts partnered with 5 local NGOs to facilitate access to affordable and sustainable solar-powered systems for household home lighting, community lighting and livelihood generation. Currently, 1,010 systems have been installed in select districts of Manipur.

## Future Plans

- a.** Test and pilot innovative technologies with increased efficiency and reduced costs that meet the cooking requirements and cultural styles of communities. Those that perform well would be scaled up.
- b.** LPG access across the country has increased with the implementation of the Pradhan Mantri Ujjwala Yojana; yet, refill rates remain an issue with the barriers of cost still in place. Financing systems will be piloted to address this barrier and its impact on the adoption of LPG will be studied.
- c.** Take steps to transform the efficiency of Decentralised Renewable Energy (DRE) initiatives towards poverty alleviation. SUSTAIN+ would be

an active platform of like-minded organisations that would commit to developing and upscaling integrated development solutions.

- d.** Actively transfer knowledge and promote capacity building and skill development of stakeholders through training, exposure, interactions, collaborative programme designing, etc.
- e.** Stabilise activities on ground, given the COVID-19 pandemic and build strategies to overcome this challenge.

## Best Practices

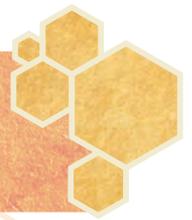
In-depth research is being conducted in the clean cooking sector, which aims to identify, define and measure the barriers and drivers of sustained adoption of clean cooking solutions. This transparent and verifiable data will be invaluable, not only in measuring and mapping the types of interventions that can deliver results, but also in understanding how to utilise such data to manage improved iterations of programmes over time and inform fund flows for sustained impact.

Several innovative technologies, supply systems and financing mechanisms for household, livelihood and community requirements are being tested within the energy portfolio. On the basis of these pilots and trials, technologies and programmatic components that have performed well and show potential are being scaled up. Design guideline documents are being prepared to smoothen the process and increase the understanding of the implementing team.

## Challenges Faced

- a.** Challenges in piloting new mechanisms – Various financing mechanisms have been developed to provide sustainable and affordable solar solutions to the community. However, there are challenges faced whilst using these mechanisms (such as the Risk Guarantee Fund) through formal banking institutions. A series of legal approvals and some bothersome processes are necessary, prior to these financial institutions being able to lend to individual families for implementing solar energy systems, thus delaying implementation on ground.
- b.** The high cost of technology is a constraint. Some solutions are very effective, but not affordable to all segments of society. Multiple pilots and considerable support is required to facilitate adoption of such technologies.

## LIGHTING UP A SENSE OF DIGNITY



Phairembam Santibala Devi, a 55-year-old widow, stays at Moirang Khunou, Awang Leikai village in Bishnupur district, with her two granddaughters; her daughter pays a visit occasionally. She makes a living by baking eatables, such as namkins, bhujias, local sweets, etc. and selling them to local vendors and sweet shops. Earlier, she used to run a rice hotel at Moirang bazar, then moved to selling fish and now baking eatables. There has been a gradual shift in her livelihood sources due to various challenges arising from her increasing age and societal conditions.

Santibala Devi needed a proper source of electricity to bake and carry out activities indoors. However, her home was not connected to the grid system and she wasn't aware of the current prepaid connection system, recharging of the electricity bills and its maintenance. She didn't have any support as her granddaughters were too young to handle the responsibility. At times, she was forced to work during the night hours to complete baking the eatables. She was forced to use candles and kerosene for her work. She herself describes the situation as, "...though they seem to be trivial issues for common people, it is very important for me to have a proper and reliable lighting source."

The Tata Trusts' initiative 'Ensuring energy security for communities living in remote areas in Manipur' gave her

some hope. Santibala took this opportunity and contacted Chanura Microfin Manipur (CMM), one of the implementation partners of Centre for Microfinance & Livelihoods (CML), an associate organisation of the Tata Trusts.

She took a loan of ₹18,300 from CMM to avail five 5W LED bulbs powered by solar energy to provide light for 4-6 hours in a day with 3 days of autonomy. This means that she could now light the bulbs for 4-6 hours in a day even if there was no sunlight or electricity from the grid. Moreover, a service provider had been identified to support her, in case any fault or an issue develops in the solar energy system. Sufficient light to carry out her income generating activities has made Santibala Devi independent. She feels proud to own a lighting system without being dependent on anyone.

She feels very relieved. Installation of the solar lights has helped her with increased income because she was able to put in more working hours. It has also helped her granddaughters to study diligently without any interruptions.

She said, "Earlier things were expensive and the situation was uncomfortable. But after Chanura's solar light, I am free from both embarrassments of not delivering orders of customers on time and high expenses."



**TRANSFORMATIVE JOURNEYS**

*Phairembam Santibala Devi from Bishnupur village shares the positive impact solar lighting has had on her business.*

PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING

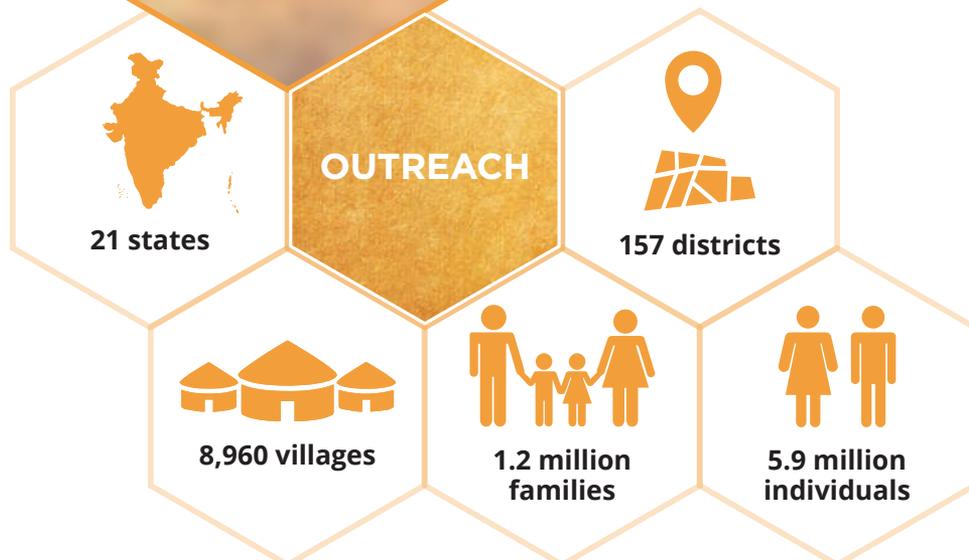
PROJECT ALIGNS WITH **SDG**  
**7** AFFORDABLE AND CLEAN ENERGY

PROJECT ALIGNS WITH **SDG**  
**8** DECENT WORK AND ECONOMIC GROWTH

# Livelihoods



*A community resource person undertakes a visit to a farmer's field in Rehra Bazaar, Balrampur, Uttar Pradesh.*



# COMMUNITY-BASED INTERVENTIONS TO IMPROVE RURAL INCOME

## Overview

According to the statistics from the Asia Development Bank (2011), 21.9% of India's population (approximately 363 million) live below the poverty line. Of this, the rural poor account for nearly 260 million (C. Rangarajan Committee Report, 2014). While the strides that India has made economically on the global platform have helped reduce the number, over two-thirds of the population continues to live in rural and semi-rural areas, where each day is a struggle to feed the household.

It is not easy to sustain a poverty eradication mandate in the long run, across a country as varied in topography and culture as India. In the 2019-20 Sustainable Development Index, India slid back several points on many indicators. While the country's overall score of 60, according to the Sustainable Development Goals Index 2019-20 released by the NITI Aayog, was three points above its 2018 standing (primarily due to better performance related to water and sanitation, affordable and clean energy, as well as industry, innovation and infrastructure), the overall performance is not encouraging.

While all but five states and union territories have improved or retained their overall composite score from 2018 to 2019, the magnitude of change has been varied. Uttar Pradesh, Odisha and Sikkim have shown maximum improvement, while states like Gujarat have not shown any improvement vis-à-vis the earlier ranking of 2018. While Bihar improved its overall score from 48 to 50 in 2019, it is still the worst performer on the SDG India index 1. None of the states are on track to the SDP goal of 'No Poverty by 2030'. In fact, 14 states and 3 UTs have fallen behind in the aspirants category (with Index score less than 50). States like Chhattisgarh and Jharkhand, which are the poorest, still have 40 and 37 percent of their population under the poverty line, which has dogged the regions for generations.

While there are several factors why rural households get stuck in the poverty loop, the main reason still remains the dependence for food security and basic income on a monsoonal agriculture. Such households stretch across the length and breadth of the country, from the forests of Arunachal Pradesh, to the stronger states of Tamil Nadu, Andhra Pradesh and Karnataka in the south, to the central India tribal belt, and the plains of the west and north.

Across these hugely varied geographies, poor households play out the same exhausting list of activities on a daily basis. Such as, walking to collect water from far off and probably unclean sources, tilling infertile soils on tiny pieces of land, working by hand with minimal use of modern farming methods. They have little or no reach to technology or facilities to guide them through more efficient processing of what they grow, and they even lack access to dependable markets.

The fact that irrigation across the country remains largely dependent upon the monsoons, assures a lack of productive returns from their fields. For these families, the next generation is usually a poorer household where, in fact, the intensity and distress is likely to be greater. Further, the new generation probably has less access to livelihood resources such as land, forest and water. Certain traditionally poor communities in established earmarked geographies of the poor, are even showing an increase in chronic poverty where the slightest problem, a death or illness in the family, pushes them to desperation. These are the areas where unsustainable attempts at poverty eradication can make the situation worse. Surveys have identified 15 main chronic poverty regions spread over six states - Odisha, Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Bihar and Telangana - where poverty is getting concentrated. These areas also host India's 200 poorest districts.

Under the Rural Upliftment portfolio, the Trusts aim to work with the rural poor, particularly women, in an equitable and sustainable manner through ensuring better access to assets and services, and control over productive capital. The focus is largely on the alleviation of poverty through the increase of incomes, by the creation of basic social and economic infrastructure. This is supported by intensive training imparted to rural women and youth, providing skills and employment to marginal farmers. The creation of embedded entrepreneurs within a production framework, where their training is linked to ongoing job creation activities, allows for long term sustainability of the system. The bottom-up approach to both resource production and job creation implies that the jobs are a response to a felt need, while allowing for the outward growth of the market. Sparks of innovation either evolve or are brought in through research and development in the various aspects of resource use, processing, marketing, entrepreneurship and programme management processes itself. These lead to

successful pilots, which are then scaled up, often across geographies.

The portfolio has grown around a central theme of community strengthening and growth. Integrated, community-based interventions that strive to improve rural incomes through improved farming practices, water management, soil conservation, livestock and animal husbandry, market linkages, crafts, etc. are at the core of the portfolio. Working closely with locally-influential stakeholders, including relevant government departments, civil society and market influencers, is part of the process.

Livelihood-centred interventions are designed around local or regional needs established using baseline studies. Interventions include promoting suitable Package of Practices in agriculture, end-to-end (i.e. from production to market) value chains for farm and non-farm produce, setting up poultry, dairy, fishery, piggery, non-timber forest produce (NTFP) and high value agriculture or micro enterprise-based income opportunities in areas where crop incomes are highly variable. The idea is to establish a range of household interventions in stressed regions; for example, launching irrigation management projects in water-stressed areas or assuring un-interrupted market reach for dairies in the central Himalayas.

Integrated programmes ensure benefits accruing from an overlap of several different themes and projects for the same household (agriculture/horticulture with animal husbandry, irrigation systems, energy, etc.) push the community towards long-term sustainable incomes, at the same time buttressing the carrying capacity of the environment which hosts the interventions. Hence, springshed development overlaps in regions of the Himalayas,

where work on irrigation systems is ongoing. Fodder production and animal feed units are set up where animal husbandry is part of the system. The Lakhpati Kisan model, which aims to integrate different production options to push a household's income above ₹1 lakh a year at the least, is now one of the Trusts' flagship programmes, replicated across 6 states with more to go.

Further, from the point of view of sustainability, the dependence on the 'outside' for resources is often a reason why rural development is held back in remote areas. Consequently, the establishment of 'Seed Villages', which produce the seed of selected crops and vegetables, are established across the Trusts' Himalayan programme, from the central Himalayan to the North-East regions. Poultry clusters in remote regions have their own incubation and hatchery units and agricultural projects integrate fertilisation using compost and other similar options. This ensures that interventions do not collapse if 'outside' markets wobble.

Most rural development interventions of the Trusts are implemented through either the Associate Organisations, which are spread across the poorest regions of the country, or select Partner Organisations that bring innovation and ideas to the table. As mentioned above, collaborations with central, state and local governments, as well as with the corporate and social sectors, allow for the optimal utilisation of funds and delivery of results at scale. Knowledge and understanding of geography-specific requirements come from local agricultural universities, farmers' federations and a body of experts associated with the programmes.



Local bird-based poultry initiative at Satagad village. Tehri Garhwal, Uttarakhand.

## Key Achievements\*

**a.** 6 million people benefitted from the programmes under the Rural Upliftment Portfolio, of which, 900,000 were added during 2019-20. This translates to about 2.7% of the rural poor population of India.

**b.** The Trusts have collaborated with the National Rural Livelihoods Mission (NRLM) through MoUs to provide technical support in 4 states for strengthening community institutions, agriculture and allied livelihoods and enterprises. NRLM funds to the tune of approximately ₹ 400 million were leveraged by the Trusts and partners for Self Help Groups (SHG) promoted with the Trusts' support for accelerating community investment in livelihoods.

**c.** Under the Tata Dairy Mission, the programme operationalised by DHANII facilitated an average procurement of approximately 151,000 litres of milk per day, with 47,000 members providing milk across 918 villages under the programme. So far, five Milk Producer Companies (MPC) have been established and operationalised by DHANII; 2 in Rajasthan and 1 each in Uttar Pradesh, Maharashtra and Punjab.

**d.** Under the 'Centre for Excellence in Agricultural Development (CEAD)' programme, a comprehensive study was undertaken, in partnership with Arya, to identify Farmer Producer Organisations (FPO) clusters for effective market integration, covering 45 value chains across 49 FPO clusters in 18 Indian states.

**e.** The Open Source Fisheries programme benefitted approximately 34,000 farmers through improved Package of Practices for producing quality fishes and ecosystem development through allied value chain activities, with a production of table fish valued at approximately ₹ 300 million through locally-sourced and sustainable inputs.

**f.** In the Rural Tourism programme, a pilot was undertaken with Him Vikas Cooperative, supported by Himmotthan Society (an Associate Organisation of the Trusts), that tripled the revenue share of the federation from community-based tourism.

**g.** 1,250 micro enterprises were operationalised by individual/group entrepreneurs.

**h.** Under the Water and Irrigation programme, in partnership with Yuva Mitra, 240 water conservation structures were desilted across 148 villages, creating irrigation potential across 4,200 acres of farmland. The excavated silt additionally benefitted 3,915 farmers, who applied the silt over 5,735 acres of farmland.

## Future Plans

**a.** Upscale interventions to cover around 7 million rural poor by March 2021, thereby increasing the total coverage of national rural poor to 3.2%.

**b.** Increase focus on processing, packaging and transport systems to address the end-to-end value chain of agriculture from production to marketing of agricultural produce.

**c.** Organics, although still up for debate in various locations vis-à-vis viability and sustainability of value chain, will be an area of growth, based on rising market demand.

**d.** Increase focus on strengthening value chains along with Farmer Producer Organisations.

## Challenges Faced

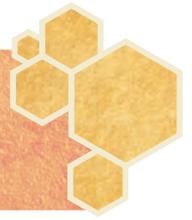
**a.** Skilled and motivated staff in the field are difficult to recruit and retain. However, good work done in regions attracts qualified people. Alternately, the Trusts train their own teams – which is an active, ongoing process.

**b.** Raising funds through government schemes/ NABARD, etc. often takes considerable time, over and above the planned timelines. Networking and constant follow-up are necessary; at the same time, flexibility in the programme design is often required.

**c.** One of the major challenges coming up due to the Covid-19 pandemic is the reverse migration of people due to the state imposed lockdown. As the crisis destroys the economy and reduces employment opportunities, indigenous migrant workers returned to their native places, creating a huge gap in job availability versus demand in rural areas.

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

## A FIERY CROP, A PHENOMENAL SUCCESS



Lakhpata, a 42-year-old farmer who lives in Santha village, Kaisarganj block of Bahraich district in Uttar Pradesh owns a total of 7 *Beegha* (equivalent to 1.4 acre) of land, along with her husband, Murari Lal. Of this, only 1 acre is cultivated. Like the farmers in the 6 hamlets that make up their village, agriculture is their only source of income. The key crops they grow - through traditional methods - are maize, wheat and paddy.

Lakhpata, however, was only making a gross income of ₹ 40,000 and a net income of about ₹ 16,000 annually. When she happened to meet Shivani, a Community Resource Person (CRP) in a Tata Trusts' programme, for a *Kissan Bithak* (farmers meeting) in her village, she was all eager to increase her income. This was fuelled by Shivani's discussion on the benefits of growing high value crops. She met Shivani again with Murari Lal to know more. Shivani suggested growing chilli, but Murari Lal said, "*Ei mircha lagewe se paisa nahi mili*" (we won't get any money by growing chillies), straight off rejecting the proposition. His opinion was echoed by the other villagers as well.

However, the Tata Trusts continued to promote intercropping high value crops with staples to help farmers increase their income. Shivani, too didn't give up. It took several rounds of discussions and demonstrations before the farmers finally agreed to attempt intercropping. Murari Lal decided to cultivate *Arka Meghan* variant chilli suggested by Shivani, but in

merely three *Biswa* (a local measuring unit for land) equivalent to 0.03 acres. Lakhpata and Murari Lal prepared the nursery bed for chilli with the help of the field facilitator and Shivani, who also informed them of the best practices. Along with transplanting chilli, the couple was advised to intercrop green onion as well.

In just a couple of months, Lakhpata saw the bounty that grew from her ground and apprehensions turned into celebrations. When Murari saw the output from just 0.03 acres of his plot after the first plucking, he was excited, and smilingly said, "*Ei ta 10 kilo se upar hoi ekke bar me humka 1,000 rupaiya milhe*" (This is more than 10 Kg; I will get ₹1,000 in just one plucking). In just one plucking of the green onion and chillies, they earned ₹1,400.

Consequently, Lakhpata and Murari Lal became more open to trying out the CRP's suggestions and followed her advice in the Kharif and Rabi cropping too. Moreover, even the other farmers were convinced of the benefits of intercropping.

Lakhpata and Murari Lal witnessed a substantial increase in their income. They used to earn approximately ₹37,000 and now, they earn around ₹86,000 in a year.

Lakhpata, now almost a Lakhpata herself, beamed with pride when she shared with the CRP that she has not only monetarily benefitted from the intercropping, but has also earned respect in the village, since other farmers now approach her husband and herself for advice on cropping.



TRANSFORMATIVE  
JOURNEYS



Lakhpata and Murari Lal from Santha village, Uttar Pradesh who became inspirations to their community.



Jagjit Singh,  
a resourceful farmer  
from Amritsar,  
eliminates the need  
for crop residue  
burning with the  
Happy Seeder.



PROJECT ALIGNS  
WITH **SDG**

**2** ZERO  
HUNGER



PROJECT ALIGNS  
WITH **SDG**

**13** CLIMATE  
ACTION



## THE HAPPY SEEDER MAKES FOR A WORLD OF HAPPINESS!

Come winter, the pervasive issue of air pollution reaches its peak, especially in the northern states of Punjab, Haryana and Uttar Pradesh. A major contributor to this problem is the burning of crop residue by farmers. In Punjab alone, over 20 million tons of paddy straw are burnt in a month post the Kharif harvest, generating thick, dark smoke that creates serious health, climate and other hazards. This also reduces precious plant nutrients, resulting in decreased agricultural productivity, impacting farmers' livelihoods. To address these issues, the Supreme Court directed the governments of these states to adopt remedial measures for stopping the practice of burning of rice straw.

In view of the above, Reviving the Green Revolution (RGR) Cell – an associate organisation of the Tata Trusts – initiated the adoption of the Happy Seeder. A Happy Seeder sows the seeds and removes the straw at the same time, scattering it evenly across the field. This straw helps the soil retain the moisture necessary for wheat-crop germination, and decomposes naturally over time. This initiative aims to positively impact livelihoods across 520 villages spread across 9 districts of Punjab, through the reduction of pollution, coupled with increased productivity.

Jagjit Singh, a farmer from Sainsra Khurd village in Amritsar district used to burn straw at the end of the harvest, like all the other farmers in his village. In 2013, however, his village was selected as a project village by the RGR Cell for the Integrated Productivity Management in crops. The project also focussed on curbing crop residue burning and Happy Seeder was offered as a solution to address the stubble issue. The potential benefits of adopting the Happy Seeder technology attracted Jagjit Singh.

"With the technical guidance and support provided by the RGR Cell team, I decided to stop burning the stubble in my field after harvesting my crop; instead, I bought a Happy Seeder along with an SMS Combine Harvester and Mulcher, which allowed me to sow wheat in-situ with the Basmati crop residue", explains Jagjit Singh. The entrepreneurial spirit in Jagjit Singh saw him getting involved in custom hiring of the equipment; consequently, he was able to cover over 300 acres through the machines and this fetched him good money, enhancing the livelihood of his family. He also demonstrated this technology across six adjoining villages, so that more farmers could adopt this zero burning solution, thereby contributing towards a cleaner environment.

## GROWING HOPE AND SUCCESS FROM POVERTY

Binda village, located in Murhu block of Khunti district, is a Naxalite affected region in Jharkhand. Inhabitants from this village are largely Munda tribals, living in poverty. Amidst this backdrop, the story of Masidas Soy and his wife Monica is an encouraging one. Masidas, unlike many of his village brethren, had studied up to the intermediate level, post which, he began farming. Marriage followed soon after and Masidas was left struggling to provide for his family. He wanted to be an entrepreneur and give his children a life better than his own. "We were not hand-to-mouth; however, I always wanted to do better, perhaps, even become an entrepreneur. I wanted a better future for my children" reminisces Masidas.

In 2018, when the Trusts partnered with their associate organisation – Collectives for Integrated Livelihood Initiatives (CInI) – and Nav Bharat Jagriti Kendra, a non-profit organisation, Masidas saw an opportunity. Under the Lakhpati Kisan Initiative, which aims to enhance the livelihoods of over 101,000 tribals in Central India by 2020. CInI initiated interventions in Binda village, such as the dissemination and adoption of scientifically validated practices to enhance agricultural productivity, along with other income-generating activities to irreversibly enhance the families' incomes. Masidas was instantly drawn to the potential of such interventions and the promise of a better life.

Under the programme, Masidas was introduced to polyhouse – a type of greenhouse where polyethylene is

used as a cover. Training was provided for successfully adopting proper input practices, maintaining pH and temperature, watering techniques, cleaning of polyhouses, etc. Armed with this training, Masidas ventured into his business of marketing soil-less saplings that were grown in his polyhouse. Unfortunately, a debilitating paralytic stroke laid low Masidas' plans in the initial 2 months. His wife, Monica, a member of the local Women's Self Help Group, stepped in. She borrowed ₹15,000 and, coupled with their own savings of ₹15,000, constructed a polyhouse. CInI also facilitated a linkage with RangDe – a crowd funding finance institution – which gave the family an entrepreneurs' loan of ₹120,000; Ernst and Young Foundation also supported the family with a sum of ₹150,000.

Masidas recovered from his stroke and, along with Monica, began supplying soil-less saplings extensively across villages in their taluka. The soil-less saplings marketed by Masidas prevent soil-borne diseases, translating into enhanced productivity and higher earnings for scores of other tribal cultivators.

"With the inputs provided, I am earning more than ₹200,000 an annum. My children are studying in a good school. My business has grown and I have employed three women to help out", shares Masidas, beaming with pride.



PROJECT ALIGNS WITH **SDG**



PROJECT ALIGNS WITH **SDG**

**1** NO POVERTY



*Masidas and Monica from Binda village, Jharkhand display their fortune changing soil-less saplings.*



One of the many LDPE tanks constructed in Uttarakhand for transforming agriculture.

PROJECT ALIGNS WITH **SDG**  
**1** NO POVERTY

PROJECT ALIGNS WITH **SDG**  
**2** ZERO HUNGER

## TRANSFORMING AGRICULTURE WITH A FERTILE IMAGINATION

In Uttarakhand, agriculture and animal husbandry have been age-old practices. Agriculture is of critical importance for human sustenance, as it supports 80% of the population and forms the nucleus of most human activities in the state. Uttarakhand has a land area of 55,845 km<sup>2</sup>, of which, the total cropped area accounts for around 23.5%. The net area sown is around 14.5% and is under pressure to sustain a population of over 50 million, almost 80% of which is rural. However, the remote and inaccessible hilly regions suffer from low productivity, shortage of inputs and lack of marketing, and diminished availability of water for crops during the critical stage has resulted in confining villages to produce only for self-consumption. Consequently, the only option that remains is to efficiently harvest the available water resources.

In hilly areas, water is available in three forms - direct surface runoff, runoff through roof-tops of houses, and the discharge from natural water-springs. To provide water to the crops during the critical stage, the conservation of rainfall in suitable soil types and providing irrigation through runoff/spring flow harvesting in ponds or tanks are the only ways. The efforts of Himmotthan Society, an Associate Organisation of the Tata Trusts for the

conservation and management of water for irrigation and other purposes in 6 rural clusters of Uttarakhand under the Lakhpati Kisan Project, a joint initiative of Axis Bank Foundation and the Tata Trusts, therefore, cannot be understated.

Himmotthan, consequently, implemented the water conservation initiative and constructed technically and economically viable Low Density Poly Ethylene (LDPE) lined water tanks of different storage capacities. This technique proved most appropriate since it can be implemented, maintained and repaired by the farmers themselves at a low cost, using their own labour and locally available resources. At a few places, the water requirements of the farmers are more; however, the size of storage structures has to be restricted according to the water availability and topography of the location.

Over the last year, 201 LDPE tanks were constructed, with a total storage capacity of 20.95 lakh litres of water. Initially, 434 households from 62 villages across 6 clusters benefitted. An area of 24.2 hectares was now able to receive life-saving support irrigation. As a result, there has been an increase in overall production by 66% and income generation has increased by 89%.

## A DEBT TO MILK

Sarla Devi gets visibly uncomfortable talking about her husband's accident a couple of years ago that left him paralysed and bed-ridden.

"The incident had left me scared. The entire household responsibility fell on my shoulders and I was not sure if I would manage through those tough times," says Sarla. As the financial needs grew, Sarla borrowed nine thousand rupees from the local (unorganised) milk-buyer. In return, she agreed to sell 5 litres of milk to him every day. Yet, even after a year of honouring this arrangement, it seemed the debt had not cleared, and she was told that she still owed him three thousand rupees.

Unfortunately, she was just one of the many women in Mewat, Rajasthan who had a similar experience in the local milk markets. Though the region has a good livestock population and milk production, the people found it hard to break free from the vicious circle of debt, as they borrowed from the local unorganised milk-buyers and were forced to live a life perpetually in debt.

The Dairy Health and Nutrition Initiative India (DHANII), a Section 8 company established by the Tata Trusts, joined hands with NDDB Dairy Services (NDS) to facilitate the launch of milk producer companies in the rural and remote regions of India, to enable the women farmers to establish and run their own dairy businesses. Under this initiative, Sakhi Mahila Milk Producer Company Limited (SMMPC) was set up at Alwar in November 2016. SMMPC has been working closely with the dairy farmers of Mewat and Shekhawati regions of Rajasthan. With a little guidance, the women are now confident in attending board meetings, organising awareness drives, maintaining balance sheets - commanding newfound respect.

"It's hard for me to elaborate how our lives have changed in such a short span. The earnings have been incredible! I have bought two more buffaloes worth ₹78,000. Now, I am the primary earning member in the family. My sister and I have also recently bought 1 *bigha* land for farming. Debts are now a thing of the past," says Sarla Devi beaming with pride.



Sarla Devi, a dairy farmer in Mewat, Rajasthan who broke free from a lender and now runs a flourishing business.





Savita Ben, a proud farmer in Gujarat has adopted laser spray irrigation system for sustainable farming.



## LASER SHARP FOCUS ON IRRIGATION

Savita Ben Rameshbhai Begadiya is a smallholder farmer from Changod village of Khedbrahma block, Sabarkantha district of Gujarat. She holds 0.91 acres of land, of which, 0.6 acres has been installed with Laser Spray irrigation in November 2019. Prior to that, she used the traditional surface irrigation method, like the other farmers.

The Laser Spray irrigation is more effective and affordable than not just the non-sustainable traditional surface irrigation, but also the expensive drip irrigation systems, especially for the smallholder farmers. Further, the community couldn't take advantage of government schemes due to issues related to the land title not being clear (since one parcel of land had more than one owner), duplication of beneficiaries' title (previous schemes issued by the government), etc.

Looking at these issues, Collectives for Integrated Livelihood Initiatives (CINI), an associate organisation of the Tata Trusts took it upon itself to introduce the Laser Spray as an irrigation solution in the project villages. The Laser Spray irrigation system is low maintenance,

less prone to clogging, has a high flow rate resulting in faster irrigation, uses lesser electric power (compared to drip irrigation system), can work on low pressure (0.1 bar) and discharges water uniformly.

Savita Ben was one of the very first who decided to move from the traditional surface to laser spray irrigation method. Since then, she has been able to irrigate her field in an hour (less than one-third the time it would earlier take), save substantially on both electricity as well as labour and is able to control pests since the system allows her to take better care of the crop.

Her yield has increased by 65% and she has been able to earn an additional ₹25,000. She is now well-versed with the technique of laser spray irrigation. She proudly says, "As a farmer as well as a leader of the Shree Vikas Mahila Swasahay Jooth Self Help Group, I now lead discussions on better farming practices, and solve issues that my fellow SHG members face at times. Seeing the increase in my income, 20 other farmers have also adopted Laser Spray irrigation at their farms."

## HEART IN BUSINESS; BUSINESS AT HEART

Rakhi Pramod Kasdekar, a resident of Baru Village of Dharni Block in Amravati District has been a member of the Self Help Group (SHG) promoted under the Sukhi Baliraja Initiative of Tata Trusts. She has two daughters and, her husband, who drives an auto rickshaw, brings home around 20,000 to 25,000 annually, with no additional sources of income.

She decided to become a member of Sipna Agrricity Producer Company Ltd (a Farmer Producer Organisation formed and promoted by the Tata Trusts' Sukhi Baliraja Initiative) and demonstrated interest in the poultry project. Along with nine other members of her village, Rakhi formed the Sukhi Baliraja Initiative Mahila Poultry Group and enrolled in the project. They began to receive training on poultry from the Tata Trusts team and field experts.

They contributed ₹10,000/- each towards infrastructure and the Trusts and the Government of Maharashtra extended help by supporting the working capital for the

poultry activity. This arrangement became the bedrock for the Group. By January 2019, Rakhi's poultry shed was constructed and she started with 500 chicks. That month itself, she earned ₹8,900/- and by July 2019, she had reared 3 batches, earning a total of ₹16,875/-. Soon, her earnings grew to ₹39,706/-. Just as significantly, Rakhi also became a board member of Sipna Agrricity Producer Company Ltd.

She now looks forward to expanding her business considerably. Her business journey is representative of the stories of 62 other women beneficiaries of the Dharni region, who benefitted by the Sukhi Baliraja Initiative.

Yet, no one can perhaps articulate Rakhi's commitment better than she herself, when she says, "To be successful, you have to have your heart in business, and your business in heart".

*Rakhi Pramod Kasdekar, a poultry farmer from Amravati district feeding chicks.*



Mousumi Rabha and other SHG women displaying their mushroom harvest in Kamrup Assam.



PROJECT ALIGNS WITH **SDG**

**1** NO POVERTY



## INVESTING IN MUSHROOMING SELF-WORTH

In Assam, the Centre for Microfinance and Livelihoods (CML), an associate organisation of the Tata Trusts, has endeavoured to bring about changes in the perception of earning related to gender, whilst raising awareness amongst tribal women on the benefits of Self Help Groups. Interventions were operationalised to strengthen and form SHGs under the women-centric WADI project and are being implemented with support from Assam State Rural Livelihood Mission (ASRLM).

Mousumi Rabha recollects how the women in her village were earlier dependent on their husbands' incomes before the SHGs were formed or strengthened. "The concept of SHGs was not clear in our minds. The groups were registered under the Swarnajayanti Gram Swaraj Yojna (SJGSY) and comprised maximum 10 members in each SHG", she explains. Consequently, the National Rural Livelihoods Mission (NRLM) that was introduced, mandated that each SHG should have 15 to 25 members. The existing SHG members were averse to new joiners; consequently, most of the groups were dissolved.

CML intervened at this juncture and under the WADI project, mobilisation, awareness programmes, training on various issues, reviving of existing SHGs, the formation of new groups and registration under Assam State Rural Livelihoods Mission (ASRLM) were undertaken. With consistent hand holding and training, the SHG members started following the rules and regulations laid under ASRLM. They started receiving grants and support from the Government and functioned with ease.

Under the livelihood intervention with the SHGs, groups

from the project villages were trained and exposed to mushroom cultivation, post which they began cultivating mushrooms on a commercial basis. One of the group was Mousumi Rabha, who shared, "This is the first time that SHGs have come together for any activity and have received any such training, where they can invest on their own without support from their husbands. The seeds and other raw materials were bought through our own savings".

Initially, the SHG members cultivated mushroom in a single shelter to get an idea of the best practices and gauge the market. Once they harvested the produce, they found a very high demand within the village itself. Encouraged by this, the SHG members started mushroom cultivation at the household level. They have been able to fetch higher prices in the market at Boko, a nearby town, in district Kamrup.

Mushroom farming training was imparted to 27 SHGs from 5 villages in the project area by CML. 15 SHGs have taken up mushroom farming as a source of livelihood activity. Each group invested the initial amount to take up mushroom farming. Initially, the profit from mushroom cultivation was ₹5,000; however, once every household began engaging in this activity, the profit grew to almost ₹15,000 for every batch. Moreover, members of the SHGs also engaged in other activities, such as the production of areca nut saplings, black sesame, turmeric, etc., thereby increasing their sources of potential income.

Besides ensuring enhanced incomes for the women of the SHGs, the project has also ensured empowerment for women in society.

# Education



*A teacher conducting a session with children at an anganwadi in Risia, Bahraich, Uttar Pradesh.*



# PROMOTING ACTIVE-LEARNING FOR DEVELOPMENT

## Overview

India accounts for around 16% of the world's population and has the largest number of individuals under 25 years of age. Currently, around 28% of the population in the country is in the age group of 0-14 years, with another 18% in the age group of 15 to 24 years. The country also has the largest number of schools (over 1.5 million) and school-goers (over 260 million). However, the existing education system is very complex and under-developed. Lack of a solid foundation in education creates a domino effect on an individual's life, as well as on the economy of a nation. With the Right to Education (RTE) Act, there has been significant progress in recent years. However, providing access to quality education is still seemingly a big challenge. Similarly, expanding learning opportunities for students from the under-served communities in both rural and urban areas continues to be a major challenge.

Findings of the Annual Status of Education Report 2018 indicate that, amongst students in the age group of 7 years, only 27.2% could achieve their grade-level skills in reading and only 28.1% students in arithmetic. For students in the age group of 9 years, this was 50.3% and 27.8% respectively. Many of the enrolled children do not continue their studies beyond upper-primary grades. High dropout rates and enrolment gaps from the primary to the secondary level are contributing to a never-ending stream of under-educated children, resulting in a lowly-skilled population. This presents a serious challenge to the future of the country's economy, which is becoming increasingly technology-driven. Ultimately, this would further widen the gap of social inequality.

Shortage of public funds and the inconsistency in its flow, along with the lack of its adequate utilisation towards quality interventions, have posed major challenges to the smooth functioning of a comprehensive school education system in India. A larger proportion of the funds is allocated towards operational items, such as teachers' salaries, rather than training, quality of content, capacity building, infrastructure, monitoring, closing the gender divide, etc. Nodal bodies, such as the Ministry of Health and Rural Development (MHRD) at the national-level, and the State Council of Educational Research and Training (SCERT) at state level, that overlook the education policies

and frameworks in the country are under-funded and continuously seek additional support. Other areas of holistic development, such as skill development, learning enhancement measures, life skills, well-being, etc., continue to remain neglected. The government has recognised the need to increase spending on education to 6% of the GDP by 2022.

In the above scenario, the Trusts have been striving, in mission mode, to identify and solve these massive and pressing challenges of India's complex school education system. The Trusts work closely with many organisations, including social enterprises, NGOs, tech companies, assessment agencies, among others, to collaboratively create scalable solutions and address the above-mentioned problems.

The Trusts' education portfolio, with its over-arching vision of ensuring 'authentic learning for all' aims to provide high-quality, authentic, real-world, active learning experiences with equitable access that would help mould productive and well-rounded 21st century citizens. To achieve this, the portfolio focuses on four strategic sub-themes:

- a. Broadening Access** – seeks to tackle sociological challenges that lead to inequity of access to learning.
- b. Deepening Learning** – seeks to support the school-teacher-student interface; specifically, ambience, curriculum, pedagogy and culture.
- c. Developing Teachers** – aims to work towards the professional development of teachers; focusing on frameworks, workshops, certification, communities of practice, etc.
- d. Strengthening Systems** – works with systems that ensure scalability and sustainability of the quality improvement initiative.

## Key Achievements\*

**a.** Integrating digital technologies with the curriculum and instructional plans in government schools and learning centres across 10 states in India under the Integrated Approach to Technology in Education (ITE) programme. Master trainers in Assam commenced training outreach for teachers on the nuances of lesson planning for project-based pedagogy of the ITE programme, thereby upscaling the outreach from 84 schools to 400 schools. The students, mostly first-time computer users, deepened their learning of content by the use of technology. This experience helped them create projects using various interactive tools and technologies and accessing new and insightful information on the internet.

**b.** Adoption of Khan Academy's math resources by over 300 schools in regional languages aligned to Indian curricula. Partnerships forged with Kendriya Vidyalayas (KV), Jawahar Navodaya Vidyalayas (JNV) and some state governments ensured access to quality content and resources curated by Khan Academy, free of cost for several thousand teachers and students.

**c.** Conducting 23 sessions under the Systemic School Improvement Programme in Goa for defining quality parameters of school education and putting a mechanism in place to achieve and monitor them. The aim is to develop a systemic, tech-enabled process to gather validated data on quality parameters for all 827 government schools in Goa.

**d.** Presentation of academic papers on the Trusts' supported ed-tech programmes (Connected Learning Initiative (CLix) and ITE) at the prestigious Open Conference on Computer Education (OCCE) held at Mumbai in January 2020. The conference brought together international contributors, speakers and researchers across global academia to disseminate current developments and trends in open education technology.

**e.** Submission of the functional review report and recommendations on the Andhra Pradesh Systemic School Transformation Programme (APSSTP) to the Government of Andhra Pradesh. 85% recommendations were upheld by the expert committee of the Government of Andhra Pradesh, vindicating the impact created and the quality of the findings by the programme.

**f.** Organisation of the national level symposium titled 'Learners as Producers' (LeaP) in Delhi in July 2019 to showcase ITE as an exemplar. Contrary to a plethora of ICT initiatives in education focusing primarily on making students and teachers consumers of ICT resources, this symposium aimed at highlighting learners as producers of ICT artefacts.

**g.** Training 275 teachers and facilitators across 4 library sites in Rajasthan, Uttar Pradesh, Uttarakhand and Gujarat under the Parag Library Educator's Course (LEC), a professional development course that strengthens teachers' exposure to libraries and builds capabilities to improve children's literature.

## Future Plans

**a.** Meaningfully engage with teachers and students during and post the COVID-19 pandemic. Major focus will be on the efficient use of technology to ensure smooth continuation of the planned activities and interventions.

**b.** Conduct a survey to understand the emotional condition of teachers/students/parents across the country due to the COVID-19 lockdown. Thereafter, produce a data-driven report on the impact of school closures on different stakeholders, analysis of which will provide useful insights and recommendations on addressing identified gaps (for existing and future programmes).

**c.** Train around 70 state resource group members in partnership with Centre for microFinance – an Associate Organisation of the Trusts – and State Council of Educational Research and Training (SCERT) Rajasthan, as part of the Library Education Course being implemented under Parag – Publications Initiative. A similar partnership with SCERT Madhya Pradesh as part of the Library Education Course (in Hindi) will facilitate the training of master-trainers in the state.

**d.** Set up a Quality Cell within the SCERT, Goa, in collaboration with Adhyayan Quality Education Foundation, to monitor activities related to school quality using a co-created quality framework, thereby sustaining gains made between 2018 and 2020. This framework will ensure continuous improvement in the education of children in 824 government schools in Goa.

**e.** Expand focus on strengthening systemic processes, using on-ground learnings from the first phase of the CLix initiative. These learnings would help the Trusts integrate ICT in classroom practices, create a Teacher-Educator Cadre within the state system, help in the curation of Open Educational Resources through design labs, etc.

**f.** Design new programmes focusing on the 'Broadening Access' theme, on the basis of learnings and insights gained during the pilot project under the Assam State Initiative.

## Best Practices

**a.** Integrated approach to Technology in Education (ITE) is a pedagogical framework to improve teaching and learning processes. In this framework, the teacher designs and students create projects using ICT tools. It fosters 21<sup>st</sup> century skills and ensures authentic, project-based learning for middle school children and adolescents in some of the most under-privileged geographies (91% rural). The Master Trainers (MT) certified by TISS hold bi-monthly meetings with the teachers whom they have trained as part of their certificate course (outreach teachers). In these meetings, MTs further train, motivate and help the outreach teachers to implement ITE.

**b.** To deepen the Trusts' engagement as a credible knowledge partner with the Ministry of Human Resources and Development for Teacher Professional Development, representatives from 7 regional teams were on-boarded for a national-level review activity as part of the NISHTHA (National Initiative for School Heads' and Teachers' Holistic Advancement) initiative. Insights gathered during this monitoring exercise will feed into the designing of the second phase of NISHTHA, as well as the Trusts' Teacher Professional Development initiatives.

**c.** As part of blended teaching training under Connective Learning Initiative (CLIX), teachers were engaged through virtual platforms like WhatsApp and Telegram and were grouped based on geography and subject domain. This ensured a continuous engagement among the teachers and the master trainers.

## Challenges Faced

**a.** Non-availability of adequate infrastructure, such as functional computers, coupled with frequent power outages in government schools continue to be a challenge for the smooth roll out of the ed-tech initiatives.

**b.** Change in priorities of governments, with change in leadership, creates a challenge for the programmes that aim to work at the systemic level. A lot of time and energy needs to be invested in aligning the new administration to continue the work already underway.

**c.** Teachers in rural educational centres in villages are paid poorly. This often leads to a lack of motivation to engage more deeply with students to improve their learning outcome.

*Classroom activity in progress at a school in Kaiserganj, Bahraich, Uttar Pradesh.*



# REMOVING LANGUAGE BARRIERS FROM CHILDREN'S LITERATURE

Availability of and access to age-appropriate, enhancing reading material in 'regional languages' remain a major challenge for children in India, especially in Government schools. The importance of extensive use of reading materials beyond school textbooks, including a variety of children's literature in Indian languages is emphasised in key policy documents such as India's National Curriculum Framework (NCF) 2005, which states that it is important for schools to ensure, "availability of resources, including children's literature in regional languages, to encourage reading and writing, especially among the first generation learners, to make various resources beyond textbooks available to children.

The Parag Initiative of the Tata Trusts is driven by a belief in the transformative power of reading, working to ensure that children across India can appreciate and enjoy reading, especially in diverse vernacular languages. This initiative goes beyond mainstream education channels and tries to connect students to their own surroundings, region and, more importantly, to themselves. It tries to make literature available in regional languages to the children, which will be more relevant and interesting for them in the process of learning.

Under this initiative, development of original stories in

Indian languages, translation of stories from one language to another, books in local languages have been made accessible to the children. Parag has supported the translation of 40 titles in eight different Indian languages, which are Hindi, Tamil, Telugu, Kannada, Bengali, Gujarati, Malayalam and Marathi.

Reading stories in their language also enables children to engage with the text, connect with the topic, discuss, share and listen to experiences. It helps children to read & learn a wide range of topics in their immediate surroundings and across the country.

"It is important that such books get translated, so that we can know about different childhoods from different parts of the world," writes Birjesh Sharma, facilitator at the Uttar Pradesh Education team as part of a book review of 'Kiki' (Kiki, a storybook in the German language, has been translated into Hindi).

To date, Parag has supported the development of 811 new books in multiple Indian languages such as Hindi, Urdu, Marathi, Malayalam, Telugu, Gujarati, and non-mainstream languages such as Bhili, Kunkna, Pawri, Mundari, and Santhali, as well as in English.

The titles have a readership of over 10 crore readers!

TRANSFORMATIVE JOURNEYS

Children browsing books in a library facilitated under the Parag initiative at Bali, Rajasthan.



PROJECT ALIGNS WITH **SDG**

**4** QUALITY EDUCATION



PROJECT ALIGNS WITH **SDG**

**10** REDUCED INEQUALITIES





Students engrossed in reading in a library set up in a Madrasa, Bahraich district, Uttar Pradesh.



## TRADITIONAL TO EXCEPTIONAL

Many children are sent to Madrasas for 'Deen-E-Taleem', i.e. an early education-based on traditional methods. However, later, when they get enrolled in upper-primary schools, many students find it difficult to adjust to the mainstream education system and eventually drop out. It was a similar situation in Bahraich, Uttar Pradesh.

Since 2016, the Trusts have been working to bridge the gap between traditional teaching & learning methods with the modern education system through Integrated Approach to Technology in Education (ITE) programme in Bahraich district, Uttar Pradesh. A library component was introduced in 2018 in project areas of Bahraich district. And the library was integrated into the ITE programme the same year. There were challenges initially, during the establishing of the library and conducting reading activities. All these interventions were new to the Madrasa system.

A library within the walls of the Madrasa does not disturb the other traditional methods of teaching and learning. The ITE programme is being implemented in three Madrasas, which have 1,270 children enrolled.

All it does is attach value to the existing system. Pictures and artworks in the books attract the students to the books and, through these books, students gain a societal as well as worldwide understanding and

perspective. The Trusts have provided 680 books under this programme.

Facilitator-led regular discussions are supported by teachers along with organising reading activities and the management of the library. The team of teachers and facilitators from Parag also worked on orthographic awareness of children on Hindi via various tools.

This initiative has introduced students to new languages and inculcated a habit of reading various genres and forms of books. The library now encourages curiosity, creativity, exploration and innovation in these young minds. The books have exposed children to some of the most pressing gender, political and creative issues of today. The students issued 800 books, just in a period of one month.

Mr. Rasool Mohammed Qari Aslam Khan, Principal, Madrasa Gausiya Israrul-Uloom, Risia Bazar, Risia block of Bahraich has witnessed changes in the reading habits of the students, including attendance rate at 80% on an average. The Madrasa Gausiya Israrul-Uloom covers 12 villages in nearby locations.

Mr. Khan happily shares, "The programme has impacted our school positively; both enrollment of students and retention have gradually increased."

## BEST PRACTICES MAKE FOR PERFECT LEARNING

In West Bengal, the 3<sup>rd</sup> annual ITE Mela 'Shiksha-o-Prajukti Mela' 2020 was organised in collaboration with Samagra Siksha Mission (SSM), Kolkata on 14<sup>th</sup> February 2020. The aim was to provide an efficient platform to showcase the ITE best practices of government school students and teachers. Over the years, there has been an increase in the teachers' and the district education departments' ownership in designing and implementing the mela. The event was inaugurated by Mr. Khagendra Nath Roy, District Inspector of Secondary Schools, Kolkata, who appreciated the concept of ITE and motivated approximately 190 students and 83 teachers, from 45 different schools (class 5 to 10), to make the best out of it.

During the mela, over 60 projects on different subjects and topics were presented, and students also got an opportunity to interact with attendant teachers and other students.

Prior to the mela, some of the students attended the two-day 'Young Producers Camp 2020, Kolkata' where around 73 students and 40 teachers from 33 different schools participated. In these two days, the students learnt the languages of Scratch, M-Block and Python, using these applications to solve the problems given in the projects allocated to them in the workshop. The camp was planned with a vision of inculcating 21<sup>st</sup> century skills like problem-solving, critical thinking and the principles of computational thinking.

The well-designed lesson plans by the teachers also helped the students to think beyond their textbooks and explore and execute several innovative projects.

The Mela was concluded by Mr. Kartick Chandra Manna, the Chairman of SSM, Kolkata. In his address, he said that the Mela helped the students gain a wider perspective on the meaningful use of technology in their regular lives, to solve real-life problems, to understand different topics in their own way, to think beyond the textbook and showcase their ability. He also acknowledged the teachers who integrated the process of ITE with their subjects, thereby demonstrating the courage to use something new to change the teaching-learning process and being motivators to other teachers. Mr. Manna personally visited the various stalls, interacting with the students and this boosted the confidence of the students as well.

"We have learnt a lot of new ways and approaches towards the teaching-learning process. Our students are very enthusiastic about the whole thing. They have also made presentations using the new tools learnt. It is a very good endeavour towards progressive learning. I would definitely join with the ITE team in the future and try to motivate other teachers to do it", says Soma Ghosh, Teacher, Surah Kanya Vidyalaya.

Students demonstrating a project at an ITE mela in Kolkata, West Bengal.



PROJECT ALIGNS WITH **SDG**

**4** QUALITY EDUCATION





*District mentors in Punjab undergoing training to provide academic support to government school teachers.*



## EMPOWERING STUDENTS BY EMPOWERING TEACHERS

In Punjab, according to the Annual Status of Education Report (ASER)<sup>1</sup> - an independent source for data on the learning levels of children in Indian schools - 64% of Grade 3 students cannot read a paragraph of text and 79% of Grade 8 students are not able to perform simple subtraction. This indicates that an increasingly large segment of the population will lack the education to participate in the 21<sup>st</sup> century economy.

A five-year partnership agreement was signed in December 2019 between the Department of School Education (DSE), Punjab and Khan Academy India. It aims to cover 6,235 Government-run schools in Punjab, with close to 7,446 teachers and over 593,022 students enrolled in classes 6-8 for Mathematics. The state-led localisation of Khan Academy content into Punjabi will be a critical component in scaling the intervention from 200 to 1,000 schools.

The objective is two-fold: (1) Help students enrolled in schools run by the Government of Punjab gain proficiency in grade-level skills for mutually agreed-upon grades and subjects using the Khan Academy platform, and (2) Empower teachers to identify each student's learning needs through Khan Academy coach tools.

The engagement was formalised in the tail end of the school year. Foundational efforts focused on training district mentors and helping set up practice sessions with teachers. As the roll-out in 2020 begins, the implementation will include a focused, personalised practice program in Mathematics in around 200 schools from classes 6-8. Teachers in these schools will use educational resources and teacher tools on the Khan Academy platform to assign tasks to the students, track completion, diagnose the learning levels of each student and help them master grade-level skills.

During designated Khan Academy sessions, each student will have access to an Internet-enabled device (computer/tablet) to carry out tasks, including working on exercises, tests/quizzes, watching videos for conceptual understanding, etc. DSE shall ensure a 1:1 student:device ratio and sufficient internet connectivity in the computer labs of these targeted schools. Throughout the implementation, it is recommended that each student has access for at least 45 minutes per week, which will be made possible by making necessary adjustments in the timetable of the selected schools.

For teacher training, Khan for Educators (KFE), an online teacher on-boarding resource was created; webinars were held to provide training in a targeted and cost effective way and in-person training was also held. District mentors, who have also been trained, provide academic support to teachers which, in turn, has resulted in more teachers showing interest in the programme.

Priya Kalsi, a teacher at Govt Senior Secondary School, Gyanpur says, with gratitude, "Our kids are in class 8<sup>th</sup>. I'm proud to say that our students come running and are excited for Khan Academy classes. Earlier, our kids used to be scared of math, but ever since Khan Academy has been launched in schools, kids are finding math very easy. This is just like a video game, where kids go through levels to get a high score."

Even the students agree. One, from the Govt. Senior Secondary Smart School of Ghotalia, thrilled with the initiative, explained, "Through the Punjab government and the Khan Academy project, our math skills are improving. Our teachers are assisting us through this, Because of this, our knowledge is going up."

<sup>1</sup><http://img.asercentre.org/docs/ASER%202018/Release%20Material/aserreport2018.pdf>

# Digital Transformation



*Internet Saathi Anjali Sutar and her friends learnt the business of spice-processing, its marketing techniques as well as packaging via the Internet, and have left their competitors behind in the local market.*

**Overview**

The volume of data in the world is increasing exponentially. As per estimates, around 90% of the data in the world was created in the past 2 years<sup>1</sup> - even the data that the government requires for decision making. Data forms the backbone of informed decision making, and ensures accountability and transparency in public sector governance. Government systems have seen a surge in the use of data since the National e-Governance Plan (NeGP) came into being two decades ago. However, several challenges inhibit effective usage of the data collected. In the context of Data-Driven Governance, there are unprecedented opportunities for informing and transforming public service delivery basis this data; however, there are key areas which need immediate attention to leverage this opportunity. These are:

**a.** Absence of centralised decision support systems with real-time data for tracking functional and financial progress, to ensure prioritisation of public funds.

**b.** Lack of capacities within administrations at different levels of governance to utilise and do justice to technology-based decision making systems.

**c.** Lack of awareness and understanding among communities regarding planning processes and nature of central and state government schemes to ensure sustenance.

**d.** Reducing costs by leveraging easily customisable technological systems and adopting a scalable platforms approach to governance.

The Data-Driven Governance portfolio at the Tata Trusts works with rural and urban governments to enable administrations to move towards a data reliant culture of decision making, thereby enhancing the data and technology discourse in Indian governance. The portfolio aims to strengthen decision support systems through effective use of technology, policy advocacy at relevant levels of governance and capacity building.

The engagement models defined and implemented under the Data-Driven Governance portfolio are often the first-of-its-kind in the Indian context, and are iteratively refined basis on-ground experiences and uptake demonstrated from respective administrations. It captures a spirit of innovation to transform decision making in governance, positively influencing a multitude of stakeholders, including administrations and communities across levels.

Beginning with one Gram Panchayat in 2014, the Data Driven Governance portfolio now covers 91 districts across 27 states. The portfolio has covered a population of 2.5 million and over 16,000 institutions through on-ground surveys, with direct

*Village mapping being conducted by Community Resource Person along with the community at Alluru village, Krishna district, Andhra Pradesh.*



**OUTREACH**

  
**27 states**

  
**91 districts**

  
**4,000+ villages**

  
**56,000 households**

<sup>1</sup><https://www.sciencedaily.com/releases/2013/05/130522085217.htm>

benefits given to 56,000 households and 66,000 individuals. Capacity building has emerged as a primary area of focus, and over 500 administrative officers and 17,000 volunteers were trained on the utility of data and use of dashboards for decision making.

## Key Achievements\*

- a.** Two rounds of large scale household and institutional surveys were undertaken in 85 districts under the 'Transformation of Aspirational Districts (TAD)' initiative. Over 182,000 households and 12,000 institutions were covered, leading to the development of 164 district-insights reports and enabling administrations enhance performance through targeted interventions.
- b.** 1,000 data-driven model Gram Panchayats were established in partnership with Niti Aayog and in convergence with Ministry of Panchayati Raj (MoPR), United Nations Development Programme (UNDP) and the Ministry of Statistics and Programme Implementation (MoPSI), basis the guidelines of the 14<sup>th</sup> Finance Commission.
- c.** 72 Gram Panchayat development plans were developed in partnership with Tata Steel Foundation under the Jamshedpur-Kalinganagar corridor project, covering over 450 villages. Under this, infrastructure in over 60 anganwadis was upgraded in Jharkhand along the corridor.
- d.** The Open Data Portal was activated in Pune to over 450 live datasets for usage by researchers, universities, industry & private stakeholders. Over 15 solutions were developed for the departmental challenges faced within the Pune Municipal Corporation.
- e.** India's first e-learning course on urban governance was developed by the Trusts, for capacitating the nominated City Data Officers, Data Champions and Data Coordinators.
- f.** The Trusts' investments in the eGov Foundation led to the development of the DIGIT platform for delivery of municipal services. 1,745 Urban Local Bodies were on-boarded with 290 local bodies from Assam, Sikkim, Arunachal Pradesh, Manipur, Mizoram and Odisha, in 2019.
- g.** Over 270,000 farmers from 1,191 villages across 9 talukas of Maharashtra were registered under the E-Peek Pahani initiative. Under this initiative, real-time crop data is captured to reduce the work of the Talathis (village accountant) that led to self-reporting of 100,214 hectares of crop.
- h.** In order to strengthen data collection and tracking related to maternal health and child protection, a district monitoring centre was set up in Gadchiroli and Palghar districts of Maharashtra covering 45 and 46 villages, respectively.

## Future Plans

- a.** Intensifying existing engagements with government entities and industry partners to ensure scalability. This includes the 1,000 Gram Panchayat initiative with Niti Aayog, UNDP and MoSPI with a separate strategy for 8 North Eastern states and collaborating with GIZ on localisation of Sustainable Development Goals in ULBs.
- b.** Developing capacity building models for leaders of Panchayati Raj Institutions and Ward Members vis-à-vis data mapping, participatory planning, budget analysis, convergences with schemes, etc.
- c.** Increasing convergences between data and policy with a view to establish thought leadership. Consequently, learnings from DDG projects will be segregated and showcased in workshop/roundtable/webinar modes to existing and envisioned partners such as the governments of Maharashtra and Jharkhand, Ministry of Rural Development, Ministry of Housing and Urban Affairs, Niti Aayog, funders, etc.

## Best Practices

- a.** Capacity Building: To create, nurture and further the spirit of data-driven governance, it is very important to capacitate the administration to use dashboards and datasets effectively for decision making. Workshops on "Data as a Resource" were designed and delivered to the Tata Steel Foundation team. Similarly, 3 rounds of training were also delivered to the aspirational district fellows and to the Trusts' education team.
- b.** Thematic convergences on technology-based Decision Support Systems: The rich experience of the data-driven governance team in the field of creating decision support systems basis data collection is being shared with other teams within the Trusts. Similarly, the DELTA platform was developed in-house with additional features to ensure cost savings at a Trust level since development costs were being incurred afresh by teams.

## Challenges Faced

The COVID-19 outbreak and the associated lockdown has led to the stalling of on-ground work related to the 1,000 Gram Panchayat initiative towards localisation of Sustainable Development Goals. However, the portfolio has effectively leveraged the existing network of partners and volunteers under the TAD initiative to carry out a Pan-India rapid assessment survey on COVID-19 in rural communities across 75 aspirational districts in 27 states, covering three important domains – Awareness, Preparedness and Impact.

## Overview

At an estimated 500 million users, India has the second largest internet population in the world. In 2015, when digital gender disparity was measured, the numbers were stark. Only 1 in 3 internet users in urban India was a woman, whereas for rural India, the statistic was even worse, with only 1 out of 10 internet users being a woman. This was attributable to various challenges that continue to exist in the ecosystem, such as fear of trying out new technologies, social and cultural barriers, coupled with a lack of awareness of the availability of relevant content.

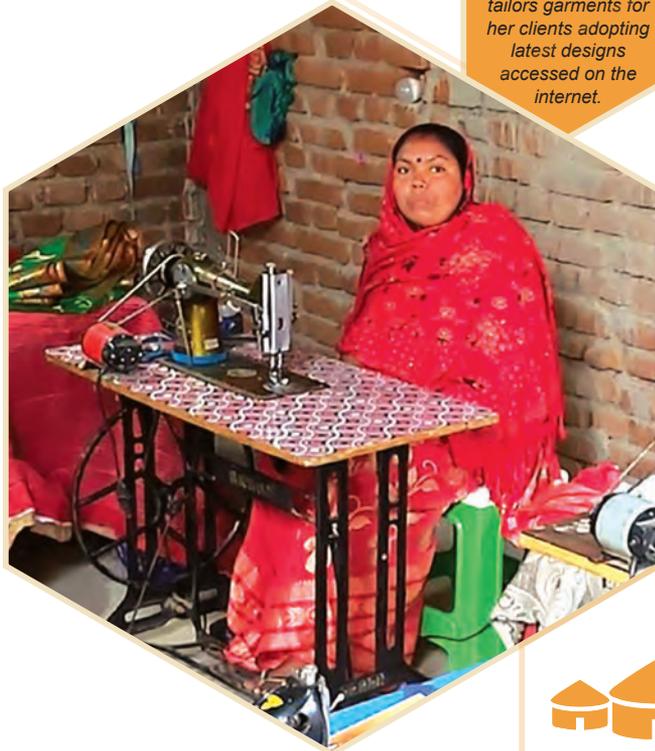
With the intention to address this huge disparity, the Internet Saathi programme was launched jointly by the Tata Trusts and Google in July 2015. The programme aims at spreading Internet Literacy among rural women through a “train the trainer” approach. Qualified women are identified

and trained as Internet Saathis. Each Saathi is provided with two mobile broadband-enabled smartphones and given the responsibility to train 600 community women in clusters of 3 to 4 villages over a period of six months.

Under the partnership, Google India provides the requisite hardware like smart devices, training modules and first-level field training to the Internet Saathis and also manages a call centre to address various issues faced by them. The Tata Trusts enable the access to rural geographies through a network of field entities like self-help groups, federations and civil society organisations, and manage on-ground implementation through their network of partner organisations.

In order to sustain Internet Saathi across communities, the mandate of the programme was expanded to include the creation of digital-based livelihood opportunities for these Saathis. In June 2017, a Section 8 Company “Foundation for Rural Entrepreneurship Development” (FREND) was set up, which focuses on the implementation and expansion of the internet literacy programme to 300,000 villages across the country, thus endeavouring to create livelihood opportunities for 100,000 Saathis by 2022, while being financially sustainable.

*Kanchan Devi, an Internet Saathi, now tailors garments for her clients adopting latest designs accessed on the internet.*



## OUTREACH



20 states



304,026 villages



Over  
34 million women  
beneficiaries

## Key Achievements and Impact\*

- a.** The Internet Saathi programme covered 304,000 villages – roughly 50% of the total number of villages in India.
- b.** The programme covered over 83,300 Internet Saathis, while over 55,300 Saathis were introduced to digital livelihoods.
- c.** Cumulative income earned by the Saathis through livelihoods exceeded Rs. 80 million.

## Future Plans

- a.** Helping women in rural communities engage in livelihood activities, thereby turning them into entrepreneurs.
- b.** Creating a digital ecosystem that can be leveraged by women in rural communities to earn a livelihood and contribute to their household or personal income. This will be in the form of an app, to be made available in vernacular languages, which will offer curated information to women on enhancing livelihoods and running their businesses.
- c.** FREND will continue engaging with CSR arms of companies along with other funding organisations.

## Best Practices

- a.** The use of technology (facilitated by the Internet Saathi app and dashboard) designed specifically for outreach to rural communities provided scale, transparency and reliability to the programme.
- b.** Through pilots, mid-programme hypothesis testing and a continuous feedback mechanism using a combination of technology and an on-ground network, the programme team was able to learn and implement changes quickly, thereby ensuring better results.

## Challenges Faced

- a.** Socio-cultural barriers continued to form the biggest challenge within the programme, with women in certain communities still not being allowed to go out and work – a primary requirement within the programme.
- b.** Mobile connectivity and access to mobile devices in rural areas is still patchy, which leads to challenges in the implementation of the programme.



*An Internet Saathi teaches women to access the internet using a mobile phone.*

## A FRIEND TO ASIYA, THE DETERMINED ENTREPRENEUR

Asiya belongs to a small village. She was married at a very young age and thus, couldn't fulfil her dreams of doing something of her own. In 2009, however, she decided to become an entrepreneur - against her family's wishes. She explained to them that she could provide her children with a better education through her business and, eventually, they relented. She started making pickle, papad and ladoos to sell.

Although educated, the Internet was alien to her - until she joined Internet Saathi, a Tata Trusts-Google initiative. The initiative aims to create livelihood opportunities for rural women by teaching them the utility of the internet - encouraging digital literacy. Under this programme, women from villages are trained to use the Internet and are equipped with data-enabled devices. These women are known as 'Internet Saathis' and work as trainers, to help other women in their village to get started on their Internet journey and benefit from it.

Asiya learned to use a smartphone. Initially, she used the Internet just to chat or engage on social media, but soon she began to take product-related orders and transact through it. She further started to explore the various Gram Panchayat schemes using her smartphone and began creating awareness about them in her village.

Today, she is a member of the Gram Panchayat, a beacon of hope to the women in her community (for whom she finds recipes and stitching techniques) and is also respected by her family and friends for how successful her business has become. She has also trained more than 1,000 women in her village and neighbourhood, spreading the joys and power of the internet.

Asiya is, however, not complacent. She says, "I am proud of the start Internet Saathi has given me..hopefully, I will someday run a mall, where my products can be accessed by everyone."

### TRANSFORMATIVE JOURNEYS

*Asiya, a determined lady who went from struggling to find a career to being a member of the Gram Panchayat.*



PROJECT ALIGNS WITH **SDG**

**5** GENDER EQUALITY



PROJECT ALIGNS WITH **SDG**

**8** DECENT WORK AND ECONOMIC GROWTH



Signing of the MoU to formalise the partnership between the railways and Tata Trusts to provide free Wi-Fi based internet access at railway stations across India.



PROJECT ALIGNS WITH **SDG**  
**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



## WHERE RAIL AND INTERNET CONNECTIVITY MEET

Today, many millions benefit from the free Wi-Fi service provided by Indian Railways at its stations. That will likely increase exponentially when the objective of an ongoing partnership between the Railways and the Tata Trusts is realised — providing free Wi-Fi-based internet access at 4,791 railway stations across the country.

As on March 2020, 3,985 railway stations already have the service in place. Setting it up in urban areas was easy, but the vast majority of the aforementioned stations are in significantly more challenging rural areas. This was the overriding intent when the Railways-Tata Trusts collaboration was cemented at the urging of the Union Railway Minister, Government of India.

The initiative began in late 2018, with a pilot project, where internet connectivity was set up at eight stations between Bengaluru and Mysuru. The pan-India free Wi-Fi plan was operationalised in July 2019 and the progress has been exceptionally fast since.

RailTel [the telecom infrastructure provider owned by the Railways] is the sole Internet Services Provider (ISP) partner for this project. Gigabit Passive Optical Network (GPON) riding on Carrier Ethernet-based Packet Transport technology was chosen to provide internet access at each Railway Station. The job of supplying, installing and commissioning was assigned to Bengaluru based Tejas Networks. Tejas comes fresh off a project connecting around 50,000 villages to the internet grid of

BharatNet. The task of project management and auditing was given to Tata Communications Transformation Services.

A collaborative endeavour all the way, the project has installed equipment at around 4,000 stations and commissioned it at over 3,300 stations, within three months. More than 44.5 Lakh individuals have used the Rail Wi-Fi facilities at these railway stations.

The last 500 stations are the most challenging, as they are the most remote, many with no power or fibre connectivity, or with bandwidth issues. Hence, different solutions are being explored in these places. Once the remaining 500 are complete, the system will supplement BharatNet, the public sector broadband network that aims to eventually connect 250,000 gram panchayats in the country.

Sreeram GC, a technology advisor at the Trusts, explains, "The Wi-Fi network has been implemented over a robust next generation packet backbone, which the Railways can leverage to significantly enhance its operational and service capabilities. Further, the government can utilise this digital infrastructure to connect local schools, hospitals and community centres to support their Digital Initiatives."

The biggest beneficiaries, of course, would be the passengers and visitors at the railway stations.



*A DDG volunteer conducting a survey.*

# Sports



Sports coach with his school team.



8 states

## OUTREACH



27 districts



13,454  
beneficiaries



140 coaches  
trained

## BUILDING A SPORTING SPIRIT

### Overview

Sports is an important catalyst for development in terms of raising aspirations, improving physical and mental health, and strengthening the overall development of children. In fact, the UN lists sports as a development tool with a host of benefits, from raising the standards of health around the world, to attracting funding and investment in infrastructure, to spawning new livelihood opportunities in the sports ecosystem.

Unfortunately, in India, sports is still considered as recreational or for competitive participation, or at best, as an extra-curricular activity. There is a need to include physical activity and sports as part of school education and promote mass-scale participation for the holistic development of children, which will in turn feed talent into competitive sports and improve the country's chances of participation and excellence at the Olympics.

Amidst this backdrop, the Trusts support sports as a powerful accelerator for meaningful development, the focus being on young children and youth from tribal and marginalised communities. Historically, the rural and tribal regions of India have produced the best athletes, their success achieved through sheer determination. The Trusts' strategy in sports is based on the 'Sports Development Pyramid', which aims to lay a strong foundation of fun, physical education and sports through its in-school and grassroots programmes, and then builds on these fundamental building blocks to identify talented players and coaches, and provide competitive training opportunities, thereby leading to programmes in excellence.

The Trusts have chosen Hockey, Football, Badminton, Polo and Boxing and are implementing programmes to develop these sports in rural and tribal regions, where there are ongoing interventions in education and other thematic areas. Whilst the hockey interventions are being implemented in the tribal belts of Jharkhand and Odisha, badminton interventions are being undertaken in Mizoram. Football interventions are ongoing in the north east states of Mizoram, Manipur and Meghalaya. Polo and Boxing is supported in Manipur and Sikkim.

### Key Achievements\*

**a.** In its third year, the Sports portfolio developed a strategy for engagement whilst fine-tuning the design of its programmes to align with a common thematic objective and Sustainable Development Goals, thereby enhancing the overall impact.

**b.** Over a 3-year period, the Hockey programme in Jharkhand has trained over 6,500 children. Notably, 55 players from tribal villages across Khunti and Simdega districts were selected by various academies in the state, thus giving them an opportunity to pursue a career in sports.

**c.** The partnership with Government of Odisha under the Hockey programme enabled the Naval Tata Hockey Academy get affiliated to Hockey India; this exposed girl players to international matches organised at the home ground in Bhubaneswar. Convinced with the high potential of the programme, IndusInd Bank came on board as a funding partner to support the Girls Hockey Excellence Programme.

**d.** The Badminton Programme, operationalised in 2018 in Mizoram, now has 40 grassroots centres and 2 regional district centres functional with over 1,900 beneficiaries across all 8 districts of the state.

**e.** At a residential camp organised in Pallela Gopichand Academy in Hyderabad, 16 players from the regional development centres and 6 coaches received training in badminton over 15 days.

**f.** The Life through Cricket programme – harnessing the power of the game to develop life skills and improve education of children from marginalised communities – saw its first batch of 48 beneficiaries completing the 3-year programme. From shy individuals with no concrete post-school plans, these students developed aspirations for further studies and enhancement of their careers.

**g.** 11 players participated in the state-level women's Polo tournament in Manipur; further, 2 players represented the state at the International Women's Arena Polo Cup 2020, organised by the Hyderabad Polo and Riding Club.

**h.** Under the Athlete Support Programme, in partnership with Mary Kom Regional Boxing Foundation, 15 talented boxers (11–16 years) were taken up for training and participated at 2 national level tournaments.

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

## Future Plans

- a.** Align design for all new programmes with relevant Sustainable Development Goals set out by the United Nations and create indicators to track the same.
- b.** Combine quality education and life-skills training for children in grassroot programmes, thereby promoting a healthy life-style and steering them away from anti-social elements.
- c.** Enhance alternate career avenues for persons from marginalised and underserved communities by providing coaching and training in sports and related activities.
- d.** Showcase and set standards for quality operating practices and pioneer research in applied sports science in India.

## Good Practices

- a.** Holistic development of all the beneficiaries that are part of residential sports excellence set-ups, through provision of best-in-class training and facilities, along with quality education.
- b.** Building and training a cadre of local coaches capable of running the Trusts' programmes in areas of interventions, thereby ensuring livelihood opportunities and sustainability of interventions.

## Challenges Faced

- a.** Increasing costs in implementing sports excellence programmes due to a dependency on international experts and consultants. In order to mitigate this, the Trusts are conducting Train the Trainer (ToT) programmes to up-skill local coaches, thus reducing costs and making interventions more sustainable.
- b.** Lack of available suitable government infrastructure that can be leveraged to implement programmes has forced the Trusts to invest in improving existing facilities to make them safe play zones and, in some cases, even creating them. The Trusts are working closely with State Sports Councils / Associations, etc., to ensure that funds allocated are used for relevant purposes only.

*A young enthusiast demonstrates her badminton prowess in Mizoram.*



## KICK-STARTING FOOTBALL

When India hosted its first-ever FIFA World Cup in the category of Under 17 in 2017, India's final squad had players from various provinces. However, the north-eastern region, consisting of only 4 percent of the country's population, contributed 10 players, including the Captain, of the 21-membered squad. It was observed that these ten young-boys had moved to other big cities between the ages of 10 and 13 to pursue their passion. Although football is immensely popular in the north-eastern region of India, poor facilities at the local level force enthusiasts to venture out to other parts of the country.

Globally, there is an increasing realisation that, in order to become a football powerhouse, a nation has to engage at the grassroot level. Taking this principle into account, the Tata Trusts introduced a three-tier approach: (a) Grassroots engagement for outreach, (b) Setting up of Centre of Excellence (CoE) for professional development, and (c) Activating an international programme for attaining excellence.

In April 2018, a residential academy (CoE) was launched at Aizawl, the capital of Mizoram state, which is considered the football nursery of India. Here, a team of highly qualified coaches and support staff was gathered to coach thirty young boys. During this process, TC Vanlalruatfela became the captain of the India Under 15 team and has

since, moved to the Under 18 national team. Three players, namely F. Lalremtlunga, Isac Zomuanpuia and Emboklang Nongkhlaw are playing for the India Under 16 Team now.

From the Grassroots Centres in Manipur, where a substantial number of girls are enrolled, 5 players have made it to the national Under 14 Team. They are Ms Vunglawmching, Ngashepam Pinku Devi, Naorem Priyangka Devi, Lhingneilam Kipgen and Phanjoubam Nirmala Devi. As India now hosts the Under 17 World Cup for Women, this programme's importance is demonstrated by the fact that two players from the grassroots centres, Naorem Priyangka Devi and Thokchom Martina got selected to the national team.

Besides them, five boys from the CoE played for Mizoram State at the National Sub-Junior competition and one boy played for Assam. Two boys also represented Mizoram in Subrata Cup immediately after graduating from the CoE, where they emerged as the champions of 2019.

With a view towards preparing these players to be competitive at the international level, the Tata Trusts have begun a partnership with Atletico De Madrid, one of the world's leading clubs. Through this programme, ten young players are now getting full-time football training at Madrid. Of them, five are from the CoE at Aizawl.



TRANSFORMATIVE  
JOURNEYS

Potential future  
footballers at the  
Centre for  
Excellence,  
Aizawl, Mizoram.

PROJECT ALIGNS  
WITH **SDG**  
**10** REDUCED  
INEQUALITIES





PROJECT ALIGNS WITH **SDG**  
**10** REDUCED INEQUALITIES

*Pullela Gopichand, the Indian National Coach, addresses his badminton hopefuls at Mizoram.*

## BADMINTON SOARS 1400 MTRS ABOVE SEA LEVEL

The North Eastern region of India already has a rich culture of sports and, within that, Mizoram possesses a rich history of badminton, going back to a time before the formation of its State Association in 1980. It is now undeniably one of the most popular games in Mizoram.

However, a lack of technical training, adequate facilities and opportunities hinder the potential of the talent in the state.

Observing the same, Gopichand, during his visit to Mizoram in 2017 along with the team from the Tata Trusts, proposed a badminton training programme to fill the gap. Additionally, a high altitude (1400 mtrs above sea level) Badminton training centre was also proposed, atop a hill in Siphir village. And thus Badminton Initiative Mizoram (BIM) came into existence in May 2018, with the signing of an MOU between the Tata Trusts, Mizoram State Sports Council (MSSC), Mizoram Badminton Association (MBA), Pullela Gopichand Badminton Academy (PGBA) and North Eastern Initiative Development Agency (NEIDA, an associate organisation of the Tata Trusts) to promote and develop badminton in the state of Mizoram.

BIM is an integrated design initiative with a three-tiered system: The 40 Grassroot Centers introduce their children to Badminton, ensuring dedicated quality playing time and teaching life skills. There are two

Regional Development Centers. District level training centres that provide intensive training to those who graduate from the Grassroot Centers, preparing them for competitive tournaments. Here, coaches are also trained so as to enhance their skills. Badminton Centre of Excellence, still in its first phase, is to be a residential facility with an 8-court badminton hall for the training of elite athletes.

"With consistent training and better infrastructure", Gopichand, the Indian National Coach foresees, "we can expect a lot of talent emerging from Badminton Initiative Mizoram!"



*Kids engrossed in practice during the Football Baby League in Meghalaya.*



# Skill Development



Students attend an Assistant Electrician training programme facilitated by Tata Strive at Tata Skill Development Centre, Hyderabad, Telangana.



# MAKING INDIA'S YOUTH SELF-RELIANT

## Overview

India is faced with a unique and unparalleled human resource issue. In the context of skill development, the following specific challenges stand out:

- a.** A massive 'skill shortage' – India, being a growing economy, necessitates a skilled workforce.
- b.** A ticking clock – India's demographic advantage stems from its majority youth-comprising population. A large, dissatisfied population could pose a societal challenge and the country has 10-15 years to convert it to a potential opportunity.
- c.** An off-balance 'demand and supply': Vocational education is among the top agendas for national development. However, the current scale is not sufficient to meet demands.
- d.** Challenges within: The skill development ecosystem, despite the efforts of the government and the private sector, has certain key challenges such as trainer quality, lack of life skills training, attrition post-training, authenticity of certification, etc.

Any skilling programme must address the above challenges. The transition of youth into an employee/entrepreneur is a transformative process that involves behaviour change, knowledge acquisition and skill development.

Tata STRIVE is the skill development initiative of the Tata Community Initiatives Trust, under the aegis of the Tata Trusts, addressing the pressing need of skilling India's youth for employment, entrepreneurship and community enterprise. It aims to develop capacity to train over one million youth annually. Tata STRIVE's skilling efforts span across the following three portfolios:

### Formal Skilling:

Tata STRIVE follows a two-pronged implementation strategy to impart skills to underserved youth in over 30 formal skilling trades. The first strategy is implemented through Tata STRIVE centres (called Tata STRIVE Skill Development Centres (TSSDC) and Tata STRIVE Extension Centres). These centres have state-of-the-art infrastructure and see direct implementation by Tata STRIVE – that aids innovation and research. The second is, through partner centres, in collaboration with fellow corporates (both Tata and non-Tata companies), skill development partners and government-run academic institutions.

### Informal Skilling:

The portfolio focuses on the skilling and enterprise development of underprivileged youth that consequently enables them to become employable or facilitates their transition as entrepreneurs. A cadre of Skill *Mitras* (evangelists), *Udyog Mitras* and block-level counsellors facilitate the process. A robust technology platform aids mobilisation using videos, gamified counselling techniques and beneficiary tracking. The trades offered include weaving, construction, agriculture, hospitality, healthcare, entrepreneurship and the like. One such innovative programme launched in collaboration with the Government of Odisha is called Nano Unicorn to promote local level entrepreneurship and aims at training and supporting 4,000 nano unicorns in two years. Besides, courses in candle making, bamboo craft and agriculture are designed for skill development of persons with disability.

### Ecosystem Strengthening:

This entails training of trainers for various partners, training providers and facilitators. The training is conducted on domain skills and platform skills. The National Skill Development Corporation's (NSDC) Qualification Packs form the basis for these trainings. The trainers are then assessed and certified by NSDC and Sector Skills Councils. Tata STRIVE has created a number of technology tools to enhance efficacy of training and monitoring of programmes; these tools are shared with other training partners through knowledge partnerships. Tata STRIVE has conducted sectoral research to identify future resilient skills, to address the skilling needs in aspirational districts, in partnership with United Nations Development Programme and Child-fund. Furthermore, Tata STRIVE has conducted district-level research to identify livelihood opportunities for future interventions, as well as create a framework to help decision makers make informed decisions about the skilling needs of various districts. This project is part of the Future Forward Skills Mission project and this research will help the eco-system with the adoption of new solutions for rural skilling.

## Key Achievements\*

- a.** Two new state-of-the-art Tata STRIVE Skill Development Centres were created.
- b.** Partnered with the Ministry of Rural Development on the Deen Dayal Upadhyaya Grameen Kaushalya Yojana – a scheme for skilling rural youth in Maharashtra.
- c.** Courses in the agriculture sector and allied trades were launched, including the development of a new course for Farmer Producer Organisations (FPO), in partnership with Sahyadri Farms.
- d.** A smartphone app was developed to help the mobilisation of youth.
- e.** Received recognition from the Institute for Competitiveness – the Indian knot in the global network of the Institute for Strategy and Competitiveness at Harvard Business School – which awarded the Porter Prize for enabling social progress.
- f.** Increased funding partners beyond the Tata Group Companies.

## Future Plans

- a.** Scale-up grass root entrepreneurship programmes beyond the Nano Unicorn programme in Odisha.
- b.** Greater focus on digital skills by bringing Industry 4.0 skills amongst disadvantaged youth, college students, aspiring software professionals, etc. These skills will enhance employability as they are required across various sectors beyond the IT Industry.
- c.** Increase focus on agriculture and allied sectors where there are multiple opportunities, such as FPO training.
- d.** Undertake pilots in specific sectors disrupted by technologies; for instance, auto, logistics and healthcare, where new job roles are emerging, thus bringing into focus future-resilient skills.
- e.** Re-imagine new delivery models that leverage synchronous/asynchronous online models, as well as blended learning as experienced during the COVID-19 lockdown period.

## Good Practices

- a.** Working with state governments towards institutionalising a proven process: The Tata STRIVE Bagchi Life Skills Development Programme is a first-of-its-kind skilling programme that came about as a result of the coming together of the government and Tata STRIVE. It is currently underway at 49 Industrial Training Institutes (ITIs)

located in Odisha and impacts over 27,000 youth. The programme introduces Tata STRIVE's Youth Development Modules (YDM) into the existing 'Employability Skills' programme developed by the National Council for Vocational Training. By doing so, the programme seeks to provide additional life skills, a critical enabler for employment to ITI students.

- b.** Technology as a backbone: At Tata STRIVE, technology is embedded into the strategy. A technology platform underpins the programme across the skilling value chain. Apart from being a 'single source of truth' from candidate registration to candidate performance and placement, the platform's capabilities include collaboration amongst communities, hosting of digital content and listing for placements. It has made operations replicable, scalable and measurable; a capability that is critical to the model of scaling up through collaborations. Collaborations and partnerships, in turn, are at the heart of everything Tata STRIVE does.

## Challenges Faced

- a.** Non-availability of quality faculty, which necessitates Tata STRIVE to invest in a comprehensive training of trainers' programme.
- b.** The industry does not recognise the premium on skills, in terms of better wages for those skilled as against unskilled youth, which leads to low aspiration for training amongst the youth; hence, challenges in mobilisation.

# WHEN TEACHERS TURN STUDENT

This is a story of synergy – and of empowerment – from the coastal suburb of Bandra, Mumbai. Dr. Pooja Sankhe is a primary teacher at a Brihanmumbai Municipal Corporation-run (BMC, the governing civic body of Mumbai) school in the region. She was among the few teachers selected for the Tata STRIVE's Empowerment Coaching for Facilitators (ECF) programme.

The ECF offering had been designed with a clear objective: teachers and facilitators are critical to the implementation of quality instruction in the classroom; they play a significant role in enabling students tackle key issues, handling uncertainties and making fundamental life-influencing decisions.

Conducting these sessions were Master Facilitators from Tata STRIVE, a Skill Development Initiative of

the Tata Trusts. It begins with a 3-day classroom session that involves considerable practice on the models of a coaching conversation, the core competencies of being an effective coach, activities and self-assessment tools.

Following the conclusion of the 3-day training, it is then time for an 8-week guided practice. The teachers return to their schools, seek volunteers from their students and take them through a set of 40 statements that span social, behavioural, cognitive and emotional aspects.

Dr. Sankhe, who completed the programme, shares her thoughts on the experience, "This is not just a programme that teaches you 'how to teach'. It is a memorable, applicable experience."

## TRANSFORMATIVE JOURNEYS



Dr. Pooja Sankhe, a teacher from Mumbai, who unlearned - and then learned again.

PROJECT ALIGNS WITH **SDG**  
**8** DECENT WORK AND ECONOMIC GROWTH



Rohini, a farmer's daughter from Solapur trains to excel at one of her multiple businesses.



## A WOMAN'S QUIET CONFIDENCE... AND ENTREPRENEURIAL SUCCESS

Near the Maharashtra-Karnataka border is the district of Solapur. This is where Rohini was born.

The daughter of a farmer, she worked only on land owned by others. Since this was the only source of income for her family, she had to put her dreams on hold. She studied till Class 10 and, soon after, married, moving to Pune and became a mother of two daughters.

Rohini's husband was differently-abled. She had to earn to pitch in for the family's expenses. She tried her hand at selling vegetables, but it was not reliable. It was then that, through a community activity, she got to know about the courses offered by Tata STRIVE, the Skill Development Initiative of the Tata Trusts. She visited the Tata STRIVE Skill Development Centre (TSSDC) and decided to enrol for a course. Here, she was made to take a specially designed aptitude test to ascertain her interests and skills. Based on this, she opted to take up the Assistant Beauty Therapist (ABT) course.

Sushma Gaikwad, the ABT facilitator at TSSDC, Pune recalls, "Rohini was a very shy, but sincere student. Despite being a dedicated student, her shyness prevented her from speaking confidently in front of people."

The Youth Development Modules, however, helped her overcome her fears. This, in fact, empowered her to talk of her own dreams - to start a business of her own.

Once her training was done, she started small by providing at-home beauty services and selling hand-made jewellery. And, when the profits were sufficient, she bought an auto rickshaw.

Today, Rohini continues to do it all – drive a rickshaw, provide salon services and sell jewellery – providing for her family as well as nourishing her quiet confidence.

A Retail Sales Associate Course Facilitator explains the layout of a retail store to the students at Tata Skill Development Centre, Hyderabad, Telangana.



# Migration & Urban Habitat



*A worker accesses services at an Apna Seva Kendra at Risia, Baharaich, Uttar Pradesh.*

Overview

In 2011, approximately 33% of the total Indian population lived in cities, with 450 million internal migrants<sup>1</sup>. Urbanisation has increased by almost 4% in the last decade, with every third migrant moving to a city in the last 10 years. A staggering 77% of India’s workforce (3 out of 4 workers) fall under the category of vulnerable employment<sup>2</sup>. One of the largest and most vulnerable workforces in India are seasonal migrants, mainly from distress-driven geographies. They are from rain-fed agricultural areas and the majority of them are landless or small/marginal farmers with no livelihood opportunities post the Kharif crop harvest.

Seasonal migration is the result of a lack of job opportunities and arises from the need to earn basic income for subsistence. These migrants are more likely to be socially deprived and poor, while being mostly uneducated, with minimal or no assets. Consequently, seasonal migrants are desperate to find employment. Migration provides them with greater economic prospects, which in turn, provides sustenance to the workers and their families. However, it exposes these individuals to harsh and vulnerable situations, where work and living conditions are extremely poor. The biggest employers of migrant workers in India include the construction sector (40 million), domestic work (20 million), textiles (11 million), brick kilns (10 million), transportation, mines & quarries and agriculture<sup>3</sup>.

The strategic focus of the Trusts’ migration interventions is to improve the quality of life of the urban poor, especially seasonal migrants at the base of the socio-economic pyramid, by reducing occupational, social and residential vulnerabilities. This is done by:

- a. Facilitating linkages to social security schemes through self-reliant service delivery platforms.
- b. Ensuring financial inclusion for migrants.
- c. Adoption of technology and design innovations to address the nutrition, housing, water and sanitation needs of migrants.
- d. Reducing occupational vulnerability in the construction and brick kiln sectors.

A woman displays her BoCW card at a village level community meeting.



<sup>1</sup>Census of India; 2011;  
<sup>2</sup>World Bank; 2019  
<sup>3</sup>International Institute for Population Studies

## Key Achievements\*

- a.** Showcasing Apna Seva Kendras (ASK) as a unique, alternate service delivery model with community contribution covering up to 40% of the operational costs. A cadre of 27 social entrepreneurs identified and their capacity enhanced for upscaling the model.
- b.** Catering to 1.65 million individual beneficiaries through the provision of 417,268 services across 5 states.
- c.** Interventions at brick kilns being showcased by the District Administration as an innovative project under Poshan Abhiyaan, with the potential to scale up at the national level.
- d.** Forging convergence with the Departments of Health, Education and ICDS for facilitating the delivery of services at brick kilns. Besides, partnerships forged with the Governments of Rajasthan, Uttar Pradesh and Odisha (Departments of Labour, Panchayati Raj and Women & Child Development).
- e.** Developing a Migration Technology portal at the Migration Resource Centres (MRC) as a bridge, linking migrants with government entitlements. Over 182,065 members registered on the portal.

## Future Plans

- a.** Develop a programme framework for post COVID-19 interventions.
- b.** Undertake advocacy for migrant centric planning and portability of schemes across the country.
- c.** Engage intensively with employers for onsite welfare and security.
- d.** Strengthen government regulatory frameworks.
- e.** Focus on housing, nutrition and education for migrant households.

## Challenges Faced

- a.** Low focus on migrants, especially at destinations, by the governments.
- b.** Lack of a central repository / data on schemes available for migrants.
- c.** Reluctance of employers of informal sector workers to undertake labour welfare measures.
- d.** Low awareness and literacy levels among migrant workers.



*An owner of a brick kiln at Nukdoompur, Karimnagar, Telangana, has built a residential area with a sanitation facility for his workers and their families.*

## FROM PILLAR TO POST TO FINDING SUCCESS AT HOME

At the age of 24, Mohammad Shameem, from village Phulvariya, Shahpur, Block Jamunaha, Shrawasti, Uttar Pradesh went in search of livelihood to support his family. Work was hard to come by and so he did what odd jobs he could, to survive. This was compounded by difficulties in safeguarding his earnings or transferring them to his family back home. He tried working in different locations, including Mumbai, Delhi, Goa, Rajasthan and Punjab, but the challenges were overwhelming.

At the time of his sister's wedding, Shameem returned home. It happened to be at a time when a financial service camp was being organised in his village by a social entrepreneur under the Migration Support Programme of the Trusts. At the camp, important information related to financial inclusion, Government welfare schemes and Labour registration were shared with the community and more details and linkages were offered at the Apna Seva Kendra, which are migration centres run under the aegis of the Migration Support Programme of Tata Trusts.

Two days later, Shameem and his father went to Apna Seva Kendra (ASK), Badala and registered themselves under the Building and Other Construction Workers (BoCW). Soon, he was back at ASK to open an account for his year-old-daughter Shama Bano, under the Sukanya Samridhi Yojana scheme. However, he didn't have the birth certificate. ASK applied for the birth certificate and then got his daughter registered under the SSY scheme. They also took it upon themselves to register him for the Kisan Samman Nidhi scheme as well, from which he could benefit too.

As a result, Shameem and his family were linked to 3 different schemes, prompting him to start saving money and deposit ₹500 per month into his daughter's account.

*The families of labourers from Uttar Pradesh attending a Migration Support Programme.*

### TRANSFORMATIVE JOURNEYS



PROJECT ALIGNS WITH **SDG**

**1** NO POVERTY



PROJECT ALIGNS WITH **SDG**

**8** DECENT WORK AND ECONOMIC GROWTH



Kalta with other children at the Udaan Kendra at Banda, Uttar Pradesh.



PROJECT ALIGNS WITH **SDG**



PROJECT ALIGNS WITH **SDG**  
**8** DECENT WORK AND ECONOMIC GROWTH



## QUALITY OF LIFE IMPROVES ONE BRICK AT A TIME

Brick kilns, the second largest non-farm employer in India, are also known for poor living and working conditions, as well as rudimentary access to health & social services for their workers, who are usually migrants.

Lack of healthcare services severely affects pregnant women and newborns, when 2/3<sup>rd</sup> of the year is spent away from their villages in the brick kilns. Few brick kiln owners do try to support their workers and provide them guidance about govt. benefits; however, it has limited reach and benefits. Poor education facilities for young children also aggravate the situation for migrant workers and their families. Fortunately, most brick kilns are usually clustered close together. The solution was to set up centers, which could provide day care, health services, meals and so on to young mothers, infants and children. However, brick kiln owners are at times apprehensive about having the involvement of non-profit organisations to address these concerns. Therefore, getting an entry into the site itself posed a major challenge. However, through numerous in-person engagements and sensitisation workshops, the Trusts' support team was able to overcome the barrier. And eventually, two centers, called 'Udaan Kendras' were established in the Sri Ganganagar district of Rajasthan. There was an inaugural ceremony to mark the opening of the Udaan Kendra (Centre), which was covered by the local media. The media coverage went a long way in positively influencing other brick kiln owners to allow entry to NGOs and encouraged them to support setting up of Udaan centres for the betterment of the brick kiln workers.

At the Udaan Kendra, an especially-designed parent engagement module was used for sensitising workers

on pre-schooling, child care and continuing education. The engagement with the migrant brick workers involved driving their interest to understand the importance of pre-schooling in the overall development of their child and pre-natal care for the pregnant women. The centers offered enrolment for the pregnant women to avail the benefits from the govt. schemes, and workers' children to attend the pre-school at the Udaan centre.... including Chotelal enrolling his 5-year-old daughter, Kalta. Later, parents also began to link their out-of-school children with government schools.

Chotelal, from Banda, Uttar Pradesh has been migrating to Rajasthan for a period of 7 to 8 months along with his wife and children over the last 5 years. His children have spent most days either playing or helping both parents at laying bricks in a hazardous, dusty environment.

Chotelal narrates, "I am the father of a 5-year-old daughter, Kalta. She has spent almost all her life soiling her hands. I got to know of Udaan Kendra and enrolled her. She is excited to go there and her daily habits and hygiene have significantly improved."

Today, children like Kalta enjoy shelter, have improved their learning levels and show signs of significantly reduced malnourishment. Further, pregnant women at brick kilns are, for the first time, experiencing access to pre-natal care and institutional deliveries as well as immunisation for their newborns. Child labour, too, is dropping.

The positive results of the intervention resulted in a formal convergence with the Health and Integrated Child Development Service (ICDS) departments. More and more migrant families can now lead a better life, together.

**Overview**

The latest census data reveals that India’s urban growth is taking place in and around 7,935 towns and cities spread across the country. Among these, most of the growth is taking place in 468 Class I cities with a population of over 100,000 each<sup>1</sup>. This is where 70% of India’s urban population lives. With 70% of all new jobs expected to come from urban areas, accommodating a growing urban workforce will require large investments in new urban spaces.

However, urbanisation in the country is largely unplanned and inequitable. Over 40% of the urban poor are concentrated in the states of Rajasthan, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha and Bihar. Urban poverty manifests through inadequate provision of housing, water and sanitation, and limited access to health & education services, social security and livelihoods.

In 4,041 statutory towns, close to 8 million households do not have access to toilets and defecate in the open. Nearly 45% of slum-dwelling households live with open drains, and a third have no access to any form of household sanitation<sup>2</sup>. Lack of safe sanitation has significant health costs. Untreated sewage from cities is the single biggest source of water resource pollution in India.

The Government has set an ambitious target for providing affordable housing for all by 2022 under the Pradhan Mantri Awas Yojana (PMAY). The total

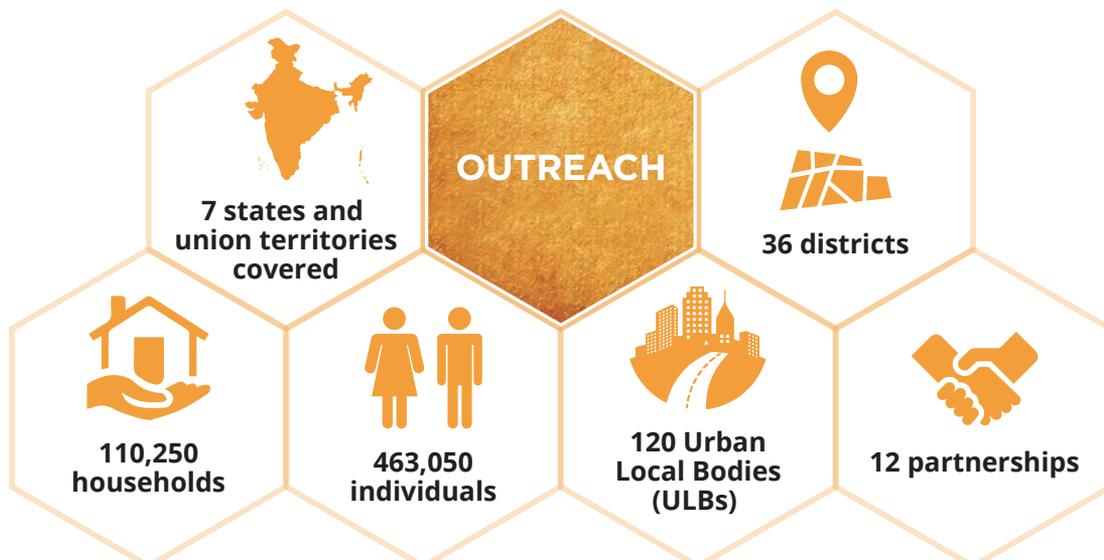
housing shortage envisaged to be addressed through the programme is around 20 million. There has been scarce private sector investment in the affordable housing sphere due to a perceived high risk and low margins business. Interestingly, the challenge of Urban Development in India is not really the lack of financial resources, since there are various sources of funding available for urban infrastructure, service development, and other much-needed interventions. However, the major challenges are institutional capabilities and the efficiency of existing governance procedures.

Given this, the Tata Trusts is concentrating on building capacities of the government and institutions dealing with urban governance, whilst designing need-based interventions to address the systemic challenges. The vision of Urban Habitat theme of the Trusts is to promote a sustainable habitat that provides appropriate housing and a conducive living environment for the urban poor, to impact their quality of life. The focus is on:

- a. Land tenure and affordable housing
- b. Provision of basic services – water, sanitation and waste management
- c. Improved urban governance

**Key Achievements\***

- a. Partnered with the Government of Odisha for implementation of “Odisha Liveable Habitat Mission (JAGA MISSION)” with coverage of approximately



<sup>1</sup>censusindia.gov.in  
<sup>2</sup>Census 2011

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

1.7 million individuals across 114 cities of Odisha. Considered to be one of the largest initiatives in the country to reduce the vulnerability of the urban poor by increasing tenure security, the initiative was awarded a Bronze at the World Habitat Award in recognition of its innovative, outstanding and revolutionary ideas of slum development.

**b.** Gained recognition for the Odisha Slum Titling project (jointly with the Government of Odisha), under which, over 60,000 families staying in the slums of Odisha were granted Land Rights certificates and about 100,000 families were granted Land Entitlement Certificates. Slums were surveyed and mapped over 18 months using drones and GIS technology.

**c.** Undertook a profiling exercise of 1,194 slums in 5 Municipal Corporations over a three-month period, along with Jaga Fellows. This exercise engaged and supported slum residents and leaders to learn about their own slum and participate in the service and infrastructure gap analysis process, thereby helping the government develop a plan for upgrading the slums and service delivery.

**d.** Partnered with Norman Foster Foundation to develop a template of a master plan for transforming slums into liveable habitats. To be used for upgrading and redeveloping the slums, the template covers design of infrastructure, service network like road grids, sewerage, beach front structure, housing design typology and neighbourhood planning.

**e.** Designed the Housing for Urban Homeless Migrants project, in partnership with Surat Municipal Corporation, to facilitate the implementation of Shelter for Urban Homeless (SUH) Scheme under the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (launched by the Ministry of Housing and Urban Poverty Alleviation). The project was recognised by other city administrations in Gujarat (Vadodara and Ahmedabad) as a model for adoption and replication.

## Future Plans

**a.** Focus on developing rental housing models for urban poor, exploring areas such as creation of temporary housing, slum-free areas and disaster resilient cities. Key focus will be to support the development of policy and implementation of a framework for slum-free and disaster resilient cities.

**b.** Provide technical support for replication and upscaling of land rights through the sharing of experience and knowledge. Capacity building of stakeholders and officials will also be a key area of focus.

**c.** Strengthening community institutions and building capacity for developing local level plans.

## Best Practices

**a.** With a view to build an ecosystem for land tenure and affordable housing for the poor, over 99,000 households living in the medium and small cities of Odisha and covered under the Odisha Land Rights to Slum Dwellers Act 2017 were granted Land Entitlement Certificates (LEC) as an interim measure, prior to being issued Land Rights Certificates. The LEC guaranteed that slum dwellers could not be evicted; further, the slums could be used as address proof for accessing government welfare schemes.

**b.** Holistic service delivery at urban shelters in Surat to promote housing for urban homeless migrants, which include identification and rescue of the homeless, induction and admission to the shelter, support for rehabilitation, linking them to entitlements and services and meaningful livelihood opportunities through periodic seminars and workshops, and encouraging them to shift to rental housing to lead better and dignified lives.

**c.** Partnering with the Housing and Urban Development Department, Government of Odisha, to extend support for effective implementation of the Odisha Liveable Habitat Mission, transforming slums into liveable spaces.

**d.** Partnering with Varanasi Nagar Nigam to address challenges through community mobilisation. A communication campaign tag-lined "*Hum bhi hain Zimmedar*" was organised to create awareness at a mass scale. The Trusts supported the designing of digital wall paintings, banners, posters, door stickers, hoardings, flip charts, backdrops, standees and song compositions.

## Challenges Faced

**a.** Limited urban professionals and community-based organisations with experience of working with the urban poor.

**b.** Lack of design and financial instruments for the urban poor to access credit for housing and basic services.

**c.** Lack of data on urban poor, coupled with non-availability of reliable data on urban informal settlements and their growth.

**d.** Multiple vested interests in urban land.

# HOLISTIC IMPROVEMENT OF A SOCIETY THROUGH NEW HABITS

One of the key focus areas of the Varanasi Urban Habitat Improvement programme is capacity building for system strengthening. A three-tier model, covering waste categories, components of a sanitation chain, regulatory framework, impact on health, role of stakeholders, etc. was developed for internal and external stakeholders in the sanitation chain. The modules curated for each tier were then shared by the Tata Trusts with the Varanasi Municipal Corporation. The modules also elaborated on the clauses covered under the Solid Waste Management (SWM) rules for waste generators, such as the role of individuals, institutions, hotels, hospitals and other institutions.

228 external stakeholders were identified and capacity building done for the education department, the ICDS personnel and the frontline workers. They, in turn, ensured the information and guidelines were shared with schools, and focused on the hygiene and sanitation of children and mothers, builder associations, hotel associations, street vendor associations, Swachh Ambassadors and community leaders. The programme also covered installing composting units, paying user fees and eventually encouraging stakeholders to contribute to the city's cleanliness plan operated by Municipal Corporation Varanasi.

Meanwhile, sanitation workers, including senior Safai Mitras, supervisors and inspectors were mobilised to build capacities around solid waste management. Further, orientation sessions on the implications of improper waste management, source segregation and home composting were conducted for households, shopkeepers, RWAs and ladies' clubs.

Post these orientation sessions conducted by the Trusts, Government Officers were further encouraged to establish a knowledge dissemination chain to ensure that all resources, across the board, were on the same page. One such officer, a sanitation inspector, Ram Sakal of sub-zone Kotwali, conducted trainings in batches of four, engaging over 215 Safai Mitras from nine wards, on solid waste management, the importance of safety equipment and the proper use of personal protection equipment (PPE), precautions to be taken while on duty, health risks associated with waste collection and how to avoid them.

1,449 Safai Mitras across 45 wards of Varanasi Nagar Nigam have undergone the orientation program run by the Trusts. The Municipal Commissioner, Varanasi appreciated the efforts of not only the Safai Mitras, but also the officials who extended their support.

## TRANSFORMATIVE JOURNEYS

*Supervisors participating in a group imparting Masters' training to build capacities around solid waste management. These supervisors further train the Safai Mitras.*



PROJECT ALIGNS WITH **SDG**  
**3** GOOD HEALTH AND WELL-BEING

PROJECT ALIGNS WITH **SDG**  
**6** CLEAN WATER AND SANITATION

PROJECT ALIGNS WITH **SDG**  
**11** SUSTAINABLE CITIES AND COMMUNITIES

# Social Justice and Inclusion



A nutrition committee meeting in progress at an ashramshala in Korachi, Maharashtra under the Trusts' Child Protection Initiative.



10 states

OUTREACH



85,959 beneficiaries

# ENVISIONING JUST AND VIOLENCE-FREE COMMUNITIES

## Overview

India is the world's largest democracy and is pacing to become a world leader. Yet, Indian society faces grave issues that could hinder its development and growth.

Specifically:

- a.** The lack of rehabilitative support services and weak evidence-based data in the justice system creates hurdles in the path of access to justice for marginalised communities. Notably, 67% of the prison population in India are under-trials and over 30 million cases are pending in the courts in India.
- b.** There are high levels of child abuse with 66% facing physical abuse and 53% facing sexual abuse; further, over 49% of trafficking victims are children.
- c.** Violence against children increased by 500% during the ten-year period 2008-18.

These are critical problems, adversely affecting 40% of people from marginalised communities. Women, children, Dalits, Muslims, Adivasis, prisoners and trans-genders, even today, face exclusion in terms of lack of voice in the development agenda and discriminatory access to public goods.

In order to address this, the Trusts aim to promote justice and violence-free lives for women, children and marginalised communities in India.

### **The Social Justice and Inclusion portfolio has 2 areas of engagement:**

- a.** Access to Justice – focuses on strengthening access to justice and the voice of the poor & excluded; particularly, Dalits, Adivasis, Muslims, women and children. Interventions include work towards effective implementation of existing laws and schemes to benefit marginalised populations and improve the condition of custodial populations through systemic reform.
- b.** Child Protection – focuses on addressing exploitation and preventing violence in the most vulnerable conditions, mainly through building protection mechanisms. It also includes the development of a framework for quality of care, besides strengthening systems and mechanisms to combat human trafficking.

## Key Achievements\*

- a.** Organised a training, facilitated by Prayas, for trainees of the Prison Officers Training School, in order to initiate a discussion on the concept of a prison as a Centre of Correction and to emphasise the need for Prison Officers to carry forward the concept of rehabilitation.
- b.** Supported the Resource Cell for Juvenile Justice to complete a study on the status of the Justice Delivery System for Juveniles in Conflict with Law in Maharashtra, in light of the Act being amended in 2015. The study focused on the magnitude of the situation, profile of children being arrested, nature of final orders being passed and the role of NGOs in developing a knowledge base to initiate policy change vis-à-vis procedures being followed and documenting best practices for future reference.
- c.** A district level seminar with stakeholders was organised in four districts (Indore, Panna, Jabalpur and Chittorgarh) in which 323 officials from the Departments of Police, Social Justice and Welfare, Judiciary and Health participated and an agenda was developed to work together in cases of atrocities.
- d.** Rescue of 5,811 missing / runaway children was facilitated, 4,445 of whom were reunited with their families over a two-year period (2017-19).
- e.** Undertook the first aftercare study on youth leaving care homes across the states of Karnataka, Gujarat, Rajasthan, Maharashtra and Delhi.
- f.** Formed child protection committees and children's groups in 61 villages and 74 schools of Pombhurna block, in Chandrapur district, Maharashtra.
- g.** Conducted a national study on human trafficking, covering 204,820 individuals across 134 districts.
- h.** Undertook a successful pilot in Maharashtra for institutionalisation of a cadre of social workers in the prison system.
- i.** Reintegration of up to 76% of rescued missing and runaway children with their families.
- j.** Initiated child-led monitoring on care and protection in 22 Ashramshalas of Gadchiroli, Maharashtra.

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

## Future Plans

- a. Replicate the institutionalisation of a cadre of social workers in the prison system in at least 2 states, following the successful pilot in Maharashtra.
- b. Create awareness on the Manodhairya and Victim Compensation Schemes among the police in Maharashtra.
- c. Create a group of para legal volunteers from the Sabar community to provide socio-legal guidance to persons wrongfully arrested by the police.
- d. Raise awareness among 8,000 children in the tribal Ashramshalas of Gadchiroli district in Maharashtra on prevention of child abuse.
- e. Prevent child labour and child marriages among 9,000 children in Telangana.
- f. Establish a care leavers' (children leaving child care institutions after attaining 18 years of age) platform for advocacy on aftercare services.

## Best Practices/Learnings

- a. In November 2019, the Welfare and Rehabilitation of Prisoners initiative partnered with the Urban Primary Health Centre programme of the Trusts and conducted health screening camps for 700 prisoners at Nagpur Central Prison, thereby spreading awareness on preventive healthcare measures.
- b. DISHA used the RTI Act to compile a status report on the implementation of the Victim Compensation Scheme 2014. In December 2019, this report was shared with Justice Dharmadhikari, Director, Maharashtra Judicial Academy & Indian Mediation, Bombay High Court, Mumbai for further action.

## THE ARC OF JUSTICE

On 26th November 2017, Anil (name changed), an auto rickshaw driver was at work when he crossed paths with Lakhan, another auto driver. Both men belonged to a scheduled caste community and got into an argument over certain passengers who were supposed to ride with Anil. This soon turned into a physical altercation and Lakhan struck Anil on the head with an iron object. Anil fell, unconscious. A witness informed Anil's family of the altercation, soon after which, Anil's wife rushed him to the hospital. He was, however, declared dead upon arrival.

Jan Sahas, an NGO supported by the Tata Trusts was made aware of this incident on the same day and soon a team embarked upon a fact-finding mission. They found that Anil and Lakhan had known each other, professionally, and had several altercations in the past. Since the deceased was the sole bread earner of the family, his wife and children were left in a tough situation after Anil's demise. Jan Sahas provided ration support to the family for immediate relief. To help strengthen the economic condition of the family, they further sponsored Anil's wife to learn sewing. They also provided the family with a sewing machine in order to ensure livelihood support to the family.

Two years later, on 11th September 2019, Special District Court sentenced Lakhan to life imprisonment.

The Jan Sahas team helped the family during the case by providing moot court facilities and also by helping to get the accused's bail rejected twice.

Furthermore, the Jan Sahas team helped Anil's family to also submit an application for compensation to the District Social Justice and Welfare Department and the family received an amount of ₹8,25,000. Moreover, Jan Sahas conducted follow-up visits to support the family. A tiny spark of happiness here is that now, Anil's wife is able to earn and support her family.



*A meeting underway to strengthen access to justice and give voice to poor and excluded communities.*



# Arts and Culture



Participants cleaning the verso of an oil painting during a training course on oil paintings organised at the Kolkata Institute of Art Conservation, under the Tata Trusts' Art Conservation Initiative.



10 states

OUTREACH



1,563  
beneficiaries



547,884 indirect  
beneficiaries

# CONSERVING OUR HERITAGE THROUGH CULTURAL ART

## Overview

To support the arts in India is to support the millennia-long cultural traditions that form the country's intricate past and the contemporary art practices that will inform its future. The creation of art, and participation in it, is a crucial part of any community's development and a strong conduit for its expression. While India grapples with high intensity developmental problems like poverty, caste and gender discrimination, unemployment, hunger and ill-health, sanitation issues and others, support for the art sector makes the smallest piece of the pie.

The vision of the Arts and Culture portfolio is to work with multiplicity, excellence and the marginalised communities that manifest in working across three main areas: Conservation (built heritage, film preservation and art conservation); Performing Arts (music, dance and theatre); and Art Education at the tertiary levels.

## Key Achievements\*

**a. Tata Trusts Students' Biennale National and International Awards** were given to exceptional student-artists who exhibited at the Students' Biennale 2018. 11 students from the University of Kashmir were awarded the national award, comprising month-long residency opportunities for the students at Pepper House in Kochi; and 3 students from art schools in Hyderabad, Jaipur and Santiniketan received the international award that comprised a travel grant to visit the Venice Biennale.

**b. Under the Tata Trusts' Art Conservation Initiative**, five zonal institutes organised 8 training courses in material conservation through the year, training up to 15 conservators in each course. Materials covered in these training courses were metals, oil paintings, panel paintings, prints and drawings, illustrated manuscripts, stone, wood and textiles. Two more training courses (in photographs and wall paintings) that were scheduled for March-April 2020 were postponed indefinitely due to the ongoing COVID-19 pandemic.

**c. The 3-year support to Film Heritage Foundation** for organising annual film preservation and restoration workshops came to a successful end, with the third workshop being organised at Annapurna Labs, Hyderabad during December 2019. This year, 75 participants were trained in advanced and basic levels of film, digital and

photo preservation techniques. Out of these, 25 participants received The Tata Trusts scholarships.

**d. The third edition of Kalapana** – a Trusts' established platform for bringing together relevant stakeholders in the arts and community – was organised at the Quli Qutb Shah Heritage Park in December 2019. The 3-day-event focused on the theme of conservation, highlighting the work of two of the Trusts' partners – Film Heritage Foundation that works on increasing awareness for film preservation and offering training opportunities in the field; and Aga Khan Foundation that is working on conserving heritage. The event comprised a closed door roundtable between stakeholders in the field of built-heritage conservation; a public lecture by the founder of Film Heritage Foundation, which was followed by an open air film screening; and heritage walks for the public highlighting the conservation works underway at the Qutb Shahi Heritage Park.

**e. In order to commemorate five decades of excellence in promoting the best of theatre, music and dance, the National Centre for Performing Arts (NCPA)**, in partnership with the Trusts, curated a year-long programme in performing arts. The curation featured over 30 celebrated Indian and international artistes, engaging over 20,000 people across 45 events.

## Future Plans

**a. Implement the Art Conservation Initiative** across the five zonal centres, as the project enters its second year, with advanced level training courses and field surveys.

**b. Build a strategy for the Trusts' work in performing arts.**

**c. Develop a performing arts pedagogy programme with fellowships for practitioners of endangered and nascent art forms.**

**d. Develop a specifications manual for built-heritage conservation with Aga Khan Foundation to arrive at standardised ratings for heritage buildings for the northern region.**

**e. Extend support to the 2020 edition of the Students' Biennale (should it be scheduled this year, in the wake of the COVID-19 pandemic).**

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

## Best Practices

**a. Mumbai Police Archives:** Training 30 police volunteers in the best practices of paper conservation and archiving. These staff, who are in-charge of historical police records dating to the early 1900s, were trained to assess signs of deterioration and damage to paper records; clean and document records and files; properly conserve weak papers; and re-house them in cleaned tin and wooden boxes. The archiving volunteers were trained to handle logging of records and identifying key words and entering data into spreadsheets for continuous tracking. Procedure manuals for both archiving and conservation practices were developed for the team to refer in their ongoing work.

**b. Inspire India Programme (IIP)** set up its second and third learning centres in Govandi and Chembur, in Bombay, respectively. The initiative, developed by Shankar Mahadevan Academy, creates access to music pedagogy for children from disadvantaged backgrounds and trains young musicians as prospective community music educators. Until last year, the initiative was being implemented at only one centre in Sion that ran to full capacity, until further institutional partnerships with Govandi Education Society and Shree Sanatan Dharma Vidyalyaya in Chembur were secured. Word-of-mouth promotion by learners and their parents, coupled with a series of community music outreach activities implemented by the programme team, were the key factors in securing the partnerships for the project. IIP offers a diverse learning programme for students comprising vocal trainings in Hindustani classical, folk, bhajans and popular songs and western classical instrument learning through guitar and piano. So far, the programme has engaged over 1,600 learners, of which 290 are based in Govandi and 225 in Chembur, and trained two community music teachers that are currently undertaking classes across the three centres.

**c.** Supporting performing arts fellowships through partnerships with two regional institutions in the south – **Kalavaahini Trusts** in Chennai and Sri Nilakanteshwara Natya Seva Sangha (**NINASAM**) in Heggodu, Karnataka, both of which offer high quality training and mentorship to young practitioners. Kalavaahini has built a multi-platform environment to promote training and development in Bharatanatyam. It awards fellowships, trains young artistes of excellence and hosts a dance in progress residency for young artiste practitioners. Ninasam, a residential school for regional theatre based in remote North Karnataka, comprises a theatre school and a repertory that offer fellowships to visiting theatre practitioners of excellence, who, in turn, mentor

the divisions at Ninasam in acting, dramaturgy, lighting skills and production over the year.

**d.** Preparing a detailed project report for a Museum of Biomedical Sciences for the Haffkine Institute for Training, Research and Testing. The report details an implementation roadmap to help aid Haffkine Institute in revamping the existing Haffkine Museum into a Museum of Biomedical Sciences, referring to the best practices exhibited by Science and Medical museums from across the world.

## Challenges Faced

**a.** Working with the **Mumbai Police Foundation** was both rewarding and challenging. The biggest hurdles faced included setting up a management structure within the police volunteers to ensure that work plans and schedules were maintained; materials were sourced on time; and to assess the learning capacity and continuous interest of the volunteers in executing the work. With three Commissioners of Police changing through the project period, an additional hurdle was to get the buy-in of each successive commissioner in the implementation of the project, with delays incurred because of timely sanctions not being received.

**b.** Implementing the 8 training courses in material conservation across five zonal institutes, under the **Tata Trusts Art Conservation Initiative**, presented unique challenges that included the timing of releasing announcements and selection of participants so that arrangements could be made in time for the courses; finalising schedules and faculty for each training course; and developing assessment protocols for each course. In addition, 2 remaining training courses that were to be held in March-April 2020 had to be indefinitely postponed due to the ongoing COVID-19 pandemic.

Learners of Hindustani classical music present a 'Bandish' at the launch of the learning centre in Govandi, Mumbai, under the Inspire India Programme developed by Shankar Mahadevan Academy



## THE NEXT GENERATION OF DANCERS

With contemporary dance practice in India demonstrating a shift from the traditional forms of Bharatnatyam, Kathak, Odissi, etc. there were sparse training opportunities that amalgamated critical thought with practice. The launch of the two-year MA in Performance Practice (Dance) at Ambedkar University Delhi in July 2018 filled this much needed requirement in the field of dance as higher education.

This two-year postgraduate course comprises an inter-disciplinary curriculum developed by Gati Dance Forum with the support of the Tata Trusts, the Royal Norwegian Embassy, the Goethe Institute and the British Council; and is helmed by Assistant Professors Mandeep Raikhy (dancer and choreographer) and Ranjana Dave (dancer and writer). 20 students were admitted as part of the first batch, of which, 15 will be graduating in July 2020.

The curriculum offers core and optional subjects covering topics such as 'Awareness Observation Description: Reading and Writing Dance'; "Embodied Practice: Fundamental Moving Principles"; "Dance Histories, Ecologies and Identities", and "Investigating Choreographic Principles, Methodologies and Form". The assistant professors are joined by visiting faculty (that includes artistes, choreographers and professionals from other technical fields), who take specific classes through the semesters.

Classes are conducted at the Khirki Extension campus in Delhi, comprising a dance studio, a library and other teaching spaces - soon, the University will provide a permanent space. The students have already performed in public, with five students being selected to attend the 7th Dance Education Biennale in Hamburg in February 2020; and some of the students presenting a choreographed piece "Persistence of Being" (choreographed by Abhilash Ningappa) as a public performance in Delhi in March 2020.

A mid-term review was conducted by dance practitioner Padmini Chettur in 2019 to assess the course, which included attending classes; interacting with students and the faculty. A final review will be conducted in July/August. Being a pilot project, the reviews are essential in measuring the efficacy of the programme and aiding the University's implementation of the next edition.

As classes wind up, and the students submit their final dissertations navigating Covid-19 adjustments, Ranjana Dave, Assistant Professor, asserts the importance of this course, "Locating such a programme within a government university has mitigated barriers to access and has paved the way for students and their families to think of dance as a realisable career option". It is hoped that this course can become a new pedagogic model that will professionally equip a new generation of dancers.

### TRANSFORMATIVE JOURNEYS

*Students at a studio session as part of their MA in Performance Practice (Dance) at Ambedkar University Delhi.*



PROJECT ALIGNS WITH **SDG**  
4 QUALITY EDUCATION

# Disaster Relief and Rehabilitation

*Inauguration of a  
reconstructed school  
in Sindhupal Chowk  
district, Nepal.*



## RELIEF EFFORTS ACROSS THE NATION

The Trusts, along with teams from Group Companies, have been in the forefront in the wake of natural disasters occurring in the country (and neighbouring Nepal). Immediate relief operations have been followed up with long-term rehabilitation efforts.

### Supporting Earthquake Victims in Nepal

#### Overview

Nepal was hit by major earthquakes, measuring 7.8 and 7.4 on the Richter scale on April 25, 2015 and May 12, 2015 respectively. Many parts of the country were severely affected with more than 9,000 casualties. Among the affected areas, Sindhupal Chowk was the most affected district in terms of casualties. After undertaking immediate relief activities, the Trusts proceeded to undertake a long-term plan focusing on the restoration of infrastructure that was destroyed in the disaster. The objectives of the project are: (a) to improve infrastructure for education by constructing permanent structures of six government schools for children in Sindhupal Chowk district; (b) to increase the number of gender-friendly toilets in schools; (c) to strengthen the education system by providing school materials and psychosocial counselling for making learning fun; and (d) to promote Water & Sanitation and Hygiene (WaSH) behaviour among the students and the community in the catchment area. As part of this project, the Trusts are facilitating the reconstruction of 7 secondary schools and one health post.

#### Key Achievements\*

- a. 5 reconstructed schools and one health post were handed over to the community. The construction work on the other two schools is expected to be completed by September 2020.
- b. 62 class rooms (seismic zone 5 compliant) have been constructed, which will cater to 1,905 students enrolled in these schools.
- c. 14 gender-friendly toilet units were constructed; work on the remaining 6 units is ongoing.
- d. 143 training sessions covering different aspects of E-WaSH were conducted in 7 schools. Wall paintings were completed in 5 schools.
- e. Up to 95% of students adopted personal

hygiene habits (measured against 13 hygiene indicators), as against a baseline of 39%.

f. Additional funding support to the tune of (Nepali) Rs. 40 million was leveraged from other donors to augment the work of the Trusts. This will enable an additional 11 schools to be covered under creation of WaSH infrastructure.

#### Future Plans

- a. Complete and handover 2 schools.
- b. Install water purification systems in all 7 schools.
- c. Implement WaSH activities in 18 schools (including 11 schools being funded through other sources).

#### Key Learnings

- a. Proper coordination with School Management Committees proves effective in case of any disputes.
- b. Given the huge gap between the knowledge level and the practice vis-à-vis WaSH behaviour of the students, it would be efficacious to focus more on improving practices.
- c. Empowering child health clubs and school faculty is key to sustainability of the WaSH programme.

#### Challenges faced

- a. Geographical hindrances, road inaccessibility and adverse weather conditions.
- b. Obstacles due to exertion of local pressure for obtaining contracts for the construction works.

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

## Flood Relief Efforts in Mizoram

### Overview

Incessant rains lashed Mizoram during July 2019, causing most rivers of the state to overflow, inundating many villages. Given the geographical isolation of the state, the disaster reports rarely make it to the mainstream media; subsequently, relief support is limited to that provided by the state government and local civic bodies. A total of 630 acres under Jhum cultivation and 130 acres of orchard fields were damaged. Lungsens R.D. block in Lunglei district and Lawngtlai district were the worst affected, with around 700 households comprising over 3,500 individuals bearing the brunt of the damage caused due to the floods.

In the wake of the floods, the Trusts undertook a relief and rehabilitation programme with support from the local government, local non-profit organisations and volunteers.

### Key Achievements\*

- a. Over 370 Tata Swach Water Purifiers and 30 boxes of water purifying sachets were supplied to ensure availability of clean drinking water for over 600 households comprising over 6,000 individuals.
- b. Over 400 kilograms of white rice were distributed to 435 affected households.
- c. Re-construction of damaged houses of 650 families using 4,000 corrugated Galvanized Iron (GI) and 400 Silpouline (polyester coated with polyurethane) sheets.
- d. 132 farmers were trained and supported for engaging in cultivation of winter vegetables. A total of 264 packets of brinjal and 660 packets of french beans were distributed to the farmers.

## Relief Efforts in the Aftermath of the Fani Cyclone in Odisha

### Overview

A powerful cyclonic storm named Fani hit the coast of Puri district, Odisha on 3rd of May 2019, generating storms with wind speeds up to 210 kmph and causing widespread damage in Odisha. While Puri district bore the brunt of the calamity, the cyclone affected a total of 14 districts and impacted a population of over 150,000. Though the Government of Odisha was able to evacuate over 1.4 million individuals into cyclone shelters in time, there were 64 casualties and extensive damage to houses, electricity supply, water supply and telecommunication infrastructure.

Responding swiftly to this disaster, the Trusts' team made a quick assessment of some of the worst-affected areas in Puri and Khurda districts, where cooked food and clean drinking water emerged as the immediate needs of the cyclone-affected population. The cumulative intelligence of some of the recent disaster responses by the Trusts in Kerala, Karnataka and Jammu & Kashmir shaped the operational strategy and delivery on the ground.

### Key Achievements\*

- a. Over 115,000 litres of drinking water was supplied through the deployment of 3 mobile Reverse Osmosis (RO) units over a period of 12 days, covering 63 villages in Puri district and 33 slums in Bhubaneswar. The Trusts' team was ably supported by Tata Projects. Livolink Foundation, an Associate Organisation of the Trusts in Odisha, deployed a strong field team to manage ground operations. The identification of slums and rural pockets was done in collaboration with the Department of Housing and Urban Development, District Administration of Puri, Centre for Youth and Social Development (CYSD), a local NGO, and other partner organisations.
- b. Partnered with Tata Motors for provision of 3 water tankers, with a capacity of 2,000 litres each, to further strengthen the distribution process and make delivery accessible to interior pockets.

## Karnataka Flood Relief Efforts

### Overview

Devastated by floods in 2019, Karnataka was facing a grave humanitarian crisis. Lives were lost, houses damaged and arable land was under water. Domestic animals were missing or dead, and the state faced heavy damage to infrastructure. In the immediate aftermath, a flood response team, comprising employees from Titan, the Tata Trusts and Kalike, was deputed to assess the ground situation in Belgaum, one of the hardest hit districts in the state, and to identify the most essential relief measures.

Only three of the 14 talukas in Belagavi district were accessible. The response team identified purified potable water and family relief kits as the most essential necessities in this flood-ravaged area. Two proposals were prepared and submitted to the district administration, which were approved by the Deputy Commissioner, Belagavi District. The response team then worked closely with the district and taluk administrations to allay community apprehension and mobilise government and local support.

### Key Achievements\*

**a.** Two mobile reverse osmosis (RO) plants were set up to distribute purified water in two of the most affected blocks - Gokak and Mudalagi. A mobile water purification unit was also pressed into service. Community support was quickly mobilised for transportation, water source identification and other technical services. A local church stepped up to provide the essential power supply. 394,600 litres of water were distributed to about 1,800 families across 4 villages.

**b.** Family relief kits comprising essentials such as blankets, towels, clothes, candles, matchsticks and sanitary napkins were distributed. The response team worked round the clock to assess the extent of the damage and identify affected families. A beneficiary list was created, validated by the community and displayed to the villagers. A support phone line was also set up for people to reach out for help.

*Family flood relief kits being prepared for distribution in Karnataka.*



\*Data mentioned under the 'Key Achievements' section is as on March 2020.

# Institutions



*Hope for a new cure:  
Researchers fabricate  
prototypes at the  
well-equipped product  
realisation lab at the  
Tata Centre for Technology  
and Design, IIT Bombay.*

Alzheimer's disease and related dementias (AD) are a group of devastating age-related brain disorders that affect memory and other vital cognitive functions and there are no cures available. Although AD is essentially a disease of the ageing brain, recent research has indicated that the initiation and slow progression of the disease begins 2-3 decades earlier. The research on AD at the Indian Institute of Science (IISc) is primarily focussed on studying the earliest changes that occur, with a view to develop rationale therapies (pharmacological/ non-pharmacological interventions, such as lifestyle changes) that can delay the onset and/or slow down the progression of AD. The goal of this project is to understand the pathogenic mechanisms underlying the changes that occur in the pre-clinical stage of dementia, including Alzheimer's disease, using an interdisciplinary approach spanning multiple levels of organisation (molecular, cellular, network, behavioural) using model systems and studying human subjects longitudinally, as they age.

No longitudinal study has yet comprehensively examined risk and protective factors of cognitive change, Alzheimer's disease and other related disorders in India. Further, India is unique in terms of genetic susceptibility, diversity in language, education & socioeconomic backgrounds, risk factors – diabetes, hypertension, hypercholesterolaemia, midlife obesity, smoking and rapidly changing socio-cultural milieu, wherein the joint family system is changing to nuclear families, resulting in differential cognitive engagement. India and China are predicted to contribute maximally to new cases of dementia in the coming decades and, therefore, it is important to assess the risk and protective factors and design and implement intervention strategies through longitudinal studies of the ageing population. It is with this objective that the Tata Longitudinal study of ageing was started in early 2016 after the development of protocol and adaptation and digitisation of the tests.

### Key Achievements\*

- a. A total of 464 subjects, the cohort named The Tata Longitudinal Study of Ageing (TLSA), have been recruited for the comprehensive study of cognition, clinical, biochemical, genetic analysis in addition to brain imaging. 279 subjects have completed the 1st follow-up and 84 have completed the 2nd follow-up.
- b. Studies undertaken till date indicate that vascular risk factors (that obstruct blood flow in the brain) are highly prevalent in the TLSA cohort and this is also confirmed by the white matter hyper-intensity seen in brain MRI images. The increase in white matter hyper-intensity correlates with decreased cognition, indicating that vascular dysfunction in the brain is potentially a key contributor to dementia in India.
- c. The vascular insults seen in humans have been modelled on mouse models. These mouse models replicate the memory deficits seen in humans. The study is investigating the molecular mechanisms that cause these vascular insults and those that help reverse the insults. Further, vascular insults in the brain act synergistically to promote dementia progression. Thus, the dementia will progress faster in people who carry risk genes for dementia along with vascular insults.
- d. The Siemens 3T Prisma MRI scanner (the first of its kind in India) has been installed and all MRI imaging of TLSA subjects is being done on this scanner at IISc. This has greatly facilitated in increasing the number of subjects being scanned.
- e. The next generation sequencing (NGS) platform has been set up, which provides IISc the capability to carry out both genome-wide association studies (GWAS), as well as whole genome sequencing (WGS). The GWAS has been completed for 400 subjects in TLSA and the WGS is currently being carried out.
- f. In addition, the establishment of the NGS facility has helped IISc form a consortium of 20 institutions and to initiate a project "**Genome India**", with a goal to carry out whole genome sequencing of 10,000 Indians from different ethnic groups, with a goal to catalogue the genetic variations in the Indian population. IISc is leading this consortium, which has been funded by Department of Biotechnology for a total amount of ₹2.38 billion.
- g. The funding from the Tata Trusts towards the research study led to the establishment of Centre for Brain Research at IISc through another donor. This centre is devoted to the research on the ageing brain. IISc has initiated another longitudinal study of the rural population in Srinivasapuram, Kolar District, Karnataka called SANSCOG (Srinivasapuram Aging, Neurosenescence and Cognition Study). Under this study, 2,000 subjects have been recruited so far and have replicated the TLSA in a rural setting in order to understand the urban-rural differences in terms of the disease

\*Data mentioned under the 'Key Achievements' section is as on March 2020.

burden and risk and protective factors that contribute to brain ageing.

## Future Plans

**a.** IISc plans to enlarge the TLSA cohort to 1,000 subjects, while continuing to follow up on the current volunteers. It would like to expand this study to another site, so as to include subjects from the Trusts' elderly care programme. This will add power to the study and also help look at the genetic differences in ethnic groups. IISc will also measure blood biomarkers for amyloid, Tau, etc. in the TLSA cohort.

**b.** A multi-domain intervention study is also being planned to delay the onset of dementia in ageing subjects. This will involve reducing vascular risk by controlling hypertension and diabetes and implementing lifestyle interventions such as exercise, cognitive training and healthy diet. If this study is successful, it can be scaled up.

**c.** IISc will continue research to understand the molecular events that contribute to vascular dysfunction, which is predominant in the cohorts currently being studied.

**d.** Women live longer with dementia and this is attributed to the fact that women have longer life spans when compared to men. Additionally, the progression of dementia is more aggressive in women. This is now being modelled in mouse models, with a view to understand the gender difference, which is important considering that women have longer life spans and poor health care. Studies on mouse models of AD show the gender-dependent difference in AD pathogenesis. Female mice do not show early changes in memory. These changes are seen only after the female mice enter menopause. IISc will study the molecular processes that contribute to this sex difference, with a goal to understand early pathogenic processes and intervention strategies.

## TATA CENTRE FOR DEVELOPMENT

### INNOVATIONS THAT IMPROVE QUALITY OF LIFE

The Tata Centre for Development (TCD) is an Indian institution, founded in 2016, that combines the unrivalled research capacity of the University of Chicago economics community, home to more Nobel Prize-winning economists than any other university in the world, with sophisticated outreach and partnership to identify solutions to India's most pressing social and economic challenges.

Today, more than 50 U-Chicago faculty are engaged in projects across India, the vast majority of whom had never conducted research in India before the TCD. The TCD is using digital, print, video, interactive, and other tools to make the insights from academic research broadly accessible, an approach that represents a significant innovation in communicating research findings for impact.

Most importantly, the TCD is improving the quality of life for people across India in a wide range of areas, including:

### Energy, Environment, and Climate Change

#### Air Quality Life Index (AQLI)

The new measure developed by TCD researchers translates exposure to air pollution into its impact on life expectancy. AQLI's Hindi launch received

coverage in 150 media outlets, primetime spots in India's three most watched Hindi news channels, and page one stories in six Hindi and English newspapers. It is also being used as part of a private member's bill (Right to Clean Air) being drafted by a cross-party committee of Indian MPs.

#### Star Rating Programme

TCD researchers designed India's first mandatory pollution disclosure programme for industry, the Maharashtra Star Rating scheme. The idea has now been scaled in Odisha and Jharkhand, with 6 other states planning to follow.

#### Emissions Trading

TCD researchers designed and launched the world's first Emissions Trading Scheme (ETS) for particulate air pollution in Surat, Gujarat. Early evidence suggests that the ETS has reduced pollution, cut industry costs, and dramatically improved the quality of monitoring. The promising results from Surat have led the Government of Gujarat to plan scale-ups in Vapi and Ahmedabad.

Outside Gujarat, TCD researchers have been asked by the Ministry of Environment, Forests, and Climate Change to design a national cap-and-trade scheme targeting carbon dioxide and sulphur dioxide, as well as one targeting water pollution in the River Ganges.

## Electricity Distribution Reform

TCD researchers executed perhaps the largest randomised field trial in history, in partnership with the Bihar Energy Department and electric utilities. This work has birthed several initiatives to reduce electricity theft and bill non-payment and was the subject of an award-winning documentary in India.

## Direct Benefit Transfers of Agricultural Electricity Subsidy

TCD researchers introduced a pilot initiative in Rajasthan to replace farmer electricity subsidies with unconditional, direct cash transfers. This represents the first such effort ever implemented in India. Based on the results of this pilot, a much larger initiative was launched in 2018 by Chief Minister of Punjab (Paani Bachao, Paisa Kamaon), also involving TCD researchers. In addition, the states of Haryana and Andhra Pradesh have also begun actively working on their own programmes.

## Capacity Building

TCD has contributed to capacity building at several levels as part of its projects, from small industries in Surat to Members of Parliament. With regards to the latter, the University has set up an annual training visit with Members of Parliament visiting the University of Chicago.

## Health

### Oral Cancer Screening

Through a partnership with Tata Memorial Hospital, TCD is producing and testing a low-cost kit to detect oral cancer, the third most frequently occurring cancer in India. This simple screening allows early detection, which will dramatically improve outcomes.

### Incentivising Lifestyle Changes to Combat Diabetes

Together with the Government of Tamil Nadu, a TCD study found that providing incentives leads to lifestyle changes such as increased physical activity, which improves health indicators. This programme for at-risk diabetics is being scaled state-wide and is having an impact on health as well as reducing healthcare costs.

### Improving Health Insurance

TCD examined the impact of India's previous government-run programme, Rashtriya Swasthya Bima Yojana (RSBY), on the health and financial security of roughly 50,000 people in Karnataka. Based on learnings in Karnataka, the TCD team met with the CEO of Pradhan Mantri Jan Arogya Yojana (PMJAY), and is now directly working with the Ministry of Health, suggesting ways to encourage enrolment and help ensure a successful roll-out.

## Water & Sanitation

### A New Approach to Water Pollution Monitoring

In the rivers Ganga, Yamuna, Godavari and Hindon, TCD researchers are implementing a new technique to monitor water quality. This approach uses continuous time-stamped, geo-tagged data through in-site measurements that can detect and predict water contamination.

Based on this approach, TCD, together with the World Bank, is helping policymakers in Uttar Pradesh, Delhi, Telangana, West Bengal and Assam to identify effective sanitation interventions, control infectious diseases and pin-point sources of pollution.

### Water Quality Index

An interactive website that brings together surface water quality data from multiple sources to create a single indicator of health of a water body. This single index can be used to compare the health of water bodies across India and also across time.

### Mission Kakatiya

In Telangana, TCD researchers are beginning to understand the impact of a government water tank rehabilitation project that is leading to increased access to irrigation. Using a first-of-its-kind evaluation method, TCD is tracking changes to local agriculture and water markets as the government rolls out this project to approximately 46,500 water tanks.

# TATA CENTRE FOR TECHNOLOGY AND DESIGN

## DESIGNING TECHNOLOGY FOR SOCIAL IMPACT



Tata Centre for Technology and Design, at IIT Bombay (TCTD, IITB), has been working with the purpose of developing technology solutions that are designed to take on the unmet needs of resource-constrained communities within India and across the world. Using an end-to-end innovation approach, TCTD is now in its sixth year of operations, acting as a virtual centre with research, academic and immersive components that draw faculty members and graduate students from across IIT Bombay. The IITB faculty-led research teams from across the institute design technological interventions for social challenges in the domains of Food & Agriculture, Energy, Education, Healthcare, Housing, Water and Waste Management.

To support the fabrication of prototypes and product development, the Centre has a well-equipped Product Realisation Lab, with an extensive array of mechanical and electronic equipment, at IIT Bombay. A supplementary unit houses machines to help with heavy metal fabrication for energy and waste management projects, and also sophisticated instruments to cater to its healthcare and food technology projects' needs.

### **The activities undertaken by TCTD, IITB are briefly summarised:**

#### **a. Research Activities:**

TCTD, IITB supports seed and translational research projects headed by faculty members from IIT Bombay. About 97 projects have been approved over the past six years, with 45 being currently active. A host of 34 applications have been noted in the invention disclosure process for relevant patents, copyrights and trademarks, and publications on the Creative Commons platform. One such application has been granted patent status by the Registrar of Patents, and will now move closer to the communities. TCTD, IITB is working at translating several of them in terms of design, business innovation and technology transfer frameworks. About seven projects have translated their work into start-ups with entrepreneurs stemming out of the research teams. More than 20 projects have gone to the field, acquiring customer feedback towards improvement in their proposed solutions.

#### **b. Academic Activities:**

Human resources, in the form of Tata Fellows, have shown an encouraging trend with the total number growing significantly to 104 students, since inception. The Tata Fellows are Masters students and Ph. D. scholars that TCTD, IITB enrolls and sponsors every year. Two seminar-based courses are offered by the Centre, Technology and Design for End-to-End Innovation and a lab course on technology and design, to help students understand the challenges of designing and implementing technology solutions in the Base of the Pyramid (BoP) segments. Close to 20 Tata fellows graduated in the last year. TCTD, IITB hopes to support and train even more Tata Fellows into future leaders with a familiarity to the development challenges in the socio-political context. The Centre has completed three successful trips of the Tata Fellows' Yatra by travelling a distance of more than 2,000 kilometres, where students get a community-living experience. On a field trip spanning 7-10 days, the faculty members get them to observe how social enterprises scale-up using technology, operational efficiencies and trained human resources, and how all these aspects combine into innovations for social impact.

#### **c. Ancillary Activities:**

As part of its outreach, TCTD, IITB has been conducting courses in end-to-end innovation for the academic circles outside IIT Bombay. Through the Continuing Education and Quality Improvement Programmes at IIT Bombay, the Centre organises this five-day course – a unique combination of lectures, case studies, project exercises and lab sessions put together. With over 1,275 faculty and students from engineering colleges of non-premier cities participating in these workshops, the courses offer a fair share of hands-on experience to the non-IIT aspirants in the fields of social innovation and designing technology solutions. The annual TCTD Symposium at IIT Bombay is another conclave that draws stakeholder groups from across the country. The event, held in January 2020, brought in several more project-specific partnerships with government and field agencies, to help focus on diffusion of technologies. More than 12 teams participated in intensive seven-week-long programmes called iNCUBATE and IDEAS,

designed to identify customer needs and validate the need hypothesized at the start of the project. Such activities have helped to redefine their scope of work and helped the Centre to assess the potential of the proposed solution in a better way.

### Future Plans

The Centre is identifying collaborations for its mature projects and supplementing its own facilities, to help with accelerated prototyping.

Bringing in new stakeholder groups that would define the need for centre-initiated projects is being focused upon. The research, academic and immersive components at TCTD, IITB have reached a stage where the social impact of the activities is waiting to be measured. It is just a matter of time before the innovations, efforts, intent and involvement of the researchers and their field partners can be validated by the larger community.

## TATA INSTITUTE FOR GENETICS AND SOCIETY (TIGS)

### OPENING DOORS TO NEW TECHNOLOGIES

Tata Institute for Genetics and Society (TIGS) is a non-profit institution focused on research training and capacity building of Indian scientists in the use of the latest genetic technologies to address food and healthcare security in India. TIGS aims to do this in a socially-conscious fashion with deep stakeholder engagement and adherence to the highest ethical standards.

TIGS operates collaboratively between institutes located at the University of California San Diego (TIGS-UCSD), and in India (TIGS-India), functioning

primarily through a Center (TIGS-Center at inStem) located within the Institute for Stem Cell Biology and Regenerative Medicine (inStem) in Bangalore. TIGS-UCSD and TIGS-India are funded by the Trusts.

#### Areas of focus in TIGS-India

In addition to capacity building and training, TIGS focuses on four areas aimed at fulfilling its scientific mission in addressing health and food security in India. These include:



*The team of  
Tata Institute for  
Genetics and  
Society at a  
Town Hall.*

1. Vector-borne diseases, particularly diseases transmitted by the world's deadliest messenger, the mosquito, that puts 6.5 billion people on the planet at risk for diseases such as malaria, dengue, chikungunya, Zika, yellow fever and West Nile virus infection. The current situation, where COVID-19 has brought the world to its knees, illustrates the threat of such diseases in crowded, urban populations that are highly conducive to disease transmission.

2. Anti-microbial resistance to antibiotics, and the declining success over several decades in the development of new antibiotics, is another serious global health risk where TIGS is using new genetic technologies to reverse antibiotic resistance of multi-drug-resistant bacteria.

3. New tools in population level next generation sequencing have created the promise of new diagnostics for human diseases. When coupled with new genetic tools in the form of gene, base and prime-editing, there is hope for better modeling of, and cures for, disease states, which is the goal of the TIGS effort to study human haematopoietic disorders, such as sickle cell disease and thalassemias.

4. The last area is to improve crop productivity, which is facing huge uncertainties due to diseases, pests, declining land use, water shortages and climate change. Here, the efforts are focused on improving local and national varieties of rice to help them handle biotic and abiotic stresses.

**d.** The first transgenic *Anopheles stephensi* mosquitoes were created (the first in the country) by injecting DNAs into mosquito eggs.

**e.** Parasite challenge assays were established, wherein the ability of the malarial parasite - *Plasmodium falciparum* - to be transmitted through mosquitoes, is evaluated, with the idea of finding effectors (such as antibodies and nanobodies), which would potentially block the maturation of the parasite in the mosquito.

**f.** Several antibodies and the corresponding *Plasmodium falciparum* proteins they bind to were purified, for undertaking studies on finding the best effectors to use to block parasite transmission in mosquitoes.

**g.** Both novel and previously reported mutations in the multidrug resistance (MDR) genes of many *P. aeruginosa* clinical strains were identified and a virus from sewage that kills many of these MDR strains was isolated.

**h.** For the rice work, standardising the tissue culture and transformation protocols and identifying rice genes that would be edited to confer resistance to leaf blight and to enhance herbicide tolerance.

## Key Achievements\*

**a.** Specialised infrastructure was added, such as plant tissue and mammalian stem cell culture facilities and the IBSL3 laboratory. There was also significant growth in staffing and training, which directly contributed to the capacity building mandate of TIGS' mission.

**b.** The TIGS insectary was established, with about 10 different populations of *Anopheles stephensi* (causes urban malaria) and *Aedes aegypti* (transmits dengue, chikungunya and Zika viruses) for experimental studies.

**c.** Completely sequencing the genomes of several strains of *Anopheles stephensi* to assemble reference genomes and also completing population studies based on whole genome sequencing of over 120 individual mosquitoes from different mainland and island populations in India, to understand gene flow, genetic polymorphisms and the capacities of different urban mosquito populations to transmit the malarial parasite, *Plasmodium falciparum*.



*Sravanthi enjoys a joyful moment with her father, Rajababu at Indhani village, Asifabad, Telangana.*

While the Trusts have been engaged in major philanthropic activities, they have not lost sight of the 'individual'. Since their founding, great emphasis has been laid on assisting in the health and education costs of needy and meritorious individuals. The Individual Grants Programme across the Tata Trusts adopts a comprehensive, systematic and, most importantly, fair and humane approach to identify individuals in need and deserving of financial assistance. The Programme comprises Education Grants and Medical Grants.

### Medical Grants

A medical emergency, for most families, causes tremendous emotional and financial stress. Escalating hospitalisation bills and medicine costs have rendered decent medical attention beyond the realm of even the middle-class population of the country. Though medical insurance is becoming increasingly popular in India, it does not

cover the entire cost of treatment, especially for cases such as cancer, heart ailments, cochlear implants and kidney diseases, etc. Charitable trusts and benevolent individuals have been the only recourse for these families to help them overcome their financial burden.

The Trusts are utilising their spreading network of medical professionals and social workers at various prominent government, municipal, private and charitable hospitals within the country. The linkages with the hospitals help in assessing the socio-economic condition of the family, forwarding the form with the entire set of documents to the Trusts and providing information on the utilisation of the grant disbursed by the Trusts for the patient's treatment. All new linkages established by the Trusts are valid for a specific time period, post which, a review is undertaken to decide on further action. The Trusts have active linkages with 37 hospitals as on March 2020.

Details of Medical grants sanctioned / disbursed under **SRTT and Allied Trusts** from April 2019 to March 2020

Ailments	Number of Applications Sanctioned	Amount Sanctioned (₹)*	Number of Disbursals Made	Amount Disbursed (₹)#
Aid to differently-abled individuals	22	6,013,000	10	2,102,000
Burns	19	4,507,201	12	2,550,662
Cancer	1,204	357,560,763	688	129,386,758
Chronic Illness	62	11,650,927	29	4,767,211
Cochlear Implant	191	86,467,068	88	37,301,569
Ophthalmic	1	34,000	1	34,000
General Surgery	15	2,058,848	6	544,000
Gynaecological	1	16,000	-	-
Heart	564	55,057,751	249	22,453,811
ICU Treatment	46	12,469,000	17	5,196,593
Kidney	50	10,417,000	20	3,506,000
Liver Disease	40	17,617,000	19	6,963,562
Neurology	41	11,478,231	16	3,510,536
Neurosurgery	41	10,411,000	21	6,773,265
Neo-Natal Intensive Care Unit (NICU) Treatment	32	5,489,000	18	2,462,222
Orthopaedic	168	15,696,000	67	5,630,949
Respiratory	9	2,494,000	4	1,161,937
Tuberculosis	7	1,830,000	5	1,497,396
Others		7,833,000		7,152,000
<b>Total</b>	<b>2,513</b>	<b>619,099,789</b>	<b>1,270</b>	<b>242,994,471</b>

(\*) Sanctions may also relate to applications received during the previous year, in addition to those received during the year in review.

(#) Disbursals include grants sanctioned during the previous year, as well as the year in review.

Details of Medical grants sanctioned / disbursed under **SDTT and Allied Trusts** from April 2019 to March 2020

Ailments	Number of Applications Sanctioned	Amount Sanctioned (₹)*	Number of Disbursals Made	Amount Disbursed (₹)#,**
Aid to differently-abled individuals	22	6,013,000	2	378,655
Burns	19	4,507,201	12	2,567,108
Cancer	1,204	357,560,763	489	86,949,305
Chronic Illness	62	11,650,927	24	3,500,686
Cochlear Implant	191	86,467,068	95	42,334,499
Ophthalmic	1	34,000	-	-
General Surgery	15	2,058,848	8	1,254,848
Gynaecological	1	16,000	1	16,000
Heart	564	55,057,751	324	28,329,737
ICU Treatment	46	12,469,000	34	6,886,632
Kidney	50	10,417,000	29	3,825,921
Liver Disease	40	17,617,000	15	5,868,979
Neurology	41	11,478,231	22	3,983,704
Neurosurgery	41	10,411,000	22	4,579,000
Neo-Natal Intensive Care Unit (NICU) Treatment	32	5,489,000	15	2,302,000
Orthopaedic	168	15,696,000	73	5,138,326
Psychiatric	-	-	-	-
Respiratory	9	2,494,000	5	981,063
Tuberculosis	7	1,830,000	2	139,000
Others	-	-	-	-
<b>Total</b>	<b>2,513</b>	<b>611,266,789</b>	<b>1,172</b>	<b>199,035,463</b>

(\*) Sanctions may also relate to applications received during the previous year, in addition to those received during the year in review.

(#) Disbursals include grants sanctioned during the previous year, as well as the year in review.

(\*\*) An additional sum of Rs. 49.80 million was disbursed by the Lady Tata Memorial Trust towards research in leukaemia and alleviation of human suffering; this has not been reflected in the disbursals in the table above.

## Education Grants

Financial assistance towards Education Grants were provided under the following categories:

**a.** Means Grants (Colleges/Schools/NGOs/Special Schools) that are need-based and provide the cost of students' college (except engineering stream) and school studies (from Grade 8 onwards). These grants are also sanctioned to the excluded sections of the society, such as farmers' children, differently-abled children, etc., where they are routed through non-government organisations.

**b.** Merit-based scholarships across the following categories: (a) Medical and Healthcare streams; (b) M.Sc. in Neuroscience (for women); (c) M.Sc. in Speech Therapy (including Audiology and Speech Language Pathology, Audio Speech Therapy, Speech Language Pathology, etc.); (d) B.Ed. and D.Ed. courses for students pursuing studies in Jammu and Kashmir and the North-East; (e) B.Ed. and M.Ed. in Special Education; and (f) Aircraft Maintenance Engineering.

**c.** Professional Enhancement Grants that provide partial assistance to professionals and other employed people for enhancing their skills through relevant overseas training programmes, workshops or observer-ships for those in the medical field.

**d.** Spectrum Grants given to a wide range of people, such as sportspersons (in identified sports), musicians, theatre artists and others, who would normally find it difficult to get support due to their composite needs – coaching and training, special diet, equipment, participation in tournaments (with related costs), etc.

**e.** A Special Programme equipping teachers to face the challenge of Learning Disability – a relatively new concept in developing countries – in order to address the huge gaps in early detection, intervention and appropriate action. The Trusts aim to support training of teachers (formal and informal) by working with experienced trainers. The first initiative is a Certificate Course in Holistic Inclusion of Learners with Diversities (CHILD).

- f. Research Fellowships to existing research fellows in the fields of autism, public health and pancreatic cancer.
- g. JNT Free Grants, which are gift scholarships awarded to J. N. Tata Endowment scholars based on their overseas academic performance.
- h. Travel grants of up to ₹50,000 awarded to J. N. Tata Endowment scholars, as also to Gulf-stream interns, a programme which is into its eighth year.
- i. Darab R. D. Tata Scholarships awarded to 41 talented youngsters for pursuing studies in the fields of medicine and healthcare.
- j. C. N. Gosalia Scholarship awarded to 1 student in the field of computer science.
- k. Scholarships awarded to 8 students pursuing their studies at the Tata Institute of Social Sciences, based on recommendations of the Institute.

- l. Aviation scholarships awarded to cadets pursuing their Commercial Pilots License (CPL) training and type rating.

The Trusts have also collaborated with a few international universities on different programmes. Current partnerships include those with Tel-Aviv University, Israel; Warwick University, UK; Clemson University, USA; and Trans Disciplinary University, Bangalore.

Besides, under a partnership with the Tata Centre for Technology and Design, Massachusetts Institute of Technology (MIT), USA, 6 students pursuing their Master's / Ph.D. degrees were awarded scholarships covering tuition costs over 2 years whilst being encouraged to undertake research in the areas of agriculture, energy, environment, health, housing and water & sanitation, pertinent to developing countries.

#### Details of Education Grants sanctioned / disbursed under **SRTT and Allied Trusts** from April 2019 to March 2020

Particulars	Number of Applications Sanctioned*	Amount Sanctioned (₹ Million)	Number of Disbursals Made#	Amount Disbursed (₹ Million)
Studies in India, including research scholarships	4,974	410.35	4,770	280.06**
Studies abroad, including loan scholarships and research scholarships	301	78.59	282	98.68
<b>Total</b>	<b>5,275</b>	<b>488.94</b>	<b>5,052</b>	<b>378.74</b>

\* Sanctions may also relate to applications received during the previous year, in addition to those received during the year under review.

\*\* Also includes disbursals made under the CM Internship programme and the Wipro-GE Healthcare programme.

# Amount disbursed includes grants sanctioned during the previous year, as well as the year under review.

#### Details of Education Grants sanctioned / disbursed under **SDTT & Allied Trusts** from April 2019 to March 2020

Particulars	Number of Applications Sanctioned*	Amount Sanctioned (₹ Million)	Number of Disbursals Made#	Amount Disbursed (₹ Million)
Studies in India, including research scholarships	50	3.18	45	19.64
Studies abroad, including loan scholarships and research scholarships	183	118.04	189	98.43
<b>Total</b>	<b>233</b>	<b>121.22</b>	<b>234</b>	<b>118.07</b>

\* Sanctions may also relate to applications received during the previous year, in addition to those received during the year under review.

# Amount disbursed includes grants sanctioned during the previous year, as well as the year under review.

## J. N. Tata Endowment

Mr. J. N. Tata, Founder of the Tata Group, believed strongly that it is important to support the best and brightest minds in the nation, enabling them to be of the greatest service to the nation. The J. N. Tata Endowment was formalised and established in 1892 and, for more than 128 years now, has selected candidates of excellent calibre and credentials and enabled them to pursue quality higher education at some of the best institutes in the world. A rigorous selection process ensures that only the nation's most talented and gifted students are awarded the scholarships. From 1892 till March 2020, the Endowment has awarded scholarships to 5,561 students going abroad for higher studies across diverse fields.

During 2019-20, 102 scholarships were awarded worth a total sum of ₹77.35 million. Of this, 45 scholars were women. The scholars opted for a total of 14 countries to pursue studies, including the United Kingdom, United States, Australia, Belgium, Canada, Finland, France, Germany, Ireland, Italy, The Netherlands, Singapore, Sweden and Switzerland.

## Lady Tata Memorial Trust (LTMT)

Established in 1932 by Sir Dorabji Tata, in memory of his wife, Lady Meherbai, the Trust spends four-fifths of its income for research in leukemic diseases and one-fifth of its income for research on the alleviation of human suffering from diseases in India and internationally. The Trust also supports institutional scientific research, offers a 'Young Researcher Award' to budding scientists and conducts a Teachers' Training Programme.

### International Awards

A sum of £350,000/- was sanctioned for the award of international scholarships for the year 2019-20. The International Scientific Advisory Committee scrutinised 38 new applications for the year under review and recommended 10 new research projects from different countries, such as Germany, Spain, China, Egypt, Mexico, India and Lebanon, which were approved by the Trustees.

### Indian Awards

In response to the online applications invited from Indian Universities and Institutions during 2019-20, the Trust received a total of 95 applications. From these, 40 applicants were shortlisted and called for interviews. 14 students from different Universities/Institutes in India were awarded Junior Research Fellowships for the year 2019-20.

## Young Researcher Award

During 2019-20, the Trust invited online applications from leading scientific research institutions within the country and also advertised the award in a leading Indian scientific journal and newspapers in four zones. A total of 40 applications were received. A five-member Scrutiny Committee, comprising Dr. (Mrs.) S. M. Zingde, Prof. Susheel Durani, Dr. Tester Ashavaid, Dr. Anurag Agrawal and Dr. Shobhona Sharma shortlisted 3 applicants for an interview. However, due to the COVID-19 pandemic and resultant lockdown, the interviews could not be conducted. These will now be conducted online, during 2020-21.

### Teachers' Training Programme:

The Trust conducted the Teachers' Training Programmes during the year at the following four colleges/institutes and incurred a spend of ₹1,150,062/-:

- a. Three-day Training Workshop on 'Molecular and Immunological Diagnostic Techniques' at K C College, Mumbai (June 26-28, 2019).
- b. Three-day Training Workshop on 'Basic Techniques for Understanding Epigenetics' at SIES College, Mumbai (August 8-10, 2019).
- c. Seven-day Training Workshop on 'Trends and Tools in Pharmaceutical Education and Research' at M.E.T. Institute of Pharmacy, Mumbai (November 18-24, 2019).
- d. Three-day Introductory Workshop on 'Exploring Microbial Diversity Using Metagenomics' at Jai Hind College, Mumbai (January 18-20, 2020).

## PARTNERS



### Health care

Aarogya Vahini Trust, Ottapalam, Kerala | Advancing Reduction in Mortality and Morbidity of Mothers, Children Neonates, Mumbai | Aga Khan Foundation, Delhi, Bangalore | Agrani India Foundation, Uttarakhand | AIIMS, Bhubaneswar | AIIMS, Gorakhpur | AIIMS, Nagpur | Alamelu Charitable Foundation | Aman Nivas – Women Shelter Home, Hyderabad | Amma Nanna Old Age Home, Hyderabad | Assam Cancer Care Foundation | Avalon Information System, Delhi | Banaras Hindu University (BHU) | Begumpet Shelter Home, Hyderabad | Bharathi Mahila Sangam – Women Shelter Home, Hyderabad | Bharatiya Vidya Bhavan, Hyderabad | Bill & Melinda Gates Foundation, Delhi | Bodhi Health Education, Gurgaon | BPCL | Build The World, Hyderabad | Care Institute of Health Sciences (CIHS), Hyderabad | Chandrapur Cancer Care Foundation | Charutar Arogya Mandal, Chennai | Children of the World (India) Trust, Navi Mumbai, Mumbai | Cipla Foundation | Collectives for Integrated Livelihood Initiatives (CINI), Jamshedpur | Cuddles Foundation, Kolkata | Dakshas, Hyderabad | DELL India, Bangalore | Dell Technology, Bengaluru | Department For Women, Children, Disabled And Senior Citizens (Govt. Of Telangana), Hyderabad | Department of Health and Family welfare, Karnataka | Department Of Health, Medical And Family Welfare (Govt. Of Telangana), Hyderabad | District Administration, Khordha | Dobara, Hyderabad | DP Dhar Memorial Trust, Erode | Durgabai Deshmukh Mahila Sabha, Hyderabad | Extension for community health care outcomes, Chennai | Family Planning Association of India (FPA India), Mumbai | Forum for Health System Design & Transformation, Mumbai | Forum for Medical Ethics Society, Mumbai | Foundation for Innovation and Social Enterprise (FISE), Bengaluru | Good Samaritans India, Hyderabad | Gov. Of Maharashtra, Mumbai | Government of Assam | Government of Jharkhand | Government of Maharashtra | Government of Maharashtra, New Delhi | Government of Odisha | Govt. Of Kerala, Trivandrum | Govt. of Orissa, Bhubaneswar | Greater Hyderabad Municipal Corporation, Hyderabad | GVK EMRI, Delhi | Happy Old Age Home, Hyderabad | HelpAge India | ILBS, Mumbai | Indian Council of Medical Research | Indian Council of Medical Research, Delhi | Indian Railways | IndusInd Bank | IOCL, New Delhi | Jan Chetna Manch Bokaro, Mathura, UP | Jan Swasthya Sahyog, Hyderabad | Janseva Pratisthan, Yavatmal, Maharashtra | Jhpiego Corporation, Delhi | Jio | Kalike, Bengaluru | Kasturbha Gandhi, Hyderabad | Lala Chaman Lal Educational Trust for Boys and Smt. Bhagwan Devi Educational Trust for Girls, Rajasthan | Legal Services Authority, Hyderabad | Livolink Foundation, Bhubaneswar | Mahima Ministries Old Age Home, Hyderabad | Manam Foundation, Bhubaneswar | Manav Foundation, Mumbai | Manjari Foundation, Bhubaneswar | Marrow Donor Registry India, Karamsad | Marwari Relief Society, Kolkata | Medical Research Foundation, Chennai (Sec. 35), Trivandrum | Meherbai Tata Memorial Hospital Trust | Ministry of Health and Family Welfare, New Delhi | Ministry Of Social Justice And Empowerment (Govt. Of India), New Delhi | Mrudul Old Age Home, Hyderabad | MS Sharma family charitable trust, Telangana | Multi-Organ Harvesting Aid Network Foundation, Chennai (MOHAN), Bokaro | N S Care Home, Hyderabad | National Cancer Grid | National Health Mission/ Department of Health & Family Welfare, Govt. of Chhattisgarh | Nirali Memorial Medical Trust (NMMT) | North Bank Baptist Medical Association, Tezpur, Delhi | NRL | NSE Foundation, Mumbai | Ola | Olirum Erodu Foundation, Tamil Nadu | Orissa Cancer Care Foundation | Ottapalam Welfare Trust, Mumbai | Pain Relief & Palliative Care Society, Hyderabad | Parkinson's Disease and Movement Disorder Society, Mumbai | Pfizer | Public Health Department, Maharashtra, Mumbai | R.G. Manudhane Foundation for excellence, Mumbai | Ramaiah Institute of Nursing Education and Research, Karnataka | Ramakrishna Mission Sevashrama (Charitable Hospital), Uttar Pradesh, Dholpur, Rajasthan | Ramakrishna Mission Sevashrama (Charitable), Mumbai | Ranchi Cancer Care Foundation | Reliance Foundation, Mumbai | RKM Varanasi, Tezpur | Roshni Trust, Hyderabad | Rotary Cuttack Eye Hospital, Cuttack | Sahyadri Foundation, Nagpur | Sambandh Health Foundation | Sambodhi, Noida | Sanjeevan Medical Foundation, Miraj, Anantapur, AP | Save LIFE Foundation, New Delhi, Bangalore | Schizophrenia Research Foundation (SCARF), Chennai | SEARCH, New Delhi | Sightsavers, New Delhi | Silver Innings, Mumbai | Society for Education Action Research in Community Health (SEARCH), Telangana | Society for Education, Action and Research in Community Health (SEARCH), Gadchiroli | Sparsh Hospitals, Bhubaneswar | Sri Ramachandran Trust, Karnataka | Sri Sathya Sai Health and Education Trust, Mumbai | Sri Satya Sai Institute of Higher Studies, Andhra Pradesh | Sri Satya Sai Orphanage Trust, Delhi | SSEPD Department, Bhubaneswar | St John's Medical College, Bengaluru |

Stanford Medicine | Studio Next, New Delhi | Symbiosis Statistical Institute, Pune | Tata Advanced Systems Limited, Hyderabad | Tata Consultancy Services | Tata Institute of Social Science, Maharashtra | Tata Institute of Social Sciences (TISS), Mumbai | Tata Medical Center, Kolkata | Tata Memorial Hospital, Mumbai | Teckinfo, Hyderabad | Telangana State Police, Hyderabad | The Deaf Aid Society, Mumbai | The Hans Foundation, Delhi | The Hans Foundation, New Delhi | The Hans Foundation, Mumbai | The Hans Foundation, New Delhi, Puducherry | The Lepa India Trust, Delhi | Tirumala Tirupati Devasthanam (TTD) | TQ Cert, Hyderabad | UNICEF Lucknow, Delhi | United Care Development Services, New Delhi | University of Warwick, UK | Unmukt Foundation, Bhubaneswar | Vijayavahini Charitable Foundation, Vijayawada, AP | Yenepoya Medical College | Yugrishi Shriram Sharma Acharya Charitable Trust, Kolkata, Vrindavan

## Nutrition

Amhi Amchya Arogyasathi, Gadchiroli, Maharashtra | Asia Venture Philanthropy Network, Ahmedabad | Bharat Petroleum Corporation Limited (BPCL), Mumbai | Bill & Melinda Gates Foundation (BMGF), Seattle, USA | BMGF, New Delhi | Center For Spatial Analytics and Advanced GIS (C-SAG), NIAS, Bengaluru | Dharma Life, Maharashtra | Eminus International, Hyderabad | Food Fortification Initiative (FFI), New Delhi | Global Alliance for Improved Nutrition (GAIN), New Delhi | Gram Bharti Mahila Mandal (GBMM), Betul, Madhya Pradesh | Harvard School of Public Health, USA | Impact India Foundation (IIF), Mumbai | Indian Women Scientists' Association (IWSA), Hyderabad | Institute of Economic Growth (IEG), New Delhi | M S Swaminathan Research Foundation (MSSRF), Chennai | National Dairy Development Board (NDDB), Anand, Gujarat | National Institute of Advanced Studies (NIAS), Bengaluru | National Institute of Rural Development and Panchayati Raj (NIRD&PR), Hyderabad | NDDB Foundation for Nutrition (NFD), NDDB, Anand, Gujarat | Nutrition for Development (N4D), Kolkata | Nutrition Foundation of India (NFI), New Delhi | Nutrition International (NI), New Delhi | PATH, New Delhi | Rajeev Gandhi Mahila Vikas Pariyojana (RGMVP), Lucknow | Rajmata Jijau Mother and Child Health and Nutrition Mission, Mumbai | Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGI), Lucknow | Self Employed Women's Association (SEWA), Ahmedabad | Sight and Life Foundation, Basel, Switzerland | St John's Hospital, Bangalore, Bengaluru | St. John's Research Institute (SJRI), Bengaluru | Tata Consultancy Services Foundation, Mumbai | The Food Safety and Standards Authority of India (FSSAI), New Delhi | The India Nutrition Initiative (TINI), New Delhi | The Indian Institute of Health Management Research (IIHMR), Jaipur | UNICEF, New Delhi | University of California, Davis, USA | Vijayavahini Charitable Foundation, Vijayawada | World Bank, New Delhi | World Food Program (WFP), New Delhi

## Water, Sanitation & Hygiene

Arghyam, Bengaluru | Bharat Petroleum Corporation Limited, Mumbai | Bhartiya Jain Sangathan, Pune | Bill and Melinda Gates Foundation, New Delhi | Centre for Microfinance, Jaipur | Coastal Salinity and Prevention Cell, Ahmedabad | Collectives of Integrated Livelihoods, Jamshedpur | Himmothan, Dehradun | HT Parekh Foundation, Mumbai | IIT Bombay, Bombay | Kalike, Yadgir, Karnataka | NEIDA, Kohima | One Drop Foundation, Montreal, Canada | Pani Foundation, Delhi | Reviving the Green Revolution (RGR), Ludhiana | Swades Foundation, Mumbai | Swasthya Foundation, Mumbai | Tata Projects Community Development Trust, Hyderabad | Titan, Bengaluru | Vijayavahini Charitable Foundation, Vijayawada, Andhra Pradesh | World Bank, Washington D.C., United States of America

## Environment and Energy

Centre for Microfinance and Livelihood, Guwahati | Clean Cooking Alliance, Washington D.C | Collectives for Integrated Livelihood Initiatives, Jamshedpur | Dharma Life Foundation, New Delhi | Foundation for Innovation and Social Entrepreneurship, Bangalore | GE India Industrial Pvt. Ltd., Bangalore | Grameen Intel Social Business Ltd., Dhaka, Bangladesh | Grassroots Trading Network for Women, Ahmedabad | McCann Health India, New Delhi | Nexleaf Analytics, Los Angeles | Prayas Juvenile Aid Centre, New Delhi | Sambodhi Research & Communications, New Delhi | SELCO Foundation, Bangalore | Tata Power Delhi Distribution Limited, New Delhi | TERI, New Delhi

## Livelihood

Access Livelihoods Foundation, Hyderabad, Telangana | Aga Khan Rural Support Programme, India (AKRSP), Ahmedabad, Gujarat | Centre for Microfinance (CMF), Jaipur, Rajasthan | Centre for Microfinance and Livelihoods (CML), Guwahati, Assam | Coastal Salinity Prevention Cell (CSPC), Ahmedabad, Gujarat | Collectives of Integrated Livelihoods Initiative (CINI), Jamshedpur, Jharkhand | Daksh Society, Bengaluru, Karnataka | DHANII, Mumbai, Maharashtra | Foundation for Ecological Security (FES), Ahmedabad, Gujarat | Himmothan Society (HMS), Dehradun, Uttarakhand | International Institute of Water Management (IWMI), New Delhi, Delhi | Kalike, Bangalore, Karnataka | Kamalnayan Jamnalal Bajaj Foundation, Mumbai, Maharashtra | Livolink Foundation, Bhubaneswar, Odisha | NABARD, Mumbai, Maharashtra | North East Initiative Development Agency (NEIDA), Kohima, Nagaland | Panjabrao Deshmukh Krishi Vidyapeeth (PDKV), Akola, Maharashtra | Professional Assistance for Development Action (PRADAN), New Delhi, Delhi | Punjab Agriculture University, Ludhiana, Punjab | Reviving Green Revolution Cell (RGR), Ludhiana, Punjab | SHARE - Society to Heal Aid Restore Educate (SWADES), Mumbai, Maharashtra | Syngenta Foundation India (SFI), Pune, Maharashtra | TITAN, Bangalore, Karnataka | Transforming Rural India Foundation (TRIF), New Delhi | TRISHULII, Dehradun, Uttarakhand | Vijayavahini Charitable Foundation (VCF), Vijayawada, Andhra Pradesh | Vikasanvesh Foundation (VAF), Pune, Maharashtra | YUVA Mitra, Nashik, Maharashtra

## Education

British Council, Mumbai, Maharashtra | Centre for micro Finance (CmF), Jaipur, Rajasthan | Centre for Microfinance & Livelihood (CML), Guwahati, Assam | Collectives for Integrated Livelihood Initiatives (CINI), New Delhi, Delhi | Edelgive Foundation, Mumbai, Maharashtra | Himmothan Society, Dehradun, Uttarakhand | Inter-University Centre for Astronomy & Astrophysics (IUCAA), Pune, Maharashtra | Kalike, Bengaluru, Karnataka | Khan Academy, New Delhi, Delhi | Livolink Foundation, Bhubaneswar, Odisha | MIT (CLIX), Cambridge, USA | Quality Education Support Trust (QUEST), Thane, Maharashtra | Shantilal Muttha Foundation, Pune, Maharashtra | Social Finance India, Mumbai, Maharashtra | Sumitomo Mitsui Banking Corporation (SMBC), Mumbai, Maharashtra | Tata Capital, Mumbai, Maharashtra | Tata Institute of Social Sciences, Mumbai, Maharashtra | Tata Institute of Social Sciences (ITE), Mumbai, Maharashtra | Tata Toyo Radiator Ltd, Mumbai, Maharashtra | Tata Trent, Mumbai, Maharashtra | USAID (through CMF), New Delhi, Delhi

## Digital Transformation

ACF, Mumbai | Bharat Gyan Vigyan Samiti (BGVS), Bhubaneswar | Bill and Melinda Gates Foundation (India), Delhi | Centre for Budgetary Governance and Accountability (CBGA), Delhi | CINI, Ranchi | CISCO Systems India Pvt. Ltd. India - Bengaluru, Karnataka | Dhvani Rural Information Systems Pvt. Ltd., Gurugram, Haryana | Dhvani Rural Information Systems, Delhi | Divum Corporate Services Pvt. Ltd., Bengaluru, Karnataka | eGovernments Foundation, Bangalore | Fields of view, Bangalore | Foundation for Rural Entrepreneurship Development, Gurugram, Haryana | FRIEND, Delhi | Google Hyderabad, Telangana, India | HP Imagine Grants (Silicon Valley Community Foundation), California, USA | Janseva Gramin Vikas va Shikshan Pratishthan, Yavatmal | Livolink Foundation, Bhubaneswar | MPS Interactive Systems, Mumbai | PwC India Ltd, Mumbai | Tata Steel Foundation, Jamshedpur | Vikas Anvesh Foundation, Pune

## Sports

Aizawl Diocesan Education Society, Aizawl | All India Football Federation, Delhi | All Manipur Polo Association, Manipur | Atletico de Madrid, Spain | Bovelander Hockey Academy, Netherlands | CINI, Delhi | CML, Guwahati | Cricket Live Foundation, New Zealand | Directorate of Education, Govt. of Mizoram, Aizawl | Himmothan, Uttarakhand | Hockey Ace Foundation, Jharkhand | IndusInd Bank, Mumbai | Kalike, Bangalore | Mary Kom Regional Boxing Foundation, Manipur | Meghalaya Football Association, Shillong | Mission Olympics, Amravati, Amravati | Mizoram Badminton Association, Aizawl | Mizoram Football Association, Aizawl | Mizoram State Sports Council, Aizawl | NEIDA, Aizawl | Olympians Association of India, Mumbai | Pragatee Foundation, Pune | Pallela Gopichand Badminton Foundation, Hyderabad | Society for Rehabilitation of Visually Challenged, Kerala | The Golf Foundation, Delhi | Youth Affairs and Sports, Govt. of Manipur, Manipur

## Skill Development

Aadhya Degree College of Commerce, Hyderabad | B. D. Bangur Endowment, Kolkata | BPCL Corporate, Delhi | BPCL Refinery, Mumbai | Bridgestone, Pune | Centre for Microfinance (CMF), Jaipur | Centre for People's Forestry (CPF), Hyderabad | Centum Learning, New Delhi | Cipla, Mumbai | Dakshya Academy, Noida | DDUGKY Maharashtra, Mumbai | EduBridge, Mumbai | Excelus Learning Solutions, Bengaluru | FICCI - FLO Pune Chapter, Pune | Fledge Institute of Aviation & Hospitality, Mumbai | Grameen Evam Samajik Vikas Sansthan, Ajmer | HCL Foundation, Noida | Himmatthan Society, Dehradun | HPCL Refinery, Mumbai | Industree Crafts Foundation, Bengaluru | Institute of Hotel Management, Mumbai | Isoft, New Delhi | Kalike, Yadgir | Kalinga Mining Corporation Pvt Ltd, Cuttack | KEI, Mumbai | Kwatt Solutions, Mumbai | L&T, Mumbai | Leap Skills, New Delhi | Madhumitha Software Services, Hyderabad | Mahindra Holidays, Chennai | MMF - Finolex, Pune | National Yuva Co-operative Society Ltd, Pune | NSDC, New Delhi | OSDA, Bhubaneswar | Peerless Academy, Kolkata | People Awareness for the Rural Development Agency, Nuapada | Ratnamala Infoservices Pvt Ltd, Nagpur | Sadbhavana Trust, Lucknow | Sahyadri Farms, Nashik | Sastra University, Chennai | Sattva, Bengaluru | Schneider Electrical, Mumbai | SELCO Foundation, Bengaluru | SVP Philanthropy Foundation, Bengaluru | Taj / IHCL, Mumbai | Tata AIA, Mumbai | Tata Autocomp, Pune | Tata Capital, Mumbai | Tata Chemical, Mumbai | Tata Communications Pvt, Pune | Tata Institute of Social Sciences (TISS), Mumbai | Tata Relief Committee, Mumbai | Tata Sky, Mumbai | Tata Steel, Mumbai | TCS, Mumbai | THSC, Delhi | Trent, Mumbai | Visan Hospitality, Gurgaon | Voltas, Mumbai | Wipro GE Healthcare, Mumbai

## Migration and Urban Habitat

Agha Khan Foundation, Delhi | Cadasta Foundation, Washington, USA | Centre for Microfinance, Jaipur, Rajasthan | Grameen Development Services, Lucknow, Uttar Pradesh | Grameen Evam Samajik Vikas Sansthan, Ajmer, Rajasthan | Kalahandi Org for Agriculture & Rural Marketing Initiative (KARMI), Kalahandi, Odisha | Livolink Foundation, Bhubaneswar, Odisha | Omidyar Network, Mumbai, Maharashtra | PARDA, Nuapada, Odisha | Sahbhagi Shiksha Kendra, Lucknow, Uttar Pradesh | Sri Satya Sai Trust, Kerala | Trusts Community Livelihood, Lucknow, Uttar Pradesh | Urban Design Research Institute, Mumbai, Maharashtra | Urmul Khejari Sansthan, Nagaur, Rajasthan | Youth Council for Development Alternatives (YCDA), Baunsuni, Odisha | Youth for Unity Voluntary Action, Mumbai, Maharashtra

## Social Justice and Inclusion

Aangan Trust, Mumbai | Apeksha Homeo Society, Amravati | Arpan, Mumbai | Child in Need Institute - CINI, Kolkata | Developing Intervention for Social Human Action - DISHA, Amravati | Indian Council for Child Welfare, Assam, Guwahati | Jan Sahas, Dewas | Prayas (TISS), Mumbai | Prison Department - Home Department, Government of Maharashtra, Pune | Resource Cell for Juvenile Justice - RCJJ, Mumbai | Sree Daya Foundation, Chennai | Tata Institute of Social Sciences, Mumbai | The Hans Foundation, New Delhi | Towards Advocacy and Development Action - TANDA, Purulia | Udayan Care, New Delhi | UNICEF, New Delhi | Voluntary Action for Rehabilitation and Development - VARHAD | Wings to Fly, Ahmedabad

## Arts and Culture

1947 Partition Archives Delhi, Delhi | Aga Khan Trust for Culture Delhi, Telangana | Ambedkar University Delhi, Delhi | Anamika Kala Sangam Trust, Kolkata, West Bengal | Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, Mumbai, Maharashtra | Dhruvad Sansthan, Bhopal, Madhya Pradesh | Film Heritage Foundation, Mumbai, Maharashtra | Forum for Knowledge and Social Impact, Mumbai, Maharashtra | Himalayan Society for Heritage and Art Conservation, Nainital, Uttarakhand | Indian Writers' Forum, Delhi | Kalavaahini Trust, Chennai, Tamil Nadu | Kattaikuttu Sangam, Kanchipuram, Tamil Nadu | Kochi Biennale Foundation, Kochi, Kerala | Mehrangarh Museum Trust, Jodhpur, Rajasthan | MS Swaminathan Research Foundation, Chennai, Tamil Nadu | Mumbai Police Foundation, Mumbai, Maharashtra | Museum of Art and Photography, Bangalore, Karnataka | National Centre for the Performing Arts, Mumbai, Maharashtra | Ninasam Heggodu, Karnataka | Shankar Mahadevan Academy, Mumbai, Maharashtra | The Marg Foundation, Mumbai, Maharashtra

## COVER PICTURES



Water distribution amongst the communities affected by the floods in Assam. To know more, refer to page 95, the Disaster Relief and Rehabilitation section.



Thatipamula Shashikala (yellow saree), an Internet Saathi, with her fellow villagers during a training programme at Guduru Village, Bibinagar Mandal, Telangana. To know more, refer to page 59, the Digital Transformation section.



Menstrual Hygiene Management sessions and demonstration of improved practices at Kaiserganj, Bharai, Uttar Pradesh. To know more, refer to page 27, the WaSH section.



A Basti Dawakhana in action at Begumpet, Hyderabad. To know more, refer to page 05, the Health Care section.



Prominent Progressive farmers Jaya Priya Debi and Sri Hari at their Tomato Farm at Ragimanipenta Village, Chittoor, Andhra Pradesh. To know more, refer to page 39, the Livelihood section.



Vhagya, from Elder Spring (response team for the elderly) at work with her team at the Tata Trusts office, Hyderabad, Telangana. To know more, refer to page 05, the Health Care section.



Coaching session at Gopichand Academy, Mizoram. To know more, refer to page 67, the Sports section.



A teacher taking a session of anganwadi-going kids at Risia, Bharai, Uttar Pradesh. To know more, refer to page 51, the Education section.



A session with migrant families to create awareness of their social entitlements being held in a community centre at Sirsia, Shrawasti, Uttar Pradesh. To know more, refer to page 79, the Migration and Urban Habitat section.



Beneficiary R Asha meets Ramaraju, a Government Official, at her bee farm in Narayanavanam, Chittoor, Andhra Pradesh to address the various challenges faced by the local farmers. To know more, refer to page 39, the Livelihood section.



Tata Trusts Swastha Kutumbam beneficiary, P Vani with Venkatalakshmi (Green and Printed Saree), Insurance Facilitator (Swastha Kutumbam) at Munagacherla, Krishna District, Andhra Pradesh. To know more, refer to page 05, the Health Care section.



Training session underway at a Tata Strive session, Hyderabad. To know more, refer to page 73, the Skill Development section.



A once derelict Anganwadi school in Ibrahimpatnam - renovated and maintained by the Tata Trusts - is now fully functional and a model example of such a school. To know more, refer to page 05, the Health Care section.



Tata Strive training session in progress. To know more, refer to page 73, the Skill Development section.



Restoration work underway at the Film Heritage Foundation. To know more, refer to page 91, the Arts and Culture section.

The Trusts wish to acknowledge their team and partners for the case studies and photographs used in the report.

Visit us at: <https://www.tatatrusters.org>

All rights reserved. No part of this report, including design, may be reproduced in any forms or any means, electronic or mechanical, including photo copy, recording or any other information storage and retrieval system, without prior permission in writing from the Trusts.



This report is printed  
on recycled paper.



**TATA TRUSTS**

**SIR RATAN TATA TRUST & ALLIED TRUSTS  
SIR DORABJI TATA TRUST & ALLIED TRUSTS**

---

Bombay House, Homi Mody Street, Mumbai-400001, India

Website: [www.tatatrusts.org](http://www.tatatrusts.org)

Email: [talktous@tatatrusts.org](mailto:talktous@tatatrusts.org)