

TATA TRUSTS

ANNUAL REPORT
2022 - 23

COMING TOGETHER,
FOR AN EMPOWERED FUTURE.

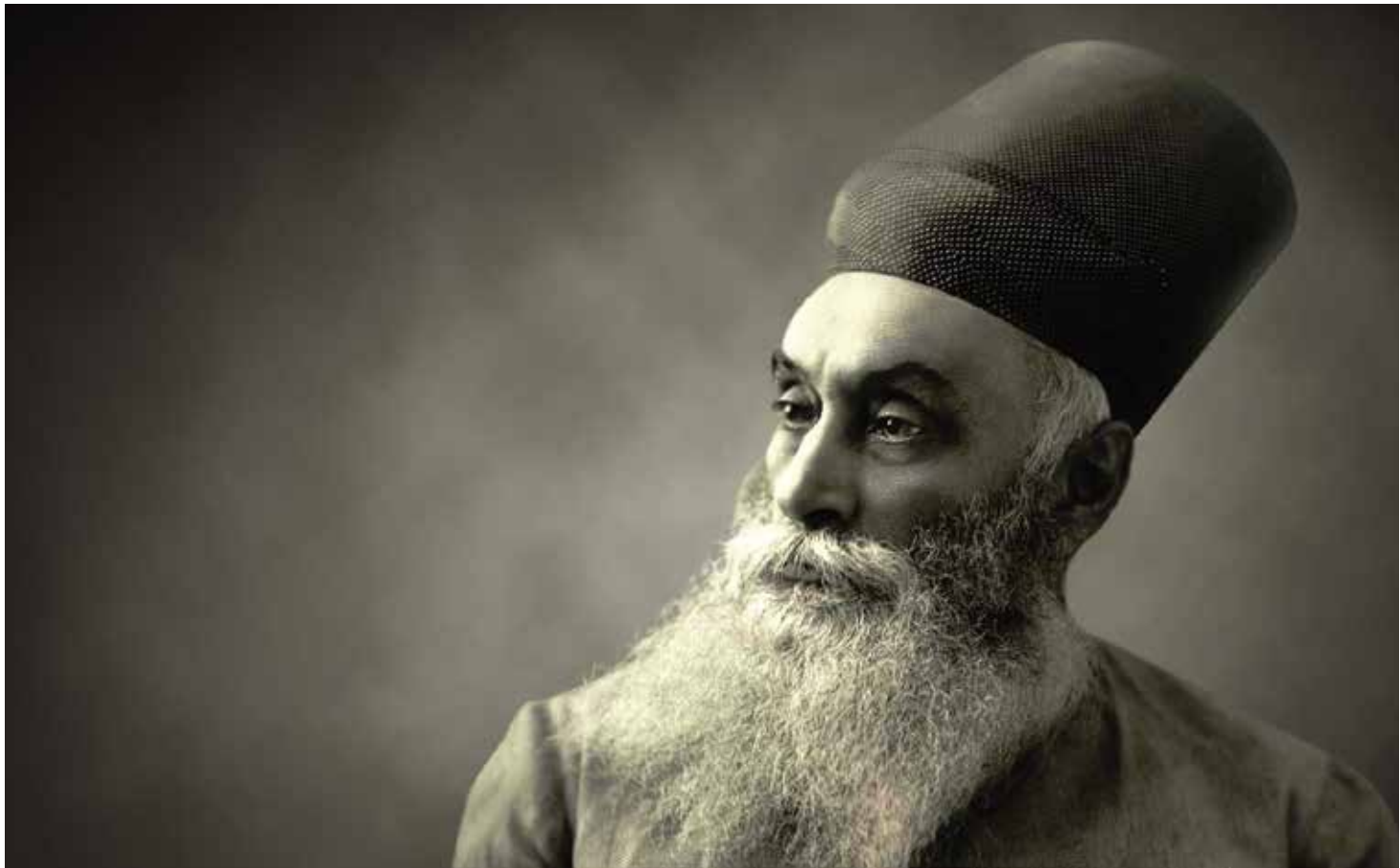


THE GUIDING PRINCIPLE OF TATA TRUSTS

“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.

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



CHAIRMAN'S MESSAGE

The year we have seen go by has been one of healing for not just our country, but also for the world, as we recovered from the effects of a global pandemic never seen before in modern times.

The last three years have demanded a significant commitment of our resources to help the country address healthcare needs, not only to support COVID care and recovery, but also to address the rapidly growing numbers of cancer-affected populations. Our collaboration with the Government of Assam has resulted in the establishment of the largest network of specialized cancer care hospitals of any state in the country. This model is now offering advanced facilities for the detection and treatment of cancer in Northeast India – a region that has a high prevalence of cancer and a dearth of quality care facilities. We believe that models of collaboration such as these, help set the stage and inspire philanthropy to work in partnership with governments to increase reach and deepen impact.

In keeping with our Founders' vision, we shall move forward with renewed energy and passion to serve those most excluded and marginalised in our society. Through the years, we have supported work in health and human services, investing continuously in programmes for rural and urban livelihoods, healthcare, nutrition, water and sanitation. While we celebrate all that we have achieved as a nation, our commitment remains to those who continue to be affected by rising inequality, the unprecedented



RATAN N. TATA

physical impacts of climate change, and those whose social status deepens their experiences of deprivation and scarcity. Moving ahead, we shall continue to invest in programmes that are embedded in principles of continuity and change, seeking to build pathways for irreversible, intergenerational shifts in the lives of the communities we serve.

We continue to build on the belief that solving the challenges faced by the most excluded communities requires a holistic approach which centres their voices and builds their resilience. This 360 degree approach means that we invest in a range of solutions across all our areas of work. Healthcare continues to be the focus of the Trusts' efforts over

the years, stemming from the resolve that the country should not lag in this field due to a lack of facilities and capabilities. The partnership with the Government of Madhya Pradesh, for example, resulted in rapid progress in the setting up of a Comprehensive Primary Health Care model in the state. Simultaneously, the leveraging of technology platforms strengthened the quality of services to facilitate equitable healthcare for all. In fact, the adoption of cutting-edge technology is the hallmark of healthcare infrastructure. There is a need for more innovative solutions like HealSeq, incubated by the India Health Fund seeded by the Trusts, which reduces the diagnosis time of drug-resistant tuberculosis from 4 months to 2 weeks.

Our region of the globe continues to work to advance gains in the nutritional status of women and children. The Trusts will renew its efforts in improving nutritional outcomes not only by strengthening work at the systemic levels, in improving quality and access to fortified and enriched diets, but also by trying to bring about changes in community norms. We recognise that primary health and education are two key entry points in the nation's development journey, whose key marker is both reflected in and affected by our children's nutritional status.

Sustainability plays a pivotal role in our approach to development. The Trusts have always recognised that achieving sustainability requires diverse approaches and deep meaningful collective effort. One such effort has been our response to the climate emergency. The Trusts incubated the India Climate

Collaborative as a pioneering climate funding accelerator in the region. We are now positioned to be a frontrunner in global philanthropic leadership to build climate resilience. The Trusts commit to building similar programmes at scale, leveraging collaborations with fellow donors, and continuing its engagement with a range of relevant and like-minded partners from civil society and across the private and public sectors. While the Trusts seek to tirelessly work deeply and at scale for social transformation, we also commit to celebrate, animate and rejuvenate the arts, culture and creative economies of which our nation has a rich and diverse resource.

Advancements in science and technology continue to promise solving the most pressing development challenges. With our deep commitment to the holistic well-being of humanity, we will continue to foster creative human potential across our entire value chain. In all that we do, the Trusts endeavour to hold up the torch passed down by our Founders – to give back to communities and to lift their voices as we move towards a more just, inclusive and equitable future for all.

**Ratan N. Tata
Chairman**

CONTENTS

	FINANCIAL OVERVIEW	01-04
	HEALTHCARE	05-08
	CANCER CARE	09-14
	NUTRITION	15-22
	WATER, SANITATION AND HYGIENE	23-30
	ENVIRONMENT	31-34
	LIVELIHOOD	35-44
	EDUCATION	45-50
	SPORTS	51-56
	SKILL DEVELOPMENT	57-62
	ARTS & CULTURE	63-68
	INSTITUTIONS	69-74
	INDIVIDUAL GRANTS	75-82
	LIST OF PARTNERS	83-86

**A FINANCIAL OVERVIEW
SIR RATAN TATA TRUST
AND ALLIED TRUSTS**

The year that was:

The total disbursements made by the Trusts during the year were ₹4,564.23 million (US \$ 55.66 million). Disbursements of ₹3,973.61 million (US \$ 48.46 million) were made on all

Details of grant disbursements: 2022-2023

Type of grant	₹ in million	US\$ in million
Institution: Programme grants	3,973.61	48.46
Institution: Endowment grants	-	-
Institution: Small grants	22.40	0.27
Individual grants	568.22	6.93
Total	4,564.23	55.66

₹10 million is ₹1 crore; 1 US \$ is approximately equal to ₹82

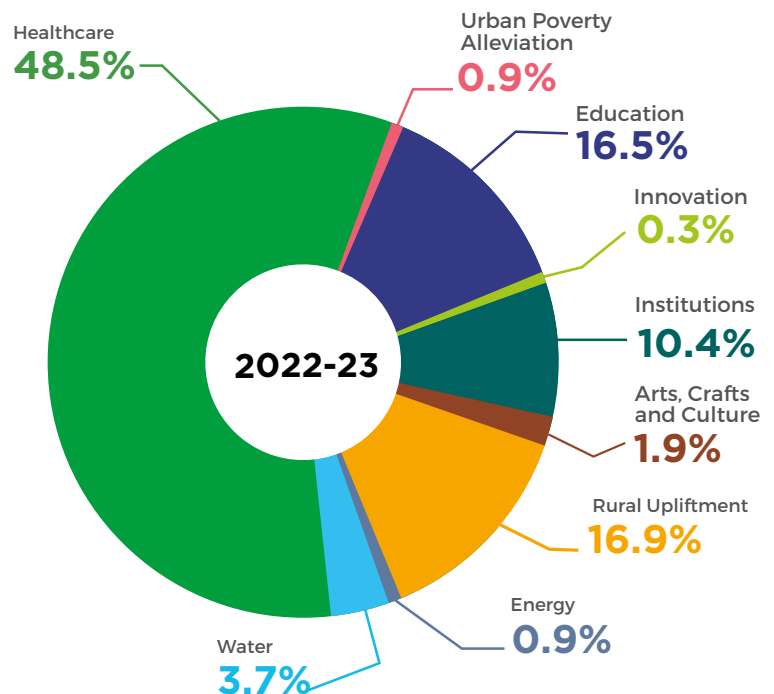
Institutional grant disbursements / Direct Implementation Project Expenses (Theme wise): 2022-2023**

Thematic Area	₹ in million	US\$ in million
Healthcare	1,936.74	23.62
Water	147.25	1.80
Energy	36.40	0.44
Rural Upliftment	675.66	8.24
Urban Poverty Alleviation	37.25	0.45
Education	660.39	8.05
Arts Craft and Culture	75.29	0.92
Institutions	413.71	5.05
Innovation	13.32	0.16
Total	3,996.01	48.73

**The figures in the table reflect spend in the financial year.

programme grants during the year and small grants touched ₹22.40 million (US \$ 0.27 million). The total disbursements to individuals amounted to ₹568.22 million (US \$ 6.93 million)

Grant Disbursements & Direct Implementation Projects: 2022-23



Individual grant disbursements: 2022-2023

Type of grants	₹ in million	US\$ in million	%
Medical	323.95	3.95	57
Education	244.27	2.98	43
Total	568.22	6.93	100



**A FINANCIAL OVERVIEW
SIR DORABJI TATA TRUST
AND ALLIED TRUSTS**

The year that was:

The total disburseals made by the Trusts during the year were ₹1,251.05 million (US \$ 15.26 million). Disburseals of ₹871.87 million (US \$ 10.64 million) were made on all

Details of grant disburseals: 2022-2023

Type of grant	₹ in million	US\$ in million
Institution: Programme grants	871.87	10.64
Institution: Endowment grants	70.00	0.85
Institution: Small grants	4.33	0.05
Individual grants	304.85	3.72
Total	1,251.05	15.26

₹10 million is ₹1 crore; 1 US \$ is approximately equal to ₹82

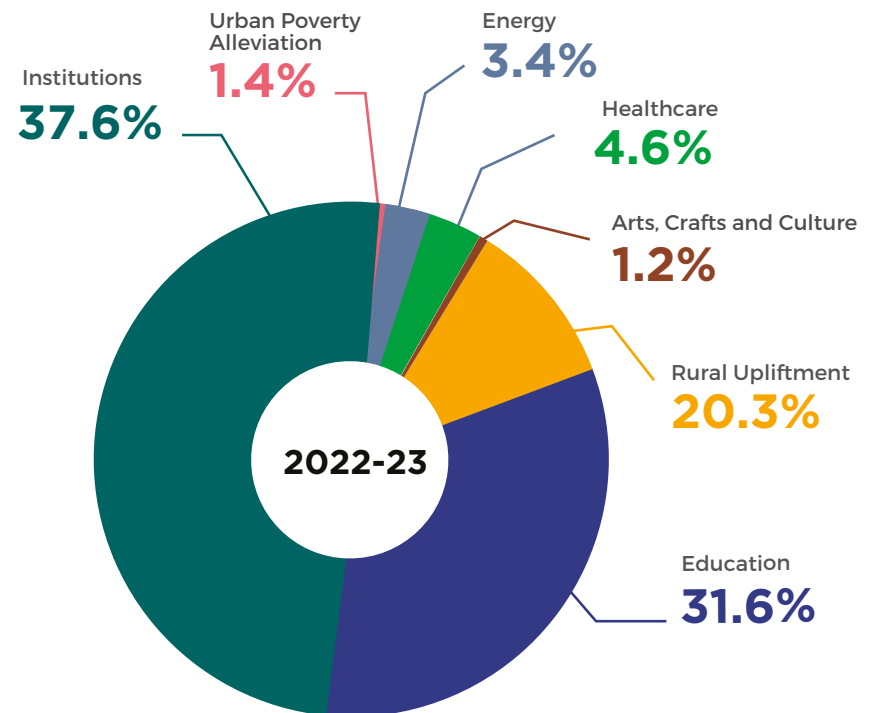
Institutional grant disburseals / Direct Implementation Project Expenses (Theme wise): 2022-2023**

Thematic Area	₹ in million	US\$ in million
Healthcare	43.81	0.53
Water	(0.01)	--
Energy	31.89	0.39
Rural Upliftment	192.09	2.34
Urban Poverty Alleviation	12.90	0.16
Education	298.83	3.64
Arts Craft and Culture	11.24	0.14
Institutions	355.45	4.33
Innovation	-	-
Total	946.20	11.54

**The figures in the table reflect spend in the financial year.

programme grants during the year. Endowment grants touched ₹70 million (US \$ 0.85). Small grants touched ₹4.33 million (US \$ 0.05 million). The total disburseals to individuals amounted to ₹304.85 million (US \$ 3.72 million).

Grant Disbursements & Direct Implementation Projects: 2022-23



Individual grant disburseals: 2022-2023

Type of grants	₹ in million	US\$ in million	%
Medical	216.66	2.64	71
Education	88.19	1.08	29
Total	304.85	3.72	100

HEALTHCARE

REIMAGINING HEALTHCARE FOR
EVERY INDIAN IS **EMPOWERING**



India is undergoing an epidemiological shift in the profile of diseases, facing a triple burden of communicable diseases, non-communicable diseases, and accidents/injuries. Healthcare services are characterised by a spectrum of greatly contrasting landscapes. On one end of the spectrum, there are high-tech institutions providing cutting-edge medical treatments to the wealthy few in urban regions, while on the other, the majority of the country's population lives in rural areas with little to non-existent health infrastructure or services. The healthcare system also runs under many supply-side limitations, with complex and multifaceted challenges, as well as major gaps in human resources and medical infrastructure for health, in terms of availability, distribution, and capacities. The Trusts aim to address these challenges and to create a resilient health system in the country that provides quality, affordable, and patient-centered healthcare.

The emphasis is on improving the access to and quality of primary healthcare and life, especially for the marginalised and financially disadvantaged populations, including tribals, by tackling human resource, infrastructure, and technology adoption challenges.

The Trusts' engagements strive to improve:

- (a) Access to healthcare services; and
- (b) Quality of healthcare services using technology, capacity building, and process enhancement.

Key thematic areas under the Health Portfolio include:

- Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A)
- Non-Communicable Diseases, Mental Health and Elder Care
- Health Systems Strengthening
- Communicable Diseases

KEY ACHIEVEMENTS:

Pan India Non-Communicable Disease programme:

- 72,297,215 individuals over 30 years of age enrolled; 68,262,027 screenings undertaken; 7,173,019 referrals made; 10,436,254 individuals examined; 5,022,081 individuals diagnosed; and 4,946,080 individuals treated using CPHC (Comprehensive Primary Healthcare) software.
- Training of 14,179 health professionals supported across 20 states.
- 1,174,840 Health IDs created using CPHC software under the Azadi Ka Amrit Mahotsav, organised by the Government of India.

Supporting the cost of procedures for congenital cardiac disorders at Sri Satya Sai Sanjeevani Hospital in Raipur as part of Phase 2 of the Chhattisgarh Health System Strengthening Initiative:

- 1,791 children screened and 518 underwent surgical intervention.
- Initiating peripheral screening centres at hospitals in Rajnandgaon, Raipur and Ambikapur and training the staff.

District Mental Health Programme (DMHP) Phase 2 in Nagpur and Reform of Regional Mental Hospital Nagpur (RMHN):

- 72,605 individuals were screened under the DMHP using standardised tools to identify common mental health issues.
- 9,103 individuals were provided clinical services.
- A session organised by the Community Awareness Programme trained 1,681 government employees, including frontline workers, clinical personnel, nurses, and others.



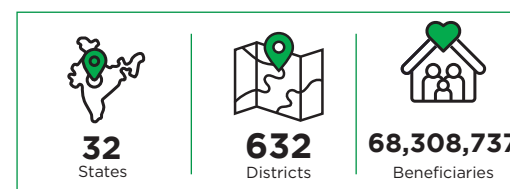
Apex Trauma and Emergency Learning Center (ATELC):

- In March 2023, an international conference on Integrated Emergency and Trauma Care was held in Thiruvananthapuram, and the Minister of Health invited proposals for improving and expanding emergency treatment. A committee of specialists brainstormed and prepared an outline of a policy for integrated emergency care and priority areas, which will be presented to the Ministry of Health at both the national and state levels.



GOING FORWARD:

Based on successful pilot projects in various components of healthcare, the Trusts have finalised a five-year strategy that will scale up successful health interventions, including Health Systems Strengthening (HSS) through the establishment of Care Coordination Centres (CCCs), ASMAN (RMNCH+A), Model UPHCs, etc.



Coverage upto March 2023

Improved lifestyle means improved health

CHOs leverage technology to improve health outcomes in patients

The Government of India's healthcare programme, called the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) was established to tackle the country's high incidence of non-communicable diseases. Tata Trusts are partnering with the government to improve primary healthcare delivery and take it to the remotest parts of India through the Comprehensive Primary Healthcare Non-Communicable Disease (CPHC NCD) software application. The central government provides infrastructure, human resources, technical inputs and hardware (tablets equipped with the NCD app). The Trusts implement the programme by mentoring and building the capacity of the frontline healthcare workers vide a cascading model of training through the provision of a helpline and technical support to the programme at national, state and district levels.

When it comes to non-communicable diseases, timely diagnosis is paramount. Mr Thovisie (name changed) exemplifies this. Residing in the quaint and peaceful town of Mokokchung in Nagaland, Thovisie regularly consumed tobacco and alcohol. He did not have any opportunity for medical checkups. Fortunately, Ms. Pongen, a Community Health Officer (CHO) who resided in his locality encouraged him to take a screening test. The test results showed some concerning indicators and the Comprehensive Primary Healthcare Non-Communicable Disease (CPHC NCD) application recommended further examination. An additional investigation determined that Thovisie was suffering from

hypertension. He was immediately put on treatment which involved a changed lifestyle, medication and regular follow-ups at the Health and Wellness Centre (HWC).

Thanks to Ms Pongen, Thovisie's hypertension is now balanced and under control. He maintained a disciplined and balanced diet thanks to the CPHC NCD IT System which sent him systematic reminders. Ms. Pongen's follow-up also helped him limit his intake of salt and unhealthy fats while encouraging him to incorporate locally produced fibre-rich foods into his diet and also helped reduce his tobacco and alcohol consumption. Exercises helped him manage his stress. Furthermore, Thovisie started coming for regular check-ups and his vitals were updated on the CPHC NCD IT system.

Ms Pongen has been serving the community for over 5 years. She works with a lot of compassion. "It gives me joy and satisfaction in my profession as I get the opportunity to serve humanity" describes Ms Pongen as her work mantra.

CHOs like Ms Pongen go beyond their call of duty and provide the right counsel to their patients. Thanks to her diligence and support, Thovisie responded positively and is on the road to a healthier life.



3 GOOD HEALTH AND WELL BEING
PROJECT ALIGNS WITH SDG



CANCER CARE

OVERCOMING INEQUITIES IN
CANCER CARE IS **EMPOWERING**

With over 1.4 million new cases of cancer reported 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%. This problem of high incidence and delayed detection is aggravated by:

- Poor infrastructure and low availability of skilled medical expertise to treat the disease.
- Existing cancer-care facilities are 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.
- Increasing adoption and spread of unhealthy lifestyle habits.
- Lack of awareness related to the benefits of the early detection.

The novel 'Distributed Model of Cancer 'Care' has been implemented under the Cancer Care Programme of Tata Trusts to provide cancer patients and their caregivers better access to quality and affordable care that is closer to their homes, and to reverse the early-to-late detection ratio of cancer from 30:70 to 70:30. The financial year 2022-23 was a landmark year for the programme, with successful commissioning of hospitals in the states of Assam, Andhra Pradesh, Jharkhand and Karnataka, staffed with trained and qualified cancer experts, which began providing cancer patients from these regions access to quality care.

The outreach programme also conquered new frontiers as awareness and early detection efforts were scaled up to enhance

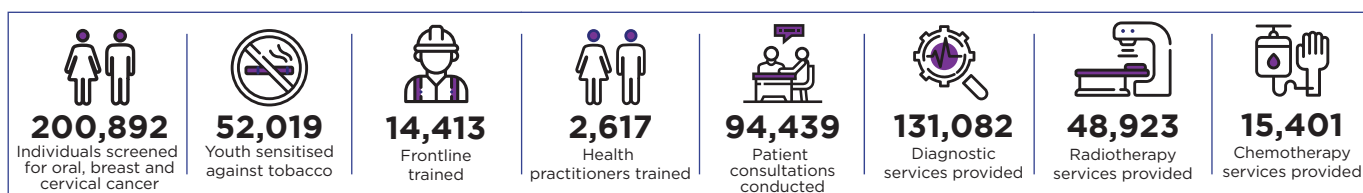
impact to beneficiaries who are screened to catch common cancers early. The programme has been ensuring that the cancer suspects identified during the screening are followed through for cancer diagnosis and treatment, if required, to maintain continuum of care.



KEY ACHIEVEMENTS

Access to comprehensive cancer care through infrastructure development:

- Seven cancer care hospitals were inaugurated in Assam (Dibrugarh, Barpeta, Kokrajhar, Lakhimpur, Darrang, Jorhat and Tezpur) in April 2022 by the Prime Minister of India, in the presence of the Governor and Chief Minister of Assam, the Chairman of Tata Trusts and other senior leaders from the Government of Assam, Tata Group and Tata Trusts.
- These hospitals are a part of the first phase roll-out of 10 such facilities in the state are empanelled with the Atal Amrit Abhiyan Health Scheme, which benefits 90% of the state's population. Facilities in Barpeta and Dibrugarh are Level 2 centres with 140 - 180 beds each, equipped with advanced equipment, including a Linear Accelerator (LINAC) for radiation therapy,



Coverage during workers 2022-23

state-of-the-art facilities for surgical oncology, chemotherapy, PET scan, MRI, CT scan, mammography, critical care, blood banks, palliative care, etc., supported with an advanced laboratory. Facilities in Tezpur, Lakhimpur, Jorhat, Kokrajhar and Darrang are Level 3 centres with 45 beds each and services, such as radiation therapy, Chemotherapy, CT Scan, MRI and laboratory for day care.

- The Sri Venkateswara Institute of Cancer Care & Advanced Research (SVICCAR) was inaugurated in Tirupati in May 2022. This 92-bed facility is



equipped with an advanced laboratory and diagnostics equipment including high-end CT scan and MRI scanner. A proficient medical oncology team has been inducted to provide chemotherapy. Radiotherapy is being administered using an advanced Linear Accelerator with SRS and CT Sim, as well as with Brachytherapy.

- The Zulekha Yenepoya Institute of Oncology, situated in Deralakatte, Karnataka was instituted in June 2022. The Trusts sanctioned a one-time grant-in-aid in establishing a Comprehensive Cancer Care Centre in the Medical College Hospital at the University. Measuring 36,000 square feet, this centre has two radiotherapy bunkers,

one brachytherapy bunker, a nuclear medicine facility with a PET CT Scanner and a 10-bed daycare facility.

- The Outpatients Department at the Ranchi Cancer Hospital and Research Centre was commissioned in September 2022 – the first comprehensive cancer care facility in the region – and can handle over 5,000 patients annually.

Scaling up awareness and screening for early detection of cancer:

- To add impetus to Public Health efforts, the Tata Cancer Care Foundation decided to expand the screening, awareness and early detection work in Khunti and Saraikela districts of Jharkhand, in addition to Ranchi. A team of 31 professionals comprising dentists, nurses, programme coordinators, data manager, programme assistant and patient navigator were on boarded and trained.

Special events and campaigns for early detection of cancer:

- A camp was organised at the Ranchi Cancer Hospital and Research Centre on the occasion of World Cancer Month to create awareness of cancer symptoms and conduct screenings. The community outreach team also conducted a mega awareness and cancer screening camp at the annual 'Kissan Mela' organised by the Birsra Agriculture University (BAU) Ranchi, which was attended by farmers from across the state. Both these initiatives were supported by Pfizer. From the 1,200 people screened at both events, 19 were identified as suspects, of whom 4 were confirmed and are being treated for cancer.
- To promote screening for early detection and to increase footfalls at the hospitals, a comprehensive campaign titled 'Kaise Ka Cancer,' was launched on the occasion of World Cancer Day.

- Front-Line Workers were trained to spread awareness about risk factors of cancer and risk-reducing behaviour and nudge people to get themselves screened for oral, breast and cervical cancers. Efforts to control the consumption of tobacco were made to reduce the risk of oral cancer.

GOING FORWARD

- Inauguration of the Ranchi Cancer Hospital and Research Centre (RCHRC).
- Upscaling the Public Health Programme in multiple districts of Andhra Pradesh.
- Empaneling the hospital at Ranchi under state and central government health schemes to ensure affordable treatment.
- Inducting a new batch of postgraduate doctors and nurses for the 'Fellowships Programme in Oncology' and 'Nursing Fellowship Programme', respectively.



CHALLENGES FACED

- Administrative delays in obtaining mandatory licences and compliances.
- Low acceptance of breast and cervical screening among the target demographic.
- Lack of instruments and consumables provided by the State Administration in Health and Wellness Centres, due to which the frontline workers are unable to carry out screenings.

The story of Anusaya's brave triumph over cancer



Alleviating suffering and fear of cancer by counselling with care

In a country where the healthcare system can be fragmented and overwhelming, patient navigators serve as beacons of hope, guiding individuals through the complexities of cancer care. Their role is to ensure that patients like Anusaya Nanaji Doifode, aged 54, receive timely and compassionate support needed to conquer cancer.

Anusaya's journey began when she attended an awareness and screening camp for non-communicable diseases at the Health and Wellness Centre in Sonegaon, organised by the Tata Cancer Care Foundation's outreach team. During a clinical breast examination, a small lump was detected on her left breast, prompting further evaluation at a referral hospital in Chandrapur.



The significance of Patient Navigators in the Tata Cancer Care Foundation cannot be overstated. These dedicated individuals possess a deep understanding of the medical system. They are skilled at guiding patients through various stages of consultation, ensuring they receive prompt and adequate care. Anusaya was fortunate to have a patient navigator named Manisha by her side.

Upon visiting the wellness kiosk at GMC Chandrapur, another initiative by Tata Cancer Care Foundation, previously known as Alamelu Charitable Foundation, Anusaya underwent further screening and consultation with the specialist there. A benign breast disease was detected, leading to a recommendation for a lumpectomy. Throughout this process,

Anusaya and her family were counselled and informed about the procedures, enabling them to make well-informed decisions about her treatment.

However, the biopsy report brought a more challenging revelation - Papillary Carcinoma of the Left Breast. This called for a mastectomy, a decision that had the potential to evoke

fear and uncertainty. Once again, the patient navigator stood beside Anusaya and her family, providing reassurance, explaining the procedure, and offering emotional support during this trying time.

With courage and trust in her healthcare team, Anusaya underwent the mastectomy successfully.

Throughout her post-operative recovery, she received attentive care and support from the hospital staff, leading to a triumphant outcome.

Today, Anusaya lives a life that is healthy and safe, free from the deadly grip of cancer.

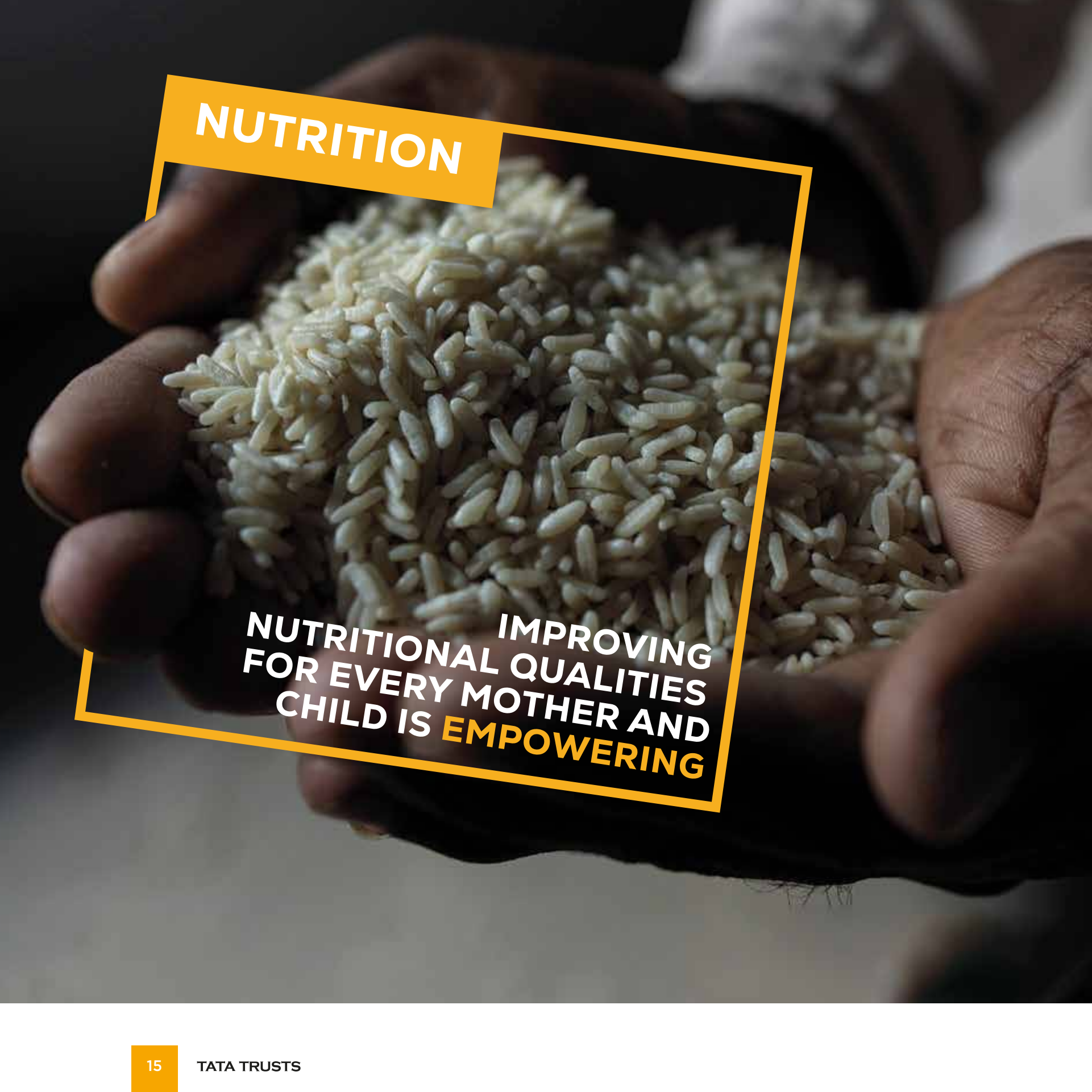
The tireless efforts of patient navigators continue to alleviate the suffering and fear associated with cancer. Their guidance strengthens patients and their caregivers to navigate the healthcare system with confidence, ensuring that they receive the best possible care and support in the journey of recovery.

3 GOOD HEALTH AND WELL BEING

PROJECT ALIGNS WITH SDG







NUTRITION

**IMPROVING
NUTRITIONAL QUALITIES
FOR EVERY MOTHER AND
CHILD IS **EMPOWERING****

Adequate nutrition during infancy and early childhood is critical for children to be healthy and to realise their developmental potential. India's nutritional outcomes have steadily improved over the years, but the prevalence of low birth weight, stunting, wasting, and severe wasting indicates that the country is still struggling with child malnutrition.

Malnutrition is a complex condition that can involve multiple variables. Children, adolescents, and women of reproductive age are particularly vulnerable to undernutrition and micronutrient malnutrition. In order to improve the lives of individuals and communities across the nation and spur societal growth, it is crucial to break this cycle of intergenerational malnutrition.

The Chairman of Tata Trusts, Mr. Ratan N. Tata, noted, "My most visible goal is to do something in nutrition for children and pregnant women in India. Because that would change the mental and physical health of our population in years to come." This statement reflects Tata Trusts' commitment to combating malnutrition for long-term development of the country.

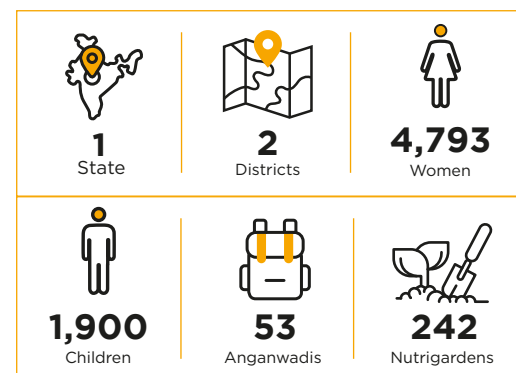
The Trusts recognise that child undernutrition is a difficult issue. Although efforts are underway to move the needle on addressing nutrition deficiency, they will be ineffective unless they are accompanied by a significant emphasis on encouraging parents to adopt healthy feeding habits for their infants throughout the first 1,000 days of life. The Integrated Child Development Services (ICDS) and public health departments are making substantial efforts to disseminate information, and so must the private health industry, civil society organisations, non-profit organisations, community-based organisations (CBOs), and media.

The Trusts' efforts focus on expanding access to nutrition services, utilising technology to enhance nutrition governance, assisting in the capacity building of key functionaries, and conducting research to provide better dietary and nutrition outcomes. The key areas are:



• **Maternal, Infant and Young Child Nutrition (MIYCN):**

- **Gathering data to improve nutrition programmes and governance, policy, and advocacy for sustainable development.**
- **Vitamin and Mineral Deficiencies (Micronutrient Deficiencies)**
- **First one thousand days**



Coverage upto March 2023 (For Yes to Poshan)



KEY ACHIEVEMENTS

National Nutrition Resource Centre (NNRC) at the Ministry of Women and Child Development (MoWCD):

The Trusts are the principal partner for the National Nutrition Mission (Poshan Abhiyaan). As per the approved design of the management and monitoring mechanism for Poshan Abhiyaan, a single unified technical set-up, namely the National Nutrition Resource Centre - Central Project Management Unit (NNRC- CPMU), was established at the central level within the MoWCD, in order to provide knowledge management on nutrition actions and to ensure regular monitoring and review of all the sectoral programmes, especially those directly affecting malnutrition. The goals of the NNRC are: (a) complimenting government efforts and amplifying their impact on the ground; (b) expanding and strengthening the quality of the nutrition programme's implementation and monitoring; and (c) supplementing technical resources for efficient and timely rollout and to operationalise the intended reforms in the nutrition domain. Key achievements include:

- Provision of Big Data Analytics (BDA) support and developing Behaviour Change Communications (BCC), thereby technically supporting the CPMU.
- Coordinating with state-level ICDS functionaries and consolidating the findings of national/regional level consultations on early childhood development for children (0-3 years).
- Developing the Governance Dashboard to produce reports and factsheets for all of India that analyse programmatic performance in relation to various nutrition indicators.

Strengthening data analytics support to NITI Aayog through the Technical Support Unit:

The Trusts facilitated the establishment of the Technical Support Unit (TSU) at the Department of Women and Child Development, NITI Aayog, Government of India, which played a pivotal role in strengthening the Mission Poshan 2.0 policy discourse. The TSU was instrumental in:

- Releasing progress reports for all states and Union Territories in light of the release of findings of the NFHS 5.
- Reviewing various proposals submitted by multiple technical and on-ground partners to the Department of Women and Child Development.
- Strengthening the Poshan Gyan portal with curated literature and timely addition of Standard Operating Procedures.
- Spearheading workshops on findings from NFHS 5, Early Child Care and Education, role of gender in improving child nutrition outcomes as well as a policy discourse for Himachal Pradesh.



Yes to Poshan in Andhra Pradesh:

The National Family Health Survey (NFHS) five reported that among children under 5 years of age, 31.2% were stunted, 16.1% were wasted, 29.6% were underweight, and 6.0% were severely wasted. Maternal and child malnutrition is a serious public health concern in Andhra Pradesh. In the Anakapalli and NTR districts of the state, the Trusts' intervention is focused on encouraging Pregnant and Lactating Women (PLW) and children under the age of five years to eat a varied and nutrient-rich diet.

Key achievements include:

- Publication of a curated recipe book to promote diet diversification among pregnant women, lactating mothers, and children up to the age of 2 years in collaboration with Acharya N.G. Ranga Agriculture University (ANGRAU).
- Improvements to the facilities at 5 Anganwadi centres in the Anakapalli district, which have led to an increase in enrolment and improved ICDS services delivery.
- Encouraging communities to develop nutri-gardens in their backyards and popularising the concept of nutri-gardens at a household level. The increased yield was the outcome of providing engaged women with a wider variety of seeds. So far, 242 nutri gardens have been cultivated in all five programme villages.

- Increasing the knowledge base of more than 200 Anganwadi Workers, Accredited Social Health Activists (ASHA) and Auxiliary Nurse Midwives (ANM) about vital maternity and child nutrition issues such as dietary diversity, growth monitoring, 1,000 days of care, immunisations, and other relevant concerns.
- Conducting home visits to guide mothers on Infant and Young Child Feeding (IYCF) practices.

GOING FORWARD

- Operationalising a comprehensive large-scale Child Malnutrition Programme with a focus on Severe Acute Malnutrition (SAM).
- Development and demonstration of nutritious food recipes in the Anakapalli district in collaboration with Andhra University.
- Targeting fortification of nutrition in social safety-net programmes such as Mid-day Meal and the take-home ration programme of ICDS.
- Creating policy recommendations and publications based on key findings of research studies on serum Vitamin D concentrations due to fortification of milk and oil with Vitamin D.



BEST PRACTICES

- The TSU played a crucial role in creating a two-way interaction platform with the Government of India's policy-shaping vis-à-vis timely contributions of best practices for significant improvements in policy discourse through virtual weekly review meetings and in-person monthly review meetings. The Trusts used this exchange platform as their main tool for adjusting and planning activities in light of policymaking.
- Undertaking monthly review meetings with the TSUs at MoWCD and NITI Aayog, which provided insight into national-level policymaking and programme plans for nutrition.
- Undertaking monthly review meetings with Research Study Partners for programmatic updates and course-correction.
- Participating at national and international consortiums.



Utilising biochemical criteria to assess novel technologies for preventing anaemia in pregnant women and women in reproductive age groups

Due to the low intake and poor bioavailability of iron from traditional Indian diets, iron deficiency and anaemia are highly prevalent in India, and affect people of all ages, sexes, and physiological backgrounds. The usage of iron-fortified iodised salt (Double Fortified Salt - DFS) has been linked to some improvement in hemoglobin (Hb) levels in school-aged children. There are, however, surprisingly few studies on the impact of consumption of DFS on women and men.

A community-based open three-arm randomised study was commissioned by the Trusts in 2020 and carried out by the Nutrition Foundation of India (NFI), New Delhi, over two years to assess the impact of DFS use on Hb in women, men, and children. The control group received iodised salt, and the two intervention groups received two formulations of DFS. The socio-demographic and nutrition profiles of the families, mean Hb, ferritin values and C-reactive protein (CRP) levels of women, men, and children at enrolment were comparable in all three groups.

The adoption of DFS in the diet of the target group over 6-12 months resulted in: (a) A small improvement in the mean Hb of all members of the family (the improvement in women and children was better than men; overall, the improvement was more pronounced in anaemic individuals); and (b) a small improvement in mean ferritin in women with low ferritin levels.

The study concluded that DFS may be a safe, feasible, affordable, and sustainable method for improving iron intake and Hb status and accelerating India's progress towards the SDG goal of 50% reduction in the prevalence of anaemia.

Women who consented to participate in the study were provided with Calcium and Vitamin D tablets and were monitored for regularity of supplement intake and side effects, if any. At the time of enrolment and subsequently, after 12 weeks of supplementation, blood samples were drawn and Vitamin D level was calculated.

Findings revealed: (a) Among those who were deficient at enrolment, 53.8% showed improvement and reached levels which are considered as sufficient; but nearly half continued to be deficient; and (b) Among those who had normal levels ($\geq 20\text{mg/ml}$) at enrolment, 84% remained normal; however, 16%

deteriorated and became deficient. It is possible that the small proportion of women who showed deterioration did so because of the seasonal fall in Vitamin D levels.

This was the first-of-its-kind standalone research study programme in India and findings from the final report will be useful to the respective ministries and government bodies to

contribute at the policy-level for larger safety net programmes.



Nutri-gardens for a Healthier Society



A mother's plight and fight against malnutrition in Andhra Pradesh

One of the key interventions under the Nutrition programme is to promote diet diversity through nutri garden models. Vijayavahini Charitable Organisation (VCF) facilitated in adoption of the nutri garden model at the Anganwadi centres and also extended support in setting up fruit and vegetable garden in the backyard of the individual households. Community members were motivated and trained to adopt and grow vegetable gardens in their backyards. The produce from the nutri gardens were utilised by the Anganwadi workers for providing hot, cooked meals to the children, while backyard vegetable cultivation promoted diet diversity at the household level, thereby ensuring the inclusion of easily grown nutritious vegetables and fruits in their diet.

One such case is that of Gousia Begum, a 28-year-old mother from Velvadam, who diversified her family's diet by cultivating a garden that is now a model for the village. It all started with a small patch of land in her backyard.

With the support of VCF, an organisation supported by Tata Trusts, she learned about growing a nutri-garden, to produce a variety of easy-to-grow and manage nutritious fruits and

vegetables. As part of the 'Yes to Poshan' programme, VCF provided seeds and training on various techniques for growing high-yield gardens. With newfound knowledge, Gousia planted leafy vegetables, spinach, and bottle gourds in her backyard.

Soon enough she began to reap the benefits of her hard work. As a lactating mother, she knew the importance of a nutritious diet. By growing her own vegetables, she could ensure her family got the nutrition needed to thrive. The

impact of her nutri-garden extended beyond her family. "With the handholding of Tata Trusts and VCF, I helped my community members understand the importance of diet diversity and how easy it was to achieve it through the nutri-garden," says Gousia.

What started as a small patch of land in a backyard has turned into a

large-scale initiative in all five villages of the Yes to Poshan programme. The 28-year-old mother's dedication to growing a nutri-garden not only improved the health of her family, but also inspired the village to do the same. Gousia Begum reminds us that a small change can lead to a big impact.

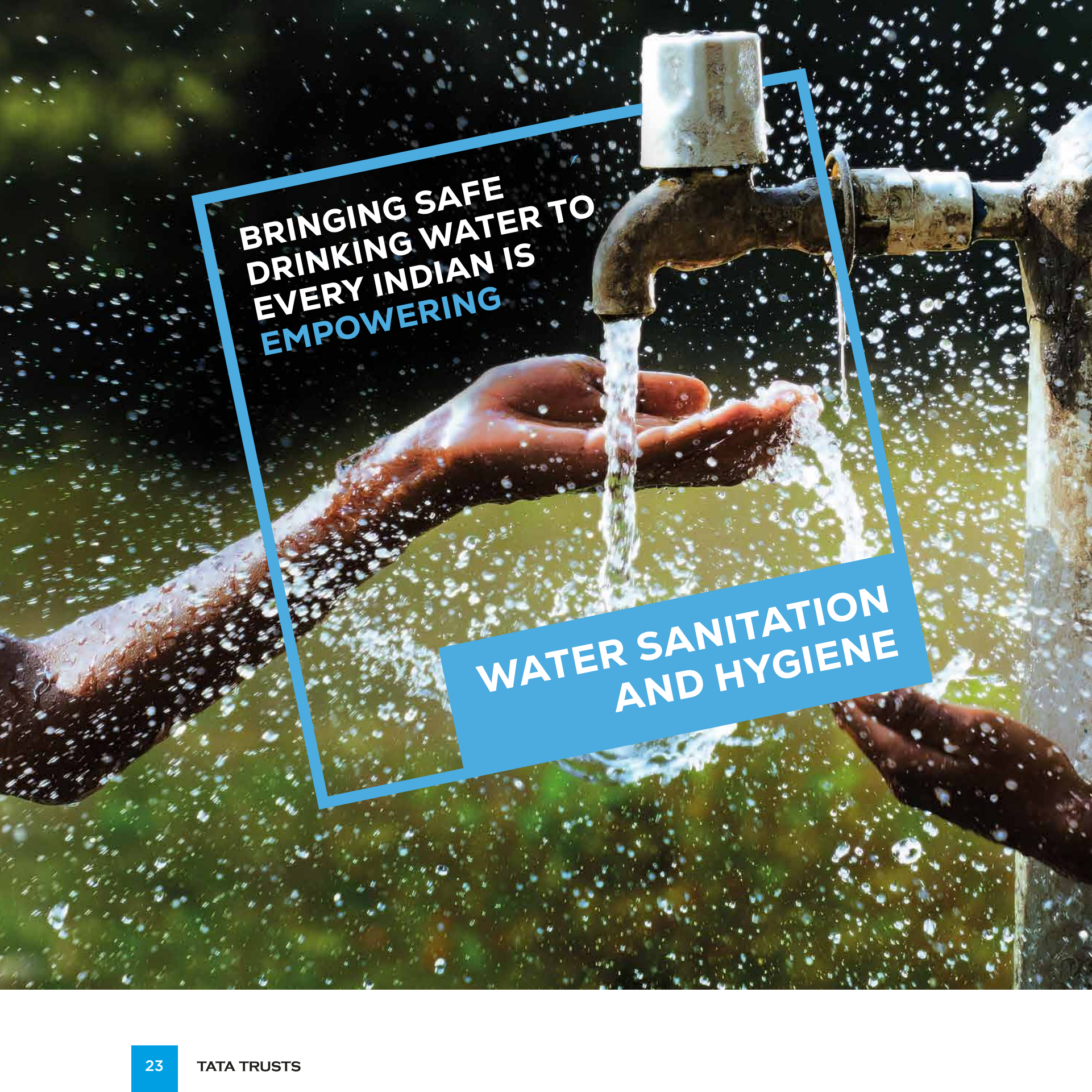


2 ZERO HUNGER

PROJECT ALIGNS WITH SDG 2







**BRINGING SAFE
DRINKING WATER TO
EVERY INDIAN IS
EMPOWERING**

**WATER SANITATION
AND HYGIENE**

India accounts for about 16% of the world's population but possesses only 4% of the global freshwater resources. Over the past few decades, the country has consistently drawn upon critical groundwater resources, which account for 40% of India's water supply. Today, it is undergoing the worst water crisis in its history and is projected to touch critical water scarcity levels, in the absence of any change or remedial measures.

Currently, over 600 million people face high to extreme water stress, with 75% of households having no access to drinking water on their premises. A McKinsey and Water Resources Group report estimates that in a business-as-usual scenario, the country's water demand is expected to rise to a level that is twice the available supply, by 2030. This would translate into more than 40% of the population not having access to drinking water, and 6% of the country's GDP being lost due to acute water scarcity by 2050 – potentially resulting in the biggest humanitarian crisis in the history of independent India.

Apart from microbial water contamination, the occurrence of diseases due to chemical contaminants, such as fluoride, arsenic, iron, nitrates, etc., is becoming highly

prevalent in rural and urban areas due to the over-exploitation of groundwater and other human induced problems, like excessive usage of fertilisers, improper disposal of industrial waste, etc.

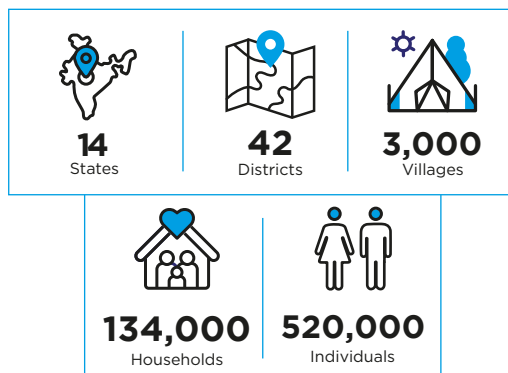
Water is intricately linked with climate change, playing a critical role in both its causes and consequences. Climate change is shifting precipitation patterns, leading to

more frequent and severe droughts in some regions and intense rainfall and flooding in others. These changes are affecting water resources, leading to scarcity of water for drinking and agriculture. Simultaneously, the overuse of water for domestic and agricultural purposes is creating demand-side issues. Another critical aspect of water scarcity is its impact on gender. Women and girls often bear the primary

responsibility of water collection and management, which is time-consuming and physically demanding, limiting their opportunities for education and economic participation.

In the recent past, the institutional landscape for water in India has become somewhat fragmented. The centre has facilitated, legislated, regulated, and funded states for implementing programmes dealing with various aspects of water, ranging from ground and surface water management to service delivery in urban and rural areas to water for irrigation, which has been apportioned among a number of ministries. This has led to uncoordinated, overlapping, and often competing programmes.

The Water, Sanitation and Hygiene (WaSH) portfolio of the Trusts aim to create a healthy and water-secure future for underserved communities by providing access to safe, assured, and adequate water and improved hygiene



Coverage upto March 2023

services through sustainable approaches. The Trusts' core focus is on promoting sustainable water management through mitigation and adaptation strategies, with a focus on climate change. Further, the Trusts believe in promoting equal participation of women in water related activities and empowering them in overall water management.

Key objectives include

- Providing safe drinking water to every household, by creating a user-centric and sustainable drinking water service delivery mechanism.
- Addressing water quality challenges through innovative, context-specific and affordable solutions at the community and household levels.
- Promoting water security approaches to make communities self-reliant for their water needs (drinking, domestic, and agricultural).
- Creating awareness among stakeholders through social-behavioural change communication
- Providing information and sustainable solutions across the value chain to promote safe and effective menstrual hygiene management.
- Building a resilient ecosystem by developing an institutional structure and social capital.



KEY ACHIEVEMENTS

- Initialising collaborations with state governments of Gujarat, Uttarakhand, Himachal Pradesh, Ladakh, Maharashtra, Karnataka, Jharkhand, Andhra Pradesh, Uttar Pradesh, Assam, Tripura, Punjab, Mizoram, and Nagaland for implementing community-centric safe drinking water programmes under the scope of the centre's Jal Jeevan Mission (JJM), which promises to provide safe, assured, and adequate drinking water to all rural households across the country by 2024.
- Building sectoral capabilities through training and capacity-building interventions for project teams. Over 250 personnel from the Trusts and associate organisations engaged in the JJM and Springshed programmes were trained on the planning, implementation, and operations & maintenance aspects of the project. Key thrust areas included mobilisation of the community through a participatory approach to develop strong village action plans at the village level, monitoring and surveillance of water quality, and the development of water security plans to ensure year-round water availability, along with improved service delivery.
- Developing a comprehensive gender strategy and operational plan to enhance women's engagement in JJM, including playing an important role at various stages of programme implementation. Further, monitoring indicators were designed to gauge the progress and impact of this gender-balanced approach.
- Piloting the Internet of Things (IoT) in rural settings, given that the changing IT landscape can help fulfil the

aspiration of implementing 'Smart Water Management' in rural India. More than 20 villages across diverse remote geographical regions were selected and sensor-based systems were deployed to provide information about the quantity of water supplied to each household, data on quality parameters, such as residual chlorine, groundwater table, the pressure of water supply at tail-end households, etc., on a real-time basis. The information has been put up in the public domain to promote transparency and accountability and, more importantly, ensure that users are provided the necessary information to resolve the ground challenges posed to safe and assured drinking water on an equitable basis for all households.

- Enhancing work on springsheds as part of the Water Security programme in the Himalayan region.
- Launching the second phase of the Menstrual Hygiene Management (MHM) programme across seven states. The objective of the programme is to address: (a) social taboos at the societal level; and (b) health aspects linked to unhygienic menstruation practices prevailing due to lack of awareness and resources at the community level. With a view to influencing policies around menstrual health subjects, the Trusts have started engaging with education, women and child development, health and rural development departments and provided them tools and resources to mainstream the MHM programme through existing infrastructure and resources of the government eco-system. By engaging with these institutions, the Trusts have covered more than 1,000 villages across 19 districts in 7 states.

Menstrual Hygiene Management and WaSH Programme in Schools in Khed Taluka, Pune District, Maharashtra – Phases 1 to 3

Over three phases of implementation, the aim of the Menstrual Hygiene Management and WaSH in Schools programme is to provide water, sanitation, and hygiene facilities to over 10,000 children across 50 schools, whilst covering over 10,000 women and adolescent girls through Menstrual Hygiene Management practices.

Impact On Women's Health:

- Changes in dietary and hygienic practices during periods.
- The importance of exercise during periods.
- Taking reproductive issues seriously.
- Improvement in physical and mental health.
- Emphasis on safe disposal of sanitary napkins, leading to a positive impact on the environment.

An independent impact assessment undertaken post - interventions, revealed:

35% increase in the use of reusable / hygienic absorbents by women beneficiaries.

70% of adolescents surveyed spoke openly to their family members about menstrual issues.

93% of women and adolescents adopted recommended menstrual hygiene management practices.

GOING FORWARD

- Ideating, implementing, upscaling, and advocating the “One Water” concept through a water value chain approach. This will entail: (a) reducing and reforming water demand; (b) restoring and recharging water availability; (c) operating and maintaining water supply systems; and (d) ensuring continuation of safe sanitation, hygiene, and waste management, including menstrual waste.
- Providing support to the community for creating infrastructure at the grassroots level for drinking water supply, water conservation, storage, recharge, and wastewater reuse, as well as community sanitary complexes.



- Building capacity and strengthening institutions.
- Focusing on changing the behaviour of the community and getting them involved in the process of efficient water management, is critical to the success of the programme.
- Leveraging technology throughout the value chain of water, right from assessment to delivery to monitoring. This includes the use of sensors to measure supply system efficiencies, identify damages, and reduce waste.

BEST PRACTICES

- IoT-based Smart Water Management” has been an important project undertaken by the Trusts in partnership with Tata Community Initiatives Trust. The adoption of advanced technologies to improve consumer-centric service delivery mechanisms will help in chart new paths for building transparency. The power of information can be realised by users seeking better services to fulfil basic human needs, such as access to drinking water.
- Adoption of menstrual hygiene management interventions in some of the mainstream programmes undertaken by the government.
- Promotion of micro- entrepreneurship among rural women to set up a supply chain mechanism and improve access to menstrual absorbents in remote rural areas. The operating model has helped rural women in generating alternative livelihood opportunities.
- Promoting the adoption of technology to eradicate manual scavenging in urban areas has been one of the major highlights of the Trusts’ work, in partnership with Tata AIG and Ulhasnagar Municipal Corporation (UMC). The Trusts have provided two robotic units to UMC and trained local sanitation workers to operate them to clean sewer networks. Apart from providing health benefits and reducing risks for sanitation workers, it also provided them dignity.

CHALLENGES FACED

- Erratic rainfall due to climatic change has also impacted groundwater availability, with sources drying up fast and in the absence of structured rainwater harvesting efforts, source sustainability will be a critical issue, going forward. Similarly, springs which are a major source of water supply to hilly regions are drying up and discharge in most of the central and western Himalayan region has fallen rapidly. Given this scenario, both climate mitigation and adaptation strategies need to be advocated among the local communities to build their resilience.

- One of the major challenges in rural areas is the disinfection of piped water supply. Consequently, the Trusts and implementation partner organisations have developed low-cost In-line Chlorination (ILC) which can disinfect the water and provide safe drinking water to rural communities. The CAPEX and OPEX of the systems are very low and the operations and maintenance can be effectively managed by local village-level technicians. Further, the system works on gravity; since no external energy source is required, it is a green solution.



Building confidence in advanced water technologies through Jal Jeevan Mission

Mycherlapalem evolves with smarter solutions to daily water issues

Mycherlapalem is a small farming village, 6 kilometres from Chodavaram in the Vishakhapatnam district of Andhra Pradesh. Servicing a small population of just 1000 people, an OHSR (overhead service reservoir) with a capacity of 20KL was the main source of its drinking and domestic water.

Lack of education and age-old belief systems stood in the way of replenishing the borewell water with RO water. 'Mother Ganga does no harm' was their staunch belief. They even performed pujas at the taps and manually chlorinated the water from time to time. This unsystematic approach to drinking unsafe water can pose health hazards to the community.

The Andhra Pradesh state government adopted Jal Jeevan Mission (JJM) in 32 Gram Panchayats across Chodavaram Mandal, Andhra Pradesh with technical support of Tata Trusts and implemented by VCF in 47 villages. A bulk water flow meter was installed in November 2022 which displays the amount of water pumped in and out and provides daily water consumption reports in a simple graphical format. The sensor-controlled device helped to achieve accuracy in chlorine dosage without the risk of over-chlorination and limiting dependence on human intervention. It also controlled water wastage with daily, weekly and monthly reports on water consumption. Women from the community were trained on water quality monitoring through Field Test Kits (FTKs) to evaluate water quality in all 32 villages. Bure Shankararao (50), sarpanch of Mycherlapalem, says, "Before the online chlorination system installation, people used to hesitate to drink water from the borewell as they were not sure if the water was safe. They used to bring water from hand pumps 0.5 to 1 km away, and some of them even purchased RO drinking water."

By training villagers to use these effective and advanced water management systems, safe water consumption was ensured, and people's confidence was also boosted. Water quality tests now bring a smile to people's faces.



The entire community of Mycherlapalem came together to support each other in finding sustainable solutions to their water-related challenges. Mycherlapalem literally got a face-lift, thanks to the intervention.



A bulk water flow meter was installed in November 2022 which displays the amount of water pumped in and out and provides daily water consumption reports in a simple graphical format.

The story of Mycherlapalem exemplifies the transformative potential of technology in even the most remote settings. Through collaborative efforts and innovative solutions, the village has successfully tackled water-related challenges. The easy adoption of advanced tools like the Bulk Flow Meter and automated chlorine dosing system underscores the adaptability of rural communities to modern practices. This journey not only ensures the villagers' basic needs are met but also safeguards their health and well-being, showing that when technology and tradition intertwine, remarkable progress follows.

6 CLEAN WATER AND SANITATION

PROJECT ALIGNS WITH SDG



Water at the doorstep – Now a reality in Nagaland

‘Har Ghar Jal’ comes to life.



In rural India, millions of girls and women are known to walk miles to fetch more than 10 litres of water for their daily domestic needs. This arduous task is relegated to the women in the house and requires significant physical effort and time. In Nagaland, the Government of India's Jal Jeevan Mission and Tata Trusts' associate organisation North East Initiative Development Agency (NEIDA) worked together to change the lives of the community.

Tsasushi (78) and her husband Ahose (84) live in the quaint village of Vongva in Nagaland. Perched on the hilltop and inhabited by the Yimchunger Tribe, Tsasushi and Ahose now live a joyful life. But it wasn't so up until a few months ago. The responsibility of fetching water rested on Tsasushi. She found it extremely difficult to scale the steep slopes every day with vessels carrying nearly 15-20 litres of water. This left her exhausted especially due to her age and health.

NEIDA's intervention in her village, where it executed the government's Jal Jeevan Mission and facilitated in creation of a water supply system from a nearby spring, helped bring water right outside Tsasushi's home. Her happiness knew no bounds. No more climbing steep slopes and getting tired from walking for miles after toiling for the whole day in the fields. "My dream of getting water at my doorstep is finally fulfilled through the Jal Jeevan Mission. It was tiresome walking on the steep slope after a long day working in the fields, especially when my legs were not strong anymore."

NEIDA strengthens the Village Water and Sanitation Committee to plan, execute and maintain the water supply systems built under Jal Jeevan Mission. It develops robust community-led institutional mechanisms to ensure the

effective operation and maintenance of water supply systems in a sustainable manner. The organisation encourages community members to play an active role after the installation of water supply systems in the village.

Khurenshe, a member of the Water and Sanitation (WATSAN) Committee mentions, "Earlier, the meetings used to be of no use. But now all members, including women, attend the meeting and engage in planning, implementation and monitoring related to water and sanitation. With training imparted by NEIDA on the roles and responsibilities of the committees—WATSAN, water conservation and water quality, the importance of women's participation, etc. We have been collectively working with the Village Council to ensure that our community people have access to functional household taps."

The Village Council Chairman Yesukiu said that "Households contributed a minimum of 5% as community contribution either in kind (locally available resources such as bamboo, boulders, food, etc.) or in the form of labour. Moreover, a nominal amount of ₹20 as a water service fee was also paid by each and every household; besides, all the villagers participated to ensure Har Ghar Jal."

With access to water closer to home, the villagers of Vongva are jubilant, including Tsasushi and Ahose.



6 CLEAN WATER
AND SANITATION

PROJECT ALIGNS WITH SDG



A photograph of two young girls with dark hair, smiling and standing in a field of tall green plants with small yellow flowers. The girl in the foreground is wearing a red and white patterned sweater, and the girl behind her is wearing a dark blue sweater. The image is framed by a green border.

ENVIRONMENT

**EMPOWERING
THE FUTURE
OF OUR PLANET**

With its long coastline, dependence on the monsoon, and low per capita income, a warming world poses several challenges to India's political, social, economic, and environmental security. In India, climate change has compounding impact and amplifies existing developmental issues. An estimated 638 million Indians are at risk due to climate change, by virtue of living in geographies faced with increasing instances of extreme weather events such as floods, droughts and cyclones. For vulnerable populations, these disasters immensely exacerbate existing problems of poverty, limited access to healthcare and education, and social inequities.

The ongoing decade has been touted as being crucial with regards to climate action by several organisations. The United Nations (UN) has christened it as the "Decade of Action" and the Secretary General, Antonio Guterres, called the latest report from the Intergovernmental Panel on Climate Change (IPCC, 2021) "A code red for humanity".

India has an important role to play in combating the climate crisis as the third-largest carbon-emitting country, as well as the seventh most susceptible to climate change. However, India is also on a growth path – several industrial and infrastructure investments are being made today, which will set the course for the next 50 years. At this point, the country stands at crossroads, with traditional technologies and growth paths threatening to evolve into a carbon-intensive growth model for the next two decades or more. Therefore, it is important to relook and scale sustainable solutions today, that can enable a low carbon economy for India. Recognising this, India has also made strong commitments to lower its emissions

intensity – including a pledge to achieve "net-zero (carbon) by 2070" and decreasing the emissions intensity of GDP by 45% (as compared to 2005 levels) by 2030. Additionally, adapting to the impact of climate change is a critical challenge – the UN warns that the annual costs of adaptation in developing countries could be ₹21-37 trillion (\$280-500 billion) by 2050.

Given the enormity of the climate challenge and the urgency to act, there is a significant need to accelerate efforts and build an ecosystem that is on its way to achieving 2030 (and 2070) goals. Current levels of climate action in India are insufficient, and solutions are not

scaling at the speed required.

India is estimated to need USD 170 billion a year to achieve its climate targets; however, current tracked finance is less than a fourth of the amount required just to meet mitigation goals under Nationally Determined Contributions (NDCs). Adaptation finance flows are even scarcer. Private, philanthropic, and corporate (CSR) spending towards

climate solutions in India is still very limited. There are several mitigation and adaptation solutions and technologies that exist today, which have the potential to address the climate challenge, but are witnessing limited support, lack of evidence, lack of a business case, and unfavourable markets. Finally, there are structural bottlenecks that are limiting speed and scale for solutions in critical sectors, primarily because organisations are working in silos and collaboration is limited.

To address these ecosystem gaps, The India Climate Collaborative (ICC) was set up by Tata Trusts, with an overarching objective of mobilising the domestic philanthropic ecosystem towards finding catalytic climate



solutions in India. The ICC, therefore, works to accelerate grant funding towards climate action in India. It identifies critical sectors that need investment and ensures funding flows towards high-impact climate sectors to enable more effective climate action. ICC works closely with the climate ecosystem, including research organisations, implementers, government stakeholders, businesses and more, focusing particularly on 3 critical sectors – agriculture and land-use, industrial decarbonisation, and water and hydro-hazards – that collectively account for 44% of India's total emissions and comprise over 200 million people at risk. By mobilising this funding, ICC's endeavour is to work towards:

- Aiding the reduction of emissions and carbon intensity in critical sectors by building industry coalitions to drive deep decarbonisation, scaling decentralised renewable energy-based micro cold storages for agriculture and supporting sub-national climate planning in Maharashtra.



- Increasing the resilience of vulnerable populations through adaptation measures by enhancing capacity for risk and vulnerability-informed policymaking and investment decisions, building a Water Diagnostic Toolkit to enhance rural water security and building climate resilient cities.
- Augmenting climate justice by building capacity, supporting re-skilling in vulnerable regions and supporting communities in air quality action.

KEY ACHIEVEMENTS

- Mobilising philanthropic capital to the tune of ₹262 million for the climate community in India and channelising it towards priority solutions.
- Successfully onboarding three climate leaders onto the India Climate Leaders platform.
- Being selected for the prestigious Rockefeller Foundation Bellagio Center Convening in Italy.¹
- As a sector catalyst, partnering with the Centre for Social and Environmental Innovation², which, along with the Computer Science Lab at IIT Delhi, recognised the need for intra-annual (seasonal) Land Use/Land Cover (LULC) maps as a product that would be instrumental in planning, decision making and monitoring of interventions in water spheres across the country.
- Launching the India Clean Air Connect platform at the Clean Air Collective's Annual Convening 2023 in Bengaluru in March 2023. The platform was well-received, with stakeholders endorsing the value of using such a resource to access key information about the air quality ecosystem, as well as finding opportunities for collaboration, to avoid working in silos.

¹ The Center annually hosts approximately 1,000 people through 60 convenings and 150 month-long residencies. Convenings at the Bellagio Center have a storied history of bringing together leaders from around the world to advance ideas and catalyse new action to drive positive and far-reaching social change.

² Centre for Social and Environmental Innovation (CSEI) works on water security systems, a component of this being the water balance which provides an assessment of the water situation in the geographical area under study.

- Producing a short documentary series titled 'Faces of Climate Resilience', in association with the Council on Energy, Environment, and Water (CEEW), which captures the voices of people in some of India's most climate-vulnerable regions. The series won the 'Excellence Award' at the Docs Without Borders International Film Festival, held in the United States of America.
- Conducting eight climate briefing events and workshops.

GOING FORWARD

- In partnership with CSEI for the development of the Jaltol / Water Diagnostic Toolkit, the ICC will place more emphasis on smaller sprints of user research, paired with development, rather than longer feature development cycles (6 months) so as to ensure timely course correction.
- Launching the Climate Solutions Platform in July 2023, the platform aims to mobilise funding towards inclusive climate solutions in India, along with building understanding and capacity of funders and non-profits.
- Building an ambitious engagement plan and runway that will elevate Indian climate leadership on the global stage, culminating in COP28³. Throughout the year, ICC will leverage several events and engagement opportunities, such as G20, London Climate Action Week, New York Climate Week, etc. to build a global south-centric narrative on low-carbon development through Indian voices at these platforms, with a significant presence at COP28.

³ COP 28 is the 28th session of the Conference of Parties, scheduled for December 2023 in Dubai. The event is held every year to discuss and find solutions for climate change.



BEST PRACTICES

ICC's work in the past year has led to the realisation of the need for philanthropies and civil society organisations to build strong coalitions to address the climate crisis. Most sectoral challenges require answers across levers—policy, finance, data, service delivery, capacity building – and therefore, even though the outcomes are visible in the long term, investing in creating coalitions of organisations that bring these different levers together is critical.

CHALLENGES FACED

The latest amendment to the Foreign Contribution Regulation Act (FCRA) has limited the ability of various non-profits in India to receive international funding, which severely curtails support for critical climate solutions in India. While challenging, this has made the ICC's role in the ecosystem even more urgent and critical as the need to increase domestic capital towards climate solutions has become stronger than ever.

A woman wearing a bright pink sari and a matching headscarf is crouching in a field, smiling as she works. She is using a small tool to dig in the soil, which is covered with white plastic mulch. In the background, another woman in an orange sari is also working in the field. The scene is set in a rural area with trees and hills in the distance.

LIVELIHOOD

**SUSTAINABLE LIVELIHOOD
FOR EVERY INDIVIDUAL
IS **EMPOWERING****

In April 2023, India overtook China as the world's most populous country, with close to 66% of its population residing in over 600,000 villages. As per the 77th NSSO survey, 2019-20, the total number of rural Indian households is estimated at 172 million, of which 54% (93 million) are dependent on agriculture and allied activities. As per the Multidimensional Poverty Index Baseline Report 2021, around one-fourth of the Indian population is poor, with 32.75% of the poor residing in rural areas. While poverty rates have significantly reduced in recent decades due to government support and other initiatives, factors such as increasing land fragmentation and continuing heavy dependence on subsistence agriculture have contributed to the prevalent poverty in rural India. The average size of agricultural landholding in 2015 was 2.7 acres, down from 5.7 acres in 1970. 64% of rural population holds even less than an acre of land. Additionally, vagaries of weather, natural disasters, increased pests, and disease pressures or a family exigency can send a borderline household back into the clutches of poverty. At times of crisis, rural women are hit the hardest, usually due to poor access to resources, services and information, the heavy burden of unpaid care and domestic work, as well as discriminatory traditional social norms.



over difficult periods or invest in productive assets. The constant struggle to find buyers for their produce or get a fair price for their crops further discourages them from investing in new methods/technologies to transform their

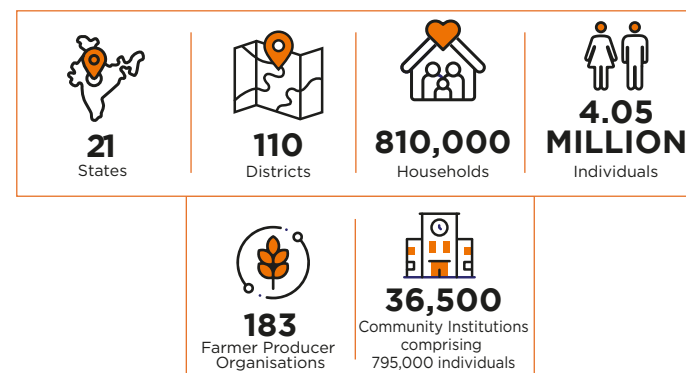
practices to improve incomes.

Reducing farm-based incomes and increasing opportunities in urban areas, male migration out of rural areas has increasingly put the burden of farming on women. Overconsumption of natural resources like fertile soil, forests, minerals and water has created an additional aspect of resource poverty.

While agriculture employs close to half of the rural

workforce, an important sub-sector within the same is the livestock sector. Animals (livestock) have historically been used to stabilise incomes, and today, they account for about 20% of the average monthly income. In as many as nine states, livestock generates more than 40% of the income of agricultural households. For agricultural households possessing under an acre, the net receipts from farming animals exceed those from the cultivation of crops. For the majority of these rural households with very small land-holding, non-farm incomes and wages / salaries end up being the primary source of income. Over 63 million individuals, constituting almost 22% of the rural

Arguably, one of the reasons for people being financially disadvantaged and marginalised is the lack of institutions. It is usually seen that poor people and women have negligible or peripheral roles in local-level bodies like Panchayati Raj Institutions, credit cooperatives, etc. As they are not organised, these disadvantaged groups are unable to negotiate with markets, the state, or within society and consequently remain vulnerable. Lack of access to credit makes it difficult for these groups to tide



Coverage upto March 2023

work force, pursue non-farm activities as their primary profession, even though a large proportion of them are unskilled.

The Rural Upliftment Portfolio (RUP) of the Trusts therefore focuses on both farm and non-farm sectors and has developed integrated, layered models for income enhancement that include farming, horticulture, high-value agriculture, animal husbandry, crafts, and other non-farm elements. Programmes within the portfolio particularly focus on promoting self-reliant community institutions, managed by the stakeholders themselves. Through these community institutions, the programmes work not only to alleviate poverty, but also to ensure the sustainability of resources and incomes. This people-centric response aims at providing better opportunities on one hand, while reducing risks on the other, through initiatives that help in promoting productivity enhancement, credit linkages, innovations and market development. The implementation methodology focuses on capacitating people to take advantage of the options provided, whilst also ensuring that they receive appropriate services through institutional reforms. Elements of water management, soil conservation, and response to climate change are introduced as per the requirements of the programme. The seeding of entrepreneurial enterprises within the community institution framework, further establishes a system that is receptive to external changes. Sparks of innovation either evolve or are introduced through research and development across various aspects such as resource use, processing, marketing and entrepreneurship. On completion of a programme, it is the vibrant community institutions that ensure long-term sustainability and irreversibility of the impact.



In recent years, the growing threat of climate change to rural livelihoods has also influenced the response to income enhancement programmes. Forest land conversion to agriculture across countries has created a grave threat to ecological balance worldwide. Within the livestock sector, continued growth and intensification of livestock rearing have resulted in a situation where animal feed production is said to be competing for land and other resources with human feed production. Besides contributing to land-use change, livestock systems also contribute to greenhouse gas emissions directly, mostly through enteric fermentation and manure. As agriculture encroaches deeper into wild habitats, livestock are increasingly brought into contact with wild-host reservoirs

of pathogens such as SARS, Nipah, or Ebola. This growing interface between humans, animals, and the environment is causing the emergence of new diseases, many of which are zoonotic. Antimicrobial consumption by livestock is almost three times that in humans. Inappropriate use in livestock exacerbates the development of antimicrobial

resistance in livestock pathogens, which compromises treatment and readily spreads to the human population.

Climate-Smart-Agriculture is an integrated approach to managing landscapes—cropland, livestock, forests and fisheries—that addresses the interlinked challenges of food security and accelerating climate change. It aims to simultaneously achieve three outcomes of increased productivity, enhanced resilience, and reduced emissions. The agriculture programmes within the theme have been working towards water use efficiency, ease of cultivation, crop diversification, and yield protection. Varietal changes to introduce climate resilient and tolerant varieties to mitigate global warming, creating access to monitoring and alert advisory services are some such examples.

Going forward, elements like bio-protection, conservation of biodiversity, geo-tagging of local varieties and regenerative agriculture will also be introduced in the programme design. Conservation agricultural practices like zero tillage, cover cropping, intercropping, natural farming, etc. are expected to be adopted in larger numbers.



Apart from the climate change that impacts the farm-based economy, another important aspect shaping the rural economy is the aspirations of rural communities. The ambitions of rural youth have changed significantly as they are equally exposed to a market-based, global economy as their urban counterparts. To keep pace with the changing aspirations and requirements of rural communities, as well as the changing economy and environment, the Trusts' Rural Upliftment Portfolio has also expanded over time to include non-farm-based livelihoods like skilling, entrepreneurship, tourism, crafts, and non-timber forest produce in its programmes. Major initiatives in livelihood generation through skilling disadvantaged rural communities and enabling entrepreneurship have been taken up, particularly in Uttarakhand and Rajasthan. In Assam, Nagaland, Odisha, and Andhra Pradesh, handloom programmes have been initiated. Nurturing non-farm micro-enterprises is achieved through village-level

mobilisation, technical training/skilling and imparting enterprise management knowledge. Key components of such programmes may also include providing start-up toolkits, digital literacy for record keeping and facilitating market connections. Another non-farm initiative has been a community-based tourism programme, which is built around the idea of creating custodianship of the natural and cultural heritage within the community. The emphasis is on creating authentic, immersive and meaningful experiences for the guests that bring forward the uniqueness of each place, comprising cultural heritage, folklore, gastronomy, local landmarks, and wildlife. This inculcates sensitivity in the minds of the visitors and contributes to the rural community managing a sustainable livelihood, while also developing pride in their heritage.

KEY ACHIEVEMENTS

- **Community-led restoration of natural resources:** Impacting around 4.05 million individuals by securing forest rights of about 5 million acres in over 100 districts across 12 states.
- **Strengthening the Dairy sector:** Incubating and developing five Milk Producer Companies (MPCs) under the Tata Dairy Mission managed by DHANII, with a turnover of ₹7.5 billion at the end of FY 23. The share capital of the MPCs grew to touch ₹195 million as of March 31, 2023. Many small-capacity milk coolers are installed in the hilly areas of Uttarakhand in a decentralised manner to supply neighboring areas, thereby minimising the cost of operation.
- **Developing women-led Community Institutions as strong business enterprises:** Foundation of Development of Rural Value Chains (FDRVC), a Not-for-Profit Company constituted under a MoU between the Ministry of Rural Development (MoRD) and Tata Trusts to support large-scale Farmer Producer Companies (FPCs) have

been working in 4,990 villages across 11 states, facilitating the enrolment of more than 254,000 shareholders in the FPCs formed under various schemes. 26 large-scale FPCs (with more than 10,000 members) have been developed by FDRVC in partnership with the National Rural Economic Transformation programme (NRETP), MoRD and National Rural Livelihood Mission (NRLM) with an assured support commitment of ₹2.89 billion to these FPCs.

- **Showcasing success in difficult and unaddressed areas:**

An FPO operating in Sham Valley, Ladakh, produced and marketed nearly 262 quintals of apricots through the adoption of solar-powered dryers. The FPO also explored exports of over 210 quintals of the produce to the Middle East.

- **Transforming traditional weavers to Artisan Entrepreneurs:**

Strengthening 77 new Artisan Entrepreneurs during the year, taking the total of the micro-enterprises under the Antaran crafts programme to 328. These enterprises garnered a total revenue of ₹200 million – an impressive five-fold increase over the last year. Around 3,000 artisans work along with these enterprises, show-casing the handloom heritage of the six lesser-known clusters from Andhra Pradesh (Venkatagiri), Assam (Kamrup and Nalbari), Nagaland and Odisha (Maniabandha and Gopalpur) to prestigious national and international buying houses. Over 3,000 new design samples created by these artisans were showcased at exhibitions.

- **Livelihood Skills - Uttarakhand:**

Launched in 2018, this programme has so far benefited 24,000 households across over 650 villages, especially empowering women from rural mountain communities by first developing their skills, and second creating livelihood-generating ecosystems in their villages. Over 18,000 women have been trained in livelihood-generation skills, and over 11,800 households have started income-generating

activities. Non-farm interventions include the development of nurseries, handicrafts, musical bands, homestays, restaurants, and others. Consequently, the average annual household income in the project area has grown by nearly ₹81,000 since the beginning of the programme.

- **Mission Pulses - Uttarakhand:**

Currently being implemented in 9 districts and covering over 29,000 households across 500 villages, this programme has: a) introduced improved varieties of seeds; b) promoted improved practises in local varieties; c) showcased production and post-harvesting technologies; d) introduced farm mechanisation; and e) supported organised marketing in the region.

- **Sujalam Sufalam - East Uttar Pradesh:**

This initiative directly impacts the lives of 111,000 households by enhancing agriculture productivity, value chain strengthening and institutional development, thereby doubling agriculture income for 80% of target households across 13 blocks in 4 districts since the inception of the programme. The successful adoption of the Paddy-Potato-Onion cropping value chain (against Paddy-Wheat crops traditionally followed) increased potato and onion yields by 100% and 95%, respectively.



GOING FORWARD

- The next phase of programmes will aim at deepening initiatives with Climate-Smart Agriculture Livelihoods, wherein the focus would be on: a) fostering crop and varietal diversity; b) building the value chain systems through the Farmer Producer Companies through seed production systems; c) reducing drudgery for women farmers through customised equipment made available by custom hiring centers, and d) promoting conservation or regenerative agriculture approaches with a focus on soil health.

- Livestock will continue to be a key livelihood diversification strategy for small and marginal farmers to reduce vulnerability and will be integral to ensuring food security, dietary diversity and a proven method to address malnutrition.
- Two Centres of Excellence (CoE) will be operationalised and will extend their knowledge to relevant stakeholders of the sector and handhold them from time to time to assist in developing strong community institutions.



BEST PRACTICES

- **Strengthening Community Institutions:** One of the major focus areas of all the programmes is to strengthen the Apex Level Community Institutions such as Farmer Producer Companies (FPCs) or Cluster Level Federations (CLFs), and ensure their financial self-sustenance so that they can provide necessary services (inputs, marketing linkages, extensions) to their shareholders. Hence, emphasis is laid on handholding the community institutions and strengthening their governance systems.

- **Adoption of new technology and practices:** The livestock programmes supported by the Trusts focus on adopting best practices on low-cost shed management, improved nutritious feed, health cover for livestock, etc. New programmes have initiated a climate risk reduction framework by mitigating methane generated by livestock. Further, digital technologies for data recording, particularly for breeding animals, is also a new area being explored. In agriculture, pilots on solar-powered small Hydroponics Fodder units in Karnataka have performed encouragingly. Results show a faster weight gain rate as compared to traditional practices. Plans are underway to replicate this across other states.

CHALLENGES FACED

- India's farming is highly dependent on the monsoons and FY 22 saw the effects of climate change, with ravaging floods in Assam and the North East, alongside scanty rainfall in the Eastern Gangetic paddy bowl during the early Kharif season, followed by heavy rains during the end of the monsoon season that resulted in flooding, thereby damaging crops and delaying Rabi crop plantings. The record-breaking summer heat affected grain filling and production of wheat in the North Indian regions. The need of the hour is the adoption of climate-smart agriculture practices within the Trusts' programmes to mitigate such challenges.

- The livestock programmes faced challenges of new disease outbreaks during the year. Lumpy Skin Disease in cattle-affected states of Rajasthan and Gujarat, along with some areas of Uttar Pradesh, Maharashtra and Punjab. The other outbreak was of African Swine Fever in pigs in the north-eastern states of Arunachal Pradesh, Nagaland, and Mizoram. The community suffered heavy losses in both these outbreaks. Vaccination programmes with Goat Pox Vaccine and vector control programmes, along with treatments both ethnoveterinary as well as allopathic medicines were used to minimise the losses in the Lumpy Skin Disease outbreak. For African Swine Fever, biosecurity measures were adopted and awareness campaigns were done in coordination with the Animal Husbandry Department of the government.



The Future is not fallow for Self Help Groups in Leh

Diversifying crops helped diversify incomes

There are five women's Self Help Groups in Takmachik village, 112 km southwest of Leh, with a total of 35 members. They have been practicing collective farming for the past few years by leasing fallow land in the village. However, they have been unable to unleash the true potential of group farming and use cash crops like watermelon to their advantage.

"Few of the SHGs would grow lentils (pulses) as group farming. Most did not see the benefits of collective farming, except for winter handicraft activities, when support was offered by the government or non-government organisations," says an SHG member.

Tata Trusts, in partnership with Ladakh Environment and Health Organisation, a local NGO, initiated the promotion of watermelon as a cash crop in Sham Valley to supplement the income from land for the community. The Trusts mobilised women Self Help Groups (SHGs) in the village for group farming on lands that were otherwise left fallow due to urban migration and water issues.

Himmoththan Society, the implementation arm of Tata Trusts working in Leh since 2018, provided training to the SHG members on the cultivation of watermelon, along with other crops.

The first step was to strengthen the SHG by ensuring all members are actively involved in decision-making and planning of the interventions. This was done through regular meetings, training sessions, and capacity-building exercises. In the trainings, they were taught about a package of best

1 NO POVERTY

PROJECT ALIGNS WITH SDG



practices – spacing between plants, how deep seeds need



to be sown, use of mulching technology, etc. The members were advised that watermelon and crops such as tomato and sugar baby (a cultivar of watermelon) grow well if mulching technology* is practiced.

Good-quality seeds and black plastic mulch of 100 microns were also provided to the SHGs. The crop yield has been very promising since then. In 2022, the SHGs comprising 35 women farmers, were able to market their produce in the markets nearby and earn an income of ₹64,380.

The Trusts and Himmoththan Society have shown the path to SHGs to succeed in Takmachik, with a drive to replicate this model in other parts of Ladakh as well. SHGs can achieve greater financial sustainability and improve their livelihood through collective group farming.

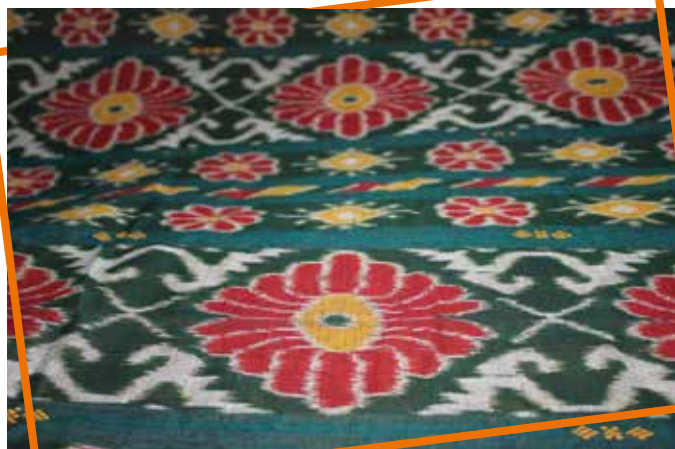
*Mulching is the process of covering the upper soil surface for weed control and better soil moisture retention.

Keeping the age-old crafts of the handloom sector alive



India is home to approximately 3.5 million weavers and artisans, all of whom have been in the sector for generations. Tata Trusts' Antaran initiative revolves around keeping traditional crafts and weaves alive by supporting the artisans, modernising these products and finding newer ways to market these.

Anitoli (39) is also one such weaver from Sunito village in Nagaland, who learnt the craft from her mother. From a young age of 15, Anitoli would assist her mother in various weaving activities. Even though she had a natural flair for it, Anitoli was unable to generate enough income from it as her reach was limited to only her village. After she got married, Anitoli gave up weaving entirely and got busy with household chores and raising her children.



and on social media. In 2022, she officially started her business. She got an opportunity to exhibit her products on offline platforms like Dastkar in Delhi, Nila House in Jaipur, and also at NIFT (National Institute of Fashion Technology), Shillong, where she learned new weaving techniques and how to connect with customers and handloom lovers.

Gradually, Anitoli became a well-known weaver in her village. She expanded her unit and trained 17 weavers and artisans. Soon she started receiving bulk orders from clients. Now she enjoys financial independence and earns a profit of ₹15,000 per month. She invests a part of the income in her business and remaining to provide for her household needs.

In 2021, the Trusts' Antaran initiative, which empowers women weavers and artisans and encourages them to take their products to a larger market, reached Anitoli's village in Nagaland. Anitoli was impressed and saw this as a once-in-a-lifetime opportunity. This was her chance to get back to her skill and use it to pursue her dream of being an entrepreneur. As part of the initiative, Anitoli learned how to modernise her products and reach a younger audience. She learnt new weaving techniques and how to use various types of yarns to create new patterns, designs and products. She was taught basic digital marketing skills to market her products online

It is with grit, dedication and determination that Anitoli pursued her ambition. She has kept the traditional art and weave of Nagaland alive and thanks to Antaran, has been able to find a national market for it.

Anitoli's contribution to the arts and crafts of Nagaland is admirable as she continues to inspire hundreds of women in her region.

1 NO POVERTY

PROJECT ALIGNS WITH SDG







EDUCATION

**BRINGING QUALITY
EDUCATION TO EVERY CHILD
IS **EMPOWERING****

Over the years, the Education Portfolio of the Trusts has focused on addressing issues of quality and equality in education. During FY23, the Government of India rolled out the NIPUN Bharat Mission, highlighting the centre's efforts towards developing foundational literacy numeracy (FLN) skills by grade 3 for all children. However, slow progress in pre- and in-service teacher education, as well as the weight of substantial non-academic duties on teachers, resulted in uneven implementation of the NIPUN Bharat Mission across and within states. Throughout the fiscal year under review, the Trusts, in collaboration with associate organisations and partners, aligned with the government's efforts towards improving the school learning environment and assisting teachers in implementing remedial education. It also continued to engage with the larger community by strengthening School Management Committees to ensure the safe return of children to schools and Anganwadis, post Covid.

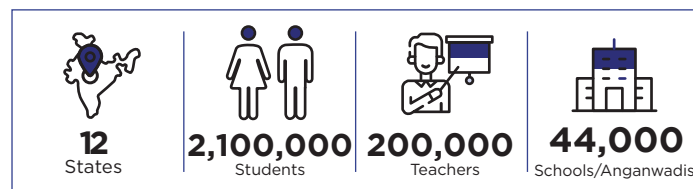


KEY ACHIEVEMENTS

- During the pandemic, the Trusts' teams in Rajasthan, Jharkhand, Uttar Pradesh, and Karnataka continued working with the community through learning centres and libraries, as well as engaging with teachers and Anganwadi workers, reaching over 123,000 children from 1,400 villages. The community - based work strengthened community support and participation. For all states, an endline assessment of children's foundational learning revealed considerable progress over baseline. As many as 90% of children in grades 3-8 passed foundational learning grade level cutoffs. This is significant in the context of widespread reports of learning loss during Covid.
- Aligning with the Gol's NIPUN¹ Bharat Mission, the Trusts rolled out multi-state programmes focusing on Early Childhood Education (ECE) and in-school education.
- The Trusts' ECE intervention covered 16,000 Anganwadis in 11 districts of Karnataka, Rajasthan, Uttar Pradesh and Odisha and aimed to ensure school readiness of children. The intervention will continue to work within existing ICDS² systems to provide structured inputs to the ICDS supervisors and workers.
- A multi-state school strengthening intervention strategy has been devised and implemented in Uttar Pradesh, Uttarakhand, Karnataka, Rajasthan, Jharkhand and Odisha, covering around 6,800 schools. The intervention will strengthen basic learning in primary schools by focusing on FLN.

¹ NIPUN (National Initiative for Proficiency in Reading with Understanding and Numeracy) Bharat Mission has been launched by the Education Ministry of India to implement the recommendations of the National Education Policy 2020 and focusing on foundational literacy numeracy in early primary grades.

² Integrated Childhood Development Scheme



Coverage upto March 2023

- The central government invited the Trusts to develop a course for upskilling of teachers on Experiential Learning, a concept highlighted in the National Education Policy 2020. Along with Tata Institute of Social Sciences and Mahatma Gandhi International School, an eight-week certificate programme³ on Experiential Learning for the 21st Century for educators was designed and delivered to instructors at Eklavya Model Residential Schools (EMRS) for tribal children. Of the 259 teachers from six states who completed their training in March 2022, 44 were chosen and taught to create a pool of mentors for the second batch, which began in August 2022. Both batches had a 70% completion rate and introduced teachers to the concept of experiential learning.
- The Parag Initiative continued its work on supporting the development of children's books in Indian languages and setting up of school and community-based libraries. It also launched the Parag Honour List 2023. During the year, the initiative also undertook an external evaluation of the Riyaaz course for illustrators offered by Takshila Education Society, post completion of five batches. The review recognised Riyaaz as a unique, blended professional development course for young artists to illustrate children's literature and recommended ways for enhancing course effectiveness.
- The Trusts established the Centre of Excellence in Teacher Education (CETE) at Tata Institute of Social Sciences, which launched innovative initiatives in pre-and in-service teacher education, as well as research and policy work. Its B.Ed. and M.Ed. programmes were also recognised by the National Council for Teacher Education (NCTE) in the 'innovative' category. CETE has also expanded national collaborations, leveraging its research and technological skills in teacher professional development, including constructivist technology use.

³ This is a joint initiative of Tata Trusts with the Central Board of Secondary Education Board (CBSE) and the Trusts' partners; namely, Tata Institute of Social Sciences (TISS) - Mumbai, and Mahatma Gandhi International School - Ahmedabad.



- The Centre of Excellence in Early Literacy (CoEEL) was founded by the Trusts with the intent to advance the field of early language and literacy. Its dual objectives are to assist the Trusts in implementing FLN and to promote the emerging sector of the early literacy industry through collaborations, conventions and knowledge creation.
- The Trusts' support for the Karta Initiative helped alter the future of deserving children from underprivileged communities, by assisting them in gaining access to top-notch educational opportunities, in India and overseas. These kids are chosen from the government/public education system (Navodaya schools) and NGO-run institutions, and they are supported in gaining career awareness, making informed decisions, and developing soft skills in order to create 21st century competencies. 44 Karta Scholars received funding during the reporting year to attend top universities in India and abroad.
- An independent impact assessment of the Trusts' work in Assam, which focused on mainstreaming out-of-school and/or highly irregular students, revealed high retention of students due to the continued academic support provided to at-risk and re-enrolled students.

GOING FORWARD

- Increasing the footprint of the interventions in early childhood education and in-school education.
- Strengthening CETE's engagement on teacher education with the central and select state governments.
- Expanding and building the children's literature ecosystem.

CHALLENGES FACED

- The COVID-19 epidemic has had a profound impact on children and schools. Students' educational continuity, the issue of increased out-of-school youngsters, and lagging learning levels will all require time and effort to address.



WORKING AROUND THE IMPACT OF THE PANDEMIC ON CHILDREN'S EDUCATION

The COVID-19 pandemic caused unprecedented challenges and crises and brought life to a standstill across the globe. Children were particularly impacted and their experience of childhood and education was altered.

Tata Trusts commissioned a study to understand the impact of COVID-19 pandemic on the lives and education of children in four states – Jharkhand, Karnataka, Rajasthan, and Uttar Pradesh – where a community-based intervention for children was rolled out in July 2021. The study was undertaken by Council for Social Development (CSD), New Delhi, and was concluded in May 2022.

The study not only assessed the effect of the pandemic on the education of rural children and their lives; it also delved deeper into the issues of disruption of education due to school closure. The study also reports on the initiatives of various stakeholders, from teachers to administrators to policymakers to non-government actors, and recommends future directions for them. Of several findings what was startling is that 30% of parents cited reduction in literacy and numeracy skills of children, while 72% of students didn't even have access to a digital device, the primary requirement for regular schooling online. 25% of children reported an irregular supply of take-home rations by schools and Anganwadis.

The following insights and suggestions thus came up in the research survey, to pave the path for a more secure future for children:

- Relax the eligibility criteria for child-protection benefit packages.
- Conduct rights-based, inclusive sustainable interventions to ensure children are protected.
- Ensure adequate allocation of resources for education and implementation of the Right to Education Act.
- Strengthen teacher recruitment, training and school infrastructure.
- Revisit the national education curriculum framework to address learning gaps.
- Recognise digital technology as a tool and not a replacement for face-to-face education.
- Make village councils, school management committees and community members, active participants in school education.

Making learning spaces wholesome and interactive



The Library Educator's Course makes learning joyful

Schools need to enable children's literature not just in regional languages but also have educators who can harness the energy of academic spaces, for wholesome and interactive learning. For students to develop a relationship with books, a library educator is a crucial link. Tata Trusts' Parag Initiative's Library Educator's Course (LEC) is designed for teachers, librarians, educators and language experts, with the aim to build a cadre of professionals who have knowledge perspective and skills to set up and run vibrant library spaces and promote reading among children.

Santosh Dhanware, is the first teacher of his zone in Sehore, Madhya Pradesh, to complete the Library Educator's Course. He wears many hats. He has set up a library in his school and also illustrated children's storybooks for Rajkiya Shiksha Kendra (RSK), Sehore. From winning the community's trust to children's hearts over the last 22 years, Santosh has made a compelling difference in his school.

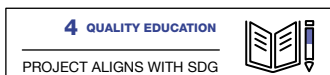
The library space in his school is a model in itself. "Walls of libraries should have pictures that speak to the children and open new vistas," he strongly opines, echoing the key takeaways from the LEC course he pursued. With this thought, he painted the library walls with vibrant images to make learning more enlivening for the students.

Santosh took great efforts in making the library a comfortable space for his students. "We created a silent and joyful reading experience for the children. The choice of minimal furniture was also a conscious one so that they feel free to use the space the way they like. They sit or lie down

While some of the activities like picture book reading were already a part of his library work, the course taught him more nuances of the process, along with new activities. "Book talks and read-aloud sessions were an integral part of making children interested in books," shares Santosh.

As was evident, children were excited to read out stories and were also enthusiastically choosing a book for themselves. Students from grades III-V were forthcoming in sharing their writings, drawings, stories and poems. Apart from the walls of the library, the read-aloud and book talks, the monthly community newspaper also featured the children's creativity, giving them a platform to showcase their talents.

Santosh's positive energy is a source of inspiration to the community of teachers, making students partake in learning.



while reading and feel liberated in the process."



SPORTS

**COMPETING ON GLOBAL
PLATFORMS IS EMPOWERING.**

Sports are a crucial development accelerator. It raises aspirations, enhances physical and mental health, and promotes children's physio-social growth. The United Nations has identified sports as a tool for development with a variety of advantages, including raising the level of health and education around the world, attracting funding and investment in infrastructure, fostering economic growth, and generating new job opportunities within the sporting ecosystem. Sports can also help level the playing field in terms of gender equality and human rights.



Unfortunately, playing sports for enjoyment or competition is still seen as an extracurricular activity in India, with a greater emphasis placed on academics. This negatively affects children's and adolescents' physical, mental, and social development and increases the risk of certain lifestyle diseases.

Today, children in kindergarten and primary schools in cities as well as far-flung villages across the country, are more likely to have access to smartphones as a result of the COVID-19 pandemic. These children are now addicted to their digital devices and are reluctant to engage in different types of physical activity and play.

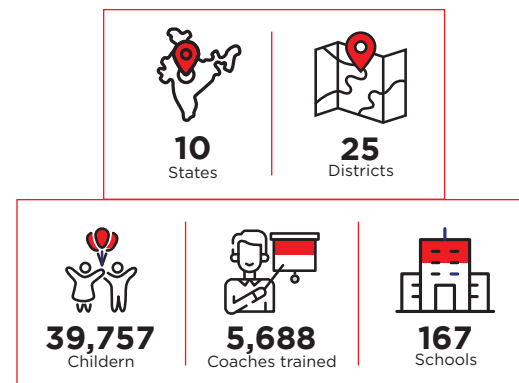
Given this scenario, there is an urgency to modify the ways in which children are educated, particularly through active and experiential learning, as well as by encouraging

physical education and activities and fostering emotional wellbeing. This has already been articulated in the New Education Policy 2020, which supports the general consensus that the time has come to accept and fully implement this transformation.

The Trusts believe that sports can be a powerful catalyst for meaningful development, with an emphasis on early childhood and youth, particularly in disadvantaged and underserved populations in the country's rural and tribal regions. This is especially relevant, given that these regions have historically produced some of the best athletes in the country.

The 'Sports Development Pyramid,' which forms the basis of Tata Trusts' sports strategy, aims to create a solid foundation for enjoyable physical education and sports through in-school and grassroots programmes. These activities are then used as fundamental blocks to identify talented players and coaches, and provide competitive training opportunities that lead to various careers in the sporting field, such as players, officials, administrators, and so on.

The Trusts have also identified regional partners with strong outreach capabilities, such as regional clubs, coaches, communities, and state-level sports associations, to work with and develop capacities so that these programmes are sustainable over the long term. Collaborations with state governments have been sought whenever possible so that programmes can utilise and integrate existing infrastructure.



Coverage upto March 2023

The Trusts have built state-wide sports development programmes at the grassroots level in Jharkhand, Mizoram, Manipur, and Odisha during the last six years, based on local sports culture and infrastructure in these regions. Thus, initiatives were developed in Jharkhand and Odisha to promote hockey, badminton in Mizoram, football in Mizoram and Manipur, and athletics in Uttarakhand.

KEY ACHIEVEMENTS

- **Mizoram Badminton Initiative**

25 basic badminton facilities were run in collaboration with the state government, the community, and the relevant sports organisations. Two trainees from the Regional Development Centre created history by being the first players from Mizoram to win the National Badminton Championship, which was held in February 2023 in Jaipur. They were among a group of six boys chosen on full scholarships for training at the Pullela Gopichand Badminton Academy. The boys entered the top 10 rankings provided by the Badminton Association of India, with one winning gold in the under-17 Boys Singles category and the other taking home silver in the sub-junior Men's Doubles category.

- **Mizoram Football Initiative**

60 grassroots football centres were run in collaboration with the community, the state government, and the relevant sports organisations. Seven kids from these programmes were chosen to attend professional football academies across the country.

- **Odisha Hockey Initiative**

The Naval Tata Hockey Academy's (NTHA) excellence programmes in Odisha led to

the selection of two boys and six girls for the Indian National Junior Camp. Four of those girls went on to represent India in hockey at the Uniphar 5 Nations Tournament in Dublin, Ireland, in June 2022. Additionally, at the first Hockey India Academy National Championships, which were held in Bhopal in October 2022, the boys' team took home a silver in the sub-junior division.

- **Jharkhand Hockey Initiative**

The excellence programmes at the NTHA in Jharkhand helped the NTHA squad win gold at the 2nd Hockey India Junior Academy National Championship in Jamshedpur in May 2022. One player is preparing for forthcoming international competitions after being chosen at the national Junior India Camp. Four trainers earned Level 1 accreditation from Hockey India out of the 45 trainers that were qualified as basic-level instructors. Finally, a half-pitch sand turf was installed in Khunti where the Regional Development Centre held trainings.

- **Uttarakhand Sports Initiative**

Visually challenged athletes trained at Dehradun's Maharana Pratap Sports School and the National Institute of Visually Handicapped showed significant promise. One of the competitors made history by winning a silver medal at the 20th National Para

Athletics Championships, which were held in Bengaluru in August 2022. Another Indian athlete competed in the World Athletics Championships (under-20 category) in Columbia, winning the gold medal and setting a new national record in the 10 km walking race.





- **Boxing**

Under the Trusts' support to the Mary Kom Boxing Foundation, one boxer participated in the Youth World Championship held in Spain in November 2022.

GOING FORWARD

- Integration of physical literacy in education programmes for holistic child development and in accordance with the New Education Policy 2020.
- Focusing on grassroots development and collaboration to create opportunities for children to thrive.
- Empowering communities and other partners to take ownership of programmes currently supported by the Trusts.

BEST PRACTICES

- Continuous training for educators at all levels, from physical literacy in schools to coach education at the grassroots and competitive levels, as well as at the Centres of Excellence, has guaranteed that teaching quality and efficiency have improved over the years.
- A focus on children's holistic development has resulted in sports training activities that include lessons on life skills.
- Collaboration with local stakeholders and the collection of fees for grassroots training by the community have aided in the development of sustainable programmes.



Fielding Lalhruailena's true potential

When football teaches you how to win in life.

The story of Lalhruailena from Zawlnuam village, Mamit district, Mizoram, exemplifies how sports can have the power to transform lives. At merely 13 years of age, Lalhruailena had a troublesome family life. He wasn't doing well in school and fell prey to bad company who were into substance abuse, smoking, drinking, and the occasional pilfering. His parents were concerned about him and his future. They wanted him to have a positive direction in his life. In April 2022, Tata Trusts initiated the Grassroots Football project in Lalhruailena's village. Lalhruailena's parents enrolled him at a local football academy as he liked playing football, and this would also keep him away from bad company. After joining the academy, Lalhruailena started honing his skills and developed a passion for the sport.

Gradually, he overcame his temptations for tobacco and drugs. His parents testified that Lalhruailena's conduct at home improved significantly. He had started attending the Church's Sunday School and even helped his mother with household chores. His focus improved considerably and his commitment to his studies increased. As a result, he began doing well in school and his grades began to improve. "He spent more time on the football field - practising and less time with his wayward friends. We were seeing a very different Lalhruailena. he found a new direction in his life", they said.



He was coached by Mr. Kaleba Lalbiaknunga at the football academy. Mr. Lalbiaknunga counselled and mentored him on various aspects of football, which also translated into life skills. He taught him various ways to improve focus, stay on course and stay away from distractions. Lalhruailena started performing so well on the field that he even represented the academy at the Local Football League in the Mamit District Football Association Age Group Tournaments.

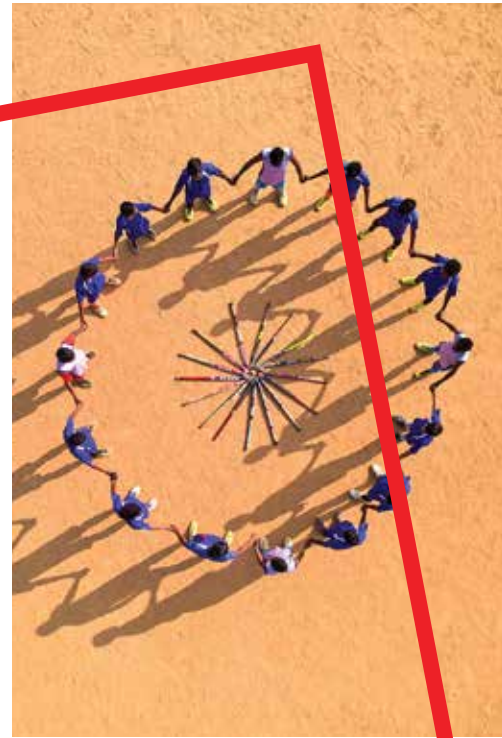
"Training at the football academy turned around Lalhruailena's life and brought about a considerable difference in his character and nature. His parents' happiness knew no bounds." shares Mr. Lalbiaknunga (Lalhruailena's coach).



10 REDUCED INEQUALITIES

PROJECT ALIGNS WITH SDG







**SKILL
DEVELOPMENT**

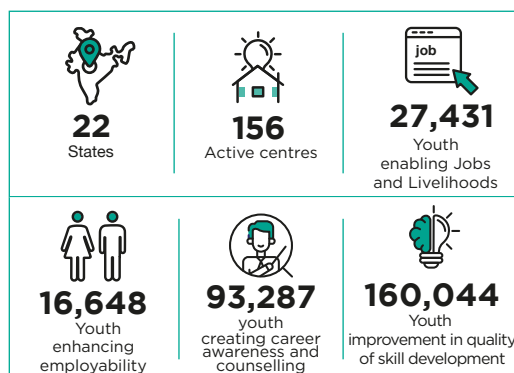
**EMPOWERING INDIA
WITH WORLD-CLASS SKILLS**

Tata STRIVE is a skill development initiative of Tata Community Initiatives Trust (TCIT), operating under the aegis of Tata Trusts and providing youth from underprivileged communities access to quality skill training, thereby enabling livelihood linkages. As an outcome-focused organisation, Tata STRIVE aims for employment, entrepreneurship or enhanced employability through its Domain and Soft Skills training. The delivery model incorporates the right mix of pedagogy, methodology and technology, thereby paving the way for the youth to transition effortlessly into the digital economy of tomorrow.



With a national footprint and complemented by a large partner network, Tata STRIVE continues to impact the lives of millions of youths in the country through direct interventions that include enabling jobs/entrepreneurship, enhancement of employability, and creating career awareness through counselling. Interventions in the skill development ecosystem include faculty development, technology or domain support to other skill development providers. The initiative adopts a three-pronged approach:

- **Enabling jobs and livelihoods**
- **Enhancing employability**
- **Improving quality of skill development**
- **Creating career awareness and counselling**



Coverage upto March 2023

KEY ACHIEVEMENTS

- **Digital Growth:** Given the high demand for human resources trained in digital skills, Tata STRIVE has focused on expanding its portfolio of digital courses, with strategic tie-ups with global conglomerates like Microsoft, Google, Amazon Web Services, Generations, etc. The current spectrum of digital courses being offered by Tata STRIVE include Cyber Security, UX Design, IT Support, IT Automation, Data Analytics, Digital Marketing, Full Stack Developer, Android App Developer, AWS Cloud Computing, etc. To support this expansion of offerings, Tata STRIVE has introduced innovative new delivery models, such as self-learning through LMS platforms with online guided sessions on domain and soft skills.
- **Skill India Impact Bond:** Skill India Impact Bond is an initiative of the National Skill Development Corporation (NSDC), which in collaboration with a coalition comprising various outcome funders or private risk investors, has pioneered a new paradigm in skill training that focuses on the achievement of results. The outcomes to be measured are agreed upon at the outset and independently verified. The training programmes are implemented through select NSDC

affiliated training partners. Some of the key outcome indicators considered include a significantly high percentage (above 60%) of women learners, predefined transition rates across the skilling value chain (from enrolment to retention post placement), and funding linked to retention in jobs for learners, post placement. Tata STRIVE's association with the Skill India Impact Bond started with the second cohort that was initiated in June 2022. Although tasked with an ambitious target of enrolling 800 learners, certifying, placing, and retaining them on job post placement, Tata STRIVE managed to overachieve the enrolment and certification targets. Placements and retention have been challenging and are likely to improve with each cohort.

- **Entrepreneurship:** Tata STRIVE's journey in entrepreneurship training started with the Nano Unicorn programme in Odisha in FY 2019. The second and third quarters of FY 23 saw Tata STRIVE expand the reach of its entrepreneurship programmes beyond Odisha to cover multiple districts in Maharashtra, Uttar Pradesh and Haryana. With funding and programmatic support from SIDBI, Crompton CSR Foundation, Sahyadri Farms, Tata Communications and Etasha Foundation, Tata STRIVE today has an expanded reach, both in terms of geography and structures. During the reporting period, Tata STRIVE trained more than 500 entrepreneurs.



- **Assam Hospitality Skill Development Centre of Excellence - a unique PPP Model:** Assam Tourism Development Corporation Limited; Ministry of Skill Development & Entrepreneurship (MSDE), Government of India; Indian Hotels Company Limited (IHCL); and Tata STRIVE, along with various other partner organisations from within and outside Tata Group, like Tata BlueScope Steel, Tata Consumer Products Limited, Aroma India Private Limited and Dun & Bradstreet, have come together to develop a state-of-the-art Hospitality Skills Training Centre of Excellence (CoE) near Guwahati, that would help meet the large-entry level human resource requirement for the hospitality sector in the North-East, a region that has witnessed strong growth post the Covid pandemic. The training facility has been named the 'Hospitality Skill Development Centre of Excellence,' based at Sonapur in Kamrup district. Under the agreement, Tata STRIVE aims to conduct employment-linked skills training in multiple domains in the hospitality sector at the CoE, impacting at least 400 youth annually, through various industry-aligned short- and long-term courses.

- **School Program in Ladakh & Telangana:** Tata STRIVE's interventions in the school space started with the implementation of the Samagra Shiksha program across six schools in Ladakh, training students from classes 9 to 12 in the hospitality trade. The work

has been duly recognised and during FY 23, interventions were extended to 13 schools in Telangana.

GOING FORWARD

- Upscaling entrepreneurship programs
- Focusing on women at large (wage employment, SHG and entrepreneurship)
- Enhancing skill development activity in the North-East Region
- Focusing on niche partnerships to deploy specific programmes; for example, the leather industry near Chennai
- Deploying a job-oriented course for transgenders

CHALLENGES FACED

- Newer centres in tier 2/3 towns are delivering greater impact, measured through placement and retention. Youth are willing to migrate or explore new opportunities in the vicinity of these towns. However, lack of opportunities and infrastructure, and often, a reluctance to migrate to the Aspirational districts makes it difficult for job-oriented programmes to be delivered successfully, calling for a hyper-local approach to be deployed in these districts.
- Introducing vocational education in schools is critical in order to prepare youth in sync with industry demand. Given this, Tata STRIVE is participating in Samagra Shiksha (a government-funded scheme) in two states. However, due to operational challenges in this participation, Tata STRIVE is exploring ways to make a positive difference.



The resilient spirit of Nellipudi Jhansi

Building skill-sets and thriving as an automotive technician



There exists a wide gap between education and the skills in demand in the professional world. Tata Strive, the skill development initiative of Tata Trusts aims to improve the employability quotient of professionals by bridging this skill gap.

Nellipudi Jhansi, a BTech graduate is a tenacious girl, hailing from the Nellore district of Andhra Pradesh. She was on the lookout for opportunities to prove her mettle. During her final year of graduation, she came to know about Tata Strive and its course for automotive technicians. She was immediately inclined to pursue it, though she knew that it was an unconventional career for a woman. “Most people assume that technical fields are for boys, and they aren’t aware that it is a path girls can also pursue. If one has the inner strength and confidence, there can be no hindrance in their path”, Jhansi says confidently.

Her parents were extremely supportive of her which further bolstered her confidence to do things differently. After she enrolled at Tata STRIVE, apart from the technical skills, she learnt the most crucial skill needed in professional settings – communication skills. Here, she learnt public speaking, an aspect of communication she dreaded the most. She explains, “It is imperative for everyone to be able to put forth their views while also understanding others’ points of view. We were taught to communicate effectively with everyone....the course was really good as we not only got complete knowledge related to our domain, but also on life skills.”

Thanks to the course Jhansi undertook at Tata STRIVE, she secured a job at an automobile showroom in Hyderabad. She is extremely satisfied with her role as a Trainee Service Advisor and has great ambitions of reaching the summit of the corporate ladder. She is financially secure, and her job keeps her excited. With her family by her side, coupled with her quiet resilience and hard work, Jhansi intends to let her accomplishments do the talking. As of now, there is no looking back for Jhansi.

“Most people assume that technical fields are for boys, and they aren’t aware that it is a path girls can also pursue...” shares Nellipudi Jhansi.



8 DECENT WORK AND
ECONOMIC GROWTH
PROJECT ALIGNS WITH SDG





**ARTS AND
CULTURE**

**UPHOLDING THE
RICH ARTS AND CULTURE
OF INDIA IS EMPOWERING**

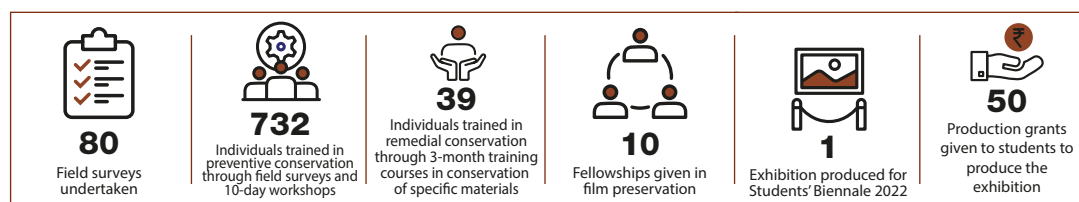
The vision of the Arts and Culture portfolio is to work with multiplicity, excellence and marginalised communities, focusing on three main areas: Conservation (built heritage, film preservation and art conservation); Art Education at the tertiary levels and Performing Arts (music, dance, and theatre).

To preserve and nurture the country's heritage, both past and present, and to establish solid foundations for the future, we must support the arts and culture in all their myriad forms. However, securing sustained support for the arts is challenging, especially against the backdrop of the high-intensity developmental concerns that India faces, further exacerbated by occurrences like the recent COVID-19 pandemic. The portfolio therefore endeavours to provide incremental and layered support, helping organisations and programmes achieve long-term sustainability.



KEY ACHIEVEMENTS

- Tata Trusts' Art Conservation Initiative completed six 3-month training courses in the conservation of specific materials such as paper (prints, drawings, and maps), natural history specimens, metals, wood, manuscripts, and miniature paintings, as well as wall paintings, across five partner institutes and trained 39 young conservators in remedial conservation. A 10-day workshop on the conservation of the material heritage of Sikkim was also organised in partnership with the Kolkata Institute of Art Conservation and Sikkim State Archives, Government of Sikkim.
- Under the Film Preservation Initiative, ten fellowships were awarded to deserving candidates for the 7th edition of the Film Preservation and Restoration Workshop India, where they were trained in the best practices of film as well as digital preservation and object conservation.
- As part of the Students' Biennale 2022, seven curators were engaged to work with over 190 students to produce 50 works of art that were displayed for 4 months across 4 venues in Fort Kochi.
- The fifth edition of Kalapana (a Tata Trusts platform that serves as an extension of its arts and culture programmes into the community) was held in February 2023. It featured a conversation between visual culture theorist and critic, Kaiwan Mehta and noted conservation architect, Ratish Nanda to highlight and discuss the 3-part volume, 'Specifications Manual for Built Heritage Conservation', a Tata Trusts publication in partnership with the Aga Khan Trust for Culture.



Coverage upto March 2023

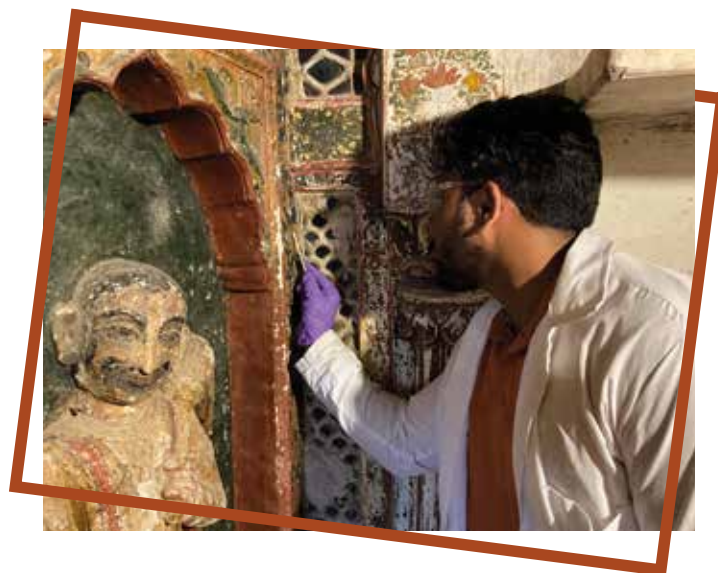
GOING FORWARD

- Concluding the 3-month training course in the conservation of textiles (ongoing), planning and implementing the 3-month training course in the conservation of photographs, and planning and implementing of the Masters in Art Conservation course in partnership with a suitable Indian university.
- Implementing the Students' Biennale awards in the form of international travel grants and national residencies.
- Developing projects in art conservation and film preservation.

BEST PRACTICES

- Designing and implementing the three-month-long training courses in conservation of specific materials held across the five partner institutes under the Art Conservation Initiative. Designed to impart intensive, practical training in the conservation of specific materials (like paper, oil paintings, wood, metals, etc.), these courses aid practising conservators in specialising and honing their conservation skills particular to one material.
- Giving fellowships in film preservation to allow deserving candidates to participate and learn from international faculty the best practices of film preservation, digital preservation, and object conservation.
- Setting up the Students' Biennale exhibition, which engages, through an open call, with student-artists from across Indian art colleges, allowing for the selected students to produce works of art through production grants, and exhibit them to a wide audience during the 4-month Kochi-Muziris Biennale. The students learn to reflect on their artistic practice, get exposed to exhibition-making, and engage with the wider

contemporary art community. The Tata Trusts Students' Biennale awards also bring to the limelight the works of exceptional student-artists and over the years, the Tata Trusts awardees have built successful careers as contemporary artists.



CHALLENGES FACED

- Planning and conducting six 3-month courses in conservation across five institutes, while taking into account faculty availability, region-specific holidays, and movement-related seasonal changes.
- Despite organisational challenges faced during the main Kochi-Muziris Biennale, which resulted in a delay in the opening of the main exhibition, the Students' Biennale exhibition was well-executed and launched on schedule.

Specifications Manual for Built Heritage Conservation

Tata Trusts have been invested in supporting built heritage conservation projects and have partnered with the Aga Khan Trust for Culture (AKTC) on two long-term projects, i.e. the conservation of Humayun's Tomb, Delhi and the conservation of nine major monuments as part of the Qutb Shahi Heritage Park, Hyderabad.

In 2019, recognising the need for comprehensive specifications for built heritage, Tata Trusts partnered with Aga Khan Trust for Culture (AKTC) to build a resource that compiles processes, rates of materials and analysis of rates specific to built heritage conservation works. An interdisciplinary team of conservation and landscape architects, engineers and archaeologists, led by Ashok Khurana, ex-DG of Central Public Works

Department (CPWD) and Ratish Nanda, CEO, AKTC, India, compiled a 3-part volume titled 'Specifications Manual for Built Heritage Conservation.' It has been prepared over a period of two years, drawing from AKTC's two-decade-long extensive work in this field and independent conservation practitioners, different Archaeological Survey of India (ASI) circles and state archaeology departments.

The manual has been disseminated to architecture colleges in India, several conservation architects, practitioners, and ASI circles in India. These volumes will be of immense help to practitioners and potential conservators.



Reshaping the future of art conservation in India



Building a network of art conservators

There are a thousand museums in India and only 1-2% have functioning conservation labs and in-house conservators.

With only one government-aided Master's degree in Art Conservation and a handful of post-graduate diploma courses on museology, conservation, and curation, a practical and intensive training programme for art conservators does not exist.

The focus is on short-duration workshops for the preventive conservation of artefacts or heritage management, specifically on the conservation of particular materials like paper, oil paintings, stone, or metal. The aim is to help the art conservation sector in India to handle its vast cultural heritage.

The Tata Trusts Art Conservation Initiative was conceptualised in 2018 to lay a framework for art conservation in India by focusing on infrastructure and training. Spread across four years, the initiative envisaged partnering with five institutes across India in 2019 to establish new conservation labs, upgrade old ones, and hire and train conservators through 3-month training courses in the conservation of specific materials. The programme would also support the establishment of a Master's degree in Art Conservation at an Indian university.

conservation decisions independently, as opposed to following set procedures for restorative treatment. With participants coming from varied backgrounds, the focus was also laid on improving their writing, documentation and presentation skills so that they evolve as conservators capable of tackling complex conservation issues. As part of the evaluation process, each participant-conservator made a final presentation and exhibited their work on-site, helping them highlight their conservation efforts.

Eight courses have been successfully implemented, where 39 young conservators have been trained in the conservation of eight different materials. Shortly, the conservators graduating from these training courses will have raised the standards expected of art conservators, changing the way we approach art conservation as a viable job sector and highlighting the importance of a well-conserved collection as an asset for any museum.



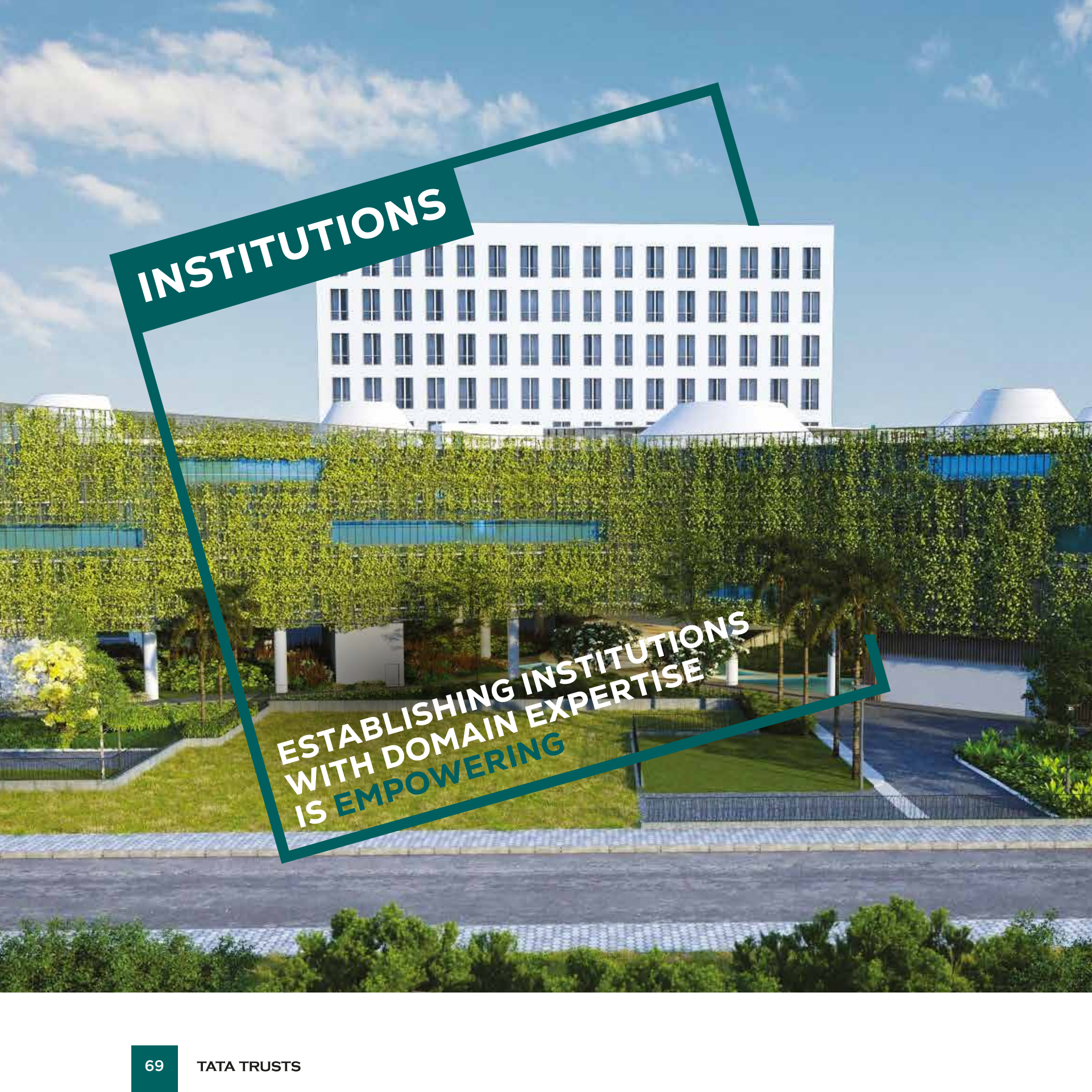
Ajay Ananda Chougule, a participant-conservator in the training course in Conservation of Metals at Chhatrapati Shivaji Maharaj Vastu Sanghralaya (CSMVS), Mumbai, shares his experience about the course- "Apart from the conservation practices, the history of metallurgy taught by the metallurgical researchers and conservation experts during the course was very beneficial for me. It helped me to hone my skills further, as I work on the conservation of weapons dating to the medieval period."

8 DECENT WORK AND ECONOMIC GROWTH
PROJECT ALIGNS WITH SDG



The emphasis was to teach the participants to critically think and make sound



A photograph of a modern architectural complex. In the background is a tall, white, rectangular building with a grid of windows. In the foreground is a large wall covered in dense green foliage. The scene is set against a blue sky with some clouds. Two teal-colored geometric shapes are overlaid on the image, containing text.

INSTITUTIONS

**ESTABLISHING INSTITUTIONS
WITH DOMAIN EXPERTISE
IS EMPOWERING**

TATA INDIAN INSTITUTE OF SKILLS

A report by the Confederation of Indian Industry (CII) in April 2022 pointed out that 22% of the incremental global workforce over the next three decades will come from India. The report alerts that if the nation does not create enough jobs and required workforce, its demographic dividend may turn into a liability. The Government of India has launched multiple schemes and programs to improve skilling in India. However, India continues to have a low percentage of formally trained workforce to handle advanced trades.

The Tata Indian Institute of Skills (TIIS) was incorporated under Section 8 of the Companies Act, 2013 and was set up by the Tata Education and Development Trust in March 2020, which was selected to partner with the Ministry of Skill Development and Entrepreneurship (MSDE) in June 2019 to set up, operate, and maintain world-class Indian Institute of Skills (IIS) in Mumbai and Ahmedabad. The primary goal behind setting up the institute was to create an industry-ready workforce as per the evolving demands of national and global markets. TIIS is committed to designing and delivering a contemporary and agile curricular to meet the emerging skill needs of the nation in a digital world. This is being done in collaboration with GoI, MSDE, state governments, and leading industry partners.

In the past one year, TIIS has been working to streamline its core functions by building a team of experts and professionals. While waiting for physical campuses to be constructed, TIIS has developed and launched short-term courses on Industrial Robotics, Industrial Automation and a culinary course (Certificate in Garde Manger). These short duration courses intend to provide high quality, high impact training in short durations and are being offered on temporary campuses with leading domain partners such as Taj Skyline Ahmedabad, Festo India, Fanuc India and SMC India.

KEY ACHIEVEMENTS

- Mapping sector demand to changing market scenarios and identifying key sectors, which have job creation possibilities in India.
- Strengthening core operations and building a programmatic team of experts.
- Training 581 trainees in the short-term courses in collaboration with leading industrial partners. Barring the culinary course, the remaining are offered in blended mode. The training program has been appreciated by the students.
- Facilitating the construction of the Indian Institute of Skills, Mumbai, which is being designed and built within the National Skill Training Institute (NSTI) in Chunabhatti, Mumbai. Whilst the pre-construction activities for the IIS Mumbai campus have been completed, the pre-construction works for the IIS Ahmedabad campus (coming up on a 20-acre campus in Nasmed, Gandhinagar) are underway. The architectural plans are underway for both TIIS Mumbai and TIIS Ahmedabad.

TATA INSTITUTE FOR GENETICS AND SOCIETY

The Tata Institute for Genetic and Society (TIGS) was founded in 2017 by the Trusts, as a non-profit research institute for developing solutions to challenges in human health and agriculture, to achieve health equity and nutrition security in India. TIGS is a programme-driven institute with the vision of applying cutting-edge science and technology in genetics and genomics to solve societal problems in the country. Its research activities are grouped into the following three programmes; namely: (a) Infectious Diseases; (b) Rare Genetic Disorders; and (c) Crop Improvement.

KEY ACHIEVEMENTS

- **Environmental surveillance for SARS-CoV-2:** In India, tracking the COVID-19 pandemic relies heavily on testing symptomatic individuals for the presence of SARS-CoV-2 RNA and counting the positive tests over time. Many SARS-CoV-2 infected persons are asymptomatic and are generally not tested by RT-qPCR, leading to underestimation of COVID-19 cases. Infected and even asymptomatic individuals start to shed the virus via faecal route 4-7 days in advance of symptoms and clinical testing, which means the increase in viral load in sewage water ahead of reported cases can work as an early warning system. TIGS, in collaboration with Biome Environmental Trust, National Centre for Biological Sciences (NCBS), has led a longitudinal study (ongoing since August 2021) across 28 Bengaluru sewer shed sites, under the Bangalore Water Supply and Sewage Board (BWSSB), capturing data from more than 11 million people, as a key partner of the Brihat Bengaluru Mahanagara Palike (BBMP). TIGS's model of wastewater-based epidemiology (WBE) complements the routine diagnostic surveillance by capturing near

real-time virus circulation at a community level, thereby providing a science to policy perspective, a first comprehensive study in India where real-time data was utilised by the municipal government for making policy decisions.

- **Olfactometer set-up for vector control:** TIGS has developed and set up a dual-choice olfactometer that will help screen a wide range of natural compounds. To facilitate natural compound screening based on Indian traditional knowledge, TIGS has combined this assay with a computer-controlled air delivery system. Together, it allows TIGS to deliver natural compounds in a precise manner to the mosquitoes and assess their behaviour towards it. This set-up helps in finding better and safer repellents and attractants to control vector-borne diseases.
- **Integration of TIGS into the Bangalore Life Science Cluster (BLiSC):** TIGS became an integral part of BLiSC, comprising the National Centre for Biological Sciences (NCBS), Institute for Stem Cell Biology and Regenerative Medicine (inStem) and Centre for Cellular and Molecular Platforms (C-CAMP). A unique hub of excellence for biological research in India, BLiSC develops best practices for inter-institutional collaborations and infrastructure sharing.
- **Recognition by the Academy of Scientific and Innovative Research (AcSIR):** TIGS is hosting a PhD program in collaboration with the AcSIR, to create the next generation of innovators through research. The doctoral projects are focused on harnessing modern advancements in science for directly addressing the most pressing needs of society.
- **Collaborative networks and multi-stakeholder engagements:** To take forward the outcomes of its research, TIGS ensures stakeholder buy-in from the beginning, and has begun collaborative work with over 30 different agencies, including the government and

municipal/administrative agencies, research institutes and universities at both the national and international levels, industries and start-ups, hospitals, NGOs and patient support groups across the city and beyond. TIGS has been a key partner in multiple grants, including from the Rockefeller Foundation supporting multi-centre programme for setting up pathogen monitoring systems (Alliance for Pathogen Surveillance Innovations-India), as well as competitive research grants from government agencies such as the ICMR, SERB-DST, DBT, etc. for translational science in the areas of diagnostics and therapeutics in healthcare.

- **Outreach events and societal engagements:** About 10 webinars and public lectures were hosted by TIGS along with the initiation of a new TIGS podcast channel for science communication, leading to an engagement with over 14,000 people on various topics such as wastewater surveillance, air surveillance of COVID-19, antimicrobial resistance (AMR) and infectious disease monitoring, rare genetic disorders screening and diagnostics, mRNA therapeutics, pest management and crop improvement technologies. Along with the Organization for Rare Diseases, India (ORDI), TIGS also organised the first National Rare Diseases Research Summit (REDRESS – 2022) in November 2022, which served as an indigenous and recurrent platform to bring together all rare disease researchers and stakeholders working for the Indian Rare Disease population, with an aim of indigenization and acceleration of diagnostics, therapeutics, and management, through potential cross-disciplinary collaborations.

CARNEGIE INDIA

Founded in 2016, Carnegie India, based in New Delhi, is part of a robust global network that includes over 150 scholars in Asia, Beirut, Brussels, and Washington. Led by Indian experts with decades of international and domestic policy experience, Carnegie India engages with governments, policymakers, academics, students, industries, practitioners, and civil society to provide independent, insightful, and fresh analyses of India's pressing challenges and the rising role of India in the world, in ways that are at once topical and panoptic.

The Trusts have been supporting Carnegie India through an institutional grant to grow its research programme and to conduct national summits and events, in order to inform public policy.

KEY ACHIEVEMENTS

Research:

- **India-U.S. Initiative on Critical and Emerging Technologies (iCET):** The iCET focuses on fostering deeper technology ties between India and the United States and aims to bring together stakeholders from different domains to discuss areas of technology cooperation. Carnegie India has been working on building the agenda for the iCET. In addition to research and publications, Carnegie has conducted two high-level private discussions - in New Delhi and Washington D.C. - with key stakeholders from government, industry, academia, and think tanks.
- **Semiconductors:** Carnegie India continues to explore the area of semiconductor supply chains, which is becoming increasingly diversified. Regarding semiconductors, the focus at Carnegie India is two-fold: (a) discussion of how recent U.S. export control measures have unleashed second-order effects that have created uncertainty for semiconductor companies

on where to relocate their supply chains; and (b) whether India's recent semiconductor policy is sufficient to attract chipmakers.

- **Data Protection:** Carnegie India has been following and contributing to the discussion on the personal data privacy legislation over the last four years. Carnegie India has participated in several workshops and consultations, and published several reports and articles on this issue.
- **Other areas of research:** Biosafety and Biosecurity; Space research; Digital Currencies; Sino-Indian Relations; Military Modernisation and more.

Publications:

From April 2022 to February 2023, Carnegie India published a variety of short- and long-form content, including forty-three external publications for platforms like the Print, the Wire, the Hindustan Times, the Times of India, the Indian Express, among others.

Global Technology Summit:

On the eve of India taking the G20 presidency, Carnegie India, in collaboration with the Ministry of External Affairs, Government of India, organised its seventh annual Global Technology Summit (GTS), themed Geopolitics of Technology, from November 29 to December 1, 2022. The summit was attended by more than 600 experts. Notably, at GTS, Carnegie India inaugurated an initiative called GTS Young Ambassadors, aimed at socialising students and young professionals on key issues informing global decisions on technology and geopolitics to equip future stakeholders in this space with the necessary knowledge and capacity. The Trusts have been closely engaging with Carnegie India to support GTS and some of its representatives were invited to share learnings with a global audience on the delivery of public health services, post-pandemic.

CENTRE FOR BRAIN RESEARCH- TATA LONGITUDINAL STUDY OF AGING

The Trusts funded the first phase of the Tata Longitudinal Study of Aging (TLSA) in urban Bangalore, which is a first-of-its-kind in the country and a landmark for the care and management of dementia. The study has received global recognition and the long-term findings could help the understanding and treatment of dementia globally. The objective of the study is to continue to monitor and analyse changes in brain-related areas as people age. The study aims to reach a critical sample size of 1,000 individuals to have meaningful and evidence-based findings. The vision is similar to the Framingham studies, which are now in the 4th generation and have paved the way for the prevention and treatment of cardiovascular disease.

The goal of the first phase of CBR-TLSA was to undertake a longitudinal study by creating a cohort of elderly people in urban India (Bangalore) and following up on them annually with multimodal assessments (clinical, biochemical, cognitive, genetics and neuroimaging) to better understand the trajectories of healthy and pathological ageing, and, as a result, identify risk factors and protective factors for Alzheimer's disease and related disorders. The CBR-TLSA study also inspired the launching of a complementary longitudinal study, CBR-SANSCOG (Srinivasapura Aging, Neuro Senescence, and Cognition Study) on a rural cohort.

A total of 694 individuals were enrolled in the study, of which 583 individuals continue to participate and have completed different stages of follow-ups (up to 5 annual follow-ups) as of December 2022. The study aims to reach a critical sample size of 1,000 individuals to have meaningful and evidence-based findings.

Key findings of the study

- The prevalence of depression was significantly higher in rural than urban subjects, with female preponderance in both groups. Early life stressors (parental death) and head injury were significantly more common in rural than in urban India, whereas stroke was more pronounced in urban India¹.
- The proportion of participants with hypertension, diabetes, and obesity was higher in the TLSA (urban) cohort than in the SANSCOG (rural) cohort. However, the proportion of high-risk CAIDE (Cardiovascular Risk Factors, Aging, and Incidence of Dementia) scores was higher in the rural cohort, since lower levels of education in the rural cohort were a significant contributor².
- Urban (CBR-TLSA) participants had a significantly higher prevalence of metabolic syndrome than their rural counterparts, reaching an alarming 63.1% among urban participants aged 65–74 years³.
- Effect of the Covid-19 pandemic on the CBR-TLSA cohort: During the first wave, 28.8% and 5.5% had depression and anxiety respectively in the rural cohort. Corresponding figures in the urban cohort were 6.5% and 1.7%. During the second wave, 28.8% of rural subjects suffered from depression and 3.9% had anxiety, whereas corresponding figures in urban subjects were 13.1% and 0.66%⁴.
- Perceptual priming can increase or decrease with age or cognitive impairment, but these changes do not covary with explicit memory⁵.
- Gamma oscillations weaken with age in healthy elderly in human EEG⁶.
- Stimulus-induced gamma rhythms are weaker in human elderly with mild cognitive impairment and Alzheimer's disease⁷.

Phase 2 of the CBR-TLSA was initiated from January 2022, and includes continued recruitment for Phase I and development of a multimodal intervention trial for Phase II. The baseline recruitments have crossed 1,250 individuals with over 700 individuals under follow-up. More than 1,100 MRI assessments and over 2,300 OCT (Optical Coherence Tomography) assessments have been completed. A rodent model for vascular cognitive impairment was developed in Phase I; further studies are ongoing regarding behavioural analysis of the same in Phase II.

The multimodal intervention study received approval from the Institutional Ethics Committee in May 2022, and recruitment for the same has been initiated. This multimodal intervention study is the first-of-its-kind in India and part of the Worldwide FINGERS initiative, which is ongoing in China and Latin American countries. This study is a unique, lifestyle-based, non-invasive intervention, focusing on dietary modifications, cognitive remediation, physical exercises and yoga practices, along with strict control of vascular co-morbidities. This study is undertaken by an expert committee comprising national and international members supervising the interventions from conception to delivery with regular audits of the efficacy and adherence. CBR has also become a signatory to the prestigious “Nairobi Declaration 2023,” which aims to reduce the burden of dementia in developing countries through scientific research.

1 Sundarakumar JS et al Alzheimer's & Dementia 2022, PMID: 36573020

2 Menesgere A et al.2022, Alzheimer's & Dementia 2022 PMID: 36548115

3 Sundarakumar JS* et al , EClinicalMedicine,2022. PMID: 35497067

4 Sundarakumar JS et al, Health Science Reports. 2022 Nov. PMID: 36381404

5 Zhivago, K. A. et al 2020, Frontiers in aging neuroscience, 12, 425

6 Murty, D. V et al. 2020 Neuroimage, 215, 116826

7 Murty, D. V. et al 2021.eLife.61666

INDIVIDUAL GRANTS

PROMOTING TALENT, ASSUAGING PHYSICAL SUFFERING

Since its inception, the Trusts have extended help to deserving and disadvantaged individuals with their medical and educational expenses. The Trusts' Individual Grants Programme uses a thorough, structured, and, most importantly, fair and humanitarian methodology to identify those who are in need of and merit financial support. The programme comprises educational and medical grants.

MEDICAL GRANTS

Most families experience extreme emotional and financial stress as a result of a medical emergency. Even middle-income households in the country find it hard to afford quality medical care due to rising hospital bills and medication expenditures. Although medical insurance is becoming increasingly popular in India, it does not often cover the entire cost of treatment, particularly in cases involving cancer, heart ailments, cochlear implants, kidney diseases, etc. The only options left to individuals and families encountering a medical emergency and unable to cover the cost of treatment seem to be charitable organisations and compassionate individuals coming forward to help lessen their load.

In order to aid such cases, the Trusts tap into its extensive network of medical specialists and social workers at numerous prestigious government, municipal, commercial, and non-profit hospitals around the country. As of March 2023, Tata Trusts is actively working with 24 hospitals.

Details of Medical Grants sanctioned/disbursed under **Sir Ratan Tata Trust** and **Allied Trusts** from April 2022 to March 2023

Ailments	Number of Applications Sanctioned	Amount Sanctioned in ₹ million*	Number of Disbursals Made	Amount Disbursed in ₹ million#
Cancer	612	257.43	721	189.46
Cochlear Implant	24	11.71	30	14.63
Heart	182	34.34	208	30.23
Liver Disease	26	15.28	27	12.34
Others	294	84.00	345	76.25
Total	1,138	402.76	1,331	322.91

* 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. Further, a sum of ₹1.04 million disbursed by the Allied Trusts of SRTT towards relief of poverty has not been included in the table above.

Details of Medical Grants sanctioned/disbursed under **Sir Dorabji Tata Trust** and **Allied Trusts** from April 2022 to March 2023

Ailments	Number of Applications Sanctioned	Amount Sanctioned in ₹ million*	Number of Disbursals Made	Amount Disbursed in ₹ million*
Cancer	303	112.53	425	97.27
Cochlear Implant	15	7.44	15	7.44
Heart	117	25.29	125	19.24
Liver Disease	15	9.34	12	6.83
Others	168	50.65	165	39.68
Total	618	205.25	742	170.46

* 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. Further, sums of: a) ₹45.94 million disbursed by the Allied Trusts of SDTT; and b) ₹0.26 million disbursed by SDTT towards distress grants and relief of poverty have not been included in the table above.

EDUCATION GRANTS

Financial assistance through education grants was provided under the following categories:

A. Means Grants (College/School/NGO/Special Schools):

Under this programme, financially weak students from low socioeconomic backgrounds were given assistance with the expense of their school and college education. These also included students identified through a network of NGOs working in Maharashtra. Additionally, financial assistance was also provided to children with special needs, who have to go through several therapies in order to prepare for mainstreaming.

B. Merit-based scholarships: These were offered for the following academic streams:

- Medical and healthcare scholarships – Covering some medical streams.
- M.Sc. in Speech Therapy – M.Sc. in Speech and Hearing, Masters in Audiology, and Speech-Language

Pathology, M.Sc. in Audio Speech therapy, M.Sc. in Speech Language Pathology, and M.Sc. in Audiology.

- M.Sc. in Neuroscience.
- Aircraft Maintenance Engineering.
- B.Ed. and D.Ed. – Only for students pursuing studies in Jammu and Kashmir and the North-East.
- Special Education – Students pursuing B.Ed. and M.Ed. in special education.

Scholarships were also offered under earmarked endowments; these included the Darab R D Tata and the C N Gosalia scholarships for pursuing studies in the fields of medicine and healthcare.

C. Tata Institute of Social Sciences: Scholarships were awarded to students pursuing their studies at the Tata Institute of Social Sciences in the fields of (i) Family and Child Welfare; (ii) Medical and Psychiatric Social Work; (iii) Urban and Rural Community Development; and (iv) Social Welfare Administration.

D. Aviation scholarships: These were awarded to those pursuing their Commercial Pilots' License (CPL) and type rating training.

E. Professional Enhancement Grants: These were made available to mid-career professionals who were interested in developing their professional skills and abilities through relevant workshops, observerships, or international training programmes.

F. Spectrum grants: In-service educators, practising counsellors, caretakers, and others, received funding for training programmes, preparing them to meet the requirements of children with special needs who come from low socio-economic backgrounds.

G. Studies Abroad: Based on their academic achievements, the J. N. Tata Endowment scholars who were pursuing their studies overseas, received gift scholarships as well as travel assistance. According to a broad set of criteria, travel funding was also given to additional students.

H. Partnerships: Scholarships for training at the Atletico Academy in Spain were given to selected students in the age range of 12 to 14 years as part of a grassroots football development plan in the north-eastern states of India.

Details of Education Grants sanctioned/disbursed under **Sir Ratan Tata Trust** and **Allied Trust** from April 2022 to March 2023

Particulars	Number of Sanctions	Amount Sanctioned (₹ in million)	Number of Disbursals #	Amount Disbursed (₹ in million)
Studies in India, including research scholarships	2,733	176.54	2,686	173.59
Studies abroad, including loan scholarships and research scholarships	173	69.90	167	#68.99
TOTAL	2,906	246.44	2,853	242.58*

Includes disbursements against grants sanctioned during the previous year.

* A sum of ₹1.68 million disbursed by Bai Hirabai J. N. Tata Navsari Charitable Institution has not been included in the table above.

Details of Education Grants sanctioned/disbursed under **Sir Dorabji Tata Trust** and **Allied Trusts** from April 2022 to March 2023

Particulars	Number of Sanctions	Amount Sanctioned (₹ in million)	Number of Disbursals	Amount Disbursed (₹ in million)
Studies in India, including research scholarships	28	3.92	28	3.92
Studies abroad, including loan scholarships and research scholarships	111	92.77	104	84.27
TOTAL	139	96.69	132[#]	88.19

Includes disbursements against grants sanctioned during the previous year.

JN Tata Endowment

The founder of the Tata Group, Jamsetji Tata, was emphatic that it was vital to encourage the nation's best and brightest minds so that they could be of the greatest use to the nation. The JN Tata Endowment for the Higher Education of Indians was founded in 1892 and has faithfully carried out the founder's vision by providing loan scholarships to deserving applicants after a thorough selection process, allowing them to pursue quality higher education at some of the best institutions in the world. KR Narayanan, the former president of India, Xerxes Desai, who played an instrumental role in setting up Titan and Jayant Narlikar, a distinguished astrophysicist, are just a few of the prominent individuals who have benefited from the Endowment. The Endowment has given scholarships to 5,646 students until March 2023 to pursue higher education abroad in a variety of fields spanning more than 839 courses and branches of specialisation.

95 scholarships worth a total of ₹77 million were given out in 2022-2023. 34 of them were for women scholars. Countries chosen for studies included the UK, US, Canada, France, Germany, Ireland, New Zealand, Singapore, Sweden, and Netherlands.

Lady Tata Memorial Trust

The Trust was founded in 1932 by Sir Dorabji Tata in honour of his wife, Lady Meherbai. It dedicates four-fifths of its income to studying leukaemia and one-fifth to studying ways to lessen disease-related suffering in both India and other countries. The Trust also funds institutional scientific research, awards fellowships to PhD candidates, recognises young researchers with awards, and supports teacher preparation programmes at several colleges.

Indian Awards for alleviation of human suffering

The Trust received a total of 61 project proposals in response to the online submissions requested from Indian universities and institutions in 2022-2023; of these, 30 research projects were shortlisted, and the students were then contacted for interviews. 15 projects from various Indian universities and institutions were chosen, and the students were given junior research fellowships aggregating to ₹3.2 million for the academic year 2022-2023.

The research projects were as follows:

1	Identification and characterization of small molecule inhibitors to treat Notch2 positive B-cell malignancies
2	To study molecular milieu at telomeres during oxidative stress
3	Investigate the novel role of mdc1 as an autophagy inducer and its implications in Tumorigenesis
4	Investigating the role of GR-mediated liposomal drug delivery system against OSCC and Tumor Microenvironment for targeted therapeutics
5	Collagen- based composite scaffold with sodium citrate functionalized for osteochondral tissue engineering- in vitro and in vivo studies
6	Study of the effect of Gut microbiota (Physiological & Pathological) on the progression of Alzheimer's disease using Drosophila melanogaster model of AD
7	Circadian control of c-c & c-x-c chemokine expression & its role in monocyte homing
8	Elucidation of the role of AR, AR Variants and associated signalling in conferring resistance to androgen deprivation in prostate cancer
9	Investigating the impact of Hepatitis B virus on iron metabolism during chronic infection
10	Pharmacokinetic Assessment of P-glycoprotein Mediated Interactions: Cyclin Dependent Kinase Inhibitor and Proton Pump Inhibitors in the Intervention of Metastatic Breast Cancer
11	Immunomodulation as an adjunctive therapy for the treatment in Fungal Endophthalmitis
12	Tissue Engineering Approach for Functional Recovery following Spinal Cord Injury
13	Studies on role of hsr lncRNA gene in immune response and heart development in Drosophila melanogaster
14	Ameliorating effect of Gardenin A against Alcohol-induced liver disease in the Gut-Liver-Brain axis
15	Integrated analyses of genome-scale metabolic models and omics profiles to capture the host-pathogen-environment interplay of Candida sp

Institutional Research Grants

Leukaemia and the biology and treatment of cancer were the main areas of focus for the fiscal year 2022-2023. Of the 41 proposals received, 6 were selected for assistance, with a total funding commitment of ₹53.1 million over three years.

The research projects selected were on:

1	Deciphering the molecular heterogeneity in Acute Leukaemia of Ambiguous Lineage at a cellular level.
2	Role of immune surveillance in the persistence of minimal/measurable residual disease (MRD) and pathogenesis of relapse in adult B-cell acute lymphoblastic leukaemia (B-ALL)
3	Gut microbiome in children with acute lymphoblastic leukaemia (ALL) – association with leukemogenesis, serial surveillance and effect on toxicity, disease outcome and immunological recovery.
4	To study the efficacy of stereotactic body radiation therapy in improving the overall survival and tumor control by immunomodulating the tumor microenvironment in hepatocellular carcinoma patients.
5	Microbiome-metabolome axis in non-small cell lung cancer
6	A study of familial aggregation in non-small cell lung cancer in India – Role of genetic susceptibility

International Awards (research in leukaemia and diseases of the blood)

Scholarships aggregating GBP 243,000 were sanctioned during 2022-23, for 7 research projects undertaken by scholars in UK, Spain, Croatia and Lebanon, which were as under:

1	Identification of functionally active and essential enhancers in acute myeloid leukaemia
2	Contribution of Lipid Droplets to the pathogenesis and chemoresistance of Acute Myeloid Leukaemia (ALERT)
3	Mechanisms of anti-leukemic effects of stearoyl-coA desaturase (SCD) inhibition
4	Dissection of clonal evolution and diversification in secondary and therapy-related acute myeloid leukaemia
5	Uncovering novel therapeutic targets in leukaemia with low input proteomics
6	Molecular, Cellular, and functional Analysis of Human Clonal Haematopoiesis of Indeterminant Potential (CHIP)
7	Modelling infant AML using an organoid model of embryonic haematopoiesis

Teachers' Training Programme

With a budget of ₹300,000, six online teacher training programmes covering fundamental science topics like pharmacology, artificial intelligence, bioinformatics, biotechnology, and genome editing were also held throughout the year.

Cancer patients renew their hope

Individual Grants Programme of Tata Trusts enable a successful transplant surgery.



The increasing burden of cancer care patients has been putting immense pressure on the healthcare infrastructure in India. The primary reason identified is the late detection of this disease. Tata Trusts is relentlessly fortifying the healthcare system by helping make world -class treatment accessible and affordable.

Vikas Bhushan (51) lived in Kotkapura Road, Mukhtsar, Punjab and was diagnosed with multiple myeloma in 2020. His treatment initially consisted of VRd chemotherapy, a targeted drug therapy. In 2022, he consented to chemotherapy, and soon after he opted for Autologous Stem Cell Transplant.

All of Vikas' treatments took place at Christian Medical College and Hospital which is committed to the betterment of patients suffering from cancer so that they can live with dignity and safety.

The transplant cost of ₹745,000 was a financial stretch for Vikas and his family. His family approached the Social Worker who counselled them about the various medical grants available. The Social Worker liaised with Tata Trusts and after an evaluation of the case, a sum of ₹145,000 was approved in September 2022. Vikas underwent the surgery in February 2023.

This timely grant helped Vikas clear his surgery bill.

Christian Medical College and Hospital and Tata Trusts work together in fighting this terrible disease and building a sensitive medical environment for cancer patients so that they navigate their way back to health and live a full life.

Vikas Bhushan has had a successful transplant surgery and is filled with renewed hope about his life and his future.

Priya's healthcare battle got a ray of hope

Individual Grant's Programme made Priya's healthcare journey their own.



Healthcare in India is expensive, especially when it comes to lower-income groups. Many times, the cost of treatment poses an enormous financial burden on them, pushing them to the brink of poverty. Even insurance providers have caps on the extent to which financial assistance is provided. Tata Trusts, through its Individual Grants Programme extends financial support in critical and deserving medical cases.

One such medical case was that of Priya Sonawane (name changed), a resident of Jogeshwari, Mumbai. She was the sole breadwinner in her family consisting of her retired father, her housewife mother and her out-of-work brother. Priya was living with her sister and brother-in-law when she underwent a biopsy. The test diagnosed her with breast cancer. She took a second opinion from Holy Spirit Hospital which confirmed that she had Left Breast Invasive Duct Carcinoma III. Priya had to leave her employment because the illness left her weak and she was unable to continue working. She started her treatment which involved surgery. After the surgery, she was advised chemotherapy sessions.

Both the surgery and chemotherapy sessions are expensive procedures. It was getting increasingly difficult for

Priya's sister and her husband to manage with Priya's medical expenses.

Priya's brother-in-law was a rickshaw driver and he was unable to single-handedly cover all the expenses himself. Priya was already debt-ridden because of the surgery and the chemotherapy was going to cost more than ₹550,000, apart from daily expenses for general care. The financial stress was adding to the already existing emotional distress.

Priya reached out to the Social Work Department of the Holy Spirit Hospital. They were understanding of the situation and in turn, referred her case to Tata Trusts.

After an evaluation of Priya's medical case and a socio-economic assessment of her family, the Trusts extended her the necessary financial grant.

Thanks to the financial support extended, Priya's chemotherapy treatment did not have to stall midway and it continued uninterrupted. Today, Priya is stable and hopeful that she will be able to fight this disease and return to a normal, healthy life.

LIST OF PARTNERS

HEALTHCARE

SEARCH, Maharashtra Gadchiroli, Maharashtra | **Sri Aurobindo Society** Puducherry | **Tata Institute of Social Science** Mumbai, Maharashtra | **The Hans Foundation** New Delhi | **Manav Vikas Bahhudeshiya Gramin Sewa Sanstha** Nagpur, Maharashtra | **Tata Community Initiatives Trust** New Delhi | **Sri Sathya Sai Sanjeevani Hospital** Raipur, Chhattisgarh | **Institute of Liver and Biliary Sciences** New Delhi | **R.G. Manudhane Foundation for Excellence** Mumbai, Maharashtra | **Dell Technology** Bengaluru, Karnataka | **Bill & Melinda Gates Foundation** Delhi | **Rajan Charitable Trust** Mumbai, Maharashtra | **Care Institute of Health Sciences (CIHS)** Hyderabad, Telangana | **Govt. Of Kerala** Thiruvananthapuram, Kerala | **National Health Mission/Department of Health & Family Welfare** Govt of India | **Christian Medical College, Vellore** Vellore, Tamil Nadu | **Vijayavahini Charitable Foundation** Vijayawada, Andhra Pradesh | **Forum for Health System Design & Transformation** Delhi | **Collectives for Integrated Livelihood Initiatives (CINI)** Jamshedpur, Jharkhand

CANCER CARE

Pfizer Mumbai, Maharashtra | **Pfizer Products India Pvt. Ltd.** Mumbai, Maharashtra | **DIAY (Dakshina India Arya Vysva Sri Vasavi Kanyaka Parameswari Dharma Paripalana Samstha)** Tirupati, Andhra Pradesh | **Bharat Petroleum Corporation Ltd. (BPCL)** Mumbai, Maharashtra | **Voltas** Mumbai, Maharashtra | **IOCL** Kolkata, West Bengal | **LIC Housing Finance Ltd.** Mumbai, Maharashtra | **ANI Technologies Pvt. Ltd.** Bengaluru, Karnataka | **Tata Memorial Hospital** Mumbai, Maharashtra | **Tata Medical Centre** Kolkata, West Bengal | **National Cancer Institute** Nagpur, Maharashtra | **Dr. B. Borooah Cancer Institute** Guwahati, Assam | **Meherbai Tata Memorial Hospital** Jamshedpur, Jharkhand | **Homi Bhabha Cancer Hospital and Research Centre** Vishakhapatnam, Andhra Pradesh

NUTRITION

The India Nutrition Initiative (TINI) Delhi | **Nutrition Foundation of India (NFI)** Delhi | **Hirabai Cowasji Jehangir Medical Research Institute (HCJMRI)** Pune, Maharashtra | **Bills & Melinda Gates Foundation (BMGF)** New Delhi and Seattle, USA | **P&G Health Limited** Mumbai, Maharashtra | **N.G Ranga Agricultural University** Guntur, Andhra Pradesh | **Andhra University** Vizag, Andhra Pradesh | **Institute of Economic Growth (IEG)** New Delhi | **NITI Aayog** New Delhi | **National Institute of Nutrition (NIN)** Hyderabad, Telangana | **Vijayavahini Charitable Foundation (VCF)** Vijayawada, Andhra Pradesh

WaSH

Centre for Microfinance & Livelihood (CML) Guwahati | **Kalike** Bengaluru | **Himnotthan Society** Dehradun | **North East India Development Agency** Kohima | **Collectives of Integrated Livelihoods** Jamshedpur | **Vijayavahini Charitable Foundation** Vijayawada | **Reviving of Green Revolution Cell** Ludhiana | **Coastal Salinity Prevention Cell** Ahmedabad | **Center for microFinance** Jaipur | **Yuvamitra** Nashik | **Department of Water Supply and Sanitation** Mohali | **Tata Consumer Products Limited** Bangalore | **Tata AutoComp Systems Ltd.** Pune | **NSE Foundation** Mumbai | **Tata AIG** Mumbai | **Voltas** Mumbai | **WIST Solutions Pvt. Limited (Drinkwell)** Kolkata, West Bengal | **Arid Communities and Technologies** Bhuj, Gujarat | **Genrobotics** Trivandrum

ENVIRONMENT

Centre for Environment and Energy Development (CEED) New Delhi | **International Forum for Environment, Sustainability and Technology (iFOREST)** New Delhi | **JSW Foundation** Bombay | **Rohini Nilekani Philanthropies** Bengaluru, Karnataka | **IKEA Foundation** Leiden, Holland | **Bloomberg Philanthropies** New York, USA | **MacArthur Foundation** Chicago, USA | **Rockefeller Foundation** New York, USA | **Oak Foundation** Geneva, Switzerland | **Good Energies Foundation** Grafenauweg, Switzerland | **Swaniti Initiative** New Delhi | **Dalberg Advisors** New York, USA | **Sambodhi** Noida, Uttar Pradesh

LIVELIHOOD

Foundation for Ecological Security (FES) Anand, Gujarat | **International Water Management Institute (IWMI)** Anand, Gujarat | **Grameen Development Services** Lucknow, Uttar Pradesh | **Peoples Action for National Integration** Faizabad, Uttar Pradesh | **Trust Community Livelihoods** Lucknow, Uttar Pradesh | **Samaj Pragati Sahyog** Dewas, Madhya Pradesh | **SRIJANI Foundation** Patna, Bihar | **Srishti** Munnar, Kerala | **Tata Agricultural and Rural Training Centre for the Blind (TACEB)** Mumbai, Maharashtra | **Transforming Rural India Foundation** New Delhi | **Yuva Mitra** Nashik, Maharashtra | **Foundation for Development of Rural Value Chains (FDRVC)** New Delhi | **Professional Assistance for Development Action (PRADAN)** New Delhi | **Vikas Ganga Samajsevi Santhan** Yavatmal, Maharashtra | **Dakshin Foundation, Bengaluru** Bengaluru, Karnataka | **Punjab Agriculture University** Ludhiana, Punjab | **Institute of Rural Management Anand** Anand, Gujarat | **Indian Institute of Spices Research (ICAR)** Kozhikode, Kerala | **Centre for microFinance (CMF)** Jaipur, Rajasthan | **Centre for Microfinance and Livelihoods (CML)** Guwahati, Assam | **Coastal Salinity Prevention Cell (CSPC)** Ahmedabad, Gujarat | **Collective for Integrated Livelihoods Initiative (CINI)** Jamshedpur, Jharkhand | **Himnotthan Society** Dehradun, Uttarakhand | **Kalike** Bangalore, Karnataka | **Livolink Foundation** Bhubaneswar, Odisha | **North East Initiative Development Agency (NEIDA)** Kohima, Nagaland | **Vijayavahini Charitable Foundation (VCF)** Vijayawada, Andhra Pradesh | **Reviving Green Revolution, Ludhiana (RGR)** Ludhiana, Punjab | **Dairy, Health and Nutrition Initiative of India (DHANII)** Jaipur, Rajasthan

EDUCATION

Khan Academy India New Delhi | **Quality Education Support Trust (QUEST)** Thane, Maharashtra | **Aga Khan Foundation (AKF)** New Delhi | **Trust Community Livelihoods, (TCL)** Lucknow, Uttar Pradesh | **Avasara Leadership Institute** Pune, Maharashtra | **British Asian India Foundation** Mumbai, Maharashtra | **Takshila Education Society** New Delhi | **Eklavya Foundation** Bhopal, Madhya Pradesh | **Karta Initiative India Foundation** Mumbai, Maharashtra | **Maneckji Cooper Education Trust (MACET)** Mumbai, Maharashtra | **Tata Indian Institute of Skills (TIIS)** Mumbai, Maharashtra | **Language and Learning Foundation (LLF)** New Delhi | **Bharati Vidyapeeth Institute of Environment Education and Research (BVIEER)** Pune, Maharashtra | **Tata Capital** Mumbai, Maharashtra | **Tata Trent** Mumbai, Maharashtra | **Bharat Petroleum Corporation Limited** Mumbai, Maharashtra | **Motivation for Excellence (MFE)** Mumbai, Maharashtra | **Tata Institute of Social Sciences (TISS)** Mumbai, Maharashtra | **Centre for Microfinance & Livelihood (CML)** Guwahati, Assam | **Centre for microFinance (CmF)** Jaipur, Rajasthan | **Himmotthan Society** Dehradun, Uttarakhand | **Collectives for Integrated Livelihood Initiatives (CINI)** Jamshedpur, Jharkhand | **Kalike** Bangalore, Karnataka | **Coastal Salinity Prevention Cell (CSPC)** Ahmedabad, Gujarat | **Livolink Foundation** Bhubaneswar, Odisha

SPORTS

Mission Olympics, Amravati, Maharashtra | **Mary Kom Regional Boxing Foundation** Imphal, Manipur | **Sudhir Pundekar Foundation** Satara, Maharashtra | **IndusInd Bank** Mumbai, Maharashtra | **Credence Educational Institute** Aizawl, Mizoram | **Pullela Gopichand Badminton Foundation** Hyderabad, Telangana | **Bovelanders Hockey Academy** The Netherlands | **Atletico de Madrid** Spain | **Mizoram Badminton Association** Aizawl, Mizoram | **Mizoram State Sports Council** Aizawl, Mizoram | **Mizoram Football Association** Aizawl, Mizoram | **Centre for Microfinance and Livelihoods (CML)** Guwahati, Assam | **North East Initiative Development Agency (NEIDA)** Aizawl, Mizoram | **Collectives for Integrated Livelihood Initiatives (CINI)** Jamshedpur, Jharkhand | **Livolink Foundation** Bhubaneswar, Odisha | **Himmotthan Society** Dehradun, Uttarakhand | **Hockey Ace Foundation** Jamshedpur, Jharkhand

SKILL DEVELOPMENT

Tata Consulting Engineers Navi Mumbai, Maharashtra | **Tata Autocomp** Pune, Maharashtra | **Tata Power Community Development Centre** Mumbai, Maharashtra | **Tata Bluescope** Pune, Maharashtra | **Tata Consumer Products** Mumbai, Maharashtra | **Tata International** Mumbai, Maharashtra | **LTI-Mindtree** Mumbai, Maharashtra | **Crompton** Mumbai, Maharashtra | **RCCPL** Kolkata, West Bengal | **Aroma India** Guwahati, Assam | **Airbus** Bengaluru, Karnataka | **Cimpress** Mumbai, Maharashtra | **IGPL** Mumbai, Maharashtra | **SIDBI** Lucknow, Uttar Pradesh | **NSDC-World Skills** New Delhi, Delhi | **Skill India Impact Bond, NSDC** New Delhi, Delhi | **Pimpri Chinchwad Municipal Corporation** Pimpri, Maharashtra | **Skill Development, Employment & Entrepreneurship Department - Govt. of Maharashtra** Mumbai, Maharashtra | **Andhra Pradesh State Skill Development Corporation (APSSDC)** Tadepalle, Andhra Pradesh | **Assam Tourism Development Corporation (ATDC)** Guwahati, Assam | **Coal India** Kolkata, West Bengal | **Tata ELXSI** Bangalore, Karnataka | **Deshpande Foundation** Hubli, Karnataka | **Dun & Bradstreet India** Mumbai, Maharashtra | **HFDC** Mumbai, Maharashtra | **Jindal Steel (JSW)** Mumbai, Maharashtra

ARTS AND CULTURE

Kochi Biennale Foundation Fort Kochi, Kerala | **Chhatrapati Shivaji Maharaj Vastu Sangrahalaya** Mumbai, Maharashtra | **Mehrangarh Museum Trust** Jodhpur, Rajasthan | **Himalayan Society for Heritage & Art Conservation** Ranibagh, Uttarakhand | **Anamika Kala Sangam Trust** Kolkata, West Bengal | **Museum of Art & Photography** Bangalore, Karnataka | **Film Heritage Foundation** Mumbai, Maharashtra

List of partners includes grantees, Trusts' associate organisations, Section 8 companies and Funding, Academic & Technical partners, along with their Headquarters' location.

The Trusts wish to acknowledge the efforts of their teams and partners for sharing case stories and photographs.

Visit us at: <https://www.tatatrusts.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

Email: talktous@tatatrusts.org