

BEING THE CHANGE FOR BRINGING CHANGE



Sir Ratan Tata Trust & Allied Trusts
Annual Report 2017-2018

TATA TRUSTS

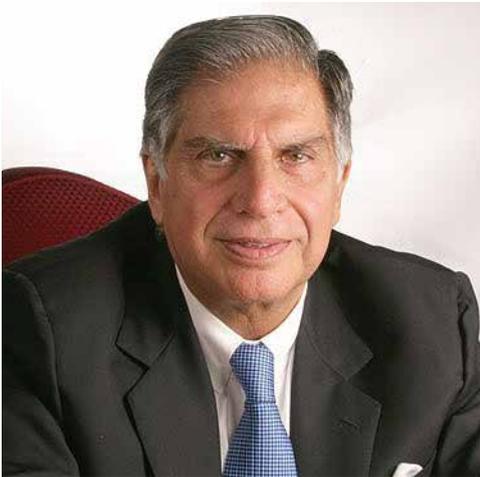


THE GUIDING PRINCIPLE OF TATA TRUSTS

“ 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 suffering fellow being. However, what advances a nation or a community is not so much to prop up its weakest and most helpless members, but to lift up the best and the most gifted, so as to make them of the greatest service to the country.”

~ **JAMSETJI TATA**

MESSAGE FROM THE CHAIRMAN



The country today is reflective of both youthful energy and mature musings. As it is with the Trusts, which are balancing areas of national importance, with the work that began more than a century ago. The Trusts have endeavoured to be compassionate, harnessing creative thinking to achieve results desired by the beneficiaries. As they develop competence in executing projects at scale on ground, they are also acutely conscious of the strengths that lie in collaboratively working with like-minded partners to accelerate social change. It is this flexibility in approach that marks the signs of change.

In the last year, the Trusts have undertaken work that may galvanise the way we address cancer care in the nation. The aim is to make specialised care accessible and to provide a uniform quality of treatment to all. The Trusts have also consciously developed multiple routes to address the issues of malnourishment that threatens the future of young mothers and children. Fortification of staple food items, such as wheat, rice and salt with vitamins and other nutrients, is one such way. Provision of safe drinking water and promoting good hygiene and sanitation practices for the family is also an area of focus, enabling progressive communities. In the annual report, you will see stories of change; some driven by personal passion, changing one life at a time and some that are the result of large-scale projects with innumerable beneficiaries. That is the power of technology - it has helped realise the dreams of many. It is the effort of the Trusts to use research, data and technology to create irreversible change in many areas of its work.

The Trusts, I hope, will continue to find innovative, sustainable solutions that will transform the lives of many. I thank the teams who have worked cohesively and effectively, ensuring that they enhance the quality of life of the communities we serve.

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OVERVIEW

THE DIFFERENCE A YEAR CAN MAKE

To bring about change, one must begin with being the change. This is what the Trusts have initiated over 125 years ago and continue to do so with their deep-rooted philanthropy. Commonly referred to as the Tata Trusts, their aim is to relentlessly pursue meaningful and irreversible change in a variety of fields such as water, sanitation, health and nutrition, education, innovation, technology and livelihood that impact the lives of millions of Indians. With numerous initiatives, interventions and programmes, the Trusts aim not only to enhance and support lives, but to plant the seeds of self-sustained growth for the secured futures of countless communities.

As firm believers of putting into action the dream of a transformed nation, the Trusts have moulded initiatives that specifically cater to the different problems faced by different regions in India. From the Kharash Vistarotthan Yojana (KVY) in Gujarat that works towards salinity ingress prevention and mitigation, to Project Druv that bridges the diverse needs of rural, unconnected communities through the provision of Druv boxes for internet connected TVs, to the preservation and promotion of Arts and Crafts for livelihood, all serve as steps of change in the direction of integrated development.

THE PERSEVERANCE OF TRANSFORMATIONAL INTERVENTIONS

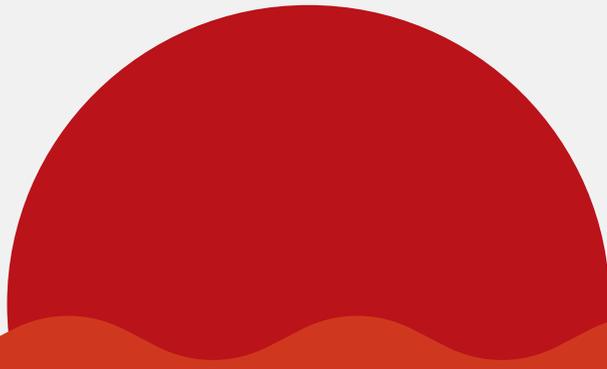
Holistic change can only be achieved when the people it is focused on are not only happy, but healthy. With malnutrition in the country resulting in a high rate of childhood stunting, maternal and childhood anaemia, and considered a root cause of over 45

percent of under-five mortality, initiatives that focus on fortification of staple food vehicles and support to government nutrition programmes are carried out. Cancer has also been an area of focused efforts that have transitioned with multiple initiatives - the National Cancer Grid being one - to standardise cancer care, promote early screening and detection through innovative technologies and supportive care. Reformatory initiatives have also been employed in the areas of mental health, clinical establishment, elderly care and wellness, along with other rural health development programmes.

The continuing uncertainty of climate change, coupled with the certainty of resources being finite, brings forth complex problems that have altered the Trusts' perspective of these issues, leading to the provision of varied solutions. The Tata Water Mission is one such multifaceted initiative that seeks to provide better access to pure water, using traditional strengths as well as innovative and technological approaches. Along with provision, the sustenance of water resources and affordable low-maintenance technologies for supplying drinking water are also being sought.

As sanitation goes hand in hand with water usage, the Trusts have played an integral role in the Swachh Bharat Mission, with a focus on effectiveness and sustainability through behavioural change, provisions, toilet designs and usage.

Livelihood-centred efforts carried out by the Trusts promote as well as empower rural and urban communities by creating



opportunities for them to thrive. The Trusts have not only provided relief, but also sustainable solutions that have helped many villages and communities bloom, through initiatives such as the Open Source Fisheries programme, System of Rice Intensification programme, mKrishi, etc., whilst ushering in integration of technology and knowledge into the practices, making them more efficient and self-dependent, in turn, leading to higher incomes. With regard to cropping, the Trusts have promoted water-harvesting and conservation as a means to reduce dependence on rain-fed agriculture. The Diversion-Based Irrigation programme popularises structures that use gravitational force to guide water from nearby streams and rivers to fields, thus proving to be a simple and cost-effective method.

During the year under review, the Migration portfolio focused on highlighting issues of the growing urban poor that migrant workers fall under, due to movement in search of labour. The initiative helps them adapt, by linking them with numerous social security services, and health and sanitation facilities, thereby easing the stress of residential, occupational and social vulnerabilities that they face.

With the crux of growth depending on change, it is necessary to ensure that educational environments are conducive to improvement and learning as well. The quest to provide education to marginalised sections is a core objective, along with making sure that schooling is in line with the current requirements by honing those necessary skills. A major focus is on the education of children, women literacy, tribal education and improvement of teaching to strengthen the system as a whole. To

achieve such goals, the Trusts have enlisted the use of technology and innovation to modify the structure, thereby, opening doors for rural and remote areas, giving them access to open source content, allowing both quality learning as well as teaching.

The ongoing search for alternative energy sources and a ticking clock on energy reserves have led to the implementation of clean energy programmes around the country with the help of the Trusts. These initiatives facilitate access to clean energy sources, installation of solar systems, promotion of clean cooking systems and lighting systems to individual homes, in an effort to convert and create solar-based livelihoods that can also support other activities.

Initiatives like the Leh Livelihoods Initiative, Andhra Pradesh Rural Prosperity Mission, South Odisha Initiative and many more function on multiple levels that involve researching the needs of each area, working out scalable solutions, and implementing them in collaboration with government and local bodies.

When solutions are only addressed in terms of change, a real difference is made. To make this difference whole, an all-round perspective is imperative to truly achieve such a feat. The Trusts aim to continue in this direction while paving new paths of improvement along with inspiring others to join in this journey. The coming years will see further engagements in association with its partners with the aim of impacting 100 million lives by 2021, carrying forward the mission of advancing the nation.



FINANCIAL OVERVIEW: 2017-2018

THE YEAR THAT WAS:

The total disbursements made by the Trusts during the year were ₹8,977.58 million (US\$ 138.13 million).

Disbursements of ₹8,033.50 million (US\$ 123.59 million) were made on all programme grants during the year.

Endowments to the tune of ₹67.50 million (US\$ 1.05 million) were made and small grants touched ₹127.80 million (US\$ 1.97 million). The total disbursements to individuals amounted to ₹748.78 million (US\$ 11.52 million).

Details of grant disbursals: 2017-2018

TYPE OF GRANT	₹ IN MILLION	US\$ IN MILLION
Institution: Programme grants	8,033.50	123.59
Institution: Endowment grants	67.50	1.05
Institution: Small grants	127.80	1.97
Individual grants	748.78	11.52
Total	8,977.58	138.13

Individual grant disbursals: 2017-2018

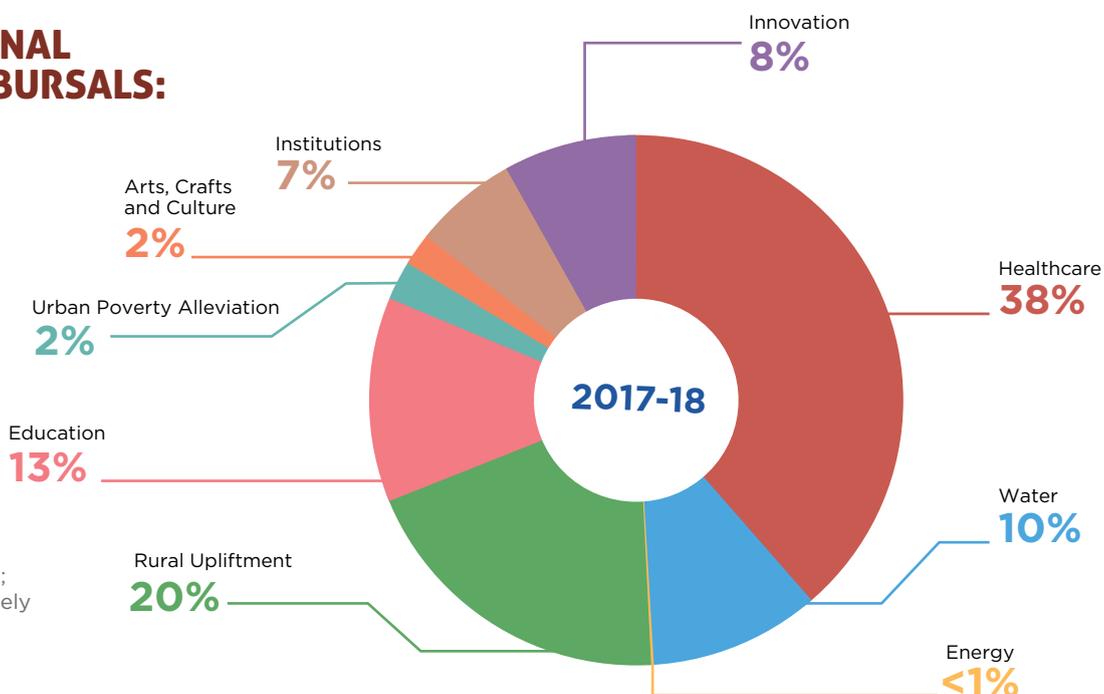
TYPE OF GRANT	₹ IN MILLION	US\$ IN MILLION	%
Medical	506.16	7.79	68
Education	242.62	3.73	32
Total	748.78	11.52	100

₹10 million is ₹1 crore; 1 US\$ is approximately equal to ₹65

Institutional grant disbursals (Theme wise): 2017-2018

THEMATIC AREA	₹ IN MILLION	US\$ IN MILLION
Healthcare	3,172.60	48.81
Water	850.00	13.08
Energy	10.30	0.16
Rural Upliftment	1,621.70	24.95
Education	1,037.30	15.96
Urban Poverty Alleviation	195.10	3.00
Arts, Crafts and Culture	161.80	2.49
Institutions	539.40	8.30
Innovation	640.60	9.86
Total	8,228.80	126.60

INSTITUTIONAL GRANT DISBURSALS: 2017-2018



₹10 million is 1 crore; 1 US\$ is approximately equal to ₹65



Pregnant woman undergoing a blood test at a PHC

HEALTHCARE

BUILDING NETWORKS OF DEVELOPMENT

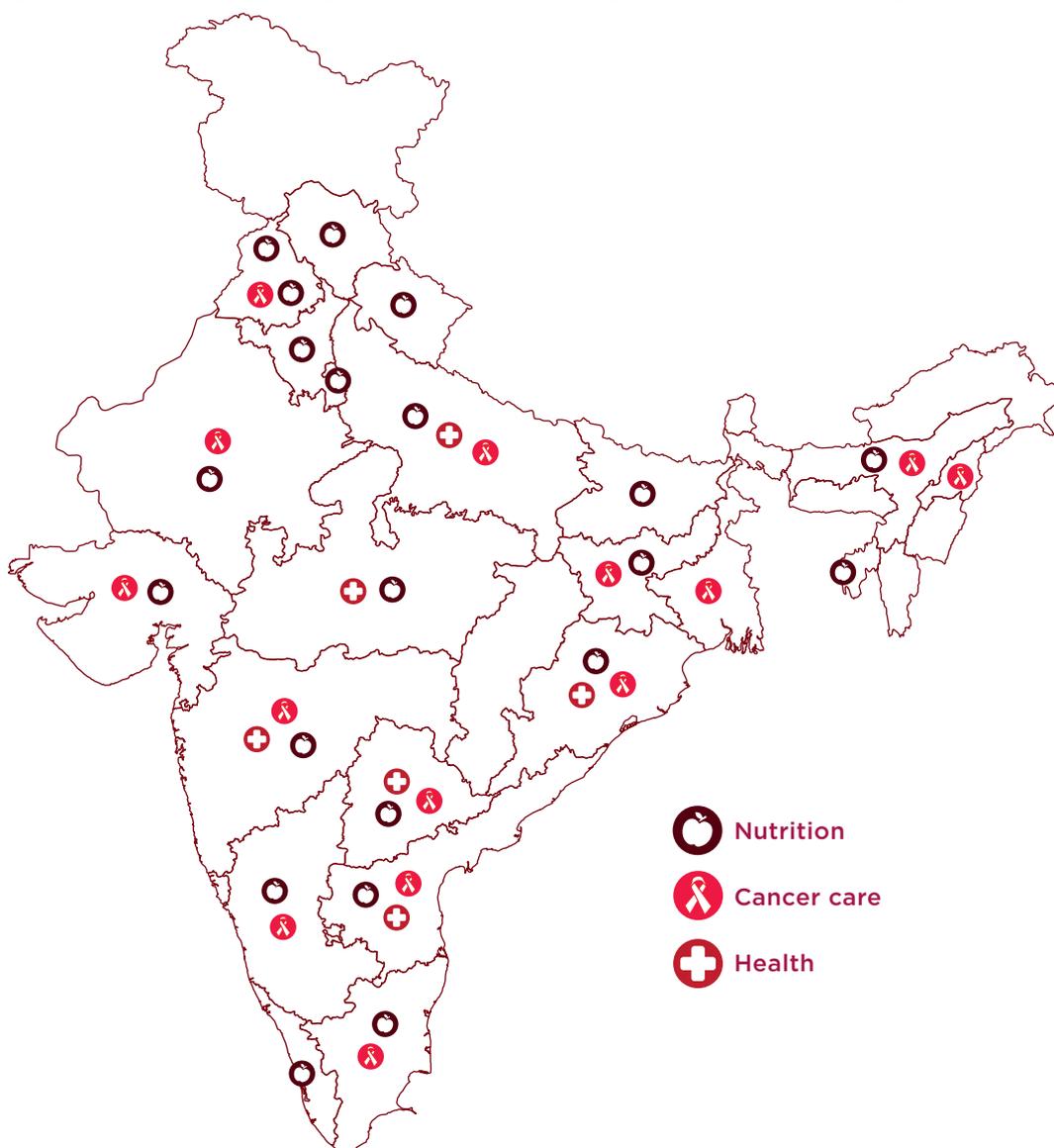
India, home to 17.84% of the world's population, has made significant progress in the health status of its citizens over decades with increase in life expectancy, reduction of mortality and morbidity, and improved quality of life. However, epidemiological transition from communicable diseases to non-communicable diseases throws a dual challenge at the country's health system, where there is a huge gap between the

demand and supply of quality healthcare services.

It is in this context that the Trusts are committed towards enabling access to quality primary healthcare by strengthening health systems in India. The mission is to positively impact millions of Indians by 2021, by strengthening healthcare delivery capabilities, leveraging partnerships, synthesising new technologies and innovations.

The chosen model for the Trusts is to work with selected partners, like-minded institutions and the government in the following focus areas:

- Nutrition • Mental Health • Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH + A) • Health System Strengthening • Non-communicable Diseases • Communicable Diseases



*While these programmes constitute the work undertaken by Tata Trusts under Healthcare, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.



Government school students learning about Nutrition

NUTRITION

RAISING THE BAR ON HEALTHY LIVING

Over the past 4 years, the Trusts have substantially increased their investments in nutrition. The Trusts' nutrition interventions have strong linkages with the central and state governments' ongoing nutrition programmes. The Trusts adopt a life cycle approach to tackling malnutrition with interventions focused on infant and young children,

adolescent girls, women of reproductive age, and pregnant and nursing women. The key outcome areas for nutrition include:

- (a) 30% reduction in stunting in children below 5 years in project areas in 3 years
- (b) 40% reduction in anaemia in children below 5 years and women of reproductive age

The Trusts focused on addressing supply side issues related to Double-fortified salt (DFS) and their strategy has paid rich dividends. In 2014, the cost at which the governments bought DFS was ₹24 - ₹28 per kg. Through the Trusts' intervention of 'reverse auction', a few DFS manufacturers have brought down the cost between ₹9 - ₹13. In Uttar Pradesh, DFS is supplied across 10 districts through the Public Distribution System (PDS), reaching out to 17 million beneficiaries. In Tripura, DFS is made available to consumers at ₹7 per kg through the PDS, while also benefitting 950,000 individuals through Government hospitals, Mid-day Meal programme, Integrated Child Development Services (ICDS) and tribal hostels. The Trusts have provided technical support to the Women Development and Child Welfare Department in Andhra Pradesh for the procurement and monitoring of DFS. Notably, the Government of Andhra Pradesh has distributed 74 metric tonnes of DFS to 55,607 Anganwadi Centres, thereby reaching out to 1.6 million beneficiaries.

KEY ACHIEVEMENTS:

FOOD FORTIFICATION:

-  Leading the fortification drive in partnership with the Food Safety and Standards Authority of India (FSSAI), which released fortification standards for staple foods in October 2016, and setting up the Food Fortification Resource Centre (FFRC) as a nodal point within FSSAI to engage with and align all stakeholders to build a consensus on fortification. Around 25 national-level advocacy meetings on fortification of various staples were also held at central, regional and state levels.
-  Complementing national-level efforts on food fortification through oil, milk and salt fortification to benefit the population at large. Approximately 55 million individuals benefitted through fortification of approximately 70 lakh litres of milk per day (LLPD) with Vitamins A and D. Joint efforts with government stakeholders and private industry partners for oil fortification covered around 313 million individuals with the availability of around 3.75 million metric tons of fortified edible oil.
-  Supporting FSSAI in the launch of the Experience Zone, which provides a 360-degree experience about India's food safety ecosystem through technologies such as virtual and augmented reality that captures the evolution of food safety regulations in India.
-  Supporting the Ministry of Women and Child Development (MWCD) in posting young professionals called Swasth Bharat Preraks (SBP) in all 315 high priority districts identified for phase I of the Poshan Abhiyan (National Nutrition Mission). Over 105 preraks were trained and deployed in the priority districts.
-  As a core strategy, to develop affordable, accessible nutritious products, the Trusts collaborated with Mars Inc. to initially develop a dal-based extruded snack for children aged 6 - 14 years.
-  Supporting a programme on multi sectoral action to promote Maternal, Infant and Young Child Nutrition (MIYCN) in select districts of Maharashtra, Rajasthan and Andhra Pradesh. The focus of the programme is on the ICDS centres, which can change the landscape for nutritional outcomes, if functioning efficiently. The proposed activities are expected to bring about an improvement in ICDS service delivery, through a substantial refocusing and strengthening of programme management and leadership.

FUTURE PLANS

-  Expand the reach of fortified staples through inclusion of fortified foods in public food aid programmes such as the MDM and ICDS, ensure inclusion of fortified wheat and rice in the PDS, and support fortification of all staples sold through the open market as per the FSSAI standards.
-  Continue extending support to the MWCD for effective implementation of the National Nutrition Mission by training and deploying 315 SBPs.
-  Launch Go-Mo, a dal-based extruded snack for children in the age group of 6 - 14 years in collaboration with Mars Inc., in September 2018. The product will be distributed across 20,000 villages across Uttar Pradesh, Maharashtra and Karnataka. Simultaneously, more products will be developed, specially targeted towards pregnant and lactating women, besides complementary foods for children in the age group of 2 - 6 years.
-  Expand the programme on MIYCN to Uttar Pradesh and Gujarat, and ensure efficient functioning of the ICDS centres to address malnutrition in these areas.



Participants take a pledge at the inauguration of the Beat Cancer - Run and Ride campaign

CANCER CARE RESHAPING A CANCER-FREE NATION



There is a huge burden of cancer care in India, with 1.45 million new cases being reported and 736,000 deaths recorded each year. Furthermore, 70% of cases being reported are in the late stage of the disease, leading to high mortality rates. The problem of high incidence and late detection is exacerbated to a greater extent by a dearth of infrastructure and skilled manpower to treat the disease, worsened by the lack of awareness and cancer prevention programmes in the region.

The Trusts have envisioned a distributed cancer control model to create patient-centric cancer centres for delivering uniform, high quality, affordable care closer to the patients' homes. In contrast to the current situation, where one apex hospital handles a cancer patient's journey end-to-end, it is proposed to have smaller centres at convenient distances interlinked with the apex centres, which can handle diagnosis and care delivery, thereby shifting the load away from apex hospitals, and

reducing out-of-pocket expenses for the cancer patients. Infrastructure development will be supplemented with a strategy to develop sufficient trained human resources and a robust technology platform to ensure that high quality care is delivered in a uniform and wholly patient-centric manner.

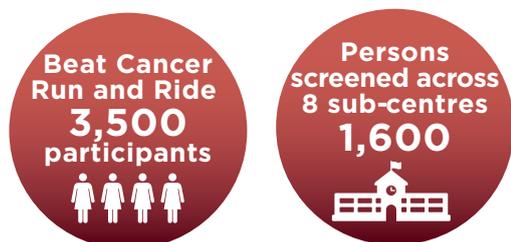
The Trusts have signed agreements with 6 state governments and several non-government institutions for implementation of the Comprehensive Cancer Care programme. The partners provide land parcels for construction and contribute financially towards development of the centres. The Trusts are responsible for construction management, provisioning of equipment and operation of the facilities. A special purpose vehicle, a not-for-profit company registered under Section 8 of the Companies' Act, has been created for governance of these facilities. This entity is responsible for execution of the projects, subsequent operations and carrying out cancer care activities in the state.

KEY ACHIEVEMENTS:

-  Commencing renovations at the Homi Bhabha Cancer Hospital (for addition of one floor and enhancing capacity to 180 beds); these are expected to be completed by May 2018, post which a handover to Tata Memorial Centre will be done.

- 🌐 Signing of a Comprehensive Cancer Control MoU (Memorandum of Understanding) with the Government of Assam **to build 18 cancer care centres**; Assam Cancer Care Foundation formed as a Special Purpose Vehicle to operate these centres.
- 🌐 Conducting 'Beat Cancer - Run and Ride' campaign in North East India **across 7 states with over 3,500 participants.**
- 🌐 Conducting the Tobacco Control Sensitisation **training for 80 police personnel across 4 districts of Assam.**
- 🌐 Conducting sensitisation sessions and workshops for opioid availability with health officials of Assam in Delhi to enhance access to palliative care.
- 🌐 Signing agreements (MoU, Letter of Intent, Cabinet approvals) with 5 state governments (Andhra Pradesh, Assam, Odisha, Rajasthan and Telangana), Tirumala Tirupati Devasthanams (a charitable organisation), and Yenepoya University for cancer control.
- 🌐 Giving a face-lift to the State Cancer Institute (SCI) Guwahati for enhancing overall patient experience in the hospital campus.
- 🌐 Submission of National Health Mission Project Implementation Plans to **18 state governments.**
- 🌐 **Training 120 participants** on Basic Life Support and Advanced Cardiovascular Support at SCI, Guwahati; **70 participants were trained** on preventive oncology in 2 districts of Rajasthan and advanced training of Doctors, Technicians, Nurses, and Administrative Staff in Assam, Jharkhand and Rajasthan were completed.
- 🌐 Screening camps held at various locations to detect cancer at early stages. **Over 1,600 persons screened across 8 sub-centres** in Cachar district, Assam; **1,500 employees from BEST, Mumbai, were also screened.**
- 🌐 As part of the Foundations of Oncology Programme, over the past 2 years, 239 students (118 during 2017-18) were trained, of which 12 (8 during 2017-18) were tutored at Guys and St. Thomas Hospital, London for a 4-week observership. This is expected to raise interest in the field of oncology, which can translate into an expanding workforce of cancer healthcare professionals.

OUTREACH DURING 2017-18:



FUTURE PLANS

- ✈️ Develop a network comprising of 18 cancer centres in Assam.
- ✈️ Kick-start the construction of over 17 facilities for providing cancer care at various levels with 11 non-government partners.
- ✈️ Forge partnerships with 5-7 state governments for developing a comprehensive cancer control roadmap for these states.
- ✈️ Support state governments in implementation of cancer programmes under the National Health Mission.
- ✈️ Establish the National Cancer Grid (NCG) state chapter in Maharashtra and other states for institutionalising NCG activities.



Showtime at the Mental Health Movie Club

MENTAL HEALTH

A staggering 150 million people in India currently live with a diagnosable mental health condition and, even more shockingly, less than 25% of these people ever receive care*. For the

Trusts, mental health has been an important area of engagement over the last few decades, beginning at a time when work in mental health was not considered important enough.

Over the years, the Trusts eked out two major trenches of work:

- Institutional reform
- Developing scalable models of community-based care

KEY PROJECTS:

UDAAN INITIATIVE

Udaan is a collaboration between the Trusts and the Government of Maharashtra. In 2016, the Trusts signed an MoU with the Government of Maharashtra under the Udaan initiative to develop the Regional Mental Hospital of Nagpur (RMHN) as a centre of excellence. It will provide the highest

quality of care to people living with mental illness and will also develop RMHN as a centre of learning, so that other institutions in India and in other countries can apply the Udaan learnings to their context. The programme covers a large catchment of 11 districts of the Vidarbha region.

*Source: National Mental Health Survey 2015-16

KEY ACHIEVEMENTS:

-  Formation of Core Reform Group, Master Trainer Group and Ward Champions as the pillars of reform to ensure sustainability. These groups are active and are playing a key role in the reform process.
-  The Out-patient department has been digitised for better time management and data retrieval.
-  Creating an employment pathway for the in-patient service users, farming being the first initiative.
-  Structural interventions such as the establishment of salons and beauty parlours to improve the personal hygiene of service users. Initiating refurbishment of Acute, Transit, Recovery and Family wards.
-  **Training of 218 hospital staff** on Human Rights in Mental Health Care.

FUTURE PLANS

-  Establish a state-of-the-art day care centre at RMHN.
-  Caregiver collectivisation and creation of various employment pathways for service users.
-  Initiate individual service packages for in-patient service users to strengthen and enhance their recovery process.

DISTRICT MENTAL HEALTH PROGRAMME - NAGPUR

The District Mental Health Programme of Nagpur, in collaboration with the Government of Maharashtra, is being developed as an efficacious and replicable model that can be scaled up in the state and elsewhere in the country. It is envisaged as a robust community-based mental health intervention across the district, delivered through the health care system, to improve individual

outcomes for people accessing care. The programme is being designed with a view to provide services at the primary care level, using a non-specialist workforce, based on the principles of task shifting and task sharing. The programme will deliver services through standardised care packages calibrated to the severity of the need.



An inmate tends to the plantation

VIDARBHA PSYCHOSOCIAL SUPPORT AND CARE PROGRAMME

Irregular rainfall, poor irrigation facilities, high input costs, etc., have made agriculture a risky proposition for farmers in Maharashtra over the past two decades. This has led to a spurt of suicides amongst the farmers in Vidarbha. Taking serious note of the situation in the region, the Trusts have initiated the Vidarbha Psychosocial

Support and Care Programme with the aim of increasing access to counselling/ mental health services for distressed farmers and persons with mental illness. This programme is being directly implemented by the Trusts, covering 64 villages in two blocks of Yavatmal district.



Inmates engaged in recreational activities

KEY ACHIEVEMENTS:

- 🌐 Collaboration with the District Mental Health Programme (Project Prerana) to provide psychiatric consultations and medicines to Persons With Mental Illness (PWMI) within the catchment.
- 🌐 Ensuring quality psychosocial support and counselling services to the identified PWMI and their family members.
- 🌐 Initiating a helpline to provide counselling services.
- 🌐 Engaging proactively with community members, stakeholders, schools and colleges to create awareness and promote positive mental health and well-being.
- 🌐 Undertaking a sensitisation programme for Village Level Workers on provision of mental health care and training staff members on provision of psychosocial care.
- 🌐 Converging with various welfare programmes and organisations, including Baliraja Chetana Abhiyan, the Sukhi Baliraja Programme of the Trusts, NAAM Foundation, etc., to ensure a multi-sector response.

FUTURE PLANS

- 📌 Provide Psychosocial and Psycho Education Support, and follow-up care.



A mother with her newborn baby

REPRODUCTIVE, MATERNAL, NEWBORN, CHILD, AND ADOLESCENT HEALTH (RMNCH + A)

The RMNCH+A approach launched in 2013 by the Government of India mainly aims to address/reduce major causes behind maternal, neonatal and infant mortality, as well the delays in accessing and utilising healthcare services.

The Trusts, through a strategic approach in various health programmes,

provide a 'continuum of care', in geographies where access, quality and utilisation of healthcare is an issue. The Trusts' initiatives include capacity building of service providers, innovative technologies, improving service delivery and social behaviour change communication.

KEY PROJECTS:

LEAD DEVELOPMENT PARTNER (LDP) FOR RMNCH+A IN MADHYA PRADESH

The objective of the LDP programme is to improve the capacities of the Front Line Workers and community, so as to reduce infant and maternal mortality rates. The area of coverage is 23 high priority districts in Madhya Pradesh, including 8 aspirational districts. In June 2016, an MoU was signed by the Trusts, as the Lead Development Partner, with the Government of Madhya Pradesh.

KEY ACHIEVEMENTS:

- 🌐 Development and deployment of the SEHAT app (an easy-to-use mobile app that helps patients research and choose the right doctor and hospital to get the right care) for supportive supervision visits.
- 🌐 Reformulation of ANM mentoring implementation guidelines undertaken by the Trusts' team.
- 🌐 Initiation of work for setting up High Dependency Units and Obstetric Intensive Care Units **across 5 and 23 districts**, respectively.
- 🌐 Completion of E-Raktkosh trainings and commencement of implementation.
- 🌐 Commencement of LaQshya - an initiative for national quality assurance standards in **8 aspirational districts**.

FUTURE PLANS

- 👉 Facilitate advocacy for nation-wide roll out of SEHAT app.
- 👉 Roll out the ANM mentor programme in all 23 districts.
- 👉 LaQshya certification in all 8 aspirational districts.

ALLIANCE FOR SAVING MOTHERS AND NEWBORNS (ASMAN)

ASMAN, a unique healthcare initiative, was launched by a consortium of leading private and development sector partners in November 2015 to improve maternal and newborn care. This initiative is an alliance between the Bill & Melinda Gates Foundation (BMGF), MSD India, Reliance Foundation (RF),

Tata Trusts and the United States Agency for International Development (USAID) (together referred as alliance partners). ASMAN works in select facilities of Madhya Pradesh (Ratlam, Vidisha, Jabalpur and Khargone districts) and Rajasthan (Ajmer, Bhilwara, Jhalawar and Kota districts).

KEY ACHIEVEMENTS:

- 🌐 **609 service providers were trained.**
- 🌐 **5 district-level sensitisation meetings and 150 mentoring and supervision visits (MSV)** conducted across both states.
- 🌐 Testing at DH Bhilwara and CHC Gulabpura: **27 nurses and 4 medical officers were oriented and trained** in the use of the ASMAN application.
- 🌐 Initiation of competency building – service provider trainings: **25 facilities under Phase 1 in Rajasthan have been completed.**
- 🌐 Initiation of on-site quality improvement in both states.

FUTURE PLANS

- 👉 Implement ASMAN applications in all 80 facilities with remote support center and gamification module.



A doctor teleconferences with patients in Telangana

HEALTH SYSTEM STRENGTHENING

In order to bring sustainable change, it is important to dovetail efforts of the Trusts with those of the state

governments towards strengthening the existing health systems and facilitating evidence-based decision-making.

KEY PROJECTS:

HEALTH SYSTEM STRENGTHENING IN COLLABORATION WITH THE STATE OF TELANGANA:

In association with the Government of Telangana, the Trusts are implementing the “Health System Strengthening Project” in the following focus areas:

Electronic Health Record (EHR) System

Covering four districts (Sangareddy, Sircilla, Siddipet and Medak) of Telangana.

KEY ACHIEVEMENTS:

- 🌐 **All sub-centres (SC) (681) and 8 primary health centres (PHC) are covered** through EHR in 4 pilot districts.
- 🌐 **867 auxiliary nurse midwives (ANM) and 18 doctors and PHC staff in 20 PHCs trained** on operating EHR software.
- 🌐 **Over 1.1 million EHRs** created so far.
- 🌐 **Medical records of 55,000 patients** maintained at government health facilities through EHR.
- 🌐 NCD screening data of **over 50,000 citizens entered** on the EHR-NCD portal.

FUTURE PLANS:

- 👉 Offline NCD app to be rolled out in the field to speed up the entry of NCD data of over 300,000 cases.
- 👉 Referral across hierarchy of facilities to be established.

NCD - Dell

The Trusts are providing IT training and health monitoring support for the roll out of NCD-Dell software in 8 districts of Telangana.

KEY ACHIEVEMENTS:

- 🌐 **Coverage across 8 districts** of Telangana.
- 🌐 **Bringing all 922 SCs online.**
- 🌐 Facilitating data entries of **over 350,000 NCD cases.**



Learning to maintain records in Electronic Health Records Systems

FUTURE PLANS

- Complete training of the medical officers across all facilities on NCD-Dell software.
- Continue regular NCD data entry without any backlog to follow up on proper care to patients.

Digital Nerve Centre (DiNC)

Aims at establishing a Digital Nerve Centre connecting 95 selected health facilities across 4 districts of Telangana. It provides a Health Helpline and Telemedicine to make consultation

facilities accessible at remote SCs and PHCs, plugging the gap of non-availability of health professionals in remote areas.

KEY ACHIEVEMENT:

- 🌐 **Establishment of all 75 facilities and one central unit** at Hyderabad.

FUTURE PLANS:

- Soft launch the DiNC program across 4 pilot districts.
- Improve care coordination and virtual consultations in the pilot area.
- Establish a referral mechanism within DiNC (along with government facilities).

Ensure Quality in NCD Screening

In partnership with CIPHER, the Trusts are documenting the screening processes taking place in the field and will be developing a Standard Operating Procedure (SOP) document to ensure consistency and quality.

KEY ACHIEVEMENTS:

Operationalising the Telangana State NCD Helpline for:

- Mobilising individuals throughout the screening process – individuals referred for further screening by the ANM will be called and encouraged to complete their screening.
- Answering queries from individuals who require more information on NCD screening.
- Supporting staff at NCD clinics, by collecting their queries, discussing with doctors from tertiary hospitals and providing them with the answers.

Total number of calls handled by the helpline - 546

- Number of calls made to existing cancer patients by the helpline - **421**
- Number of screening mobilisation calls made by the helpline - **125**

FUTURE PLAN

- SOP on NCD screening to be submitted to the Government of Telangana and the Trusts by 2019.

PRIMARY HEALTH CARE IN VIJAYAWADA THROUGH TELEMEDICINE

The objective of the Telemedicine project is to provide Primary Health Care services in Krishna district with a focus on screening Ophthalmic conditions and common Non-communicable Diseases (NCD) with appropriate disease management. Supporting the existing 'Swasth Kutumbam' family floater health insurance scheme by providing primary referral links is also one of the objectives of the project. The service delivery model is two-pronged with the following approach modes:

Telemedicine unit: A hub-and-spoke model is piloted through this project where doctors at the hub in Vijayawada provide telemedicine consultation to patients visiting the 20 spokes/ telemedicine units in villages that are managed by a nurse and pharmacist.

Mobile Medical units: Two Mobile medical units equipped with a medical officer, nurses, pharmacist, lab technician, an optometrist and a helper provide outreach service to the rural population at their doorstep.

KEY ACHIEVEMENTS:

-  **Operationalising 4 Swasth Kutumbam Clinics** in February 2018.
-  **Over 150 consultations provided** in these 4 Swasth Kutumbam clinics.
-  Screening for diabetes and hypertension undertaken during all consultations, along with educating patients and creating awareness on good health.

FUTURE PLANS

-  Complete renovation work and launch services at the remaining 16 clinics.
-  Operationalise Mobile Medical Units.

CLINICIANS TO LEADERSHIP (C2L)

The goal of the programme is to develop a cadre of clinicians as leaders in the health sector who will apply

leadership and managerial skills in their workplace, develop and groom more clinicians as leaders.

KEY ACHIEVEMENTS:

-  Organising the C2L programme for two different settings; namely, (a) Academic Medical Institutions; and (b) State Public Health Institutions.
-  Training clinicians at mid or senior managerial levels on soft skills, leadership and management.



Health workers in a training session

FUTURE PLANS

- Identify new institutes/projects where a similar programme can be conducted in order to equip clinical heads with administrative skills.
- Identify new speakers/agencies to partner with to impart training under the programme.

HEALTH SYSTEMS TRANSFORMATION PLATFORM (HSP)

Health Systems Transformation Platform (HSP) is a newly established, Indian, not-for-profit institution, incubated by the Trusts. The vision of HSP is to be an enabler of state-level capacity to diagnose, redesign and strengthen their health systems, with linkages to national policy. With its mission to achieve the highest level of efficiency and quality in health systems design in India, HSP will provide professional, rigorous and evidence-based support to state institutions to conceptualise and develop health systems design in partnership with state governments. HSP will provide context-specific technical assistance to state institutions in India for designing

health systems to achieve public health goals, by engaging concerned state governments to examine health systems and the presence of a strong state institution as a partner.

HSP is partnering with the prestigious Harvard T.H. Chan School of Public Health (HSPH) at Harvard University to bring technical expertise and global experience in order to provide strategic oversight and mentorship and engage in collaborative research, executive training and cross learning with HSP and state institutions. Over the years, HSP will nurture many more such collaborations, which will foster cross learning, sharing of knowledge and application of powerful ideas.



A patient's blood pressure being checked

NON-COMMUNICABLE DISEASES

Non-Communicable Diseases (NCDs) contribute to around 5.87 million deaths, which account for 60% of all deaths in India*. Cancer, mental health issues, cardiovascular diseases, chronic respiratory diseases and diabetes make the largest contribution to morbidity and mortality resulting from NCDs.

KEY PROJECTS:

VIVEKANANDA MEDICAL SERVICES, IN PARTNERSHIP WITH RAMKRISHNA MISSION SEVASHRAM, VRINDAVAN:

The goal of the project is to provide access to primary care, with a special focus on Non-Communicable Diseases through 11 Telemedicine Units (TMU) and two Mobile Medical Units (MMU) in 9 blocks of Mathura district. It aims to provide 200,000 medical consultations and screening of 100,000 individuals for

The growing NCD burden is contributing to escalating healthcare costs and widening of disparities within the population of India. The Trusts' focus on Non-Communicable Diseases is to ensure early detection by screening and management of the identified cases in project areas.

diabetes, hypertension and cancer. It also aims to bring improvement in an individual's knowledge, belief and attitude towards prevention of non-communicable diseases across all the villages of intervention. The project was operationalised in March 2018.

*Source: Country Profile 2014: India (WHO)

KEY ACHIEVEMENTS:

- 🌐 **589 medical consultations provided.**
- 🌐 **256 and 122 individuals screened** for Hypertension and Diabetes, respectively.
- 🌐 **63 and 6 individuals diagnosed** for Hypertension and Diabetes, respectively.

FUTURE PLANS:

- 👉 Provide 150,000 medical consultations.
- 👉 Screen 100,000 individuals for NCDs.
- 👉 Lifestyle improvement and preventive health awareness campaigns in 150 villages.



SUPPORTING A PAN-INDIA NON-COMMUNICABLE DISEASE SCREENING PROGRAMME, IN PARTNERSHIP WITH THE MINISTRY OF HEALTH AND FAMILY WELFARE

The Ministry of Health and Family Welfare, under the Government of India, has launched a programme for population-level non-communicable disease screening and management in

165 districts across various states in India. The Trusts are supporting technology adoption by the government to increase access to screening and better monitoring of the programme.

KEY ACHIEVEMENTS:

- 🌐 Facilitating the finalisation of clinical protocols for NCD screening and management by bringing in the Ministry of Health and Family Welfare, All India Institute of Medical Sciences, Indian Council of Medical Research, National Health Systems Resource Centre and the World Health Organisation on a common platform.
- 🌐 Developing app-based technology in a strategic partnership with DELL.



Rapid Diagnostic Test being carried out at a mass screening camp for malaria in Odisha

COMMUNICABLE DISEASES

Although India is going through an epidemiological transition, infectious diseases still persist as major health challenges disproportionately affecting the lower socio-economic strata of

society. While there has been success through various programmes, the scourge of Tuberculosis and Malaria continues unabated.

KEY PROJECTS:

PROGRAMME FOR ELIMINATION OF MALARIA IN ODISHA

Evidence shows that Odisha contributes to 38% of India's malaria burden (2015). The Trusts are addressing this issue over the past several years and have strengthened efforts in the state, by signing an MoU with the Ministry of Health and Family Welfare, Government of Odisha, to eliminate malaria in Odisha.

The programme is nested under the South Odisha Initiative of the Trusts, wherein 5 blocks in Kalahandi, Rayagada and Kandhamal districts are direct implementation sites, covering around 1 lakh individuals, across 547 villages.

KEY ACHIEVEMENTS:

Village-based surveillance

- No. of fever cases: **22,924**
- No. of individuals screened for malaria: **21,884 (95%)**
- No. of positive malaria cases: **7,739 (35%)**

Mass screening

- No. of individuals screened: **44,372**
- No. of positive malaria cases: **7,631 (17%)**

Preventive intervention

- LLIN* Coverage: **547 villages (23,000 Households)**
- IRS** Coverage: **240 villages**

Health promotion

- Information, Education and Communication (IEC) campaign across All India Radio and Local TV Channels

Innovations

- Digital portable microscope piloted at **9 sites**
- Tab-based MIS

*LLIN - Long Lasting Insecticide Treated Net

**IRS - Indoor Residual Spray

FUTURE PLANS

-  Disseminate the experiences, learnings and findings of the studies and the baseline survey.
-  Continue the ongoing malaria elimination activities (Early Diagnosis & Complete Treatment, Mass screening, IRS, Community mobilisation campaigns at village and school levels).
-  Liaise with the government to support efforts on supplies and logistics and ensure joint ownership of the programme.
-  Roll out the IEC toolkit to be issued to Village Health Volunteers.
-  Operationalise tab-based MIS in all 263 direct intervention villages.
-  Disseminate the findings of the pilot study done for the digital microscope and subsequent upscaling.

INTRODUCTION OF A MEAL DISTRIBUTION SYSTEM



Inmates at the Regional Mental Hospital Nagpur now decide their own portions

It is no secret that, often, patients suffering from mental illness are not treated with the humanity they deserve. At the Regional Mental Hospital Nagpur (RMHN), this was unfortunately true. Especially at meal times.

The ward attendants served with their hands and the food was literally thrown on the plates, causing a lot of wastage. Every plate had approximately the same amount of food, leaving the patients no choice with respect to quantity. Much food got wasted when some couldn't finish what was on the plate; those who remained hungry fought for scraps from the discarded food.

The Udaan team, with its core principles rooted in the autonomy and dignity of individuals, decided to intervene. It wasn't easy. Udaan recommended a buffet system, but was immediately met with resistance from the hospital authorities. Will the patients be able to help themselves? Will they know how much food to take? What if the food fell short? Will they be able to stand in a disciplined

queue? What about the investment in purchasing long tables and large serving vessels?

One wouldn't know until one tried.

The Udaan team managed to convince RMHN to do a test run - one in Ward No. 23 (women) and one in Ward No. 15 (men) and implemented a buffet system. It had to be closely monitored and the Udaan team had to implement this new system.

So far, it has worked. The patients have found their dignity and food is neither wasted nor depleted before everyone has eaten well.

Yet, there is another heartening source of encouragement. The words of Ms Kanchan Khanzode, Dietician, RMHN, one of the strongest initial naysayers of this initiative: "I am very happy with the new meal distribution system that has been initiated in the two wards as a pilot and I wish that this be scaled to the rest of the wards."

There is still a long way to go.

HOUSEHOLD KITCHEN GARDENS: A GREEN REVOLUTION OF HEALTH



Community cooking sessions and Healthcare sessions at Palghar

Adolescent girls of Palghar district in Maharashtra faced a huge iron-deficiency due to a lack of knowledge and availability of green leafy vegetables. 'Household Kitchen Garden' was an intervention undertaken to make the leafy greens available at the doorstep of every girl and introduce them to nutrition and healthy eating.

Impact India Foundation with support from the Tata Trusts, conducted a Health and Nutrition session in Ghatadpada village, in the Primary Healthcare Centre of Somta only to find out that the Basella Alba plant was growing in abundance in front of every home. However, when asked none of the girls knew its health benefits. For them, it was a plant used for ornamental purposes.

IIF's Community Health Initiative team educated the girls about the iron-rich content of the Basella leaves and its

value in controlling Anaemia. They helped the girls cultivate the Household Kitchen Gardens and demonstrated recipes of making parathas (a traditional Indian dish) with Basella.

Eager to learn, the girls loved the taste of the healthy Basella leaves. "Oh this is so tasty!" is what all of them said when asked if they'd like to eat it again.

Seeing the enthusiasm, different iron-rich samples of the Basella Alba plant were distributed in 3 Primary Healthcare Centres of the district. IIF helped 12,300 families cultivate a Household Kitchen Garden, monitoring the consumption of green leafy vegetables on a monthly basis.

Meanwhile, the girls had started to innovate other recipes like Pakoras and Daal made with Basella leaves and maintain their kitchen gardens very well.



Drinking water available at every doorstep

WATER

SECURING WATER. ENRICHING LIFE.

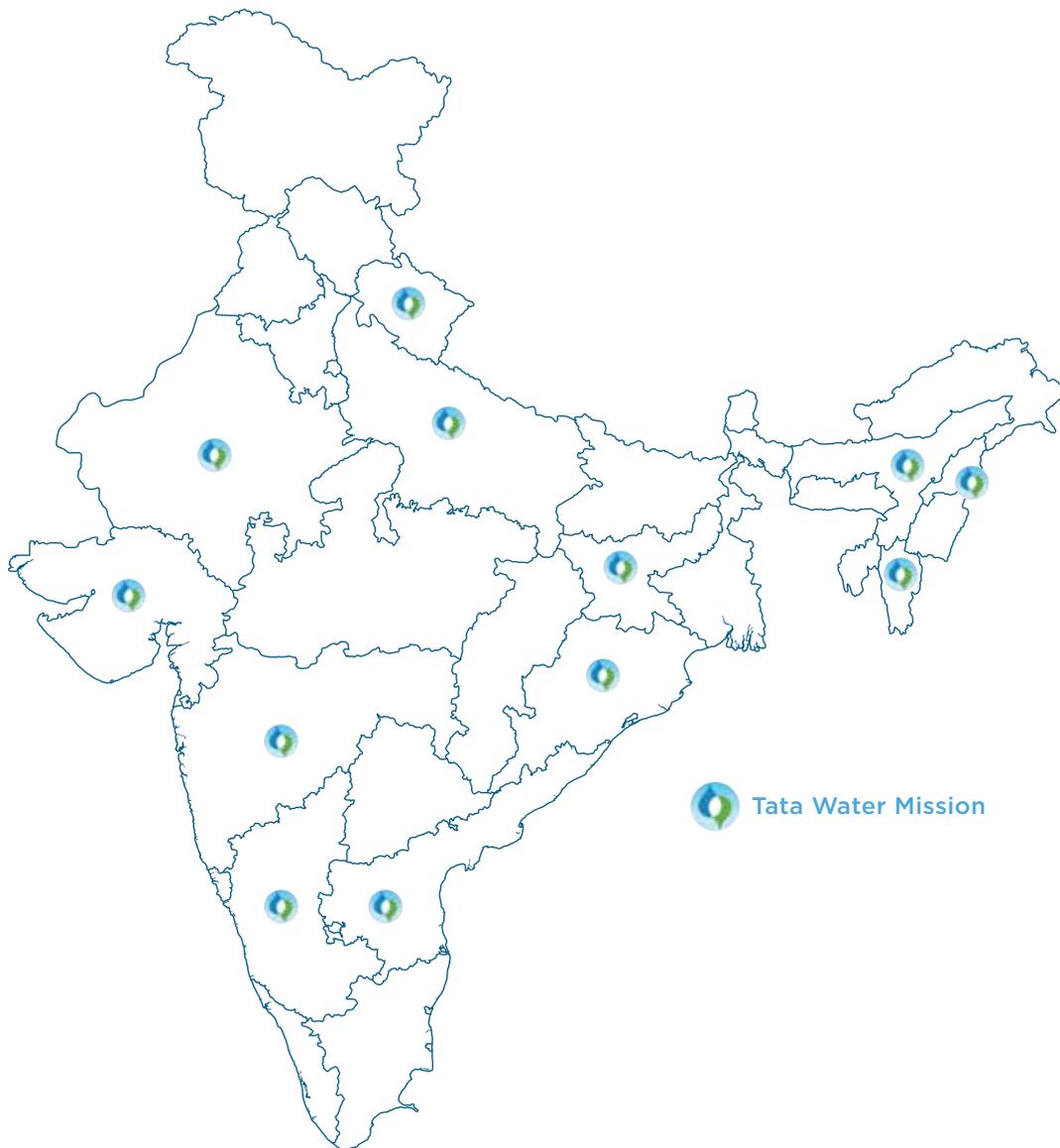
TATA WATER MISSION

The Tata Water Mission (TWM) aims to create a healthy future for underserved communities by providing improved access to safe, assured and adequate drinking water and improved environmental sanitation.

The mission advocates a decentralised, demand-responsive and community-managed approach to achieve this goal, while promoting innovative,

technological and economically sustainable solutions.

The Tata Water Mission adopts a two-pronged strategy, wherein community as well as household-based drinking water interventions are dovetailed with sanitation and hygiene education. The TWM aims to cover 7,000 villages under the first phase of implementation by 2020.



*While these programmes constitute the work undertaken by Tata Trusts under Water, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.



Mapping open defecation with community engagement in Karnataka

TATA WATER MISSION

OUTREACH DURING 2017-18:



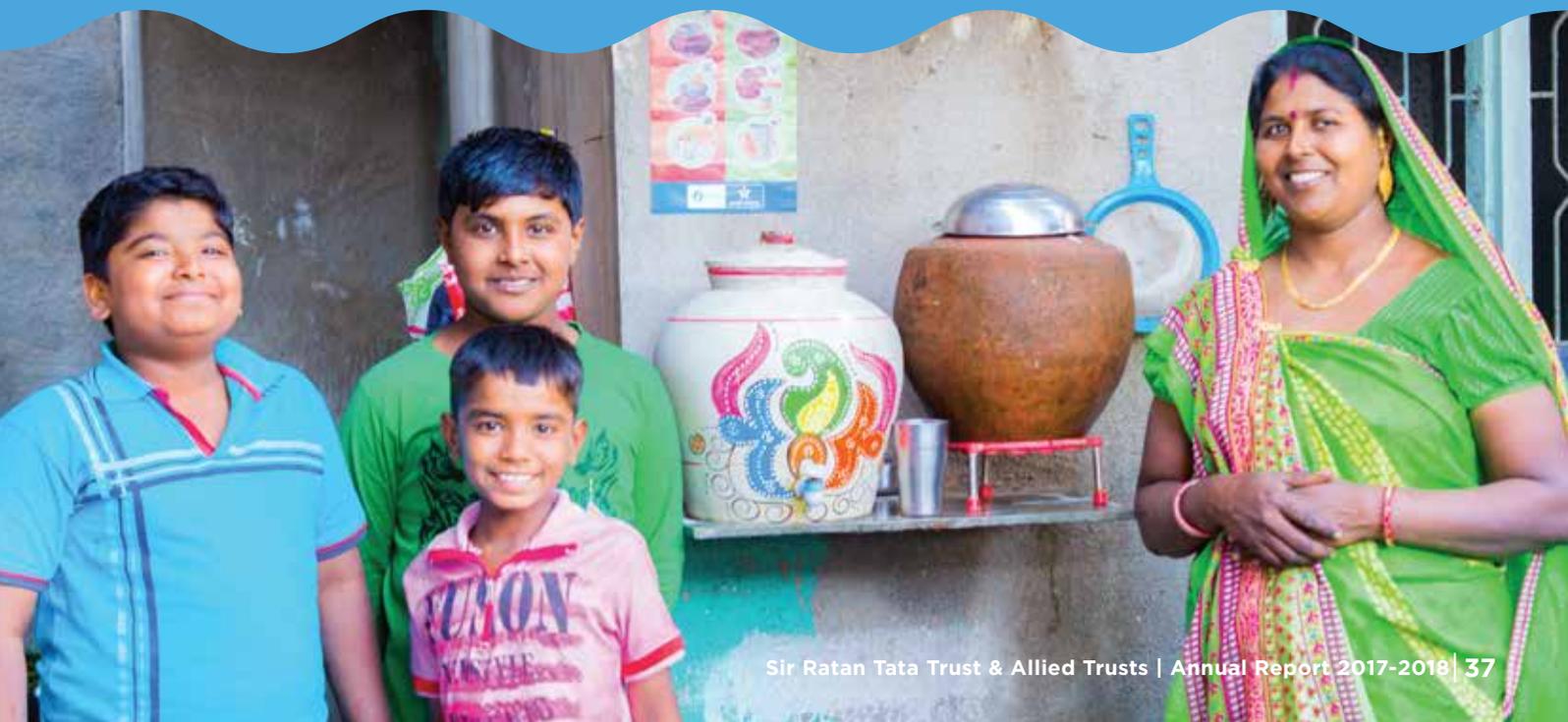
KEY ACHIEVEMENTS:

- 
Covering around 2 million individuals from around 4,000 villages across 12 states, through Water, Sanitation and Hygiene (WASH) interventions (till date).
- 
 Building a strong partnership with the Government of India's flagship programme Swachh Bharat Mission (Gramin) at central and state levels. Through this partnership, the Trusts have supported around **200,000 households for building and using sanitation units**. Comprehensive Behavioural Change Communication programmes were undertaken across states and capacities of over **20,000 village-level volunteers (Swachhgrahis)** were built to play a catalytic role in spreading the importance of sanitation. The Trusts also developed an alternative financing model through credit financing, using Self-Help Groups (SHGs) and Community Federations.

-  Partnering with advanced technology providers at the household level for Point-of-Use purification systems and upscaling interventions in the North Eastern states. **Over 4,000 households** from these hilly states, where micro-biological contamination is one of the major causes of concerns for drinking water, were directly benefited.
-  Undertaking water resource management and springshed management interventions, thereby ensuring **drinking water security for more than 300 communities**. Interventions focused on making rural communities self-reliant vis-à-vis their drinking water needs and reviving their traditional sources of water.
-  Partnering with the Ministry of Drinking Water and Sanitation, Government of India for drafting the national policy guidelines on Solid and Liquid Resource Management. The Trusts also partnered to organise a national level workshop where deliberations were undertaken on these policy guidelines for subsequent implementation.
-  Demonstrating a technology solution for arsenic removal systems in Nalbari, Assam, thereby ensuring access to safe and arsenic-free drinking water for **2,000 individuals close to their homes**.

FUTURE PLANS

-  Focus on a 'Water Security Programme' where water accounting/budgeting of each village would be undertaken, so that the community is well aware about available resources (supply) and their application (demand), thereby rationalising water management.
-  With a view to tackle Open-Defecation-Free Sustainability issues, the Trusts would focus on addressing challenges in areas of behavioural change communication to create awareness on sanitation and Solid and Liquid Resource Management (SLRM).
-  Menstrual Hygiene Management (MHM) in rural areas is not only a big social taboo, but is a huge health issue. Consequently, TWM will work with adolescent girls and menstruating women towards improving MHM practices incorporating behavioural change and supply chain management aspects. The Trusts would also work with industry partners to develop environment-friendly and affordable sanitary pads/products for rural women.



ZILLA SWACHH BHARAT PRERAK (ZSBP) PROGRAMME

A step towards making India Open-Defecation-Free

The Tata Water Mission has partnered with the Government of India, through the Zilla Swachh Bharat Prerak initiative, by placing more than 450 young professionals across districts in order to make the country Open-Defecation-Free (ODF) by 2019.

The ZSBPs act as links to not only bridge the gap between stakeholders (rural population) and the district administration, but also work as channels between the district administration and state and central governments. They provide information and systems to beneficiaries to ensure awareness on all components of the programme and intervene for problem solving, as and when required.

Through monitoring reports, conducting capacity building workshops for various motivators, knowledge management and

sharing of best practices, the ZSBPs are constantly improving the efficiency of the functioning of the Tata Water Mission.

With the use of Management Information Systems (MIS), ZSBPs have taken charge of maintaining good housekeeping practices. Consequently, the work undertaken by SBM (from toilet construction to budget allocations and expenditure) is recorded on an online platform, which is accessible to the public.

The program has received an encouraging response across the country and these young professionals have become instrumental in accelerating the SBM (G) programme. Notably, the Trusts have been awarded by the Ministry of Drinking Water and Sanitation, Government of India for their contribution in the sanitation sector.



An Open Defecation-Free workshop in progress in Uttar Pradesh

SAFE TO THE SOURCE.

How Uttarakhand made its water pure once more.

To a tourist, the picturesque mountain streams of Uttarakhand would seem almost divine. Here, the people had a perception that mountain water is pure and pristine, with 94% of rural water schemes being fed through mountain springs.

However, over a period of time the land use pattern changed in Uttarakhand and many new habitations have come up, spoiling the water sources. The risk of bacterial contamination and the spread of major water-borne diseases such as diarrhoea, cholera and typhoid have increased as well. Needless to say, poor water quality is contributing to ill health, translating to medical expenditure whilst reducing productive man-days.

For Himmotthan Society, an associate organisation of the Tata Trusts, the search was on for a household solution to Uttarakhand's water woes. Something that was durable, easy to manage, and would deliver desired results. The ideal solution would be an off-line purifier which could economically yield 10-12 litres of potable water every day.

After testing several water purifiers, Tata Swachh was found to be an appropriate solution. Promotion of the purifier was done through the support of Saryu Ghati Self Reliance Cooperative and procurement was ensured through Trishulii, a Producer Company supported by Himmotthan Society.

Soon, the water purifiers rolled out with the support of community awareness programmes in **312 villages** of Gangolihat block in Pithoragarh district. In addition to awareness, the Himmotthan team conducted on-spot water testing of institutions for water issues and examined each water source/spring. **402 members** of different Panchayats/committees/communities in Gangolihat block were educated on spread of water-borne infections/diseases due to the use of unsafe drinking water.

Over **5,000 households** were reached through training, workshops, exhibitions, rallies, street plays, etc.

For people in Gangolihat, Uttarakhand, pure water is now a reality, not mere perception.



Mrs. Kamla Devi of Uttarakhand now practices safe drinking water habits



ENERGY

FUELLING SUSTAINABLE COMMUNITIES



SUPPORTING AND IMPLEMENTING SUSTAINABLE ENERGY PROJECTS IN RURAL BELTS

There is a strong connection between the reduction of poverty and access to sustainable and clean energy. The strategy adopted by the Trusts is to identify the gaps, innovate solutions which are reflective of context and ground-test them through pilots. Different technologies and approaches are validated for their outreach, impact and sustainability. Through its different programmes, the Trusts' teams are associating with field partners, community institutions, last-mile delivery partners and

research institutions to build markets to facilitate demand for clean energy solutions. With the help of R & D partners, research institutions, innovators, entrepreneurs, and investors, the programmes also aim to supply innovative, appropriate and sustainable solutions.

The Trusts have operationalised two key programmes within this area; namely*:
(a) The Clean Cooking Programme
(b) The Solar Energy Programme



*While these programmes constitute the work undertaken by Tata Trusts under Energy, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.



Using Induction Energy for environment-friendly cooking

CLEAN COOKING PROGRAMME



The programme comes with an objective to create an ecosystem that ensures the availability of social impact products at the doorstep of rural, tribal and peri-urban communities through last mile delivery partners, as well as

affordability and accessibility by providing sustainable financing solutions. It aims to facilitate the sale of 60,000 technology agnostic clean cooking devices in Gujarat, Rajasthan and Uttar Pradesh by December 2018.

OUTREACH DURING 2017-18:





A happy recipient of the COEL bangle

KEY ACHIEVEMENTS:

- 🌐 Achieving sales of **16,290** clean cooking devices and **28,824** other social impact products through a network of **5,342 entrepreneurs**. Training of entrepreneurs was undertaken and financing mechanisms were developed. Action research pilots and studies were conducted using leading-edge technologies.
- 🌐 Empowerment of women through ecosystem development led to an increasing number of women monetarily valuing their time and taking cognisance of the opportunity cost and cumulative harm through usage of traditional cookstoves.

FUTURE PLANS

- 👉 Conduct an action research study to understand the various aspects that drive (or inhibit) the adoption of cook stoves, with the aim of building a shared and comprehensive definition of cook stove adoption across stakeholders. Using quantitative data collected via sensors and qualitative follow-up, the aim is to establish adoption as one of the key metrics to assess the success of clean cooking initiatives.



FOLLOW THE SOUND OF BANGLES

“Styled to blend into the attire of a rural Indian woman, the bangle sits on her wrist through her day, warning her about hazardous environments.”

Dark smoke rose above the small tribal village of Mahuwal in Rajasthan at nearly the same time every day. Inside the homes of the local Bhils, women were busy preparing meals on their traditional stoves.

Here, women are well aware that the smoke from their traditional stoves harms their health. Yet, many communities do not comprehend the full impact that daily exposure to high levels of indoor air pollution can have on them.

Richa, a tribal woman, felt that as she had placed her stove in a well-ventilated area, and would not be affected by the smoke. She, and many other tribal women like her, preferred to use their traditional stoves over the improved ones offered to them by the Tata Trusts.

Then, one day, Richa was offered something different - a set of bangles.

This was no ordinary piece of jewellery. The Tata Trusts, in association with Nexleaf Analytics and the SHG Federation supported by VAAGDHARA, piloted a pioneering wearable technology in the form of a bangle. The Carbon Monoxide Emission Level or COEL Bangle, measured the CO and particulate matter in the wearer's surroundings and informed them both visually and audibly when the air around them started harming their health. They also informed them of the steps they can take to mitigate it and what long-term impact it will have on their health and lives if they did not take any measures.

Styled to blend into the attire of a rural Indian woman, the bangle sits on her wrist throughout her day, warning her about

hazardous environments. Along with this technology, regular follow-ups were conducted with the pilot participants.

The women who participated in this pilot were taken by surprise by the frequency of the warnings issued by the bangle as they cooked. This realisation led to some major changes in their behaviour.

Richa, astonished to discover that the COEL Bangle still rang when she cooked on her stove in a ventilated area, decided to purchase an improved stove through the Trusts' programme.

Kanku Devi significantly increased usage when she realised that her bangle was ringing every time she cooked on her traditional stove but never with the improved stove. As an anganwadi worker, she informed other women about IAP.

As the pilot concluded, the impact of this intervention echoed in the community. Manjula, a previous participant, while roasting corn, was able to identify when the smoke billowing from her stove would become harmful to those in the vicinity.

Even short-term exposure to this wearable technology led to sustained and widespread impact in the selected geography.

Champa, a pilot participant who also worked at a highway tea shop, was astounded by the fact that her bangle rang even when trucks and cars passed by, or when crop burning was done in the neighbouring fields. She commented, “The COEL Bangle is like my mother, ever present and ever worried about my health and safety.”



Manjula flaunts her life-saving Carbon Monoxide Emission Level Bangle



Meet one of Gujarat's many Lakhpati Kisans

RURAL UPLIFTMENT

INTEGRATING TECHNOLOGY AND INNOVATION TO IMPROVE RURAL INCOMES

Rural Upliftment Programmes are interventions undertaken for the upliftment of marginalised and poor communities in India and have been an important focus area for the Trusts. These programmes work in collaboration with the government and local bodies towards transforming communities and

livelihoods through developing and strengthening rural income generation activities while supporting related requirements. The initiatives merge sustainability and technology with local practices to deliver increased incomes for a better quality of life.



*While these programmes constitute the work undertaken by Tata Trusts under Rural Upliftment, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.



Women farmers with the soil-less saplings

CENTRAL INDIA

ENHANCING LIVELIHOOD OF MARGINALISED TRIBAL COMMUNITIES

The Trusts' efforts in the rural upliftment portfolio across the central Indian region are led by the Central India Initiative. It is an outcome of a quest to find a comprehensive response to issues of tribal development in the central Indian tribal belt. Notwithstanding the rich vegetation and good rainfall in the tribal dominated blocks of Central India, the communities live in poverty and often face acute food insecurity. Collectives for Integrated Livelihood Initiatives (CINI), Jamshedpur, the

nodal agency of the Trusts, anchors this initiative. Beginning in 2015, CINI is implementing the 'Mission 2020: Lakhpati Kisan - Smart Villages' programme, which over a five-year period will:

- Bring 101,000 households irreversibly out of poverty with improved quality of life and life choices.
- Develop 17 blocks as regional drivers for growth across Maharashtra, Gujarat, Jharkhand and Odisha.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- Success of the Lakhpati Kisan model was demonstrated through the creation of **more than 20,000 'Lakhpati Kisan' tribal families**, that have experienced accelerated income growth within a short 3-year timeframe.
- Community-based institutions were strengthened to take increased ownership of Mission 2020 through capacity and leadership-building strategies, including an inspirational interaction of more than **200 progressive community change agents** with the Governor of Jharkhand.
- Technology-led disruptive changes were introduced into the field programmes, including sustainable energy solutions such as solar pumps and solar panels, development of the Lakhpati Kisan App and SMC App, use of GIS mapping for cultivated areas, introduction of IT in education, piloting app-based data entry, etc.
- Layering of multi-sector interventions such as education, water & sanitation and nutrition, along with ongoing livelihood activities for 10,000 households, thereby holistically improving quality of life and enhancing incomes.
- More than 60 market-linked production clusters were created with focused value chain development. **More than 250 rural tribal entrepreneurs** were nurtured in segments such as drip irrigation with mulching for open field precision farming, commercial soil-less nurseries, farm mechanisation, brood lac provider, livestock feed management, etc.
- More than 2,540 irrigation structures were created**, thereby bringing 12,000 acres under irrigation and ensuring year-round agricultural water for 30,000 households.

FUTURE PLANS

- Ensure the coverage of 101,000 tribal households across four states with the aim of making them 'Lakhpati Kisans', along with layering of quality of life enhancement initiatives at the household level.
- Embolden apex community-based institutions to take ownership of the entire programme, including planning, implementation, reporting, monitoring, etc.
- Upscale the 'Mission 2020 – Lakhpati Kisan: Smart Villages' model with a focus on block and district saturation and moving towards state saturation, to be achieved through partnerships and leveraging contributions from other stakeholders, such as the government, community, donors and other organisations.
- Influence design and development of large-scale programmes in the development sector and government initiatives through proactive engagement, based on learnings from the successes of the 'Lakhpati Kisan' model.



Onion farmers such as Reeta Devi have transformed their lives

TRANSFORMING RURAL INDIA INITIATIVE BUILDING BLOCKS OF EQUAL OPPORTUNITIES



Transforming Rural India (TRI) is an initiative conceptualised by the Trusts, focusing on the idea of making villages places of equal opportunities (when compared to their urban counterparts), with emphasis on income, education and health, while aiming to forge an alliance of civil society actors, market players, state agencies and private philanthropies. The aim is to trigger a process for large-scale transformation of villages in regions of endemic poverty, especially regions across central and eastern states of India. The Trusts and their partners' ground presence in these regions provide

the 'kernel' for testing of the idea and undertaking initial pilots. The initiative plans to reach a million individuals living in 2,000 villages across 20 blocks in 4-5 states in central and eastern parts of India by 2020.

The initiative works in partnership with 15 leading non-profit organisations; besides, formal agreements have been signed with state governments to support engagement with communities, and partnerships are being forged with market players to provide a range of services and linkages.

KEY ACHIEVEMENTS:

-  Implementing health and nutrition focused interventions **across 342 villages, covering 1,035 habitations**. Protocols for community-led efforts were finalised and are being deployed. 710 community volunteers were trained in these protocols and have initiated discussions in their respective villages covering 2,070 women groups.
-  Implementing education interventions across primary schools in **566 villages**. An MoU was signed with the Department of Education – Government of Madhya Pradesh to facilitate engagement with teachers and schools. Direct support was facilitated to 198 schools and 731 community volunteers who were engaged with village organisations and School Management Committees.
-  Mobilising ‘Kushal Kisan Abiyaan’, an initiative on rapid adoption of commercial agriculture using rural media channels, in 3 blocks of Jharkhand, **covering almost 7,000 farmers**. Income of 631 farmers increased by over ₹100,000. 98 agri-entrepreneurs were engaged as Value Chain Actors to facilitate rapid adoption of commercial agriculture. Protocols for identification of crops suitable for rapid commercialisation were finalised and pilot tested.
-  Launching the **‘Sarathi’ platform to support youth aspirants** in villages towards making informed career choices and connecting them to a screened pool of Training Service Providers (TSP). Agreements were signed with 7 well-known TSPs; simultaneously, partnerships are being explored with microfinance institutions to provide credit for self-funded training programmes that offer better career opportunities.
-  Catalysing government action through: (a) preparation of Conservation-cum-Development (CCD) plans for **Particularly Vulnerable Tribal Groups (PVTG)** with an annual funding of ₹1 Billion, along with the Tribal Welfare Department of the Government of Madhya Pradesh; (b) signing an MoU with Jharkhand State Livelihood Promotion Society; and (c) extending support to Gumla District Administration, Government of Jharkhand to develop a vision for transforming Gumla, supported by NITI Aayog under the Prime Minister’s Vision for ‘New India-2022’.

FUTURE PLANS

-  Expand change engagement to 8 new blocks in Madhya Pradesh under the Government of India’s flagship ‘Mission Antyodaya’ programme, targeted to reach an additional 1,000 villages by 2021.
-  Expand the programme to 5 new blocks across Madhya Pradesh based on learnings from pilots on commercial agriculture undertaken in Jharkhand. This engagement will include upscaling the agri-entrepreneur model.
-  Diversify livelihood opportunities through the ‘Sarathi’ platform and initiate a new programme to launch rural entrepreneurs.



Vegetable cultivation with cash crops increases farmer income

SOUTH ODISHA PROVIDING DEVELOPMENT OPPORTUNITIES; IMPACTING LIVELIHOODS

Initiated in March 2015, the South Odisha Initiative aims to improve the overall quality of life of 25,000 families in 550 villages of 5 contiguous blocks in South Odisha; viz. Bissamcuttack and Muniguda blocks of Rayagada district, Lanjigarh and Thuamul Rampur blocks of Kalahandi district, and Kotgarh block of Kandhamal district.

The livelihoods focused interventions under the South Odisha Initiative aim to enhance the annual income of families to an average of ₹75,000 through: (a) Development of half-acre fruit orchards; (b) Cultivation of vegetables during the Kharif season along with food/cash crops; and (c) Half-acre integrated vegetable cultivation.

OUTREACH DURING 2017-18:

Number of villages covered

591



Number of districts covered

3



Number of households covered

22,437



KEY ACHIEVEMENTS:

-  **22,437 families were covered** through various livelihood interventions, generating an average annual income of around ₹40,000.
-  Impact assessment studies validate that **87% of the families** have increased income through livelihood interventions.
-  **Livelihoods of 3,571 families were assured** over a long-term period through development of half-acre fruit orchards across 1,300 acres of land.
-  **Access to irrigation facilities has been provided to 2,000 families** so far; besides, farms of 1,000 families were protected through wire and mesh fencing.
-  **Over 2,200 families were linked to available government schemes**, through which access to irrigation, inputs, saplings, farm implements, trainings and exposure were facilitated.



Sorting onions prior to marketing

FUTURE PLANS

-  Adopt a transition strategy to move from a village saturation approach to a Gram Panchayat saturation approach across 5 blocks.
-  Adopt a value chain approach in millets and pulses to enhance annual income of 50,000 families.
-  Strengthen Farmers Producer Companies to promote sustainable and scalable models of livelihood interventions.



Farmers in Takmachik now use a solar dryer to dry Apricots

LADAKH

BRINGING IN CHANGE THROUGH HOLISTIC DEVELOPMENT

Leh Livelihoods Initiative is being implemented in collaboration with the Ladakh Autonomous Hill Development Council (LAHDC), National Bank for Agriculture and Rural Development (NABARD) and a network of non-profit organisations (Ladakh Ecological Development Group, Ladakh Environment & Health Organisation and Leh Nutrition Project).

The initiative focuses on addressing a wide range of issues to facilitate holistic development and improve the quality of life of 3,300 small scale farmers living in 30 villages in Leh district.

Focus areas for interventions include water resources development, protected farming, horticulture development, fodder cultivation, value chain development of apricots, crop diversification, artisans' skills development, high-tech farming, infrastructure development and capability building programmes, etc.

During the year, the interventions directly benefited **2,391 households across 29 villages in Leh district, including 55 women self-help groups.**

KEY ACHIEVEMENTS:

- 🌐 Construction of 6 artificial glaciers (a high altitude water harvesting and conservation technique) in Nang, Takmachik, Alchi, Likir, Shara and Ayea villages, benefitting more than 651 families and supplementing irrigation over 1,014 acres of agricultural land.
- 🌐 Undertaking repairs and renovation of 4 irrigation channels in Lehdo, Skyindyang, Igoo and Saspol villages in convergence with the Mahatma Gandhi National Rural Employment Guarantee Scheme. Water was distributed to 203 families through these channels facilitating irrigation **across 313 acres of agricultural land.**

- 
Construction of 47 greenhouses in 12 villages, to facilitate protected farming across 0.51 acres, benefitting 47 individual families. Besides, repairs and renovations were undertaken for 4 individual and 2 community greenhouses that were lying defunct.
- 
 Supporting value chain development of apricot by providing training to farmers on harvesting, sorting, drying, grading, packaging and marketing of the products. **276 families across 11 villages have adopted 276 units of improved solar driers** comprising 3,189 trays for sun drying of apricots. 1,036 families in 13 villages started using harvesting nets for apricots, thereby ensuring that the fruit harvested are free from damage (this would occur if fruit fell directly on the ground). Over 10,500 apricot trees were harvested using this technology.
- 
 Introducing and testing new varieties of potatoes. Approximately 35.5 tons of potato seeds (or tubers) of improved varieties were demonstrated with 183 families across 7 villages. Six potato cellars were constructed in 3 villages to demonstrate best practices in potato storage with technical inputs from the Defence Institute of High Altitude Research (DIHAR).
- 
 Facilitating training of 6 women from 5 villages as master trainers in knitting. A 4-day decentralised training programme on knitting was also **organised for 460 women from 58 women self-help groups**, spread across 17 villages and hamlets under the supervision of 34 trainers and master trainers.
- 
 Undertaking demonstrations of high value crops such as kidney beans, watermelons and green peas.

FUTURE PLANS

- 
 Extend pilots for artificial glaciers and diversion irrigation channels in critically water-starved villages to explore possibilities of designing any major initiative on water resource development in the challenging, high-altitude desert ecosystem.
- 
 Establish precision farming (a new technology approved by a Leh-based research agency) of watermelon as a new cash crop for the farmers of Leh.
- 
 Conduct a digital microplanning exercise in 113 revenue villages in Leh-district, which will provide district officials and policy makers a platform to map and link all local and central schemes to each eligible person and household of the district, as well as analysing the status of key sectors of livelihood, health and education, enabling data-driven decisions and targeted implementation.
- 
 Initiate an extensive protected farming development programme to overcome limitations on farming in winter.
- 
 Promote high-value crops such as kidney beans, watermelons, green peas, carrots, onions, etc. to enhance rural farmers' incomes.
- 
 Demonstrate lift irrigation schemes and micro-irrigation to facilitate community wasteland development and high-tech farming.



A farmer examining her abundant green chilli crop in Uttarkashi

UTTARAKHAND REBUILDING A SELF-SUSTAINABLE SOCIETY



The Trusts' Central Himalayan rural development programme, Himmothan Pariyojana, endeavours to enhance the livelihoods of communities, residing in the mountainous districts of Uttarakhand through livestock and micro-finance focused initiatives. The programme is managed by an associate organisation of the Trusts, the Himmothan Society, based out of Dehradun, Uttarakhand.

The current aim of the programme is to enhance the quality of life of over 100,000 households by 2020 through 50 self-sustained community institutions and sustainable, resilient livelihood interventions. The strategy is to focus on the development of 1,000 villages through an integrated programme with various interlinked aspects.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

-  Up to ₹10 million was dovetailed from MGNREGA for fodder plantation, cattle shed renovation, and goat and poultry shed construction under the Central Himalayan Livestock Initiative. **Villagers received wages for 33,844 man-days.**
-  **13 animal feed production units produced 50 tons of balanced animal feed** (Total Mixed Ration, Balanced Cattle Feed, Poultry Feed), with a turnover of ₹1.04 million. 60% of raw material worth ₹ 380,000 for feed production was procured from local farmers.
-  **Farmer Producer Organisations (FPO) and Village Organisations (VO)** received ₹ 14.1 million from the Uttarakhand State Rural Livelihood Mission (URLM) as a Community Investment Fund/Revolving Fund (CIF/RF) to conduct livelihood activities at grassroot levels through SHG members.
-  **Mission Pulses** was operationalised in **12 blocks, across 9 districts covering 500 villages** in mountain areas of Uttarakhand. Over 5 years, the programme will directly enhance the incomes of 30,000 farmers involved in mountain pulses and legumes, through productivity enhancement, improved post-harvest processes and collective marketing initiatives. Additionally, **90,000 beneficiaries will be covered** indirectly through market linkages.
-  An MoU was signed with URLM to jointly implement the government's flagship programme in 5 blocks of Uttarakhand. **The project will organise 25,000 poor households (comprising 100,000 women)** into community institutions; consequently over 12,500 households will be self-employed in different livelihood activities.
-  Six model Anganwadi centres were established to provide quality environment conforming to the needs of children and meeting the requirements to ensure constructive early childhood development.
-  The Water and Sanitation initiative covered **over 10,700 households across 428 villages.** Notably: (i) 28 new water schemes were set up; (ii) 86 schools were provided with potable water and sanitation facilities; (iii) 130 hectares were brought under spring shed treatment; (iv) 93 villages were declared open-defecation-free; and (v) 4,300 individual sanitation units were constructed.

FUTURE PLANS

-  Implement livelihood programmes in collaboration with the Rural Development and Forest Departments of the Government of Uttarakhand.
-  Roll out of the production and processing of pulses under the Trishuli brand.
-  Initiate livelihood projects in Himachal Pradesh and Jammu & Kashmir.



Learning to identify pests in field

PUNJAB AND TAMIL NADU CHANGING PRACTICES TO ENSURE SUSTAINABILITY

Reviving the Green Revolution (RGR) initiative focuses on identification of the most critical gaps, limiting income from commonly used agricultural and allied practices, where suitable interventions have an obvious scope for noticeable enhancement in livelihood of small and marginal farmers. Based on field-implemented pilots, successful technologies are scaled up in collaboration with State Departments of Agriculture (DoA), State Agricultural

Universities and other partner organisations.

Currently, the RGR Cell, which functions as an idea incubation unit for the Trusts, operates in two states; i.e. Punjab and Tamil Nadu. The key thematic areas focused on are Agriculture and Allied Livelihood Interventions, Digital Technologies, and Dairy.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- Intensive training on better cotton technology resulted in 8 Producer Units in Punjab becoming licensed Better Cotton Producers with **over 100,000 metric tons of Annual Authorised Volume (AAV)** of better seed cotton being produced and marketed through The Better Cotton Initiative (BCI).
- In Punjab, judicious use of agri-inputs (17% less than other farmers) and increased yield resulted in beneficiary farmers **earning 20% more net profit** (10% more yield) over non-beneficiary farmers.
- In Tamil Nadu, despite a failure of the monsoon, farmers following RGR-promoted technologies in cotton cultivation earned an additional Rs. 3,500/acre.
- Across both states, **625 vegetable nutrition gardens were established** to demonstrate the potential and utility of nutrition gardens for economic gains and nutritious diet. 250 Azolla pits were established for meeting year-long requirements of livestock green fodder.
- The flagship mKRISHI™ programme resulted in 200,000 farmers** receiving year-round timely information on best agricultural practices to be followed in 6 crops, i.e. Cotton, Basmati, Wheat, Onion, Gram and Maize. In addition, through data analytics, pest/disease outbreak alerts were sent to farmers in advance, thereby giving farmers a head start in addressing the outbreak, while also engendering a behaviour change towards being responsive instead of reactive.
- Operationalisation of Ruhaanii Milk Producer Company (MPC), **covering around 3,000 households** in Mansa district, resulted in additional household income through sale of milk. Milk producers from Mansa, Budhlada and Rori (Sirsa) have been linked to the efficient milk procurement systems of the MPC.

FUTURE PLANS

- Launch 'PURA' - an end-to-end technology platform that aims for doorstep delivery of quality and timely agriculture-based services to farmers. Services will range from the existing IVR/SMS to app-based, equipment-for-hire, agri-input delivery and supply of micro-irrigation systems. Further, data analytics integration will provide the agility to address needs of the future. The target is to cover 100,000 farmers through PURA across Punjab and Tamil Nadu.
- Extend the Better Cotton Initiative to 42,000 farmers from 394 villages with the objective of bringing the entire Malwa belt in Punjab under this programme by 2020.
- Make an impact on reducing environmental pollution by demonstrating techniques for ending the burning of rice straw and instead, recycling it, across 36 clusters of 15 villages each, spread over 9 districts of Punjab.



A farmer couple sowing Bottlegourd

EASTERN UTTAR PRADESH TAKING FARMERS CLOSER TO DEVELOPMENT



The Eastern Uttar Pradesh (EUP) initiative is a multi-thematic programme that covers 9 districts in the state through focused interventions in livelihoods, health, and education. Key strategies for enhancing livelihoods include: (a) Developing end-to-end value chains of cash crops, specifically suitable for individual small farmers; and (b) Introducing technology-based

interventions for the community. The primary goal of the project is to improve the quality of life and ensure sustainable livelihoods for 50,000 marginal farmers across 238 villages by increasing the annual income by Rs. 50,000 and facilitating transfer of technology for improved farming practices.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- Cultivation of 4,300 tons of pulses** over an area of 8,257 acres by 23,311 farmers, resulting in a net income of ₹237.40 million, despite subdued price realisation for pulses.
- Machan and riverbed farming was undertaken by **23,916 farmers across an area of 4,897 acres** during Rabi and Kharif seasons. Cultivation of 23,000 tons of onions across 2,300 acres resulted in a net income of ₹235 million for 16,100 farmers.
- Cultivation of sugarcane by 10,000 families across 4,950 acres**, intercropped with onions, lentils and potatoes under transformation of technology resulted in a minimum incremental income of ₹ 20,000 per acre.
- Totally, **42,881 marginal farmers benefitted** by undertaking different interventions under the rural upliftment programme through improved quality of life and enhanced incomes.
- Initiation of dairy interventions in Pratapgarh district by promoting Shwethdara Mahila Milk Producer Company Ltd., resulted in an assured, perennial market for milk at optimum prices. **Over 2.66 million kgs of milk was procured by 3,338 members of the Shwethdara Mahila Milk Producer Company, during the year (average procurement of 7,000 kilograms of milk daily).** As part of production enhancement services, a total of 1,556 artificial inseminations were undertaken. Notably, the share capital of the Milk Producer Company stood at ₹1.92 million as on March 2018.

FUTURE PLANS

Cover about 1.4 million small and marginal farmers over the next 5 years with better quality of life choices.

Double the incomes of 80% of the families sustainably.

Improve productivity of staple crops by 80%.

Enhance the area covered under micro-irrigation and availability of micro irrigation assets.

Make affordable credit available for all households.



Orchard farmers attending an exposure camp at Maharana Pratap University of Agriculture & Technology, Udaipur

RAJASTHAN

REFORMING COMMUNITIES THROUGH HOLISTIC DEVELOPMENT



The Trusts have been implementing the Sakh-Se-Vikas Initiative in Rajasthan since 2005, with a focus on promotion and nurturing of Self-Help Groups (SHGs), clusters and federations which help meet the savings and credit requirements of underprivileged communities in Rajasthan. Financial self-sustainability, achieved in a given time period till now, strong governance and systems have been the defining features of these community institutions promoted under the Sakh-Se-Vikas Initiative.

During the year, the Trusts' focus was two-fold:

(a) Implementation of the multi-thematic 'Transformation Initiative' in 4 tribal blocks of South Rajasthan (in partnership with the state government), aimed at enhancing the quality of life of 350,000 individuals (70,000 tribal households).

(b) Providing technical support to 2 flagship livelihood programmes of the Government of Rajasthan to strengthen 59 self-help group (SHG) federations and enhance the incomes of nearly 82,000 SHG women and their families through promotion of agriculture and allied livelihoods.

Realising the low level of socio-economic indicators, a holistic developmental approach has been adopted under the Transformation Initiative, involving the integration of livelihoods, education, Water, Sanitation and Hygiene (WASH), and health & nutrition interventions. The aim is to meet the growing aspirations of the community, while ensuring accelerated and irreversible change in their quality of life. Cluster-based agriculture, horticulture, livestock (Dairy and Goat rearing) interventions designed and implemented by the Centre for

microFinance (CmF), an associate organisation of the Trusts through promotion of extension workers called community resource persons (Krishi Sakhis, Pashu Sakhis) have resulted in significant

and sustained changes in productivity and household incomes of SHG member households.

COVERAGE AS ON MARCH 31, 2018



KEY ACHIEVEMENTS:

- Over 82,000 SHG families benefitted** through agriculture, dairy and goat-based livelihood interventions. 14 producer companies comprising agro-based producer companies, a goat producer company and milk societies were registered across all 19 districts and are functional.
- Yield assessment undertaken by Maharana Pratap University of Agriculture and Technology (based on crop cutting) revealed increase of yield in crops such as maize, pearl millet, wheat and mustard, to the tune of 30% to 70%, due to adoption of the improved package of practices.
- Vegetable cultivation was undertaken by over 8,000 households adopting the 400 square meters and 200 square meters models, along with development of irrigation sources, resulting in additional income of ₹15,000 to ₹25,000 in one season and ₹40,000 to ₹50,000 over two seasons. 300 households benefitted through the Custard Apple Value Chain with 13 tons of fruit pulp being processed and sold by women farmers.
- Agriculture clusters were partially overlapped with goat-based and dairy clusters, ramping up the **annual income by ₹25,000 to ₹40,000**. Increase in income can be attributed to a reduction in diseases in livestock due to preventive care and treatment, improved animal rearing practices and marketing. Households are now able to earn anything between ₹60,000 to ₹150,000 per annum.

FUTURE PLANS

- Strengthen all 59 federations across 19 districts.
- Promote agri/nursery entrepreneurs in the area to extend timely and quality planting materials, as well as direct inputs/seeds to farmers, thereby reducing the risks for farmers.
- Build capacities of agri-entrepreneurs and community cadres (Krishi Sakhis)/professionals to extend technical support, with the help of resource persons from Krishi Vigyan Kendras, Department of Agriculture and the Agriculture University.
- Build capacities of farmers to take up open-field technology-based crop cultivation practices for income generation.
- Establish central nurseries across the project area with a major focus on promoting vegetable cultivation.



Setting up Pheromone traps in fields of Tappar, Kutch

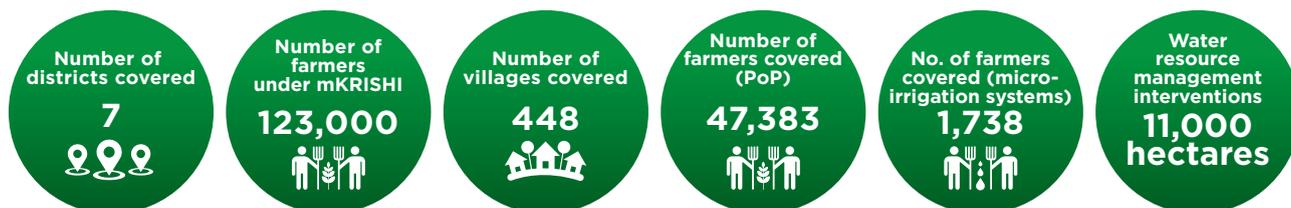
COASTAL GUJARAT RENEWING THE LAND-WATER RELATIONSHIP FOR GOOD

Over the past 30 years, Gujarat has faced serious environmental issues due to the increasing salinity of land and water resources in its coastal areas. The prolonged use of saline water for irrigation has led to a decline in agricultural yields and decreased soil fertility, rendering land unsuitable for future cultivation. In addition, it has also affected underground water aquifers, leaving over 1,500 villages with water unfit for consumption. In an effort to resolve this environmental issue, the Trusts, along with their partner organisations, launched the

‘Kharash Vistarotthan Yojana (KVY)’. Subsequently, the initiative also helped develop an umbrella organisation, namely, the Coastal Salinity Prevention Cell (CSPC), Ahmedabad.

The overarching focus of the Trusts within KVY is to develop sustainable models for salinity ingress prevention and mitigation to enhance livelihood resilience of 75,000 households across 525 villages (30% of total potential villages) in coastal Gujarat.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

-  **47,383 farmers were covered** through an improved Package of Practices (PoP) and diversification in agriculture.
-  **Over 81,000 hectares were covered** under sustainable agricultural cropping practices and extension services were provided to over 123,000 farmers through mKRISHI.
-  **7 community-based organisations** (Farmer Producer Organisation) with a membership of 5,697 farmers were strengthened.
-  **A collective turnover of around ₹340 million was achieved** through input marketing of seeds, pesticides, bio-extracts, animal feed, etc., along with produce marketing of about 7,600 tons of groundnut pods under the Minimum Support Price and Fair Trade interventions of the government.
-  **1,738 farmers were covered** under Micro Irrigation Systems and water use efficiency measures (drip and sprinkler irrigation) across 2,345 hectares.
-  Water-harvesting structures with a capacity of 25 million cubic feet were created to cater to irrigation **coverage across 1,208 hectares.**

FUTURE PLANS

-  Build the capacity of 60,000 farmers to undertake sustainable agricultural practices for enhancing productivity.
-  Strengthen and build the capacity of 9 Farmer Producer Organisations (comprising over 10,000 farmers) with an outreach in 7 districts.
-  Bring over 7,000 hectares under water conservation interventions such as mulching, alternate furrow, intercropping, etc. Construct 245 water-harvesting structures with a capacity of 35 million cubic feet of water, thereby facilitating irrigation across an area of 900 hectares.

A bounty of Ash Gourd cultivated in Darwha



MAHARASHTRA TRANSFORMING SKILLS TO MAKE OUR FARMERS HAPPY



In 2008, the Trusts launched the 'Sukhi Baliraja Initiative' (SBI) to alleviate farmers' distress in Vidarbha. Concurrent to the Trusts' SBI, the Government of Maharashtra (GoM) initiated a bilateral programme called 'Convergence of Agricultural Interventions in Maharashtra' (CAIM), with the support of the International Fund for Agriculture Development (IFAD) to address farmers' issues in around 1,200 villages of 6 distressed districts of Vidarbha, with an outreach of 286,000 households.

Over the five-year period (2015-20), the Trusts would endeavour to raise the income levels of

15,000 households across 270 villages in Vidarbha up to ₹180,000 per annum. From June 2015, the SBI-CAIM programme has been deployed in direct implementation work across 9 clusters in 3 districts, focusing on sustainable agriculture, dairy and livestock, rain-water harvesting, fisheries, skills development, mental health and education.

Recently, the programme has also expanded under extensive soil and water conservation work across 5 more districts of the Nagpur division falling under Vidarbha, and the Solapur district in the Marathawada region.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:



Soil Water Conservation:

- Undertaking of stream widening and deepening across 12 kilometres, enabling water conservation **across 173,100 cubic metres** and enhancing the amount of water available for agriculture.
- Construction of 8 Cement Nalla Bunds in Amravati and Yavatmal districts to facilitate percolation of water. Nearly 400 farmers will benefit from these structures, through the mobilisation of 44 water user groups.
- **Excavating 25 ponds, leading to a water storage capacity of 525,000 cubic metres** across 5 districts of Vidarbha. A total of 1,150 hectares of land has come under irrigation due to enhanced water-storing capacity in these ponds. 22 water user groups have also been formed.



Dairy Development:

- **Covering of 193 beneficiary households** under a dairy pilot project in Yavatmal district.
- Procurement and marketing of 15,000 liters of milk during the year.
- Average monthly income of ₹6,000 per beneficiary assured through sale of milk.

-  **Sustainable Agriculture Development**
 - **Conducting field trainings for farmers across 237 villages for identifying** and calculating economical threshold levels for pests, resulting in reduction of average pesticide sprays from 7 to 5 and leading to a 29% reduction in input costs.
 - Conducting awareness programmes in project villages for adoption of the recommended Package of Practices for Cotton, leading to an average reduction of ₹2,000-2,800 on pesticide sprays and 19% increase in yield for farmers.
 - **Registration of 113,614 farmers from 608 villages** across 7 districts in Vidarbha on the mKRISHI mobile based agro advisory platform to receive timely agro advice during the cropping season.

-  **Marketing and Value Chain Development:**
 - **Operationalising the Cotton Bales Production initiative with 547 farmers from 200 villages.** 1,907 quintals of cotton were processed and sold at ₹6,073 per quintal, as against the market price of ₹5,000, thereby resulting in a profit of ₹1,073 per quintal as compared to conventional marketing practices.
 - Seed production of red gram and soybean on 70 and 431 acres respectively, with active participation of 110 farmers, leading to an income of ₹1,000 per quintal for farmers.
 - Facilitating working capital of ₹7.6 million for 4 Farmer Producer Organisations to initiate livelihood activities.

-  **Fisheries:**
 - **Covering 500 households under fisheries,** with the aim of helping rural communities unleash the potential of their freshwater resources by shifting them from capture fisheries to culture fisheries.
 - Establishing the first ever private hatchery in Bhamragad Block of Gadchiroli district, which has been completely built and managed by the local tribal community.
 - **Training 10 tribal youths** from Gadchiroli in the fisheries value chain through a 5-week residential training programme; these youths will become entrepreneurs and drivers of change in the district.
 - Establishing a training centre and fish farm in association with the Farmer Producer Organisation in Akola district, which will facilitate availability of local seedlings and disseminate knowledge to beneficiaries.

-  **Poultry:**
 - Commencing poultry interventions in the tribal Dharni Block of Amravati district, **with identification of 80 women-led households across 8 villages.**
 - This unique model of a commercial poultry project involves the government contributing to 55% of the total costs and the Trusts contributing to 41%, with the remaining 4% being contributed by the community.

FUTURE PLANS

-  Undertake community mobilisation to ensure sustainability of water user groups and effective maintenance of water-harvesting structures.
-  Explore livelihood options for households where water is perennially available in the water-harvesting structures.
-  Upscale dairy based interventions to cover 8,000 beneficiaries across 200 villages in co-ordination with the National Dairy Development Board-Dairy Services.
-  Cover 20,000 farmers across 120,000 acres under Integrated Crop Management to reduce excessive cost of cultivation.
-  Register 200,000 farmers on the mKRISHI platform for timely agro advice during the cropping season.
-  Establish 800 commercial poultry units (500 birds each) in 4 clusters of Yavatmal district in collaboration with the Government of Maharashtra with a buy-back agreement.
-  Undertake seed production across 7,000 acres during the Kharif and Rabi seasons under the 'Sukhi Baliraja' brand.
-  Establish 50 commercial goatery units on a pilot basis with market linkages.



Custom hiring centres give farmers access to subsidised agricultural equipment

KARNATAKA LEADING FARMERS ON A PATH OF CHANGE



Through its associate organisation, Kalike, the Trusts are directly implementing livelihood-based interventions in Yadgir district, Karnataka, with the aim of motivating small and marginal farmers to enhance their agricultural productivity. Interventions focus on:

(a) Dissemination and adoption of a crop-specific validated Package of Practices (PoP) to enhance farm yields and farmer incomes; (b) Building a

robust community-based extension system and increasing the risk-taking ability of farmers (resulting in increased yields and decreased cost of cultivation); and (c) Bringing in a market perspective and strengthening the value chain by adopting an end-to-end approach. The five-year project aims to reach out to 8,000 farmers in 50 villages across Yadgir block, Yadgir district, by 2020.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- Forming Farmer Producer Groups and establishing Village Information Centres in **18 villages**.
- Providing inputs on cultivation of green gram/red gram/groundnut crops at demonstration plots and during 8-field-day events.
- Providing access to subsidised agricultural equipment through the Custom Hiring Centre (CHC).
- Piloting cultivation of gherkins in 3 villages** and conducting an exposure visit to Ken Agritech for select farmers, followed by visits to demonstration plots. Technical support and assistance provided by Ken Agritech has resulted in enhancing the quality and quantity of produce. Showcasing of best practices during field days encouraged farmers to cultivate of new crops.
- Facilitating the formation of a Dairy Cooperative Society comprising of 100 members in collaboration with the Karnataka Milk Federation. The society was registered in March 2018 and Kalike is closely monitoring the milk procurement process.
- Facilitating the excavation of 4 new farm ponds in collaboration with the Department of Agriculture.

FUTURE PLANS

- Upscale agricultural activities across another 20 villages.
- Establish Village Information Centres in 30 villages; all together, these 50 centres will cater to farmers through dissemination of technical inputs on crops, market information and extension of onsite support to farmers.
- Form 32 Farmers' Groups across 32 villages, thereby taking the number of groups to 50.



In Andhra Pradesh, progressive farmers are volunteering to demonstrate pilot models

ANDHRA PRADESH REBUILDING THE SOCIAL ARCHITECTURE



On June 20, 2017, the Trusts signed a Memorandum of Understanding with the Andhra Pradesh Society for Elimination of Rural Poverty (AP-SERP) to enhance the livelihood opportunities and incremental incomes of 7.1 million self-help group (SHG) households in the state.

Consequently, the Trusts seeded Vijayavahini Charitable Foundation (VCF) to execute the Andhra Pradesh Rural Prosperity Mission (RPM) on their behalf as the Lead Knowledge Partner, in collaboration with SERP.

The Rural Prosperity Mission will improve economic indicators of poor households by building on SERP's expansive social mobilisation architecture of 7.1 million SHG members across all 13 districts of Andhra Pradesh. In this context, VCF, AP-SERP and other partnering agencies will nurture innovations, leverage new-age technologies, tap emerging growth sectors,

engage with private sector & social enterprises and build internal technical capacities to enhance rural livelihoods in Andhra Pradesh.

The goals of the programme are to:

- Sustainably increase the income levels of the SHG members in an irreversible manner.
- Improve and strengthen the existing livelihoods and promote new livelihood opportunities to households by integrating technology and best practices, along with convergence of resources.
- Promote multi-thematic interventions at the household level to achieve goals.
- Demonstrate pilot models and facilitate exchange of knowledge through workshops/studies.
- Facilitate the establishment of centres of excellence in various domains for replication of best practices.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

-  Collaboration with Tel Aviv University, Israel, to showcase best practices and enhance productivity through demonstration plots.
-  Implementation of a turmeric value chain development programme at the Integrated Tribal Development Agency (ITDA), Paderu, Visakhapatnam district.
-  Launch of a multilateral livelihood intervention pilot 'Lakshadhikari Rythu' in 3 Gram Panchayats of Rajavommangi, ITDA Rampachodavaram. The programme aims to enhance the incomes of tribal farmers by intervening in the cashew value chain along with intercropping, livestock, poultry, goatery, advanced methods in agriculture, etc.
-  Initiation of an Agri-Entrepreneurship initiative in two districts of AP in collaboration with Syngenta Foundation India (SFI), which will train 100 Agri-Entrepreneurs (AE), each of whom will provide end-to-end services to 200 farmers. The first batch of 25 AEs have registered 4,452 farmers during 2017-18.
-  Cashew marketing was taken up in East Godavari, Visakhapatnam, Vizianagaram and Srikakulam districts. Mango marketing was taken up in Chittoor district. Nannari marketing was taken up in ITDA Srisailam covering tribal Chenchu farmers. A dehydrated mango processing unit was set up in Reddigudem, Krishna district.
-  **Conducted a training programme for 18 veterinary doctors** employed in 18 Farmer Producer Organisations (FPO) in Krishna district, focusing on "specialised sexcel technology". A pilot on Artificial Insemination was undertaken in these FPOs and 214 inseminations were completed in 2017-18.
-  **Construction of 42 lined farm ponds, 14 unlined farm ponds and 10 stream diversions** to open wells was undertaken by the Center for Constructive Development.

FUTURE PLANS

-  Replicate horticulture demonstration plots and technologies in collaboration with Tel Aviv University and Israeli firms.
-  Upscale of Lakhpatri Kisan and other livelihood programmes across the ITDA regions of Andhra Pradesh, in collaboration with the Tribal Welfare Department, NABARD and SERP.
-  Setting up of the Center of Excellence in collaboration with Tel Aviv University.



Potato seed villages in Nagaland targeted by the NEIDA

NORTH EAST

STRENGTHENING SKILLS TO BUILD BETTER LIVELIHOODS

Given the remoteness of the North-east region, coupled with scattered project locations, the Trusts work through their Associate Organisations to ensure operational efficiencies. These organisations facilitate implementing projects and also act as a knowledge hub. In the states of Assam, Manipur, Tripura and Meghalaya, the Trusts' programmes are undertaken in partnership with the Centre for Micro-finance & Livelihood (CML).

The strategy of CML has been to consolidate the gains achieved under livelihood focused projects (which include agriculture and allied activities) and layer them with other ongoing

thematic interventions across the areas of skill development, education and sports.

In the mountain states of Mizoram, Nagaland and Arunachal Pradesh, the Trusts are addressing development issues of communities under the North East Initiative. The overarching goal is to redefine the future of around 47,000 low-income households by 2020. The initiative is driven by the Trusts' associate organisation - North East Initiative Development Agency (NEIDA). As of March 2018, NEIDA has covered about 16,000 households in 248 villages across 8 districts.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

NAGALAND

- 6,800 households were covered under agriculture and horticulture activities across 858 hectares.
- 184 drip irrigation units were installed covering an area of 48 hectares. Trainings were conducted for 400 farmers across 84 villages.
- 1,689 households were covered under piggery and 376 trainings on management of piggeries were organised for pig rearers.
- 75 animal health camps were conducted.
- Dzuleke village was promoted as an eco-destination in Nagaland. 632 tourists from across India and the world visited the village, resulting in an income of over Rs. 730,000 for the villagers.

ARUNACHAL PRADESH

- 1,337 households were covered under agriculture and horticulture activities across 253 hectares.
- 275 hectares were covered under irrigation activities and 72 training sessions were organised for farmers for incorporating best practices.
- 412 households were covered under piggery and 30 training sessions on management of piggeries were conducted for pig rearers.
- 7 pig health camps were conducted.
- 40 tons of compound feed were purchased by the farmers.

MIZORAM

- 🌐 **721 households were covered** under horticulture and agriculture interventions and **2,201 households under piggery.**
- 🌐 **122 hectares were covered** under irrigation.
- 🌐 **94 tons of compound feed** were purchased by the farmers.
- 🌐 10 pig health camps were conducted.
- 🌐 **459 self-help groups were promoted** across Nagaland, Mizoram and Arunachal Pradesh, of which, 427 SHGs were linked to financial institutions. 585 trainings were conducted for members of the SHGs. Notably, **the cumulative savings of the SHGs exceeded Rs. 11.43 million.**

ASSAM, TRIPURA AND MANIPUR

- 🌐 **10,000 farmers** cultivating Boro Paddy (a long duration crop) successfully adopted 'Naveen' variety paddy (cultivated in a shorter duration), resulting in an **almost 200% increase in production** across flood-prone districts of Assam.
- 🌐 A homestead fishery model **covering 3,480 households** across Assam and Tripura was established with an average yield increase of more than 200%.
- 🌐 **Over 500 artisans and weavers were linked** to e-commerce platforms like Amazon.com, Habba.org and Flipkart.com.
- 🌐 A sustainable agro-business centre was established in Bishnupur district of Manipur.
- 🌐 Productivity of 647 weavers across Assam and Manipur was increased by 250-300% resulting in enhanced incomes.
- 🌐 **Skills of 2,228 youths were enhanced** and about 70% of them were placed at reputed companies.



A pig rearer in Tsupfume, Nagaland interacts with a livestock service provider

FUTURE PLANS

NAGALAND

- Promote cultivation of high value vegetables under protected cultivation, targeted for markets in 3 districts of Nagaland.
- Select 75 progressive pig farmers to upscale their piggery enterprises, thereby showcasing piggery as a primary livelihood activity and as a viable source of income.
- Promote a Farmer Producer Organisation to sustain piggery as a viable business enterprise for farmers.
- Promote 3 villages under community-based eco-tourism.

ARUNACHAL PRADESH

- Cover 2,100 households under piggery, agriculture and horticulture activities.
- Promote a Farmer Producer Organisation to sustain piggery as a viable business enterprise for farmers.
- Provide assured irrigation facilities across an area of 100 hectares.
- Conserve around 500 hectares of community land.

MIZORAM

- Cover 4,200 households through piggery promotion, agriculture and horticulture activities. Promote Quality Protein Maize as fodder across 500 households, during Kharif and Rabi seasons.
- Promote a Farmer Producer Organisation to sustain piggery as a viable business enterprise for farmers.

ASSAM, TRIPURA AND MANIPUR

- Build resilient livelihoods of communities residing in flood-affected districts of Assam through multi-thematic interventions.
- Initiate digital-based livelihood activities.
- Operationalise a comprehensive 'Assam State Initiative' converging agriculture & allied interventions, education, health, water and sanitation.
- Promote micro-enterprises, with an emphasis on youth trained during the period, through the facilitation of a community support fund.





Fishermen from Gadchiroli district, Maharashtra demonstrate modern fishing techniques

FISHERIES CREATING A CULTURE OF MODERN FISHING

The Open Source Fisheries (OSF) programme of the Tata Trusts aims to help rural communities unleash the potential of their freshwater resources by shifting them from 'capture fisheries' to 'culture fisheries'. By 2020, the initiative hopes to reach 200,000 households and help triple their incomes

from fisheries and related activities. The programme aims to play the role of convener in this field, and help realise a sustainable, blue revolution. The Fisheries' initiative will focus on a variety of means - more production, better marketing and allied activities to achieve the stated goal.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

-  Converting the knowledge created into easy-to-digest communication products and disseminating them to communities using a variety of channels, including formal trainings, peer learning (farmers training other farmers), Open Source Fisheries Fellowships, exposure visits, creation of a demonstration centre, etc. **Over 3,000 individual farmers have been trained** directly in different aspects of culture fisheries across Andhra Pradesh, Maharashtra and Jharkhand.
-  Creation of an ecosystem to take advantage of the knowledge created and disseminated, through the setting up of community-led allied micro enterprises (2 hatcheries, 250 nurseries, 48 low-cost cage groups, 30 netting groups and 2 cage enterprises) in the programmatic geographies.
-  Establishing market linkages to enable the ecosystem to flourish, by setting up buyer networks, as well as marketing on channels such as mKRISHI. An MIS app for storing this data has been built and will be used by field teams and partners to get real time information on input, output, supply and demand. During the year, establishment of local market linkages **led to savings of over Rs. 10 million for the community.**



FUTURE PLANS

-  Expand to cover 30,000 households across the 3 states of operations.
-  Explore media-based content dissemination, through governments/partners, etc.
-  Produce over 40 million fingerlings of Indian Major Carp (IMC) through localised seed production.
-  Set up over 1,000 nursery enterprises.





People crossing the local river in a locally-built bamboo boat

BAMBOO

RECONSTRUCTING A SUSTAINABLE FUTURE USING BAMBOO

Bamboo is a grass and an icon of sustainability because of its ability to replenish fast and sequester carbon dioxide from the atmosphere. When treated scientifically, through use of preservatives, its decomposition can be arrested.

When one considers the mass/weight ratio, bamboo has a tensile strength 1.05 times that of steel, thereby making it flexible and capable of varied applications, including as an effective replacement to steel and concrete.

In India, bamboo has rarely been used for good quality construction and/or for large structures, due to multiple issues ranging from lack of availability of bamboo with a quality suitable for construction, to design capabilities and a dearth of agencies that can undertake good quality construction.

Given the potential of the plant, the Trusts

are undertaking two major projects on Bamboo resource development: (a) In the flood plains across Eastern Uttar Pradesh; and (b) In Chandrapur district of Eastern Maharashtra.

UTTAR PRADESH

The Trusts are facilitating the development of Bamboo in the northern floodplains of India; covering 11 districts in Uttar Pradesh, where floods ravage crops and lands every year and marginal farmers find it hard to survive. The three-year project, which began in December 2015 aims to cover 3,000 farmers and increase yield of bamboo plantations (the project area is rich in bamboo resources; however, those are informally managed) through promoted sale of culms (poles), conduct trainings for enhancing skills and making products from bamboo, etc. During the year, 881 farmers were covered under this project.

EASTERN MAHARASHTRA

The Bamboo Research and Training Center (BRTC) has been set up by the Government of Maharashtra and the Trusts at Chichpalli village, in Chandrapur district. Notably, the facility has been designed from naturally available and low-carbon material of bamboo and earth, spread over a 12.5 acre campus. BRTC aims to empower local communities residing in Chandrapur and neighbouring districts to develop skill sets for better livelihood opportunities through forest produce.

The construction of this centre has been layered across two phases. While the first phase will be completed in August 2018, the second and final phase will be completed only by May 2019. Futurarc, a reputed Singapore-based magazine, widely regarded as the voice of green architecture in the Asia Pacific, has carried a full-fledged story on this structure in its publication of March - April 2018, while coining it as Asia's largest bamboo construction project.

KEY ACHIEVEMENTS:

-  The Centre for Indian Bamboo Resource and Technology (CIBART) conducted an intensive awareness creation campaign on bamboo management and plantation techniques. A database covering over 2,600 farmers was compiled and intensive training on plantation and harvesting techniques was given to 519 farmers in Bahraich district. **Around 36,000 bamboo seedlings of improved species of Bamboo** were supplied for planting across Bahraich, Balrampur, Basti, Lalitpur, Shravasti and Kaushambi districts and over 50 acres were covered under bamboo plantation.
-  A shade net nursery was established across an area of 1,000 square feet, with a capacity of **producing 25,000 seedlings**. Notably, treated bamboo poles were used in the construction and plants brought from the North-east were nurtured in the shade net nursery.
-  Bamboo was intercropped with different vegetable species across model sites for demonstration. Construction of boats using bamboo was piloted. These boats were used to rescue villagers marooned during floods.
-  CIBART trained people from the Tharu community to make a low cost prototype of a toilet unit, which was found suitable. Subsequently, 12 bamboo toilets were constructed in Bahraich and Gorakhpur districts.

FUTURE PLANS

-  Cover 100 acres of farmers' land with intensive plantation of specific species of bamboo, which includes 25 acres being allocated for biomass production for power projects with 50,000 bamboo plants.
-  Enhance the skills of 250 artisans for development of new market-oriented products.
-  Establish up to 2 enterprise clusters for production of bamboo articles and furniture.
-  Actively use bamboo for furniture (including school desks), environment-friendly housing for promoting eco-tourism, etc.





Tipping of pigeonpea seed for profuse branching in Rayagada district, Odisha

DIVERSION - BASED IRRIGATION

SIMPLE INNOVATION HELPS CHANGE THE COURSE OF FARMING IN INDIA



Diversion-Based Irrigation (DBI) is a simple and cost-effective method that makes use of gravitational force to guide water from adjacent streams and rivers to the cropping field areas. DBI is also suitable for undulating, hilly and mountainous terrains. The DBI programme endeavours to: (a) Increase land productivity by providing protective irrigation in dry spells of Kharif and enhancing irrigation potential in Rabi and summer seasons, thus ensuring food security and nutritional intake; (b) Enhance crop productivity through new methodologies, changing cropping patterns and increasing cropping-intensity; (c) Demonstrate efficient water-use irrigation technologies (such as drip and sprinkler); and (d)

Ensure the accessibility of safe drinking water/domestic water at household levels. The programme was initiated in 2009 and is currently in its third phase of support (operationalised in December 2015). Over this three-year period, the DBI programme would be implemented in 295 villages across 36 development blocks of 15 focused districts of Odisha, Manipur and Assam. A total of 75,000 families will be covered, of which 45,000 families will directly benefit from the irrigation facilities, with the remaining 30,000 families getting covered under agricultural extension and institutional building components of the programme. The water diversion structures will generate an irrigation potential of 26,000 acres in this geography.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

-  **Formation of 255 Water User Groups** (one in each DBI site) and registration of 4 Farmer Producer Cooperatives.
-  **Construction of 105 water diversion structures** (pipe, channel and solar-based) with 40 structures currently under construction.
-  Promotion of revenue generating self-sustainable vegetable models; these include a half acre remunerative model, crop cultivation through Systems of Rice Intensification (SRI) and promotion of kitchen gardens with **over 4,500 farmers**.
-  Shed net/poly house, vermi beds and an agro business centre were also established to provide quality inputs to farmers.

FUTURE PLANS

-  Complete the construction of the remaining 40 DBI structures, thereby bringing an additional 8,000 acres under irrigation.
-  Promote 150 integrated vegetables models (integrating components like drip irrigation, fencing, high value crop and protected nursery) benefitting more than 200 farmers.
-  Provide safe drinking water to 5,000 households.





A farmer ploughing the field

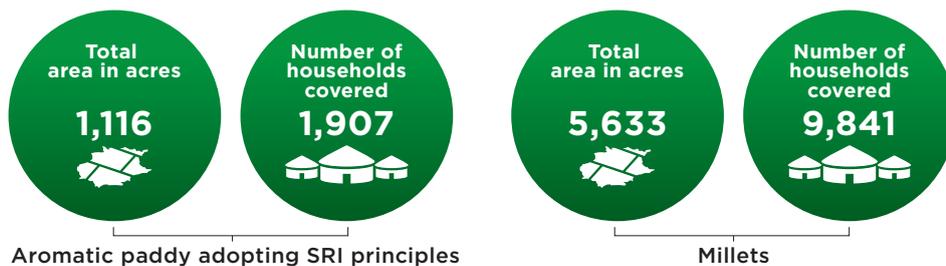
SYSTEM OF RICE INTENSIFICATION INTRODUCING INNOVATIVE FARMING PRACTICES

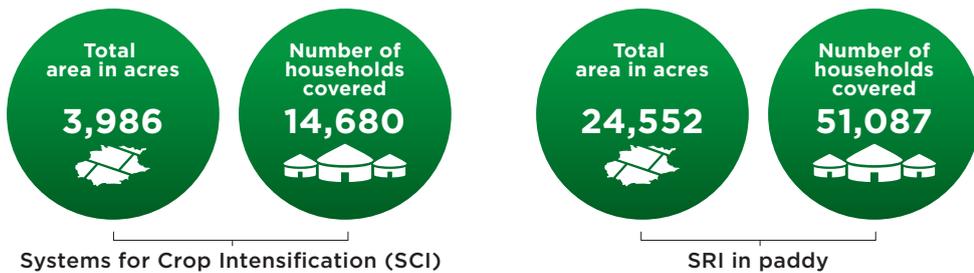


The System of Rice Intensification (SRI) programme aims to enable small and marginal farmers to adopt and practice SRI principles as a yield enhancing and input saving, sustainable technology. Since 2008, the SRI programme of the Trusts has covered over 170,000 farmers in 3,500 villages, spread across 104 districts in Odisha, Bihar, Chhattisgarh, Assam, Manipur, West Bengal, Jharkhand, Maharashtra, Madhya Pradesh, Uttar Pradesh and Uttarakhand.

Currently, in its third phase, the programme focuses on enhancing the nutritional security and income of 280,000 households across Odisha, Assam, Manipur, Chhattisgarh and Bihar through promotion of millets and pulses, and focusing on value chain intervention in high value paddy and millet. The programme also has a research component that focuses on identification and popularisation of the best practices in SRI.

OUTREACH DURING 2017-18:





KEY ACHIEVEMENTS:

- 7 revenue generating self-sustainable agri-business centres were promoted for popularising mechanised farming among small and marginal farmers.
- 250 acres of seed villages for millets, aromatic paddy and pulses were established**, thereby ensuring timely availability of good quality seeds and reducing dependency on external sources.
- 220 Community Resource Persons and 15 Farmer Producer Organisations** were promoted to ensure sustainability of interventions.
- Market linkages were established and resulted in the marketing of 1,598 quintals of aromatic paddy and a net income of ₹600,450. Additionally, the marketing of 1,288 quintals of ragi resulted in an income of ₹859,000.
- Standardisation of water management and weed management practices for efficient utilisation of scarce resources was carried out, thereby enhancing crop productivity.
- A single row power weeder and a roller marker were developed, in addition to the modification of a manual weeder for ease of intercultural operations.
- A national seminar was hosted in collaboration with IGKV, Raipur, during January 2018, **involving 384 senior researchers** across 18 states of India and focused on rice production technologies to increase farmers' incomes.

FUTURE PLANS

- Expand farm mechanisation through establishment of 3 new agribusiness centres in Odisha.
- Promote the Pigeon Pea Seed Village programme for seed production in 50 acres for ensuring availability of good quality seeds and timely supply of pulses (pigeon pea).
- Focus on the development of an end-to-end value chain for pulses and millets through producer companies.
- Cover 19,444 households and 12,548 acres under SRI millets, pulses, paddy and SCI.

BREEDING BETTER REARING HABITS

Taking North-east India towards better piggery management

Mrs. Neizute-u is 40 years old and a mother to seven children, the youngest one being eight months old and still nursing. Neizute-u and her husband are farmers, and live in Chizami village in Phek district at an altitude of 2,136 meters above sea level in Nagaland. Like most farmers in the state, her family has been rearing at least 1 pig every year in their backyard and the income from piggery has been one of their main sources of cash income. With limited income from the family backyard piggery and agriculture, having to feed and provide for the needs of her family of nine which includes five school-going children, was always a struggle for Neizute-u and her husband.

When the North East Initiative Development Agency (NEIDA), an associate organisation of the Trusts, and its local partner Chakhesang Women Welfare Society (CWWS) started a piggery intervention in her village, Neizute-u was selected to be one of the breeding family households because of her experience in rearing and breeding sows.

She shares that prior to the project's intervention, her family was rearing their pig in very congested conditions in a small pig sty and attention was not given to management practices like sanitation, a

proper diet for the pig and health care of the animal as she was not aware of the importance of such practices. Moreover, since she had to look after her children, her house and tend to the family farm, time was always a constraint for her.

“The rearing and management practices taught during the various trainings organised in the village was very new and at times it was not possible to follow all the recommended practices. However, I saw a big difference in the pig's health, after I started feeding the pig concentrated compound feeds and also started keeping the sty clean; the bigger the sty, makes the job of cleaning it much easier,” smiles Neizute-u.

Unlike in the past, her sow farrowed twice because of which she was able to sell 11 piglets, which fetched her an income of ₹61,000. Her family used the income from the sale to pay for their children's school admission. A new thing that Neizute-u said she learnt through this experience was that though rearing a breeding sow is at times more tedious, especially when she is lactating, the income from the sale of piglets is much better compared to rearing a fatterer. She now hopes that she will be able to increase her stock of breeder sows.



Neizute-u now runs a successful piggery

CHLI - BUSINESS SUSTAINABILITY LED BY WOMEN

Leadership changes act as catalysts for a self-reliant cooperative society

In the village of Rengal, Uttarakhand, the village women used to prepare Khoya, a dairy product made by thickening milk on heating. They used to sell this to earn a living; however, the lack of improved breeds, led to low production of milk and the villagers weren't able to meet the needs of the entire family.

The drudgery of the Khoya preparation and limited market prospects left nothing for the women, despite all their hard work. In 2015, Himmotthan, an associate organisation of the Trusts operationalised the Central Himalayan Livestock Initiative (CHLI). The CHLI team decided to form a women-led cooperative in this area to empower women, that led to the formation of Shyama Devi Self Reliant Cooperative (SRC) in May 2016.

The aim of the cooperative was to improve the income of all the members through better livestock management. The initiative hence introduced improved breeds of cattle, better management techniques and marketing strategies, awareness on artificial insemination and improved market linkages.

All the women of the SRC were also trained on the standard operating procedures for the preparation of Khoya, preparation of

local sweets like Balmithai and Chocolate barfi using khoya, and milk testing, besides record keeping and inventory management to manage the business, to their advantage.

The changes induced by Himmotthan helped women lead and have direct access to markets and also to the revenue generated through sales. The training and handholding led to better time management on a daily basis, transparency in the accounting system, and livestock-related awareness among the villagers.

By the end of 2017, a total of 89 women were the shareholders of Shyama Devi Self Reliant Cooperative. The total income of SRC up till December 2017 was around ₹670,000. To further enhance the income of these women, the cooperative also sells other products (like Tata Tea) with the help of Trishulii Producer Company, an apex level community institution, also formed and promoted by Himmotthan.

The SRC meets regularly to mitigate the limitations, work on problem solving and future planning, and is striving relentlessly towards enhancing the overall business to generate better income.



Improved livestock and better training make khoya preparation more profitable for women in Rengal

FROM A COMMON WOMAN TO A PASHU SAKHI

Jannu Bai's story of how she transformed the livestock rearing practices of her village.

Three years back, Jannu Bai was no different than other women of Bhimana village of Bali Block. What changed her life was the implementation of Mitigating Poverty in Western Rajasthan (MPOWER), a poverty reduction initiative of the Government of Rajasthan, along with the support of the International Fund for Agricultural Development (IFAD) and the Centre for microFinance (CmF), an associate organisation of the Tata Trusts, as a technical resource and support agency.

CmF focused on strengthening the project implementation and supported the project management unit to demonstrate the new livelihood activities in the project areas, of which one was the village Bhimana.

25-year-old Jannu Bai, a Pashu Sakhi (livestock nurse) now, has two children, and her husband runs a kirana shop. A member of Barjo Mata Bakri Samuh, she is responsible for 3 goat-based livelihood groups with 30 members, 10 in each group. Altogether, 280 goats are under her supervision.

When CmF's team, along with SRIJAN (the facilitating NGO), organised a session to introduce the concept of Pashu Sakhi and the minimum qualifications required, Jannu

Bai came forward and received training and handholding support from the team and the cluster level Livestock Facilitator.

"As a Pashu Sakhi, I am responsible for generating awareness of the good rearing practices among the members, supervising the health of goats, administering first aid and organizing vaccination camps," shares Jannu Bai.

Jannu Bai is excellent in explaining the nature of various diseases and their symptoms, good rearing practices and their rationale and all medicines along with their appropriate uses and method of application. She gets a remuneration of ₹800/- per month through the Ghoomar Federation for her work. However, the motivating factor for her is not the remuneration, but the recognition that she gets from the members.

Recently, she has also taken on the additional role of a Krishi Sakhi (community agriculture service provider), as the goat members are also involved in agriculture. She aspires to take up the role of a Community Livestock Facilitator, administering vaccinations and performing castrations. The ever smiling Jannu Bai has become a well-known "Bakri Ka Doctor" in the villages.



Jannu Bai, a Pashu Sakhi (livestock nurse) has 280 goats under her supervision

TURNING WATER INTO WEALTH

It's a story often heard in rural India. A big family, entirely dependent on agriculture, struggling to make ends meet on a farm with low fertility, scarce water sources and sparse rainfall.

Unfortunately, this was a sad reality for Padmabati and Dambru Arja, residents of Hatipadar village in Muniguda, Odisha.

Despite toiling day and night to grow seasonal vegetables, they only earned ₹40,000 a year. The farmer-couple's knowledge of agricultural practices was mostly traditional. With input costs rising beyond all rationale and productivity was sinking to new lows, the future looked bleak for the family.

The South Odisha Initiative of the Tata Trusts was launched in 2015 to enhance the annual income of 25,000 families like Padmabati's. The initiative began in five contiguous blocks, viz. Bissamcuttack, Muniguda, Lanjigarh, Thuamul Rampur and Kotagarh. In Muniguda block, the Trusts, through Chetna Organic Farmers Association (COFA) targeted to build the capacity of small-holding families in organic/sustainable practices through which they could reduce input costs, improve productivity, and improve their incomes at least twofold.

A major intervention in Padmabati's case was to provide assured irrigation to their

land. In 2017, a ring well was excavated and a solar pump set was installed through the project's support and Padmabati's own contribution. This small intervention increased the single cropping season into three and ensured year-long cropping cycles that increased income for Padmabati's family.

Furthermore, Padmabati and her husband were extensively trained in water management practices and sustainable agriculture practices in seed and seedling treatment, maintaining space between plants and rows and natural pest control techniques.

Armed with new knowledge and having water available all year round, Padmabati's family dared to take up the recommended crop plan for round-the-year vegetable cultivation like pointed gourd, brinjal, tomato, little gourd, pea, cauliflower, leafy vegetable, cabbage, chilly, etc.

Today, Padmabati brims with joy and shares, "The first cycle of crops have yielded me a net income of ₹82,500." Padmabati's income has more than doubled, thereby creating avenues for decent living conditions. The future does not look so bleak anymore.



Padmabati's income has more than doubled



Children enjoying learning on Tablets

EDUCATION

3/4 क = A अ M

The Indian Constitution guarantees equality and social justice in all walks of life, including education. The same is reflected in India's Constitutional commitment to provide free and compulsory education to all children up to the age of 14. While India has witnessed considerable improvement in elementary education over the last few decades, especially since the adoption of the Right of Children to Free and Compulsory Education (RTE) Act, 2009, which includes having achieved considerable quantitative expansion of school education across its states, challenges related to quality, equity and learning remain worrisome.

Education is one of the most powerful instruments for reducing poverty and inequality in a nation. A few basic education programmes have expanded access to schools in India; however, near universalisation of elementary education has increased the diversity of learners in classrooms without corresponding investment and support to teachers, resulting in a number of challenges in ensuring quality education to all children. Significant progress has also been made in narrowing the gender and social gaps in enrolment figures; however, schooling experience, especially in schools accessed by the poor and rural population, continues to be a major challenge. Large scale studies and achievement surveys have demonstrated poor quality of the teaching-learning process, resulting in disturbingly low levels of learning, with a vast majority of children not acquiring even the basic skills of reading, writing and arithmetic after attending school for

five years. In addition to this, India still faces challenges in providing quality Early Childhood Development programmes for all children.

Ensuring equitable access to quality education for children and adolescents, with a focus on reducing gender and social disparities, is the central goal of the education portfolio of the Trusts. The Trusts' steadfast approach to build a more egalitarian education system in India involves quality improvement, achieving grade-appropriate learning levels, developing 21st century skills and, simultaneously, strengthening the education system and communities in identified geographies. Quality education fosters overall development of the child, builds on the innate abilities of children to make sense of the world around them, provides a range of learning opportunities, and equips them with academic and life skills to ensure effective participation in a democratic society. Such a goal can only be achieved by strengthening the process of providing education at multiple levels by: (i) Improving teaching learning through teacher capacity building and curriculum development; (ii) Promoting community participation in education; (iii) Providing academic support to teachers and children; and (iv) Strengthening the education administration at block/district/state levels. To realise this goal, the portfolio works through thematic and regional initiatives reaching out to around 42,000 schools/anganwadis, alongwith 97,000 teachers and around 2.4 million students*.

*While these thematic and regional initiatives constitute the work undertaken by Tata Trusts under Education, only those initiatives supported/financed through Sir Ratan Tata Trusts & Allied Trusts are described in this report.



Young kids learn to read using books developed under Parag

REGIONAL INITIATIVES $\frac{3}{4}$ क = A अ M

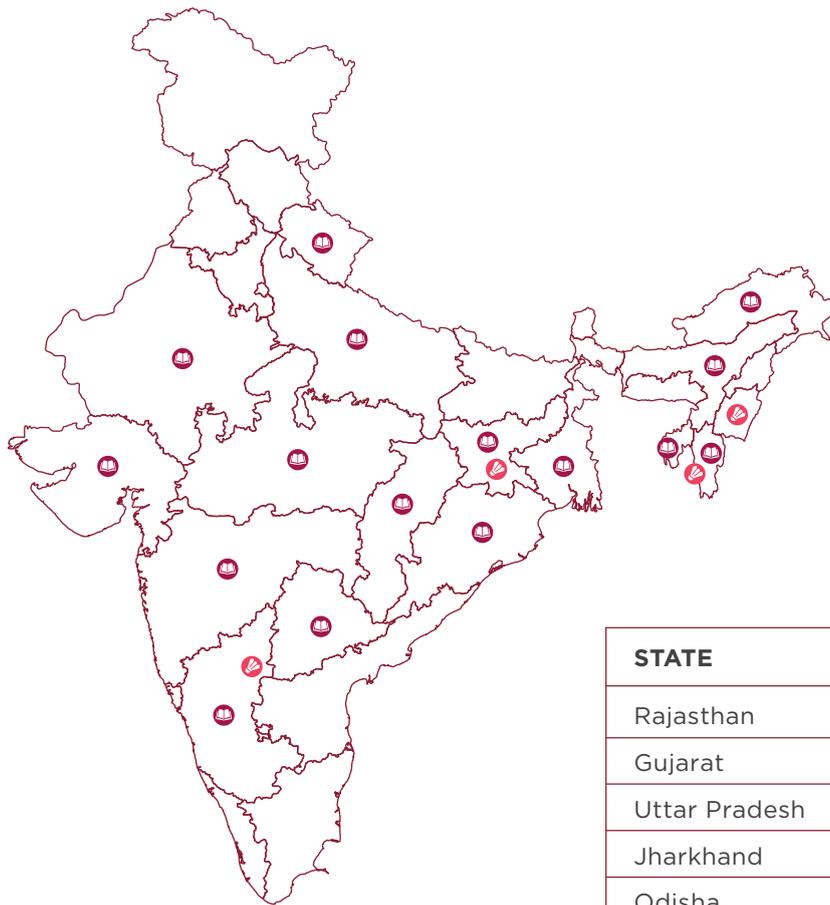
The Trusts' work through Regional Initiatives* addresses educational needs in around 40 blocks as part of multi-thematic interventions to enhance quality of life. Educational needs from pre-schools to high-schools are addressed in a gradual manner by working with children, teachers and schools, along with strengthening systems and ensuring community participation. In geographies where the Trusts are engaged in multi-thematic work, education interventions are layered

alongside livelihood enhancement of the community through agriculture, microfinance, livestock-based work, water and sanitation, and health/nutrition in order to impact quality of life in a comprehensive manner.

Thematic Initiatives* focus on addressing some of the key sector gap areas in Education. These include Parag Initiative, Technology in Education, Teacher education and Women's literacy.

*While these programmes constitute the work undertaken by Tata Trusts under Education, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.

The map depicts the Trusts' activities in the education portfolio. Karnataka intensive interventions under regional initiatives are ongoing in Yadgir district of, Khunti district of Jharkhand, Eastern Uttar Pradesh, South Odisha and Rajasthan.



-  Regional & Thematic Initiative
-  Sports

STATE			
Rajasthan	406	908	43,058
Gujarat	84	20	11,870
Uttar Pradesh	999	1,113	84,136
Jharkhand	236	201	25,895
Odisha	402	1,134	27,703
Maharashtra	38,347	72,912	128,774
Karnataka	292	663	43,831
Uttarakhand	95	257	5,096
Tripura	149	642	9,000
Mizoram	67	387	7,187
Arunachal Pradesh	30	105	1,315
Assam	191	993	11,950
West Bengal	271	1,001	21,191
Madhya Pradesh	299	-	20,428
Telangana	303	1,855	10,043
Chhattisgarh	47	139	4,680
TOTAL	42,218	82,330	456,157

-  | Number of schools covered
-  | Number of teachers trained
-  | Number of children covered



Adopting innovative techniques for teaching young children

KARNATAKA

3/4 क = A अ M

Yadgir district is one of the most backward districts in North Karnataka on development indicators. Through its associate organisation 'Kalike', the Trusts work on

impacting quality of life with a focus on education, child development, livelihood, WASH and skill development in Yadgir and neighbouring districts of Karnataka.

KEY ACHIEVEMENTS:

- Reached out to **41,999 children in 188 schools** in Yadgir block of Yadgir district.
- Successfully implemented the Learning Improvement Programme (LIP), a remedial programme for children with learning difficulties in Kannada, **covering 1,981 children** during 2017-18 (cumulative of 10,956 children from 2009-10 till 2017-18).
- Trained 125 English teachers and 17,498 students** to build proficiency in English.
- Built capacities of more than **1,300 School Development Monitoring Committees'** (SDMC) members resulting in preparation of 135 School Development Plans.
- Improved learning levels among more than **9,907 high school students** through technology-enabled learning interventions.
- Expanded Early Childhood Education in six districts of the Hyderabad-Karnataka region, in collaboration with the Government of Karnataka.

FUTURE PLANS

- Upscale technology-enabled high school intervention, reaching out to 122 schools and around 24,000 children.
- Reach out to 13,332 Anganwadi Centres (AWC) through expansion of Early Childhood Care and Education (ECCE) in six districts of North East Karnataka.
- Operationalise the SDMC Forum in the block.



Young girls enjoying ITE classes, an essential part of quality education

EASTERN UTTAR PRADESH

The Eastern Uttar Pradesh (EUP) initiative was operationalised in March 2016 and focuses on improving the lives of around 50,000 children, adolescents and

women through quality education and life skills, in order to enhance their standard of living.

KEY ACHIEVEMENTS:

- Reached out to **33,800 children in 314 Madrasas and schools** in intervention areas.
- Capacity building activities were carried out for **950 teachers**.
- 26 ITE centres established** in 23 locations across 6 blocks, **reaching out to 3,500 children**, majority of them being girls.
- 48 Early Childhood Development (ECD) Centres and 60 Integrated Child Development Services (ICDs) centres** covered around 8,000 children from the age group of 3-5 years.
- Over 1,000 out-of-school children** mainstreamed into formal government schools.
- Reached out to 2,250 women learners** through 75 women literacy centres in remote villages of 3 blocks.
- Adolescent education programme under implementation in 28 villages of Kaisarganj block catered to around 1,750 adolescents and **more than 2,000 women** and other community members.

FUTURE PLANS

- Work with 180 government schools, reaching out to over 38,000 Madrasas and school-going students through primary and ITE intervention programmes.
- Reach out to over 8,000 children through 102 anganwadi/ECD centres in two blocks of EUP.
- Extend the adolescent education programme to 6 blocks, catering to around 6,000 adolescents.
- Form the Teachers Collective for effective engagement of teachers.



Over 200 libraries offer kids regular access to books in Jharkhand

JHARKHAND

3/4 क = A अ M

Interventions are operational in Khunti district and focus on: (i) Improving school functioning through training of teachers, direct work with students, setting up libraries and water and sanitation facilities, school assembly, etc.; (ii) Community

mobilisation and strengthening of School Management Committee; (iii) Remedial inputs to high school students; and (iv) Strengthening education administration and providing academic support to teachers through Block Resource Centres.

KEY ACHIEVEMENTS:

- Improving schooling experience of over **25,000 students in 232 schools in 27 clusters across 3 blocks.**
- Training 2,800 School Management Committee (SMC) members** with active SMC participation.
- Community contribution resulted in repairs and fencing being carried out in **170 schools.**
- Setting up a vibrant Block Resource Centre (BRC) in Khunti, providing access to Teaching Learning Material and training to teachers in the block.
- Setting up over **200 libraries/classroom library corner** to provide regular access to reading material.
- Significant improvement in student learning in primary grades and intervention high schools, with 91% matriculation results as against a district pass percentage of 68%.

FUTURE PLANS

- Intensify academic interventions with at-risk children in 343 schools of 3 blocks.
- Launch Tribal Fellowships and provide academic/financial support to students to pursue professional and vocational education beyond grade 12.
- Partner with the District Administration in providing technical support for upscaling BRCs in other blocks.
- Expand and integrate education with livelihood activities in Hazaribag and East Singhbhum districts of Jharkhand through/with SHG Federations.



Children enacting a story in a market place

SOUTH ODISHA

3/4 क = A अ M

The education intervention of the Trusts in South Odisha focuses on improving functioning of elementary schools, enhancing learning levels in children aged 6 to 11, improving school readiness and facilitating socio-emotional

and cognitive development in pre-schoolers (aged 3 to 6 years) in anganwadis, adopting technology-enabled learning for adolescents in Ashram schools and facilitating hands-on delivery of elementary science concepts.

KEY ACHIEVEMENTS:

- 🌐 Outreach of **26,096 children in 250 schools and 134 Anganwadis** in 5 blocks of Kalahandi, Rayagada and Kandhamal districts.
- 🌐 Successfully rolled out the school and community science programme in **100 elementary schools and 210 villages** of Thuamul Rampur, Lanjigarh, Kotagarh, Muniguda and Bissamcuttack blocks.
- 🌐 **975 teachers trained** in different themes, including elementary science, primary maths, language, ITE, etc.
- 🌐 Retention rate in schools improved to 98% with almost 100% enrolment in intervention schools.
- 🌐 Construction of **30 new anganwadi buildings** completed with advocacy and support from the local government and the community.
- 🌐 The percentage of schools possessing a single teacher reduced from 30% to 5%.

FUTURE PLANS

- Upscale the programme across 63 Gram Panchayats in Thuamul Rampur, Lanjigarh, Kotagarh, Muniguda and Bissamcuttack blocks, working with 750 elementary schools, reaching out to 50,000 students through primary, ITE and elementary science programmes directly.
- Reach out to over 15,000 children through engagement with 575 Anganwadi Centres in the targeted 5 blocks.



Kids being offered various literature books under the Parag Initiative

PUBLICATIONS INITIATIVE (PARAG)

Parag endeavours to promote children's literature in Indian languages, recognising the importance of quality children's literature within elementary education and child development, and it being a gap area. The scope of Parag includes:

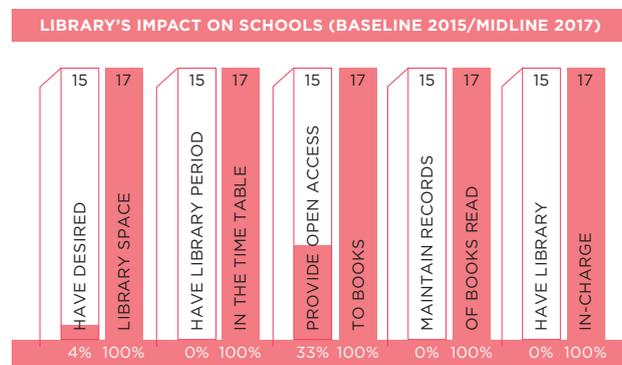
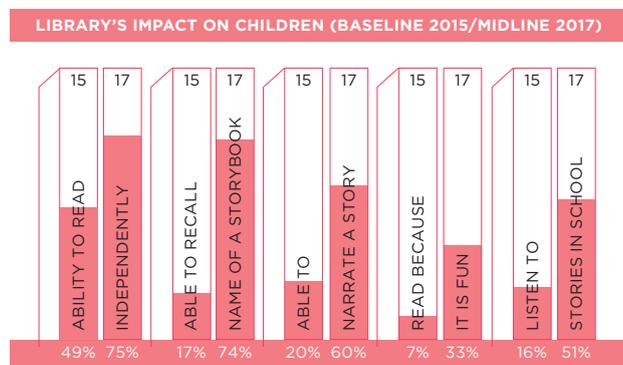
- Development of quality children's literature and educational publishing.
- Dissemination channels for ensuring access to books, including focused efforts to promote libraries.
- Capacity building of key stakeholders pertaining to children's literature and libraries.
- Networking and creating avenues to bring prominence to children's literature, as a sector.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- At the Big Little Book Awards event, held during TATA LitLive! in Mumbai, November 2017, to felicitate authors and illustrators making a significant contribution to the children's literature sector in India, Nabaneeta Dev Sen and Proiti Roy were declared winners in author and illustrator categories, respectively. Notably, the annual event focused on Bengali literature and authors.
- Strengthening school libraries in Yadgir, Karnataka and Bali, Rajasthan; simultaneously, providing capacity-building inputs to library sites in Maharashtra, Madhya Pradesh, Rajasthan, Odisha, Uttarakhand and Uttar Pradesh. An independent, mid-term assessment of library work undertaken in Yadgir, Karnataka was completed. The midline findings showed significant improvement in library infrastructure and children's access to and knowledge of books in the library.



- Development of Kitabet (a digital library) and **piloting in 12 schools in Delhi and Bengaluru**. Thereafter, a product placement study was commissioned to understand the willingness of parents to subscribe to Kitabet. The overall feedback from users was positive in 3 out of 4 cities, with 82% users finding it unique and 74% finding it relevant.

FUTURE PLANS

- Library work in multiple education geographies.
- Introduce Kitabet in 100 Jawahar Navodaya Vidyalayas.
- Set up a Book Development fund to invite focused investment for book development in Indian languages.
- Design and pilot a read-aloud campaign to encourage parents/teachers/caregivers to read to young children.



Participants of a certificate course for enhancing language skills

TEACHER EDUCATION INITIATIVE

The Teacher Education Initiative (TEI) of the Trusts envisages revitalisation of the teacher education sector through: (a) Developing and offering quality programmes in pre-service and in-service teacher education; (b) Developing and offering high

quality academic and pedagogic resources in Indian languages; (c) Researching teachers, teaching and teacher education; (d) Collaborating with both national and international institutions; and (e) Undertaking policy advocacy.

KEY ACHIEVEMENTS:

-  The Trusts were approached by the National Council for Teacher Education (NCTE), New Delhi, to develop a four-year integrated pre-service teacher education curriculum. The course involved multiple specialisation tracks, such as pre-school and primary; middle and high-school; art education; inclusive education; and physical education. The Trusts took this up under the Teacher Education Initiative, in partnership with Tata Institute of Social Sciences (TISS) and the document developed through contributions made by a large number of academicians and practitioners was submitted to NCTE for their consideration.

The document was finalised and would be used by teacher education colleges in the country that offer a 4-year integrated programme.

- 🌐 The Trusts plan to **set up the Centre of Excellence in Teacher Education (CETE) with Tata Institute of Social Sciences, Mumbai** to offer exemplary pre-service teacher education programmes, along with a range of online, blended and face-to-face in-service teacher education programmes, equip teacher educators and conduct policy-oriented research.
- 🌐 The Ministry of Human Resource Development (MHRD) has set up the National Teacher Portal, called Diksha. The Trusts are on the Steering Committee of this portal, and also on the Content Curation Committee, and have led the process of developing rubrics for the same.
- 🌐 Contributing to the teacher education space by building capacities of teachers through partnerships with Tata Institute of Social Sciences, Language and Learning Foundation, and Ambedkar University, Delhi.



Early childhood teachers learning to make engaging toys for children

FUTURE PLANS

- ✈ Launch Centre of Excellence in Teacher Education (CETE) at TISS, Mumbai.
- ✈ Undertake and study Teacher Professional Development pilots in one or two states and feed their learnings into the National Teacher Portal.



Digital learning boosts interest and higher order thinking in students

TECHNOLOGY IN EDUCATION

Technology has pervaded every sphere of life today. Being able to use technology meaningfully is the need of every child in the 21st century. The objective of this initiative is to support and promote programmes that use technology for classroom instruction, teacher professional development, and student learning.

Technology is used as an enabler to address the issues of quality of education while bridging the digital divide. This thematic initiative comprises of:
(a) Connected Learning Initiative (CLIX);
(b) Integrated approach to Technology in Education (ITE); and (c) Khan Academy*.

INTEGRATED APPROACH TO TECHNOLOGY IN EDUCATION (ITE)

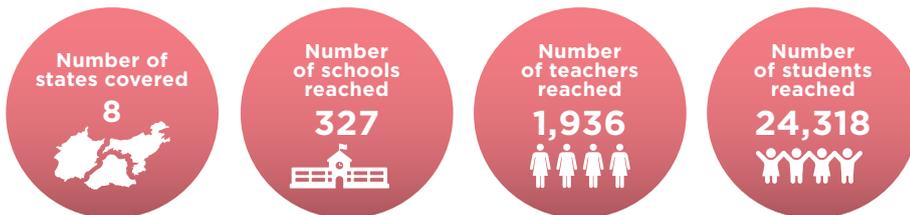
Operationalised in 2012, the Integrated Approach to Technology in Education (ITE) is a pedagogical framework to improve teaching and learning processes. It fosters 21st century skills and authentic learning, through project-based learning for middle school children and adolescents in some of the most underprivileged geographies (91% rural). Students, mostly first time computer users, create learning artefacts such as weather charts, comparative charts on jute production or population density in different cities, to deepen their learning of the subject matter. All the projects assigned are carefully selected by the teachers and matched with the curriculum.

*While these programmes constitute the work undertaken by Tata Trusts under Education, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report

The main objectives of the programme are:

- Bridging the digital divide and fostering digital citizenship.
- Increasing interest in learning.
- Improving learning and higher order thinking skills.
- Improving teaching and learning processes.
- Building teacher capacities through professional development.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- 🌐 Interventions have impacted **over 24,000 children in 8 states**. Children are learning to create artefacts using technology to better understand curriculum concepts and topics.
- 🌐 Three ITE exhibitions were organised during December 2017 - January 2018. The exhibition in Birbhum involved around 150 children from 6 schools. 120 children presented their projects in Palghar, Maharashtra at an ITE exhibition. Yet another ITE exhibition was organised under the South Odisha Initiative, in which **400 children participated**.
- 🌐 Two batches of government school teachers in Assam and West Bengal completed the 4-month 'ICT in Education for School Teachers' certificate course offered by Tata Institute of Social Sciences. The course saw a completion rate of over 90%, with teachers participating in face-to-face contact and completing various assignments, quizzes on Moodle (a free and open-source learning management system), implementation of lesson plans, as well as orienting 10-15 teachers in their neighbouring schools by playing the role of a Master Teacher. **72 Master Teachers oriented over 700 teachers**.

FUTURE PLANS

- Offer more certificate course batches for Master Teachers.
- Conduct research on professional development of ITE teachers.
- Expand the reach of ITE to additional sites.



Students learning online

KHAN ACADEMY INDIA

The Trusts have collaborated with Khan Academy towards building a sustainable platform that provides free, world-class education in India, in Indian languages, and is aligned to Indian curricula. To realise the vision of the programme, a Section 8 not-for-profit organisation called Khan Academy India (KAI) was incorporated in April 2017. KAI develops open source

content comprising of instructional videos and exercises that are mapped to curriculum. While the initial focus is on mathematics, science curriculum will also be covered in the coming years. KAI works with state governments, NGOs and other partners to localise content, maintain the platform and release content in open source.

OUTREACH DURING 2017-18:

Number of in-schools/
teacher-directed
students
12,500



Number of teachers
reached
800



Number of classrooms
covered
120



Number of active
learners
700,000



KEY ACHIEVEMENTS:

- Approximately **1,250 videos** were recreated in bilingual Hindi, English and pure Hindi. These were mapped to NCERT curriculum and the Rajasthan State Board. Content localisation in Kannada with the state of Karnataka commenced post signing of an MoU with the state. KAI is providing technical support to a NGO in Gujarat for content localisation in Gujarati.
- Hands-on workshops were conducted for **over 800 teachers** across several cities and states (in-person and through train-the-trainer model).



Students engrossed in learning

FUTURE PLANS

- Relaunch the Hindi website covering grades 6-10 for Mathematics mapped to the NCERT syllabus. Achieve 90% content coverage by the end of 2018-19.
- Launch live sites for Hinglish, covering Mathematics and Physics for middle and high schools.
- Enable the launch of Gujarati and Kannada websites, covering Mathematics for middle and high schools, along with partners.
- Video creation in Physics and Biology for grades 11 and 12.



Teach one woman, you teach a family

WOMEN LITERACY

3/4 क = A अ M

The Trusts have been working on building functional literacy skills in women through partner organisations in high-need districts in the states of Uttar Pradesh and Jharkhand. These partners have been able to reach out to over 16,000 women from Dalit, Muslim and tribal communities. Interventions focus on regions characterised by gender based oppression, where it is difficult for women to transgress the boundaries that have been traditionally defined by men. The program design entails running literacy centres in villages, thereby enabling women to develop a capacity to read and engage with numbers in an organic manner. This capacity can then enable them to enter and relate to the world of print in meaningful ways through multiple interfaces, including accessing government spaces that were

earlier out of their reach, participating in democratic processes and also handling money. The larger aim of the programme is to contribute towards empowerment of women, so that they are able to take more control of their own lives and lead a life of justice and dignity.

A recently concluded study of the women literacy work happening in Lalitpur district of Bundelkhand in Uttar Pradesh demonstrated the kind of change that has been brought about through these interventions. The impact of the intervention has been significant with almost 97% of women demonstrating a capacity to read and write with understanding. The study also captured the impact on the socio-emotional component; namely, the

increase in self-confidence of women, the ability to conduct themselves independently, and access information pertaining to their requirements. As part of this study, researchers reached out to various stakeholders of the programme. Other than women, who were the principal beneficiaries, the researchers explored the outlook of family members, gram panchayat members and even school management committee members.

To ensure the sustainability of this newly acquired capacity, efforts have been made to get women to participate in programmes where their literacy skills could be effectively utilised; for example, through participation in SHG groups or government programmes like Swachh Bharat Abhiyan, assuming supervisory positions in the MGNREGA schemes, etc.



Making learning fun for adults



An early lesson in sportsmanship and gender equality

SPORTS

3/4 क = A अ M

Sports serve as catalysts for development, raising aspirations, improving health and strengthening the education and development of children within communities that the Trusts are associated with. Consequently, the overarching goal is to create meaningful and sustainable structures for the development of sports.

With the aim of identifying latent talent inherent in a region and strengthening the same, the Trusts, through their associate organisations, have set up sports academies to directly implement programmes in Football and Badminton in the North-east

and Hockey in Jharkhand. To provide career options in sports, the Trusts have selected and recruited about 250 players in the respective regions as coaches and have organised coaching clinics to develop their capacity.

During the year under review, over 10,000 children benefited from the Trusts' interventions in sports. In addition, the Trusts also supported competitive coaching for about 70 promising athletes, besides physical literacy and development of life skills for about 2,600 children studying in municipal schools through sports grants.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

Football:

- Operationalising the Centre of Excellence in Aizawl in March 2018 with 25 boys being shortlisted from **over 3,000 applicants** across different states of the North East.
- Launching the All India Football Federation's Baby League in Meghalaya.
- Partnering with Mizoram Football Association to launch India's first Futsal league, with participation from **32 teams**.

Badminton:

- Operationalising **25 badminton grassroots centres with 817 enrolments and 27 trainers**.
- Facilitating a 4-day coaching workshop, conducted by Master Trainers from Pullela Gopichand Academy, for the trainers of the badminton grassroots centres.

Hockey:

- Launching the Naval Tata Hockey Academy in Jamshedpur on March 2, 2018.
- Operationalising the Regional Development Centre in Khunti (Jharkhand) with **57 children**.

FUTURE PLANS

-  Construct a High Altitude Training Centre in Mizoram, which will focus on Badminton coaching, with Pullela Gopichand as the technical partner.
-  Operationalise regional development centres for Hockey in Simdega and West Singhbhum districts (Jharkhand).
-  Conduct Coach Education Programmes to provide both technical and soft skills, which will eventually improve the quality of training imparted to children.
-  Improve physical literacy and impart life skills to children in government schools in Rajasthan, Yadgir (Karnataka), Odisha and Uttarakhand.

KNOWLEDGE BUILDING: LITERACY RESEARCH IN INDIAN LANGUAGES

Azim Premji University and the Trusts jointly released the findings and recommendations of a 3-year longitudinal study, the Literacy Research in Indian Languages (LiRIL). The research, which has important bearings for India's education policy, was conducted in two socio-economically disadvantaged regions – Yadgir block (Yadgir district, Karnataka) and Wada block, (Palghar district, Maharashtra) and followed 360 students per site as they moved from grades I to III from 2013 to 2016.

The LiRIL project deep-dived into how young students are taught in early primary grades and how children learn reading and writing in two Indian languages - Kannada and Marathi. It documents the challenges faced by learners in this process. Through a variety of quantitative and qualitative data collected over a period of three years, including children's performance on a variety of literacy tasks, classroom observations, teacher interviews, in-depth child studies, and curricular analyses, the project found that:

- The scripts—Kannada and Marathi—like most Indian scripts, take several years to master. The number of symbols are

extensive and complex. However, school curriculum and textbooks do not account for this.

- Children perform poorly on tasks related to decoding the script. Word and passage reading are not automatic outcomes of learning to read the aksharas.
- Comprehension and composition are not automatic outcomes of learning to decode the script. Even students who performed well on script-reading tasks, performed poorly on tasks assessing their understanding of what was read, and their ability to communicate ideas through writing.
- Teachers are not specifically equipped to teach language and literacy. Most teachers in the sample did not possess clear understanding about aims and approaches to teaching early language and literacy, or ways to address specific student difficulties.

The full report, a summary and handbooks developed for teachers, based on research evidence on decoding, writing and comprehension are available on www.tatatrusts.org



Launch of the LiRIL report

ENGLISH LANGUAGE INITIATIVE FOR MAHARASHTRA

TEJAS: TECHNOLOGY-ENABLED EDUCATION THROUGH JOINT ACTION AND STRATEGIC INITIATIVES

The National Curriculum Framework for Teacher Education (NCFTE) 2009/10 recommends 'creating spaces for sharing of experiences of communities of teachers among themselves.' Keeping this principle in mind, the Government of Maharashtra, the Trusts and the British Council developed TEJAS, a 3-year pilot project across schools in 9 districts of Maharashtra. The central aim of the programme is to build the capacity of the State Institute of English, Maharashtra (SIME), through the development of a core team of English experts.

The teacher training and development model is aligned to this, which can provide demand-based appropriate Continuing Professional Development (CPD) opportunities for teachers. Most children attending government schools do not have the exposure to English and teachers themselves are not well versed in English. The design of the TEJAS initiative addresses this problem by aiming to institutionalise shared spaces of learning.

Strengthening the systemic capacity of the SIME has been facilitated through:

- Teacher trainings - building capacity of the State Academic Resource Persons (SARP) team on pedagogy and methodology of learning English, processes of supportive mentoring and monitoring skills and effective use of technology for the same.
- Training Teacher Activity Group Coordinators (TAG-C).
- TAG-Cs conducting TAG meetings each month for the enrolled teachers.
- SARPs conducting visits for observing the TAGs and mentoring TAG-Cs.
- TAG-Cs SARPs and Teachers getting trained on using technology for CPD activities on a regular basis.

Based on promising results in 9 districts, the Government of Maharashtra has planned to scale-up TEJAS to all districts in Maharashtra in 2018-19 with technical and financial support from the British Council and the Trusts.

TEJAS IN NUMBERS



THE PERFECT PRE-SCHOOL EXISTS. AND IT'S IN YADGIR, KARNATAKA.

Unlike other anganwadis in the state, the children of the anganwadi centre at Kedechur village in Yadgir, under the guidance of their teacher Ms. Vanajakshi, would concentrate solely on their activities with keen interest. After each activity, they would keep their materials back in the right place without instruction. The class has fun with discipline, and enjoy what they learn. It's no surprise that each child has fairly good attendance-parents bring their children to the centre without waiting for the anganwadi helper to call them.

To see a pre-school class like that would be a surprise not only in Yadgir, but all across India.

Kadechur Centre is one of the 102 intensive anganwadi centres in Yadgir taluka in Karnataka where Kalike's Early Childhood Development (ECD) team focuses on building the capacity of anganwadi workers and helpers to ensure at least two hours of well-planned Pre-school Education. It is one among the 35 Grade 'A' centres with similar policies.

During 2017-18, the ECD team of Kalike along with a partner organisation, Community Development Foundation's (CDF) team, worked closely with anganwadi workers and helpers of these 102 intensive

centres. They provided training, onsite support and home visits to children; conducting Bal Vikas Samiti meetings, gatherings for the mothers, Bal Melas to exhibit children's talent, and providing learning kits and materials.

For such a demonstrably effective programme, recognition was inevitable. Mr. Harsha Gupta IAS, the Regional Commissioner of Gulbarga Division and Secretary for the Hyderabad Karnataka Region Development Board (HKRDB) visited a few anganwadi centres where the programme was being implemented.

Learning that the Tata Trusts had supported this project through Kalike - an associate organisation of the Trusts - he started a dialogue to support the anganwadi centres of six districts through a similar programme with HKRDB funding it, and Kalike through Tata Trusts being the resource organization. Thus, the programme was scaled to 13,332 Anganwadi centres in six districts of the Hyderabad-Karnataka region.

For Kalike, 2017-18 was a remarkable year, having witnessed a true demonstration of proof of concept to the Government for upscaling the Early Childhood Development programme.



THE TEACHER WHO DECIDED TO LEARN

Kaveri Borthakur from Assam is one among 39 Master Teachers, who helped teach 586 other teachers.

But first, she had to be a student.

In Assam, almost 85% of all Secondary Schools are equipped with computer lab facilities, as well as smart classrooms. Yet, these rooms have mostly been gathering dust. And the reason is even more unfortunate - the lack of integration of computer technology with subject teaching.

However, around mid-2017, the computers were dusted off. Kaveri was one of the first to participate in the Integrated Approach to Technology in Education (ITE), an in-service teacher professional development programme, in order to understand the importance of assimilation of teacher, technology and pedagogy. The first certificate course, 'ICT & Education for School Teachers', was developed and approved by the academic council of the Tata Institute of Social Sciences.

Kaveri spent four months dedicating herself to improving the quality of education she provided her students. She was among 39 other such committed upper primary and secondary teachers and was joined by the DIET faculty.

To quote Kaveri, "The course helped me understand a lot about Learning theories, ICT integration in the classroom and making lesson plans better. It has also motivated me to change my teaching methods; I try more activities which incorporate technology now".

Kaveri's entire batch, in fact, went further. They reached out to another 586 teachers from their neighbouring schools to train them in the ITE pedagogy. The nested model is such that a Continuous Professional Development plan is woven in. They all meet once a month to participate in a module designed by the ITE resource team. Together, they learn about ITE practice and implementation, theories and types of learning, the TPACK model, Bloom's Taxonomy, 21st century learning and develop lesson plans pertaining to their respective subjects and grades.

If all of that sounds complex and rigorous, it is. Yet, the teachers create batches to complete course work and include project creation via computer, determined to not only encourage students to integrate technology, but also redefine their own roles as facilitators, so as to enhance the role of students as active learners.





Brick kiln workers in Telangana

URBAN POVERTY ALLEVIATION

India is at the threshold of a major urban transition. In less than 20 years, the urban population is expected to increase from the present 380 million to 600 million*. The speed and scale of urban growth is significant, and this implies that around 40 percent of the country's population will be urban by 2030.**

The Trusts' engagement in the urban space and its poorest stakeholders is fairly recent in comparison with the work done in rural development. The country's growing urbanisation has put the focus on urban issues and the need to work with the urban poor. This does not necessarily mean a shift from engagement with rural issues or an undermining of it. It is based on a

recognition that urbanisation is irreversible and interventions in the rural and urban spheres have to complement and strengthen each other.

The Urban Poverty Alleviation Portfolio of the Trusts comprises four sub-themes: migration, skills initiative for informal sector workers, safe habitat and civil society strengthening***.

***While these programmes constitute the work undertaken by Tata Trusts, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.



Providing services to migrant workers

*Source: World Urbanization Prospects: The 2014 Revision by United Nations (<https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.pdf>)

**Source: New Climate Economy Report 2018; by the The Global Commission on the Economy and Climate (<https://newclimateeconomy.report>)



Sanitation Mapping

HABITAT BUILDING SAFER HOMES FOR THE URBAN POOR

With rapid urbanisation, more than half of the world's population is living and working in cities today. This has led to increased urban inequality with inadequate infrastructure and expansion of informal settlements, including slums. India, as a developing nation, has been undergoing urbanisation at a rather fast rate, which is evident from the fact that the growth rate of the urban population that was 6% over the last decade, has far exceeded that of the rural population at 3.4%. In the next two decades, the urban population is expected to rise from 378 million to 600 million*. With the increasing pace of urbanisation, India's urban centres face numerous challenges. Hence, it is imperative for their sustained, inclusive and planned growth, that multiple stakeholders work together, as the scale of issues and solutions required cannot be solved nor provided for by any single entity.

As per census data of 2011, close to 8 million households in 4,041 statutory towns do not have access to toilets and defecate in the open. Furthermore, nearly 45% of slum-dwelling households live with open drains, and a third have no access to any form of household sanitation. This lack of safe sanitation has significant health costs and untreated sewage from cities is the single biggest source of water pollution in

India. The recent baseline data collected by the project from different slums of Odisha in April 2017 shows that more than 60% of the families defecate in the open as they do not have access to toilets. With regard to housing structures, more than 82% of the households reported living in pucca houses with kuccha roofs, while 50% reported living in kuccha and makeshift houses.

The absence of a legal land tenure has detrimental impact on the overall quality of life. Without a certificate of residence, access to services and welfare schemes like financial services, higher education, loans for education or starting businesses, linkages to government schemes and various other livelihood opportunities remain limited. Often, those without the security of a land tenure are invisible in city planning processes.

The Government of Odisha recently enacted a landmark legislation aimed at empowering slum dwellers in the state with the security of land tenure and accessibility to a liveable habitat. The Act came into force on the 30th of August 2017 and aims to assign land rights to eligible slum dwellers for redevelopment, rehabilitation and upgradation of slums in Notified Area Council (NAC) areas and Municipalities.

*Source: World Cities Report 2016; by UN Habitat (<http://wcr.unhabitat.org>)

In the context of these developments, the Urban Habitat Initiative of the Trusts are working with different stakeholders, addressing challenges related to:

(i) Provision of basic services like water, sanitation, waste management; (ii) Land tenure and affordable housing for urban poor; and (iii) Support for improved urban governance and capacity building.

The programmes are developed in close collaboration with urban local bodies, technical groups, innovators, academia, research institutes, and civil society organisations to design and demonstrate sustainable solutions. As land rights, housing, water and sanitation are state subjects, the Trusts work with the Government of Odisha and the Municipal Corporations of Surat and Varanasi to

ensure their provision along with basic services through technical support and capacity building.

The Trusts have entered into a partnership with the Government of Odisha to provide technical and handholding support to promote liveable habitats that provide appropriate housing and living environments for the urban poor. Under the Land Rights to Slum Dwellers programme, the Trusts are providing technical support and guidance to the Government of Odisha across 109 Urban Local Bodies (ULB) of all 30 districts of the state. As a part of provision of basic services, the Trusts' supported projects cover 1,500 households in Bhubaneswar and Cuttack and 5 informal settlements in Rourkela and Savda Ghevda, one of the largest resettlement colonies in Delhi.

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

- An MoU was signed with the Government of Odisha to provide technical support for the implementation of the Land Rights to Slum Dwellers Act, 2017 and establishment of the Odisha Liveable Habitat Mission 'Jaaga'.
- Land Rights Certificates were distributed to **2,227 households** with work orders for construction of housing under the Prime Minister's Awaas Yojana.
- Drone survey and slum mapping were completed in **1,270 slums in 76 urban local bodies in Odisha**.
- 10,178 families** were linked to different government schemes to access basic services.
- 15,752 stakeholders** were trained to implement pro-poor development initiatives in urban areas.

FUTURE PLANS

- Provide provision of land rights to about 200,000 households in 109 urban local bodies in all 30 districts of Odisha and develop models for liveable habitats in select slums, covering around 5,000 households.
- Train 25,000 stakeholders to implement pro-poor development initiatives in urban areas.
- Demonstrate 10 low cost housing models with innovative technology and design options.



Skill development enables under-privileged youth to become employable or entrepreneurial

SKILLS AND ENTREPRENEURSHIP DEVELOPMENT EQUIPPING WOMEN AND YOUTH WITH THE SKILLS FOR TOMORROW

As of 2015, 65% of the population of India falls in the working age category, that is, 15 to 64 years. However, less than 5% of the potential workforce have access to requisite formal skill training opportunities. An estimated 104 million will enter the labour market and require skill training by 2022, while 298 million existing workforce will require upskilling or reskilling*. To achieve this massive goal, around 17 ministries, 2 national-level agencies, 37 skill sector councils and 35 state development missions are working for the Government of India's National Skill Development agenda. Private sector entities, NGOs and other philanthropic organisations are contributing effectively to achieve this goal.

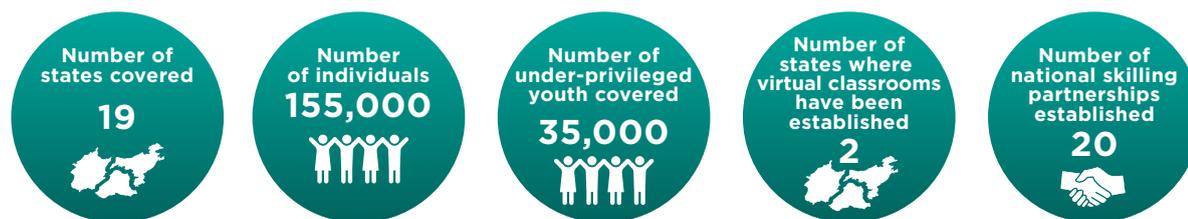
The skill development initiatives of the Trusts focus on skilling and enterprise development of under-privileged youth, enabling them to become employable or

facilitate their transition to entrepreneurs. Notably, the Trusts' interventions:

- a) Focus majorly on school dropouts, women and youth with special needs.
- b) Focus across the skills chain (mobilisation-aptitude/aspiration, study-skilling-internship/placements-certification-tracking).
- c) Are sector-agnostic (agriculture, construction, hospitality, weaving, painting, healthcare, etc.).
- d) Lead the way by being the first mover and reach out to untapped geographies (Tripura, Meghalaya, Nagaland and Manipur) and customise projects spanning the realms of agriculture, specially-abled youth, onsite construction, upskilling of nurses, etc.
- e) Incorporate technology across all the skilling interventions.

*Source: India's Demographic Dividend - From Agriculture to IT, Millions Face an Uncertain Future; Published on February 20, 2018 (<https://www.linkedin.com/pulse/indias-demographic-dividend-from-agriculture-millions-sarfaraz-syed/>)

OUTREACH DURING 2017-18:



KEY ACHIEVEMENTS:

-  The skills theme has impacted around **155,000 lives** through various skilling interventions since its inception. Around **35,000 under-privileged youth** have been covered through various informal and formal skill training programmes. **More than 60%** of these beneficiaries were trained under informal sector initiatives that mainly focus on school drop-outs.
-  **Around 66% of trained youth** were placed or are self-employed across various trades. Partnerships were formed with state governments of Maharashtra, Tripura, Meghalaya, Andhra Pradesh and Assam to upscale skilling initiatives.
-  More than **20 national skilling partnerships** have been established, including those with the Tata Group companies, Asian Paints, Pidilite, L&T Construction, IL&FS, etc. Around 100 regional partnerships were established with various government employment schemes, such as the Deen Dayal Upadhyaya Grameen Kaushalya Yojana and Pradhan Mantri Kaushal Vikas Yojana, besides other CSR skilling centres. Tie-ups with Rural Self-Employment Training Institutes (RSETIs) have been facilitated to tap into the Mudra credit scheme.
-  Adoption of technology across skilling activities such as mobilisation of youth, skilling of Industrial Training Institutes (ITI), etc. has yielded better results. A partnership with Karmyog Foundation was formalised to develop a technology platform for mobilisation and counselling of unemployed youth. **Virtual classrooms have been established in partnership with Valuable Edutainment across 2 states.** The Trusts also partnered with Tata Strive to gamify the counselling process under the Skills Initiative.
-  A cadre of Udyog Mitras (established local businesses) was developed to promote on-the-job training, apprenticeship and entrepreneurship under micro and small industry sectors.
-  Skills of healthcare technicians were enhanced and they were directly linked to employment opportunities; besides, upskilling of existing nurses created a cadre of skilled workforce in the healthcare industry.

FUTURE PLANS

-  Upscale the Informal Sector Initiative to impact lives of under-privileged youth in rural pockets of the country. The plan is to saturate migration affected states like Rajasthan, Odisha and Uttar Pradesh.
-  Forge convergence with other programme teams within the Trusts to ensure holistic impact of interventions on the community.
-  Strengthen the skills ecosystem through 'Train the Trainer' programmes, inclusion of technology into the skilling value-chain and undertaking research on future forward skills.



Providing spectacles to prison inmates

CIVIL SOCIETY STRENGTHENING TRANSFORMING THE IDEALS OF SOCIAL JUSTICE



The preamble of the Constitution of India professes to secure political, economic and social justice to all its citizens. Social justice means the abolition of various inequalities that result from the inequalities of wealth, opportunity, gender, status, race, religion,

caste and ethnicities. To achieve this ideal of social justice, the Trusts have spearheaded social change in some of the most intractable areas of need within the country over the past two decades.

These include*

- ~ Promoting access to justice.
- ~ Working to end violence against women and children through strengthening child protection measures and addressing human trafficking.
- ~ Promoting leadership in the most marginalised communities through fellowships.

*While these programmes constitute the work undertaken by Tata Trusts under civil society and strengthening, only those supported/financed through Sir Ratan Tata Trust & Allied Trusts are described in this report.

ACCESS TO JUSTICE

Work under this encompasses three focus areas, namely;

A. Criminal Justice - 67% of prisoners are under-trial with minimum access to legal aid resulting in overcrowding, 53% of under-trials are from Muslim, Dalit and Adivasi communities and over 30 million cases are currently pending in courts in India resulting in judicial delays.

B. Juvenile Justice - With a severe lack of understanding of the rehabilitation aspect of the 'Juvenile Justice Act' even amongst the

judiciary-child-friendly conditions are non-existent in observation homes, and there is a thin line between child in need of care and protection and child in conflict with law and trafficked children.

C. Crime Victims - Where the lack of 'victim protection and rehabilitation provision' in law leads to the overlooking of a victim's suffering in the criminal justice system.

KEY ACHIEVEMENTS:

-  Appointment of social workers within the prison system led to a humane and restorative criminal justice system impacting the socio-legal rehabilitation of **10,841 prisoners in 5 central prisons of Maharashtra.**
-  As an outcome of the Prisons Reform Committee, a circular has been issued by the Health Department, Government of Maharashtra, whereby the District Civil Hospitals have been directed to start OPD Clinics with specialised doctors in prisons across the state.
-  State-wise ranking of the appointment process of the lower judiciary was undertaken and the findings were presented to the Secretary, Department of Justice.
-  On the occasion of Constitution Day on November 26, 2017, a national consultation of lawyers was organised by the Lawyers Initiative Forum in Indore, towards an inclusive Indian Judiciary. This was attended by **322 lawyers from 11 states of India.** 92% of the participants were from socially excluded communities.
-  An Access to Justice survey was conducted to understand people's perceptions and experiences with justice delivery mechanisms in India. The report was cited in the 2018 Economic Survey that was presented/authored by the Chief Economic Adviser, Dr. Arvind Subramanian.

FUTURE PLANS

-  Set up minimum standards and improve prison conditions including diet, health, hygiene, legal representation, etc. for 10,000 prisoners in 5 central prisons in Maharashtra and demonstrating 1 prison as a model prison.
-  Create a restoration model for crime victims that is replicable with state support mechanisms and budgetary allocation in 3 states.
-  Support a Conference on Judicial Diversity, to be organised by Vidhi, in collaboration with Jindal Global Law School.



More Indian women are attaining digital literacy every day

INNOVATION



THE PERFECT TOOL TO UPLIFT LIVES

The Trusts aim not only to improve lives, but to transform them sustainably through innovative initiatives that reach out to even the most remote areas. Innovation has been the primary essence in most efforts towards change and our quest to find better

alternatives and even more impactful methods is ongoing. Programmes carried out have reshaped communities, making people more digitally literate, paving the way for development and higher quality of life.



Ongoing Krishi Pathshala session in a village in Rajasthan



Waste pickers belonging to Hasirudala - an incubatee of FISE

FOUNDATION FOR INNOVATION AND SOCIAL ENTREPRENEURSHIP INTRODUCING FRESHER PERSPECTIVES OF CHANGE

While India has made significant progress in reducing poverty, it still has a long way to go in helping more than half a billion people get access to a minimally good quality of life. In the country, 680 million people cannot meet their essential needs even today. To keep up with the pace of its growing demand, India needs to budget 50% of its social spending for health care, water and sanitation. Further, to feed its burgeoning population, India needs to enhance its agricultural yield by more than 70% over the next decade.

While poverty remains India's number one enemy, disruptive and socially relevant innovations can provide path-breaking and life-saving solutions. Investments must initiate commercialising high social impact

innovations. However, investors are reluctant to take any risks in the social sector. This gap is even more profound when the enterprise is based on science and technology-based innovations. Most of the investments come with the pressure to deliver market returns and liquidity immediately. This pressure has the potential to make them sacrifice the mission. Mainstream investment thesis is not relevant to solve the complex issues in the development sector.

Today, investing for impact requires a fresh perspective. The Foundation for Innovation and Social Entrepreneurship (FISE), supported by the Trusts is working towards enabling innovation and entrepreneurship for social, economic and environmental

impact. FISE works along the three-tier ecosystem architecture called 'Social Alpha', which is focused on catalysing entrepreneurship for impact, and provides critical technology and business incubation support to the mission-driven start-ups.

The overarching aim is to create an India, where entrepreneurs and innovators can access the resources they need to create deep and irreversible social impact and improve quality of life, especially for the underprivileged.

KEY ACHIEVEMENTS:

- 🌐 **1,500 ideas screened**, of which 400 were evaluated.
- 🌐 **31 start-ups incubated** and **25 start-ups invested in**.
- 🌐 **8 start-ups acquired** follow-on capital.
- 🌐 1 successful exit.
- 🌐 Over **40 awards won** by portfolio companies.
- 🌐 Committed capital to the tune of **Rs. 275 million**.



Meeting with delegates from the University of Chicago - an innovation partner of FISE



Using mobile internet to enrich lives

BUILDING NETWORKS OF DEVELOPMENT INTERNET SAATHI PROGRAMME AND DIGITAL LIVELIHOODS INITIATIVE

Internet Saathi is a joint initiative of Google and the Trusts, which was launched in 2015 to help empower women in rural India by equipping them with digital literacy and, in the process, bridge one of the largest online gender gaps (only 1 in 10 internet users in rural India was a woman as per IMRB i-cube report 2014). The programme uses a 'Train the Trainer' approach to spread internet literacy amongst rural women. Qualified women are identified and trained as Internet Saathis. Each Saathi is provided broadband-enabled smartphones and given the responsibility to train 600 community women in clusters of 3 to 4 villages

over a period of 6 months. As on March 2018, the programme has covered 144,038 villages across 18 states.

In June 2017, FRENED (Foundation for Rural Entrepreneurship Development) was set up as a not-for-profit entity, promoted by the Trusts and supported by Google. Through FRENED, income opportunities for the Internet Saathis are being generated through entrepreneurship models as well as by opening up the Internet Saathi network to other like-minded organisations working towards social good, for information dissemination and gathering in rural India.

COVERAGE AS ON MARCH 2018:



KEY ACHIEVEMENTS:

- Approximately **41,500 Saathis** were trained in digital literacy and nearly **15 million women** have benefited through the programme.
- About **18,700 Saathis** have completed the digital literacy phase and are willing to continue with the livelihoods phase of the initiative.
- Livelihood opportunities worth **₹19.4 million** have been generated.
- The gender gap vis-a-vis internet usage has narrowed; **3 out of 10 users in India are women.**
- Positive socio-economic impact has been observed within rural communities where Internet Saathis operate. There has been a **7% improvement** in the social standing of women and **45% of women** trained claimed to have improved their income by learning new skills.

FUTURE PLANS

- Cover 300,000 villages (50% of rural India) through Internet Saathis by September 2019.
- Create livelihood opportunities worth ₹100,000/annum for 100,000 Internet Saathis over the next few years.
- Combine the power of digital inclusion and the potential of rural women to create safe and scalable livelihood opportunities, which will lead to socio-economic upliftment and prosperity amongst rural communities.

A JOURNEY OF CHANGE THROUGH LEARNING

P Ramadevi, an active and enthusiastic Internet Saathi, is from an economically weak and traditional family who for generations have been practicing farming. Her husband is an auto driver by profession.

When she initially got to know about the Internet Saathi Programme, she was rather sceptical on its ability to bring about change in her life and how she could excel as an Internet Saathi. Not having any idea about the internet and how it can be used in daily life, she was also worried about how difficult it would be for her to reach out to teach other women about smartphones and the internet. While she was unsure about taking this job, her husband motivated her to attend the training session and then decide. He also helped her in understanding the usage of smartphones and the internet by learning from his colleagues. He looked after the household chores and their kids, so that she could focus on her training and work.

Initially, after her training as an Internet Saathi, it was not easy for her to interact with community members as they were sceptical about the internet and its uses. But nothing deterred her from approaching other women and their families to make them understand the need and advantages of learning how to access the internet. Gradually, other women got inspired from her work and came forward to take training from her. Now, even the male members of the village seek her advice on various internet and technology related matters and better farming practices.

Today, Ramadevi has transformed the lives of many other women by teaching them the use of the internet and smartphones to find information about health, food, rights, government schemes, agriculture and much more. It's surprising for her that she is now able to surf through the internet to research different farming practices, blouse designs and bangle making techniques. Ramadevi has actively participated in the Internet Saathi Program by training 1,210 beneficiaries in just 6 months.

Through her journey, Ramadevi has reformed the lives of many. She has trained 600 farmers in organic farming and motivated them to stop using inorganic fertilizers. She has reached out to various women federations to teach them about the internet and its uses and helped people in using better tailoring practices to generate an income of their own. She also approached government schools to educate children about the internet and introduced them to the digital world. She has become an inspiration for others and even her husband, who is now identified as 'Ramadevi's husband'.



WELLNESS FOR THE MASSES

Introducing a portable MRI scanner, making wellness available to the masses and measuring impact in terms of lives bettered.

Somewhere in the rural hinterland of India, there is a farmer who has dedicated his life to feeding the nation. Yet, when it comes to caring for his health should the need arise, we fail miserably. In fact, we fail even before he receives treatment. He likely won't even have ready access to the tests he will need for a diagnosis.

From medical experts to medical equipment, all would be out of bounds. Both geographically and financially. Even with the best intentions, the Government still struggles to make high end diagnostic imaging equipment such as MRI or CT systems available for all. The costs are prohibitive and the logistics a nightmare. Private institutions and expert medical personnel doubt they can thrive anywhere other than the large and medium cities in the country.

So, what are we to do to help the hopeless farmer? The Tata Trusts, through their Foundation for Innovation and Social Entrepreneurship (FISE) are developing high-tech portable MRI scanners, touted to be the first in India and designed to make MRI's affordable and accessible for the masses.

Voxelgrids, the company developing the scanner, has been supported by FISE from its development to introduction with an aim to enable entrepreneurs to develop technology-based solutions for the society.

Tata Trusts wanted to be part of a sustainable company, but one which was also driven by altruism. The impact of the company would be measured in terms of lives bettered. This company was Voxelgrids and it is no surprise that it earned the 2017 Indo-US Science and Technology Forum award.

Today, Voxelgrids has succeeded in developing a next generation whole body 1.5 Tesla MRI scanner, which is compact, has a small footprint (since it can be turned on and off), is lightweight, can be installed on any floor of a hospital and consumes up to 70% less power, while quadrupling scanning speed.

More importantly, for people like the farmer in the hinterland, this scanner is portable!

Its first step in serving the public was made when it was installed in Sri Sathya Sai Institute of Higher Medical Sciences, the clinical partner for this development. And the next steps will get it closer to those who, until now, had to suffer in silence.





A group performing at Kalapana 2018

ARTS, CRAFTS AND CULTURE

REVOLUTIONISING THE CREATIVE ECOSYSTEM OF INDIA

The Arts, Crafts and Culture portfolio at the Trusts aims at addressing gaps in the creative ecosystem of the country. The arts & crafts are intrinsically bound to the many identities and regions at community and individual levels across the country, therefore the Trusts feel that without supporting them, a community's holistic development cannot be fully addressed.

Currently the portfolio comprises four main themes: Conservation, Performing Arts, Art

Education and Crafts. The vision is to work with excellence, multiplicity and uplift the marginalised communities by engaging with India's deep traditions as well as emerging contemporary forms.

One of the long-term goals of the portfolio is to create practitioners in the field of arts. The arts need to be viewed as viable professions. The Trusts' aim is to support projects that encourage training and/or incorporate practice.



Traditional artists creating new product designs



A practical class in conservation

CONSERVATION

KEY ACHIEVEMENTS:

- Executed by the Aga Khan Trust for Culture, the conservation work of ten major monuments at the Qutub Quli Shah Park (Hyderabad, Telangana) is underway with over **163,000 man-days of work generated**. The park has seen a footfall of over **265,000 visitors**.
- The first of three film preservation workshops by the Film Heritage Foundation was conducted in October 2017 at Prasad Labs in Chennai, which saw **51 participants**, with 30 of them supported by the Trusts. The students were taught preservation and restoration practices for both filmic and non-filmic materials.

FUTURE PLANS

- The Trusts' direct implementation 'Art Conservation Initiative' will be operationalised with the proposed strengthening of six zonal conservation centres across India and the initiation of a Master's degree in Art Conservation at a reputed university.
- In partnership with Aga Khan Trust for Culture, a conservation specifications manual (and an associated schedule of rates) will be released online, hosted on the Trusts' website. Aimed at establishing standards in the field of conservation, this manual will be disseminated for use by engineers, conservation architects, ASI professionals, technicians, builders, etc.
- Continue providing support to the Film Heritage Foundation, under which the second Film Preservation and Restoration Workshop will be organised in Kolkata in November 2018.



A band performing at Brahmaputra Raga Jazz

PERFORMING ARTS

KEY ACHIEVEMENTS:

- 🌐 'Brahmaputra Raga Jazz', a project executed by Banyan Tree Events Pvt. Ltd., to promote young musical talent from the North-east concluded with a final concert of the top 5 bands at India Habitat Centre, Delhi, in March 2018. A music CD compiled by these bands was also released at the concert.
- 🌐 'Inspire India', a project by Shankar Mahadevan Academy to teach classical music to underprivileged communities in Mumbai, has commenced with **300 students being trained** in the pilot phase at DS School, Sion.

FUTURE PLANS

- ✍️ Conceive a second phase of support for 'Brahmaputra Raga Jazz', to build on the learnings and challenges of the first phase of the project, with the aim of deeply intervening in the musicians' community in the North-east region.
- ✍️ Continue extending support towards 'Inspire India', a project by Shankar Mahadevan Academy, to expand the number of students enrolled in the music classes and collect data from the community to better inform the interventions.
- ✍️ Develop a three-year strategy for regional and thematic interventions.



ART EDUCATION

KEY ACHIEVEMENTS:

- 🌐 'India and the World: A History in Nine Stories' a landmark exhibition at CSMVS, Mumbai was open to the public for 4 months (November 2017 to February 2018) and witnessed a footfall of **over 200,000 people**.
- 🌐 'State of Housing' a pedagogic exhibition, was conceived by the Urban Design Research Institute (UDRI) to present and address issues around the housing crisis in India. On display for over a month, the exhibition saw a footfall of **over 8,000 persons** comprising architects, students and other stakeholders of the housing sector.
- 🌐 In its second iteration, 'Kalapana 2018', a Tata Trusts initiated event, was held in February 2018. This year's focus was on the themes of Art Education and Conservation, with four days of presentations, exhibitions, films and performances. Three of the lecture presentations have been put online on the Trusts' YouTube page for dissemination with **over 700 views**.

FUTURE PLANS

- Commencement of the Master's degree in Performance Practice (Dance) at Ambedkar University, Delhi. The course is expected to be announced for applications in July 2018.
- In the second phase of support to Kochi Biennale Foundation for the 2018-19 edition of the Students' Biennale, the Trusts will contribute towards the mentoring of curators, production of works by the student-artists, and partially supporting interventions of select educators in Art colleges.
- Extend support to the 1947 Partition Archives to bring its oral history collection to three Indian universities to foster greater research and scholarship on the subject of Partition.

CRAFTS

REVOLUTIONISING THE CREATIVE ECOSYSTEM OF INDIA

The Trusts have initiated craft-based livelihood projects in various craft-rich regions in India. Presently, eight pilot models of these craft projects are being supported in the poorest pockets of South Odisha, Madhya Pradesh, Andhra Pradesh and the North-east region. The main objectives of these pilot initiatives are to introduce innovative marketable designs, introduce improved technology and invest in young artisans by building their business skills to face changing market needs.

Notably, the Trusts are directly implementing a programme in the area of handloom textiles, which will impact 3,000 loom weavers and associated craft-persons across Odisha, Assam and Nagaland over a period of 5 years. Named 'Charkha to Market', the programme was operationalised during the year and the Trusts are currently building their own design, marketing and technical teams.

KEY ACHIEVEMENTS:

-  **Upgrading skills of 1,000 semi-skilled artisans** through trainings and design development workshops under the supervision of Master Crafts Persons, designers and local entrepreneurs. They guide artisans on design and optimum use of raw materials to ensure quality of products; similarly, entrepreneurs guide them on market-led products.
-  Sustained efforts towards design and marketing led to **42% to 305% increase** in income for artisans across different programmes.
-  Collaboration with veterans in the craft sector for strategic direction to the handloom programme. Besides, veterans from business, academia, not-for-profit, research and government sectors have also been brought on board for their expert advice to the programme team.

FUTURE PLANS

-  Initiate the implementation of 'Charkha to Market' across 3 weaving clusters of Odisha, Assam and Nagaland.

FROM HAND-TO-MOUTH TO HANDCRAFTING SUCCESS

ENCOURAGING THE WIDOWED RURAL ARTISANS FROM DHOKRA CLUSTER OF GATIGUDA, RAYAGAD DISTRICT

It is unlikely too many people would have heard of Mohanabati Pidikaka. But her story will always be worth sharing.

She's a widow who lives in Gatiguda village, Muniguda block, Rayagada District. Until some time ago, she had been struggling to raise her children on her own.

Heartbreakingly, she realised that she couldn't muster the funds required to send them to school.

But she was a Dhokra artisan and she decided that she would put her talent to work and raise school money. She, however, found that even that was a non-starter. She didn't have the funds to afford raw materials either.

Not one to surrender to fate, she searched

for another solution and, as a result, approached the Tata Trusts. Tata Trusts devised the Crafts based Livelihood Programme after realising the needs of the local artisans and joined hands with the Mahashakti Foundation to find solutions to the issues faced by Mohanabati and helped in reviving the Dhokra Craft.

After joining the Raw Material Bank Committee, she not only borrowed the materials she required, but also signed up for a skill building and designer workshop conducted to improve product development.

Now, with a monthly sale of ₹ 4,500, she and her children enjoy an enhanced quality of life.

And, yes, they also go to school, of course.



Artisan Mohanabati Pidikaka working on her latest creation

HISTORY THROUGH ARTISTIC EYES

RESHAPING EXHIBITIONS IN INDIA

'India and the World: A History in Nine Stories' was a landmark pedagogical exhibition, at par with international standards, executed by Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (CSMVS, Mumbai) in collaboration with The British Museum and The National Museum, Delhi. Open to the public of Mumbai for four months (November 2017 - February 2018), this exhibition saw over 200 objects displayed, with over 100 from The British Museum and others from 28 institutions/collections from across India, including the treasures of CSMVS and The National Museum. **Over 200,000 people attended the show in Mumbai.**

Telling the story of India's history by juxtaposing objects from India and the world, the exhibition saw curation that opened new ways of seeing, discussion, debate, teaching and learning. Curated by Naman P. Ahuja and J D Hill, the exhibition was texture rich with sculptures, coins, paintings, textiles, video art, inscriptions and more. The curation and design of the space was equally important with Brinda Somaiya as the exhibition designer and Dhruvajyoti Ghosh as the lighting designer, empaneling and styling the nine gallery spaces and the cases so that the audience's movement and experience

from one space to another was seamless.

This exhibition had a strong pedagogical focus with each day scheduled for activities, and guided tours for schools and colleges, including the special learning packs designed. Over 400 schools were engaged with and through this exhibition about 180 visited the museum; in addition, various workshops were also conducted. The audio guided tours were even focused on the lay visitor of Mumbai, with guides available in English and Marathi, and exhibition text and captions available in English as well as in Hindi.

Alongside the running exhibition, CSMVS also planned various academic and cultural programmes that included talks by eminent art historians, historians, curators and performances. These were organised not just in Mumbai, but also outside of the city in Kolkata and Goa.

As of March 2018, the exhibition is running at the National Museum in Delhi, and will close to the public in late July 2018, when the objects will return to their parental collections. 'India and the World' has set a precedent for exhibition-making in India and has revived the museum-going culture in the city of Mumbai.





INSTITUTIONS



INDIAN INSTITUTE OF SCIENCE (IISc)

SUPPORT FOR RESEARCH ON ALZHEIMER'S

Globally, increase in lifespan has resulted in an increase in the number of elderly individuals at risk and living with dementia and much of this burden will be experienced in countries such as India and China. Longitudinal studies in ageing populations,

across the western by a long preclinical asymptomatic phase (lasting over a couple decades), followed by the symptomatic stage that progresses to severe terminal dementia.

PROJECT OBJECTIVE:

The goal of this project is to understand the pathogenic mechanisms underlying the changes that occur in the pre-clinical stage of dementia including Alzheimer's disease (AD) using an interdisciplinary approach spanning multiple levels of organisation (molecular, cellular, network, behavioural) using model systems and studying human subjects longitudinally, as they age.

THE KEY ACTIVITIES UNDERTAKEN ARE AS FOLLOWS:

- 🌐 Two separate cohorts, one each in Bangalore & Hyderabad, are recruited. **100 patients in each cohort have been recruited. A target of 300 patients in each cohort to be achieved in the next 2 years.**
- 🌐 Battery of pre-decided tests carried out as per protocol finalised prior to initiation of the study.
- 🌐 Annual review of research activity carried out being monitored and guided by independent experts of international repute.
- 🌐 State-of-the-art 3T MRI: This first-of-its-kind MRI machine will be India's first functional MRI, which will enhance the capabilities of studying effects of ageing on the brain functioning. With reference to this, the following activities have been completed.
 - Procurement process was successfully completed by the Joint Purchase Committee, comprising of representatives from the Tata Trusts, IISc and independent observers.
 - Final purchase order released in favour of M/s Siemens International on a turn-key basis.
 - Site of installation identified and expected to be ready for installation by March 2018.



RELIEF AND REHABILITATION



The Trusts, along with teams from Group Companies, have been at the forefront in the wake of natural disasters occurring in the country (and

neighbouring Nepal). Immediate relief operations have been followed up with long-term rehabilitation efforts.

FLOOD RELIEF ACTIVITIES IN RAJASTHAN AND GUJARAT

Heavy rainfall (average of 800 mm to 1,200 mm rainfall in a span of 2 weeks) during July- August 2017, led to massive floods in parts of south Rajasthan (Sirohi, Pali and Udaipur districts) and north Gujarat (Banaskantha and Patan districts), causing loss to life, property and cattle. This calamity necessitated rescue operations to shift people to safer places on an immediate basis; thereafter, relief operations were initiated to provide basic support to the affected community to help them cope with the situation, and support to recover from their losses.

The Trusts have ongoing interventions across both states (in the case of Rajasthan, the flood-affected areas constitute the geographies of the Trusts' operations). Given the situation, immediate relief measures were initiated by the Trusts through their Associate Organisations; namely, Centre for microFinance (CmF), Jaipur and the Coastal Salinity Prevention Cell (CSPC), Ahmedabad; jointly with the Tata Group companies.



Drinking water being distributed in the flood-affected regions

RAJASTHAN:

Under the initiative, the following activities were undertaken:

- 14,824 households were provided minimum 5 days' stock of chlorine tablets to disinfect water from bacteriological contamination.
- As a precautionary measure, 3,500 packets of Oral Rehydration Salts and 2,542 mosquito repellent coils were distributed to tackle diarrheal and malarial diseases.
- A mobile Reverse Osmosis (RO) water unit was installed in Abu Road block, through which over 140,000 litres of treated water were supplied to 10,423 households in Abu Road and Reodar blocks.
- 12,326 bars of soap, 20,427 biscuit packets and 12,337 sanitary napkins were provided to direct beneficiaries through anganwadis and local Community Resource Persons.
- 296 plastic tarpaulin sheets were supplied to households whose houses were damaged; further, 445 food packets were distributed to select households which had lost connectivity. 600 blankets were provided on request from the district administration. 500 raincoats were also provided to field staff, Accredited Social Health Activists (ASHA), Auxiliary Nurse Midwives (ANM), and anganwadi workers.
- 4,160 patients suffering from post-rain scabies, diarrheal diseases, fever, etc. were treated at 33 health camps that were set up to thwart the outbreak and spread of diseases.

NORTH GUJARAT

Based on field level reports on the situation arising due to flooding in the Banas river, post the heavy rains in Banaskantha and Patan districts, coupled with heavy inflow of flood water from the adjoining districts of South Rajasthan, a meeting of the Gujarat State Tata Group Disaster Response Team was convened. Thereafter, a team comprising of officials from the Trusts and Tata Chemicals visited the flood-affected districts and met the District Collector,

who was coordinating the flood relief operations. In coordination with the Deputy Collector, a decision was taken to focus relief operations in 23 villages of Tharad block of Banaskantha district. A mobile RO unit was immediately deployed to help supply clean drinking water. Subsequently, based on requests from the state authorities, the relief operations were also extended to cover flood-affected villages in the neighbouring Patan district, especially in Santalpur block.

In alignment with the approach of having a 'One Tata Response' to the flood relief operations, the Gujarat State Level Disaster Response Forum was activated and a coordinated effort was made at the group level. A core Coordination Committee with representation from Tata Chemicals, Tata Consultancy Services (TCS) and the Trusts, along with Tata Strategy Group (TSG) was formed to oversee the overall relief operations. Mobilisation of volunteers across the group companies

and additional resources were undertaken. One team operated out of Tharad while the other was located out of Radhanpur block in Patan district, while coordinating the relief operations in Santalpur block (there being no facilities available here).

Overall, the operations reached out to cover 3,500 households across 23 villages in Tharad block and another 1,500 households across 27 villages in Santalpur block.

Briefly, the following activities were undertaken:

- Health check-ups were undertaken and medical assistance provided to 2,121 patients (suffering from skin infections, Myalgia and Diarrhoea) across the targeted villages.
- Over 420,000 litres of clean drinking water were supplied.
- Veterinary camps were held and over 4,000 heads of cattle vaccinated.
- Kitchen kits and Hygiene kits were distributed to 3,100 households.
- Kits comprising large-sized storage and cooking vessels, pressure cookers, grain and other food materials, storage boxes, plates and cups for serving food to the children, TATA Swach water purifiers, etc., were distributed to 30 Anganwadis situated in flood-affected areas.
- School bags were distributed to over 1,000 children.
- Measures were undertaken to ensure safe disposal of animal carcasses; over 1,000 carcasses were thus disposed.





INDIVIDUAL GRANTS



In keeping with the benevolent nature of Sir Ratan Tata and Lady Navajbai Tata and their inclination to help individuals in need of assistance, the Trusts have, since inception, laid great emphasis on their Individual Grants Programme. What characterises this Programme is the continuous efforts expended by the Trusts to hone systems that ensure a comprehensive, systematic and most importantly, fair and humane approach to identify needy individuals.

The Individual Grant Programme provides financial assistance to individuals for:

- Meeting medical expenses during critical illnesses.
- Merit and need-based education scholarships and grants for studies in India and abroad; travel grants for training, observerships (for the medical fraternity) and workshops; and funding for research in certain areas such as autism, dyslexia, public health and pancreatic cancer.

MEDICAL

A medical emergency, for most families, causes tremendous emotional and financial stress. Escalating hospitalisation bills and medicine costs have rendered decent medical attention beyond the realm of even the middle class population of the country. Though medical insurance is becoming increasingly popular in India, it does not cover the entire cost of treatment, especially for cases such as cancer, heart ailments, cochlear implants and kidney diseases, etc. Charitable trusts and benevolent individuals have been the only recourse for these families to help them overcome their financial burden.

The Trusts are utilising their vast network of medical professionals and social workers at various prominent government, municipal, private and charitable hospitals within the country. The linkages with the hospitals help

in assessing the socio-economic condition of the family, forwarding the form with the entire set of documents to the Trusts and providing information on the utilisation of the grant disbursed by the Trusts for the patient's treatment. All new linkages established by the Trusts are valid for a specific time period, post which a review is undertaken to decide on further action. The Trusts have forged linkages with over 40 hospitals as on March 2018.

During the year, a new link was formed with SRCC Narayana Hospital, Mumbai, to support the treatment costs of 500 poor and under-privileged children, suffering from various illnesses and in need of immediate attention and/or surgical or interventional procedures, through an initiative called "Raksha Camp".

During 2017-18, the Trusts received a total of 5,027 applications for medical grants. A sum of ₹ 628.70 million (US \$ 9.67 million) was sanctioned.

Details of Education Grants sanctioned/disbursed from April 2017 to March 2018

Ailments	Number of applications sanctioned	Amount sanctioned (Rs. Million)*	Number of disbursals made	Amount disbursed (Rs. Million)#
Aid to differently-abled individuals	17	4.65	22	3.67
Burns	17	5.86	26	5.04
Cancer	1,149	287.98	1,103	193.39
Chronic Illness	130	25.38	158	25.82
Cochlear Implant	221	91.14	213	84.98
Ophthalmic	3	0.09	3	0.09
General Surgery	28	3.03	27	2.90
Gynecological	2	0.07	1	0.03
Heart	643	89.08	693	89.84
ICU Treatment	49	11.57	57	13.04
Kidney	91	13.10	120	11.27
Liver Disease	65	28.48	50	18.17
Neurology	78	19.17	78	17.33
Neurosurgery	87	19.13	88	15.29
Neo Natal Intensive Care Unit (NICU) Treatment	34	6.12	39	6.46
Orthopedic	146	15.46	112	11.30
Psychiatric	-	-	1	0.04
Respiratory	27	6.74	27	5.89
Tuberculosis	10	1.65	11	1.63
Total	2,797	628.70	2,829	506.18

(*) 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.

EDUCATION

During 2017-18, the Trusts sanctioned ₹242.62 million (US \$3.73 million) towards education grants.

Details of Education Grants sanctioned/disbursed from April 2017 to March 2018

Particulars	Number of applications received	Number of applications sanctioned*	Amount sanctioned (Rs. Million)	Number of disbursements made#	Amount disbursed (Rs. Million)
Studies in India, including research scholarships	3,360	2,219	123.35	2,221	123.57
Studies abroad, including loan scholarships and research scholarships	309	217	116.90	221	111.85
Travel grants for studies abroad, training programs, workshops, etc.	393	135	7.11	141	7.20
Total	4,062	2,571	247.36	2,583	242.62

* Sanctions may also relate to applications received during the previous year, in addition to those received during the year under review.
Amount disbursed includes grants sanctioned during the previous year, as well as the year under review.

SCHOLARSHIPS FOR HIGHER EDUCATION

Annual Merit Scholarships: Given for students pursuing undergraduate and postgraduate programmes in India, these scholarships are awarded based on eligibility criteria, revolving around merit. In 2017-18, a total amount of ₹8.19 million was disbursed through 1,538 scholarships.

Means-based grants: Meant for both school and college students, these grants are given on the basis of economic criteria. A minimum passing percentage is required for the grant to be processed. In 2017-18, 652 means-based grants were awarded for a total amount of ₹2.89 million.

Travel grants: Partial travel assistance was given to professionals and other employed individuals to enhance their professional or work-related skills through attending relevant training programmes, workshops or observership (for those in the field of medicine). A total grant amount of ₹7.19 million was disbursed to 141 applicants.

Studies Abroad: Scholarships were awarded to students who are keen to pursue their postgraduation studies abroad. A total grant amount of ₹5.14 million has been disbursed to 74 applicants.

Others: Requests received for purposes other than those mentioned above are evaluated within this category, as long as they fall within the ambit of the Trusts' mandates. Sports grants are also considered within this programme. Grants totaling ₹1.19 million were disbursed to 28 applicants as part of this programme.

Research Fellowship: The research fellowship is offered in four areas — autism, dyslexia, public health and pancreatic cancer. Applications are invited every year through an advertisement. In 2017-18, 3 fellowships were awarded for a total amount of ₹0.66 million.

FINANCIAL HIGHLIGHTS

SIR RATAN TATA TRUST

Income

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
5.76	0.09	0.40	Dividend	768.65	11.83	20.55
280.02	4.31	19.61	Interest	217.31	3.34	5.81
0.25	0.01	0.02	Donation/Earmarked Grants (including interest)	815.78	12.55	21.81
0.12	-	0.01	Property Income	0.11	-	-
5.94	0.09	0.42	Sundries	7.41	0.11	0.20
-	-	-	Amount transferred from Earmarked Funds	654.51	10.07	17.50
1135.77	17.47	79.54	Excess of Expenditure over Income	1276.87	19.65	34.13
1,427.86	21.97	100.00		3,740.64	57.55	100.00

Expenditure

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
1,239.70	19.07	86.82	Expenditure on Objects of the Trust (including grant related expenses)	2,682.92	41.28	71.72
185.08	2.85	12.96	Administrative Expenses	245.91	3.78	6.58
3.08	0.05	0.22	Property Expenses	6.10	0.09	0.16
-	-	-	Amount transferred to Earmarked Funds	805.71	12.40	21.54
1,427.86	21.97	100.00		3,740.64	57.55	100.00

(1 US \$ = ₹65 as on 31st March 2017 and 31st March 2018)

SIR RATAN TATA TRUST

Sources of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
782.74	12.04	25.79	Trust Fund	782.74	12.04	21.05
-	-	-	Earmarked Funds	151.20	2.33	4.07
2,237.85	34.43	73.73	Reserves and other Funds	2,761.78	42.49	74.27
14.66	0.23	0.48	Current Liabilities & Provisions	22.90	0.35	0.61
3,035.25	46.70	100.00		3,718.62	57.21	100.00

Application of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
4.83	0.07	0.16	Immovable Assets	4.48	0.07	0.12
2.49	0.04	0.08	Movable Assets	3.32	0.05	0.09
2,636.22	40.56	86.85	Investments	1,561.96	24.03	42.00
391.71	6.03	12.91	Current Assets	2,148.86	33.06	57.79
3,035.25	46.70	100.00		3,718.62	57.21	100.00

*(1 US \$ = ₹65 as on 31st March 2017 and 31st March 2018)

FINANCIAL HIGHLIGHTS

NAVAJBAI RATAN TATA TRUST

Income

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
183.26	2.82	0.90	Dividends	-	-	-
51.68	0.79	0.25	Interest	19.84	0.31	13.16
0.10	-	-	Donations	-	-	-
9.10	0.14	0.05	Sundries	1.53	0.02	1.01
20,138.07	309.82	98.80	Excess of Expenditure over Income	129.39	1.99	85.83
20,382.21	313.57	100.00		150.76	2.32	100.00

Expenditure

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
20,147.17	309.96	98.85	Expenditure on Objects of the Trust (including grant related expenses)	21.75	0.34	14.43
11.13	0.17	0.05	Administrative Expenses	1.59	0.02	1.05
223.91	3.44	1.10	Taxes Paid	127.42	1.96	84.52
-	-	-	Excess of Expenditure over Income	-	-	-
20,382.21	313.57	100.00		150.76	2.32	100.00

(1 US \$ = ₹65 as on 31st March 2017 and 31st March 2018)

NAVAJBAI RATAN TATA TRUST

Sources of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
278.15	4.28	100.00	Trust Fund	148.75	2.29	100.00
-	-	-	Reserves and other Funds	-	-	-
-	-	-	Current Liabilities & Provisions	-	-	-
278.15	4.28	100.00		148.75	2.29	100.00

Application of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
1.59	0.02	0.57	Movable Assets	1.25	0.02	0.84
119.60	1.84	43.00	Investments	119.60	1.84	80.40
156.96	2.42	56.43	Current Assets	27.90	0.43	18.76
278.15	4.28	100.00		148.75	2.29	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

FINANCIAL HIGHLIGHTS

TATA EDUCATION & DEVELOPMENT TRUST

Income

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
1,650.13	25.39	19.97	Interest	4,298.96	66.14	58.61
6,534.79	100.53	79.08	Donations/Earmarked Grants (including interest)	67.15	1.03	0.92
65.23	1.00	0.79	Sundries	48.83	0.75	0.67
13.60	0.21	0.16	Amount transferred from Earmarked Funds	14.75	0.23	0.20
-	-	-	Excess of Expenditure over Income	2,904.89	44.69	39.60
8,263.75	127.13	100.00		7,334.58	112.84	100.00

Expenditure

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
4,868.27	74.89	58.91	Expenditure on Objects of the Trust (including grant related expenses)	7,095.43	109.16	96.74
95.45	1.47	1.16	Administration Expenses	172.50	2.65	2.35
24.79	0.38	0.30	Amount Transferred to Earmarked Funds	66.65	1.03	0.91
3,275.24	50.39	39.63	Excess of Income over Expenditure	-	-	-
8,263.75	127.13	100.00		7,334.58	112.84	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

TATA EDUCATION & DEVELOPMENT TRUST

Sources of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
48,469.64	745.69	93.19	Trust Fund	48,469.64	745.69	98.55
11.19	0.17	0.02	Earmarked Funds	63.08	0.97	0.13
3,518.77	54.13	6.77	Reserves & other Funds	613.88	9.44	1.25
12.24	0.19	0.02	Current Liabilities & Provisions	34.99	0.54	0.07
52,011.84	800.18	100.00		49,181.59	756.64	100.00

Application of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
6.34	0.10	0.01	Movable Assets	19.61	0.30	0.04
48,131.14	740.48	92.54	Investments	47,991.14	738.33	97.58
3,874.36	59.60	7.45	Current Assets	1,170.84	18.01	2.38
52,011.84	800.18	100.00		49,181.59	756.64	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

FINANCIAL HIGHLIGHTS

BAI HIRABAI J. N. TATA NAVSARI CHARITABLE INSTITUTION

Income

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
5.35	0.08	91.45	Interest	5.23	0.08	85.04
0.32	0.01	5.47	Sundries	0.43	-	6.99
0.18	-	3.08	Excess of Expenditure over Income	0.49	0.01	7.97
5.85	0.09	100.00		6.15	0.09	100.00

Expenditure

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
5.67	0.09	96.92	Expenditure on Objects of the Trust	5.48	0.08	89.11
0.18	-	3.08	Administration Expenses	0.67	0.01	10.89
5.85	0.09	100.00		6.15	0.09	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

BAI HIRABAI J. N. TATA NAVSARI CHARITABLE INSTITUTION

Sources of Funds

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
62.87	0.97	79.10	Trust Fund	62.87	0.97	83.45
16.61	0.25	20.90	Reserves and Other Funds	12.47	0.19	16.55
79.48	1.22	100.00		75.34	1.16	100.00

Application of Funds

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
11.90	0.18	14.97	Immovable Properties	8.32	0.13	11.04
0.21	-	0.26	Movable Assets	0.08	-	0.11
61.95	0.95	77.95	Investments	61.95	0.95	82.23
5.42	0.09	6.82	Current Assets	4.99	0.08	6.62
79.48	1.22	100.00		75.34	1.16	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

FINANCIAL HIGHLIGHTS

SARVAJANIK SEVA TRUST

Income

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
-	-	-	Dividend	3.17	0.05	79.85
0.99	0.02	21.43	Interest	0.80	0.01	20.15
0.03	-	0.65	Sundries	-	-	-
3.60	0.05	77.92	Excess of Expenditure over Income	-	-	-
4.62	0.07	100.00		3.97	0.06	100.00

Expenditure

For the year ended 31.3.2017			Particulars	For the year ended 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million**	%
4.49	0.07	97.19	Expenditure on Objects of the Trust	3.19	0.05	80.35
0.03	-	0.65	Administration Expenses	0.03	-	0.76
0.10	-	2.16	Taxes Paid	0.32	-	8.06
-	-	-	Excess of Income over Expenditure	0.43	0.01	10.83
4.62	0.07	100.00		3.97	0.06	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

SARVAJANIK SEVA TRUST

Sources of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
3.15	0.05	33.73	Trust Fund	3.15	0.05	32.24
6.19	0.09	66.27	Reserves and Other Funds	6.62	0.10	67.76
9.34	0.14	100.00		9.77	0.15	100.00

Application of Funds

As on 31.3.2017			Particulars	As on 31.3.2018		
₹ in million	US \$ in million*	%		₹ in million	US \$ in million*	%
8.67	0.13	92.83	Investments	8.67	0.13	88.74
0.67	0.01	7.17	Current Assets	1.10	0.02	11.26
9.34	0.14	100.00		9.77	0.15	100.00

(1 US \$ = ₹ 65 as on 31st March 2017 and 31st March 2018)

The Trusts wishes to acknowledge their team and partners for the case studies and photographs used in the report.

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**“ GROWING ORGANISATION IN ANY FIELD
MUST CONSTANTLY EVOLVE,
ACCEPT OR EVEN SEEK NEW IDEAS,
NEW VISIONS, AND NEW ENTHUSIASMS.
”**

JRD TATA

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