



TATA CONSUMER PRODUCTS

Impact Assessment Report 2022-23

REPORT PREPARED BY



CONTENTS

Establishing the Context	01
---------------------------------	-----------


About TCPL	02
-------------------	-----------


Overview of the Project	03
--------------------------------	-----------

Project Dashboard	04
--------------------------	-----------

Project Locations	05
--------------------------	-----------

Affordable Healthcare

 Project 1 Referral Hospital and Research Centre (RHRC), Assam	06 - 30
--	----------------

 Project 2 St. Jude Premashraya, Mumbai and Kolkata	31 - 52
---	----------------

Empowerment of Differently-abled

 Project 3 Srishti, Munnar	53 - 81
--	----------------

 Project 4 Swastha, Coorg	82 - 112
---	-----------------

Rural Development

 Project 5 TCSR, Mithapur	113 - 155
--	------------------

WaSH

 Project 6 Jalodari, Himachal Pradesh	156 - 219
---	------------------

 Project 7 Jalodari, Assam	220 - 259
--	------------------

ESTABLISHING THE CONTEXT

A PRELIMINARY OVERVIEW

This Impact Assessment Report has been meticulously crafted by SoulAce Consulting, a distinguished PAN India agency specializing in the Social Impact Assessment of CSR and related services. From systematic planning to appropriate framework designing, from comprehensive field studies to rigorous data collection, analysis, and report preparation, every stage of this endeavor reflects a commitment to excellence.

Guided by the ethical principles of social research, this report maintains an unwavering commitment to objectivity. It presents findings from the field without bias or fervor, ensuring that the realities of the beneficiaries' lives are portrayed accurately.

In addition to evaluating the performance of CSR projects, this report presents valuable insight, illuminating the myriad ways in which these interventions have touched the lives of beneficiaries across diverse geographical landscapes.

The study, which was made as a result of a thorough examination and evaluation of the CSR interventions executed by TCPL during the fiscal year 2022-23, offers a comprehensive analysis of the impact created. It assesses the multifaceted effects on various aspects of beneficiaries' lives, ranging from socio-economic empowerment to educational advancement, healthcare accessibility, environmental sustainability, and beyond.

Furthermore, this report not only quantifies the tangible outcomes but also captures the intangible benefits that these initiatives have brought forth, such as enhanced community cohesion, strengthened social fabric, and increased resilience in the face of adversity.

By providing a holistic perspective on the transformative power of CSR initiatives, this report serves as a valuable resource for stakeholders, policymakers, and practitioners alike, offering invaluable insights to inform future strategic planning and decision-making processes.

ABOUT TCPL

Tata Consumer Products Limited is a prominent player in the consumer goods sector, consolidating the key food and beverage interests of the Tata Group. Under its umbrella, the company offers an extensive range of products encompassing tea, coffee, water, ready-to-drink beverages, salt, pulses, spices, convenience meals, breakfast cereals, snacks, and more.

Renowned as the world's second-largest branded tea company, Tata Consumer Products boasts a lineup of distinguished beverage brands, including Tata Tea, Tetley, Eight O'Clock Coffee, Tata Coffee Grand, Himalayan Natural Mineral Water, Tata Copper+, and Tata Gluco+. Complementing its beverage portfolio, the company's food division features popular brands such as Tata Salt, Tata Sampann, and Tata Soulfull.

With an impressive presence in India, Tata Consumer Products reaches over 201 million households, capitalizing on the formidable Tata brand in the consumer goods arena. The company maintains a consolidated annual turnover of approximately Rs. 13,783 Crs, operating across both domestic and international markets.

The Natural Food and Beverages Policy of the Company integrates Sustainability, Corporate Social Responsibility (CSR), Affirmative Action, Community Initiatives, and volunteering. It is anchored in the company's commitment to CSR as per Section 135 of the Companies Act, focusing on 'Building Sustainable Livelihoods'. Governance of CSR is overseen by the CSR Committee appointed by the Board, ensuring compliance with relevant regulations. The Committee formulates CSR policies, activities, and expenditures while monitoring implementation. Projects undertaken align with Section 135 of the Companies Act, 2013 and related regulations.

Some of the key areas of CSR Interventions at TCPL include Livelihood and Skill Development, Healthcare, Women Empowerment, Project Jalodari, Tata Chemicals Society for Rural Development (TCSRDR) Coorg Foundation and Affirmative Action.

OVERVIEW OF THE PROJECTS

TCP's CSR interventions for the financial year 2022-23 focused on key areas like affordable healthcare, empowerment of differently-abled, rural development, and WaSH.

Projects	Primary SDG	Thematic Area	Duration	No. of Beneficiaries	Implementing Agency
RHRC Chabua, Assam	3,10	Affordable Healthcare	2014 onwards	68,952	Referral Hospital and Research Centre
St. Jude Kolkata, West Bengal Mumbai, Maharashtra	1,2,3,4	Affordable Healthcare	2014 onwards	140	St. Jude India Childcare Centres
Srishti Munnar, Kerala	1,2,3,4,5,8,10	Empowerment of differently-abled	2014 onwards	178	Srishti
Swastha Coorg, Karnataka	1,2,3,4,5,8,10	Empowerment of differently-abled	2019 onwards	123	The Coorg Foundation
TCSR Mithapur, Gujarat	1,2,3,4,5,6,8,10	Rural Development	2019 onwards	61,998	Tata Chemicals Society for Rural Development
Jalodari Himachal Pradesh	1,2,3,4,5,8,10,12,14,15,16,17	WaSH (Water, Sanitation and Hygiene)	2019 onwards	7,540	Himmothan Society
Jalodari Assam	3,5,10	WaSH (Water, Sanitation and Hygiene)	2019 onwards	7,456	Tata Trust/Centre For Microfinance and Livelihood



910

BENEFICIARIES WERE INTERVIEWED FOR THIS IMPACT ASSESSMENT STUDY



13,98,887

LIVES POSITIVELY IMPACTED THROUGH CSR INTERVENTIONS SINCE 2018

PROJECT DASHBOARD



4

THEMATIC AREAS



Affordable
Health Care



Community
Development



Empowerment
of the Disabled



WaSH



7

PROJECTS

- Referral Hospital and Research Centre (RHRC), Assam
- St. Jude Premashraya, Mumbai and Kolkata
- Srishti, Munnar
- Swastha, Coorg
- TCSR, Mithapur
- Jalodari, Himachal Pradesh
- Jalodari, Assam



7

LOCATIONS



Sirmaur



Chabua



Jorhat



Munnar



Coorg



Mithapur



Kolkata & Mumbai



7

STATES

West Bengal, Assam, Kerala, Karnataka, Gujarat,
Himachal Pradesh and Maharashtra



SDG GOALS



PROJECT LOCATIONS



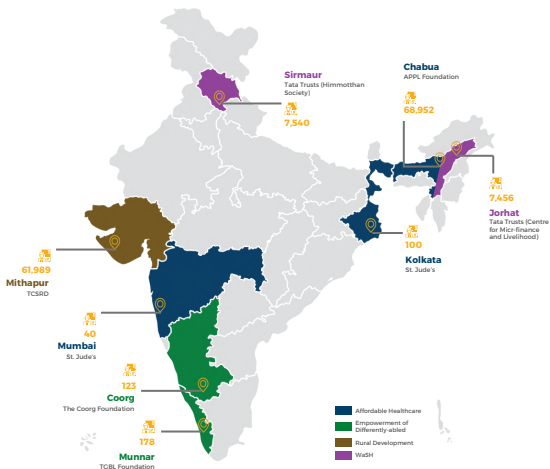
**Beneficiaries
Covered**



**Project States &
Locations**



**Implementing
Partners**



1,46,387
**TOTAL NUMBER OF
BENEFICIARIES
IMPACTED ACROSS
ALL LOCATIONS**



TARGET
**TATA CONSUMER PRODUCTS
LIMITED (TCPL) IS COMMITTED
TO IMPROVE THE LIVES OF
2 MN. BENEFICIARIES BY 2030**

TATA CONSUMER PRODUCTS

Referral Hospital and Research Centre, (RHRC, Assam)

Impact Assessment Report



REPORT PREPARED BY



CONTENTS

Chapter 1 Executive Summary	01 - 04
Background of the Program	01
Research Methodology	02
Key Findings	03
Key Impact	04
Chapter 2 OECD Framework	05 - 06
Chapter 3 Research Methodology	07
Objectives of the study	07
Mixed Methodology	07
Ensuring Traingulation	07
Research Design	07
Sampling Design	07
Key Stakeholders	07
Commitment to Research Ethics	07
Chapter 4 Introduction	08
Chapter 5 Major Findings of the Study	09 - 22
Introduction	09
Demography of beneficiary population	09 - 10
Utilization of Services	11
Overview of Out Patient Department at RHRC	11
Treatment Preference and Satisfaction with Services	12
Interactions with the patients revealed the following reasons	12
Beneficiaries satisfaction with Doctors at RHRC	13
Patient satisfaction towards Nursing Care	14
Satisfaction of beneficiaries regarding hospital facilities	15
Satisfaction towards the Adequacy of Hospital Staff	15
Factors influencing patient decision seeking treatment at RHRC	16
Beneficiaries satisfaction towards acute care and clinical services	16 - 18
Beneficiaries satisfaction towards cleanliness and queue management	19 - 22
Chapter 6 Conclusion	23

01. EXECUTIVE SUMMARY



Background of the Program

Tata Tea Limited established the Referral Hospital and Research Centre (RHRC) in 1994. The hospital is a 80-bed secondary care facility operating on a non-profit basis. Conceived by Tata Tea in 1989, RHRC has gained commendable recognition for its ethical medical practices. Catering to the general public with cost-effective treatment options, the hospital has become a preferred healthcare destination locally and in neighbouring states like Nagaland and Arunachal Pradesh. The hospital holds the distinction of being the sole healthcare centre in the region with SA8000 certification.

Since 2007, RHRC has provided medical care to a significant number of around 3,00,000 beneficiaries, the majority being non-employees of the company. The hospital affordably delivers secondary medical care in the North East, with a focus on its commitment to sustainability and social responsibility.

This study aims to evaluate the impact of RHRC's healthcare services during the financial year 2022-23.



Year of Implementation

2022 - 2023



Year of Assessment

2023-2024



Number of Beneficiaries

68,952



Project Location

Chabua, Assam

Research Methodology



Research Design

Descriptive Research Design



Research Approach

Mixed Methodology



Sampling Design

Purposive sampling



Sample Size

150



Field of Study

RHRC Hospital, Chabua Assam



Stakeholders covered



Doctors



Dietician



Nursing staff



Support staff



Hospital
management &
Admin



**RHRC HOSPITAL, CHABUA,
ASSAM**

Key Findings



ENHANCED INCLUSIVENESS

75.0%

of the beneficiaries are from the general community, and healthcare is not restricted to TATA Tea Limited & APPL employees, indicating inclusiveness.



SERVES ECONOMICALLY DISADVANTAGED

43.3%

of the beneficiaries earn less than Rs.10,000/- as their monthly income, indicating that RHRC provides medical care for economically disadvantaged people in the community.



ENHANCED ACCESS TO HEALTHCARE FOR COMMON ILLNESSES

54.0%

of the beneficiaries visited the hospital's general medicine department.



HIGH UTILIZATION OF SERVICES

95.3%

of the beneficiaries shared that the high quality of medical care provided at RHRC was the reason for choosing the hospital for medical treatment.



HIGH RESPONSIVENESS & EMPATHY OF MEDICAL STAFF

95.3%

of beneficiaries were highly satisfied with the availability of expert doctors.

94.7%

of beneficiaries were highly satisfied with the availability of experienced nurses.

98.7%

of the beneficiaries expressed that the doctors were responsive to their healthcare needs and concerns.

96.7%

of the beneficiaries shared that the doctors spent adequate time consulting with them.

100.0%

of the patients confirmed that the doctors undertook a thorough physical examination of them.

88.7%

of the patients expressed satisfaction with the nursing staff always communicating with them about the hospital's treatment process.

92.7%

of the patients shared that the nursing staff were always kind and considerate towards them.



ENHANCED INFRASTRUCTURAL COMFORT

91.3%

of beneficiaries stated that the hospital always has adequate seating arrangements.

99.3%

of beneficiaries stated that the hospital premises are kept clean and tidy all the time.

Key Impact



INCREASED FOOTFALL

53.2%

increase in the number of patients treated in the OPD in F.Y. 2022-23 over the previous F.Y.



INCREASED ADMISSIONS

62.7%

increase in the number of patients in admissions in the F.Y. 2022-23 over the previous F.Y.



ENHANCED UTILIZATION OF DIAGNOSTIC SERVICES

48.7%

rise in the number of people seeking USG diagnostics in the F.Y. 2022-23 in comparison with the previous year.

19.9%

rise in the number of people availing X-ray in comparison with the previous financial year.



INCREASED UTILIZATION OF SURGICAL PROCEDURES

42.1%

increase in the number of patients availing laparoscopic surgeries in comparison with the previous financial year.

90.3%

increase in the number of patients undergoing eye surgeries in comparison with the previous financial year.

115%

increase in the number of patients availing obstetric and gynaecological surgery in comparison with the previous financial year.

14.4%

increase in number of patients availing orthopaedic surgery in comparison with the previous financial year.



THE CABIN AT THE RHRC HOSPITAL

02. OECD FRAMEWORK



Relevance

The study reveals that RHRC has been offering quality medical care among Assam & its neighboring Northeast states.

Interactions with the beneficiaries indicate that RHRC is serving the felt needs of the people in the region.

The growing number of patients year on year, for OPD, IPD, major and minor surgeries, imaging diagnostics, and other specialty areas, makes it imperative that people in the region prefer health care services. This shows that CSR intervention through RHRC in providing affordable medical care to beneficiaries is very high in its relevance.



Coherence

The CSR intervention is found to be furthering the SDG goals.

- Goal 3: Good Health and well-being.
- Goal 10: Reduced Inequalities.

Furthermore, RHRC is rendering its services in tune with the key principles of the National Health Policy 2017, such as

- Professionalism, integrity, ethics.
- Equity
- Affordability.
- Patient-centred and quality care.
- Accountability.
- Dynamism and adaptiveness.

Hence, the program can be stated to be very high in its coherence.



Effectiveness

The study evidenced a significant increase in the number of outpatients, admissions, pathological tests, patients seeking imaging diagnostics, audiometry, and other services of RHRC year on year.

Also, the study found high levels of patient satisfaction in various aspects like satisfaction towards consultations, treatment given by Doctors, guidance of nursing staff, dieticians, maintenance of hospital premises, etc., which shows the hospital is high in the efficiency parameter.





Efficiency

The study has found that RHRC has targeted the right beneficiary group and achieved the intended objectives.

Apart from rendering medical care accessible and affordable to a large section of economically disadvantaged people, interactions with patients revealed better treatment outcomes, resulting in experiencing an enhanced quality of living among the beneficiaries. Hence, the services of RHRC can be stated to be highly effective.



Impact

The services provided by RHRC have not just expanded access to improved healthcare, catering to an increasing number of patients seeking various major and minor surgeries, as well as diagnostic procedures, but have also generated lasting positive impacts by improving health outcomes and well-being, ultimately contributing to a healthier population. Furthermore, the services have cultivated a sense of trust and reliability in the delivery of quality healthcare from RHRC.

Hence, the services of RHRC can be stated to have a high impact.



Sustainability

With the collection of a nominal fee for consultation and treatment and also by way of charging a reasonable fee for availing the services of imaging services, pathological testing, ECG, audiometry, etc., RHRC covers a part of its operational costs and maintenance costs of the hospital.

Charging a nominal fee prevents misuse of health care services and encourages responsible utilisation by people who genuinely need medical attention. This also instills a sense of financial responsibility and reduces the dependence of patients solely on the hospital for health care needs.

Hence, the services of RHRC can be stated to be high in its sustainability.



Relevance



Coherence



Effectiveness



Efficiency



Impact



Sustainability

CHAPTER 3

RESEARCH METHODOLOGY

TCPL empanelled SoulAce, a third-party Social Impact Assessment Agency, to conduct an impact assessment study to evaluate the immediate and long-term impacts of the program 'Affordable Health Care to All' for the fiscal year 2022-23.

OBJECTIVES OF THE STUDY



To assess the extent of patient satisfaction with various health care services provided by RHRC Hospital, Chubwa, Assam.



To assess the extent of utilisation of various diagnostic services by the beneficiaries.



To evaluate the short-term and long-term social impact created through the health care services of RHRC hospital.

MIXED METHODOLOGY

The research employed a combination of Quantitative and Qualitative methods to extract comprehensive insights.

The quantitative tool of interview schedules aided in precision and presenting data in a numerical format amenable to statistical analysis. Meanwhile, qualitative tools such as interviews and focused group discussions were used to unravel nuanced information that was not immediately apparent.

The balanced use of both approaches helped in gaining a wholesome understanding of the social impact created by the project.

ENSURING TRIANGULATION

Employing both Quantitative and Qualitative methods contributed to the verification and validation of the research findings.

RESEARCH DESIGN

A Descriptive research design was used to depict the current state of the social impact scenario without the necessity to manipulate variables or establish causal relationships between variables.

SAMPLING DESIGN

Purposive sampling, a non-probability sampling technique, was employed to select respondents based on their specific prior experiences in utilising various services offered by the hospital.

KEY STAKEHOLDERS



Doctors



Nursing staff



Administrative staff

COMMITMENT TO RESEARCH ETHICS

Ethical values about research, like informed consent, anonymity, beneficence, non-maleficence, and justice, were strictly adhered to in the research.



DR. D. SENGUPTA, CMO AT RHRC

CHAPTER 4

INTRODUCTION

RHRC is a 80-bedded secondary care hospital established in 1994 located at Chabua Tea Estate, Assam. The hospital operates on a non-profit basis, offering treatment at minimal cost to the general public. Renowned for ethical medical practices, RHRC has earned a commendable reputation locally and in neighbouring states like Nagaland and Arunachal Pradesh, drawing patients seeking quality medical care. It holds SA8000 certification and has treated employee and non-employee patients since it was established. Referral Hospital & Research Centre (RHRC), a unit of APPL Foundation, is an 80-bed superior secondary medical care at an affordable cost, primarily serving the North East region.

Overview of various clinical departments of RHRC

DEPARTMENT	NO. OF DOCTORS	AVAILABILITY
Medicine Department	2	All days
Gynaecology	2	All days
General surgery	2	All days
Cardiology	1	Weekly once
ENT	1	4 days in a week
Dental	1	All days
Orthopaedic	2	All days
Ophthalmology	1	All days

SoulAce, a third-party Social impact assessment agency, was empanelled by TCPL to undertake the social impact assessment of the project Making health care accessible to all of RHRC.



CHAPTER 5

MAJOR FINDINGS OF THE STUDY



INTRODUCTION

This chapter summarises the key findings on the demography of the beneficiaries, utilisation of services of the hospital, treatment preference of patients and their satisfaction. Patient satisfaction with doctors, patient satisfaction with nursing staff, patient satisfaction with the hospital facilities, patient satisfaction with the adequacy of hospital staff and patient satisfaction towards cleanliness and queue management.

Besides these major findings, this section highlights the key impact created by the project.



DEMOGRAPHY OF BENEFICIARY POPULATION

CHART 1: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY AGE-GROUP

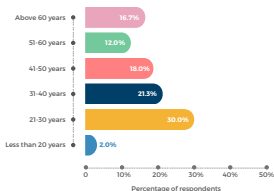


CHART 3: DISTRIBUTION OF RESPONDENTS BASED ON EMPLOYMENT WITH TATA TEA ESTATE OR NOT

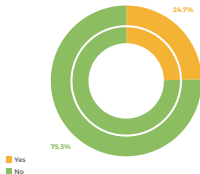


CHART 2: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY GENDER

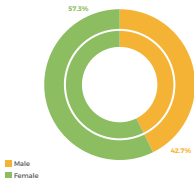
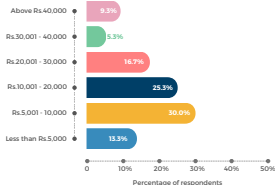


CHART 4: DISTRIBUTION OF RESPONDENTS ACCORDING TO MONTHLY INCOME



DEMOGRAPHIC PROFILE OF THE RESPONDENTS



BENEFICIARIES ACROSS ALL AGE GROUPS BENEFITTED

The research indicates that RHRC is accessed by individuals spanning various age brackets, ranging from below 20 years to over 60 years. The majority, constituting 30%, falls within the age range of 20-30 years.



MORE WOMEN THAN MEN BENEFITTED

The research findings indicate that a higher number of female beneficiaries utilise RHRC compared to their male counterparts. The fact that women are predominant recipients of medical care is a positive trend, possibly attributed to the affordable and quality healthcare services offered at the hospital.



INCLUSIVE CARE

The study shows that over 3/4th's of beneficiaries are from the general community and are not restricted to the medical treatment of TATA Tea estate employees. It is pleasing to observe that a broader community is availing the services of RHRC, contributing to the well-being of a significant number of people.



PROVIDING AFFORDABLE MEDICAL CARE TO LOW-INCOME GROUPS

A significant proportion of RHRC service recipients, comprising 68.6%, belong to the income bracket of Rs.5000 to Rs.20,000/-. This suggests that the hospital is catering to individuals with lower income within the beneficiaries.



The research team interacted with Dr. Rashmi Tiwari, who has been associating with the hospital for three years. Dr. Tiwari mentioned that she visited the OPD and O.T. on alternate days. She noted that RHRC offers high-quality infertility services and also highlighted the recent introduction of contraceptive implant insertion as one of the family planning procedures. Beneficiaries are happy to receive the service as their awareness level has increased. She said that ANC checkup for tea workers is available here. She further added that the department used to organise menstrual hygiene sessions for college students.

According to Dr. Tiwari, the hospital excels in providing the finest medical care, conducting medical procedures, and managing operational costs in the region. Patients receive attentive and proper care, instilling a sense of trust in the hospital. The institution is committed to delivering services based on ethical values, distinguishing itself from commercialised external hospitals. Dr. Tiwari emphasised that she ensures her department assistants offer patients accurate guidance on medications and other services. Furthermore, she highlighted the department's well-maintained medical equipment, noting that the hospital consistently updates its equipment to the latest versions.

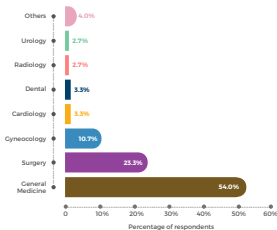
Interview with Dr. Rashmi Tiwari, Gynaecology department





UTILIZATION OF SERVICES

CHART 5: SPECIALITIES AT RHRC UTILISED BY BENEFICIARIES



GENERAL MEDICINE

The study reveals that the majority of the beneficiaries (54%) visit the hospital's general medicine department. The research team met with patients waiting to get treatment for health conditions like the common cold and fever, influenza, and Gastrointestinal conditions like Peptic ulcers, Gastroenteritis, vomiting, inflammatory bowel disease, etc.

The patients expressed their satisfaction towards the efficacy of the treatment provided at RHRC.



SURGERY

A notable proportion of beneficiaries (23.3%) sought hospital services for surgical procedures such as appendectomy, hernia repair, tonsillectomy, and similar interventions. The caregivers of these patients conveyed confidence in the hospital's ability to conduct the surgeries effectively, anticipating positive health outcomes.



GYNAECOLOGY

The research team met with patients who had visited the hospital for varied reasons like consultations on reproductive sexual health and examinations, prenatal care, menstrual disorders and infections, and specialised care for reproductive health.

The female beneficiaries expressed that RHRC provides the best treatment in the region at an affordable cost.

OTHER DEPARTMENTS VISITED BY PATIENTS

Patients sought medical attention from various departments, including cardiology, dental, radiology, urology, and ophthalmology. The patients expressed satisfaction with the doctor's expertise, the effectiveness of treatments and consultations, as well as the accessibility of the hospital.



OVERVIEW OF OUT PATIENT DEPT & EMERGENCY DEPT AT RHRC

- OPD of the specialists handles the OPD patients.
- Emergency dept handles the emergency cases
- OPD registration counter takes information from the patients on the following things:
 - Name, age, address, contact number of the patient
 - Doctor preference
 - Prior prescription, to understand the medications followed.
 - Duty Medical Officers first visit the general medicine department and from there based on the nature of the illness are referred to further specialties.
 - On average, 130 patients visit the OPD. During the summertime, the footfall increases by up to 200 patients.

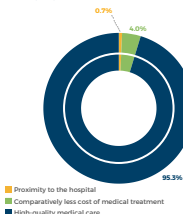


Discussion with staff at the pharmacy in RHRC



TREATMENT PREFERENCE AND SATISFACTION WITH SERVICES

CHART 6: REASONS FOR CHOOSING RHRC FOR TREATMENT



The majority of the patients (95.3%) interviewed for the study stated that the high quality of medical care provided at RHRC was the reason for choosing the hospital for medical treatment.

The other reasons for visiting the hospital were lower medical expenses towards treatment and proximity to the hospital.



INTERACTIONS WITH THE PATIENTS REVEALED THE FOLLOWING REASONS FOR THEIR PERCEPTION OF HIGH-QUALITY MEDICAL CARE AT RHRC.



Availability of experienced and skilled health care professionals



Proper communication with the patients



Precise diagnosis



Timely medical interventions



Faster recovery from medical conditions



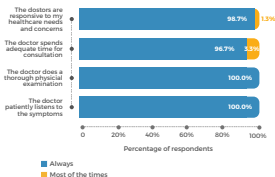
Responsiveness of the health care professionals



BENEFICIARIES SATISFACTION WITH DOCTORS AT RHRC

Patient satisfaction with doctors of the hospital is a key factor in the continual seeking of medical care and patient loyalty towards the hospital. Satisfied patients are more likely to recommend the hospital to friends and family members. The study indicates that patients are overwhelmingly satisfied with the doctors at RHRC.

CHART 7: SATISFACTION LEVEL OF BENEFICIARIES CONCERNING THE SERVICES BY DOCTORS



Almost all the beneficiaries (98.7%) expressed that the doctors were responsive to their healthcare needs and concerns.



96.7%

of the beneficiaries shared that the doctors spent adequate time for consultation with them.



100.0%

of the patients confirmed that the doctors undertook a thorough physical examination of them.

Physical abnormalities such as lumps, masses, skin changes, and deformities can often be detected through a thorough physical examination, providing a baseline for future assessments. A trained eye is adept at identifying many of these physical anomalies.

The attentive consideration of a patient's expressed symptoms is a crucial aspect of disease diagnosis by a doctor. It is reassuring to observe that all patients (100%) have affirmed that their doctors listened patiently to their symptoms.

“

Babli Majhi, employed as a tea plucker, underwent surgery for her gallbladder and ovarian tumour at RHRC hospital. She shared that she experienced excruciating pain and endured significant suffering due to her medical condition before she approached RHRC for surgery. Earlier, she hesitated to seek medical assistance, primarily out of fear regarding the potential expenses associated with the surgical procedure. She said, 'I abstained from work for many days, which also resulted in huge wage loss for my family. When my fellow workers advised me about taking treatment at RHRC, I approached the hospital. Dr. Hussain and Dr. Arun Sarman conducted the critical surgery and saved my life. For me, they are like Gods. I am so thankful to RHRC for having caring doctors and nurses who are genuinely concerned about their patients.'

”



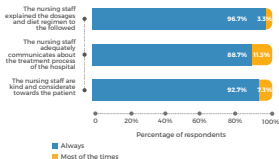
**EMERGENCY DEPARTMENT
AT RHRC**



PATIENT SATISFACTION TOWARDS NURSING CARE.

Patient satisfaction with the nursing staff plays a crucial role in delivering patient-centred care, building trust, and facilitating positive health outcomes. Findings from this study indicate that individuals utilising services at RHRC Hospital express satisfaction with the nursing staff, potentially contributing to the hospital's positive reputation.

CHART 8: SATISFACTION LEVEL OF BENEFICIARIES CONCERNING THE SERVICES BY THE NURSES



The nursing staff consistently received high satisfaction ratings, with 96.7% of patients expressing contentment regarding their explanations of medication dosages and dietary guidelines.

The nursing staff's vital role in providing clear guidance on proper medication dosages and dietary requirements is evident in these positive responses.



88.7%

of the patients expressed satisfaction with the nursing staff always communicating with them about the hospital's treatment process.

Communicating the treatment process clearly to the patient is important in reducing the patient's anxiety regarding the treatment.



92.7%

of the patients shared that the nursing staff were always kind and considerate towards them.

“

Aruna Majhi, a tea worker who was diagnosed with epileptic attacks in November 2022, says, 'I stayed at RHRC for a month under Doctor Shantanu's care after the diagnosis. After that I was referred to Dibrugarh government hospital for further treatment. During my stay at RHRC, the nurses would continually visit me and check all my vitals at regular periodic intervals.

They used to enquire about how I felt and whether I was comfortable with my stay in the hospital. They get to know my needs. Thanks to the treatment at RHRC, I am doing well now and able to carry out my work.'

”



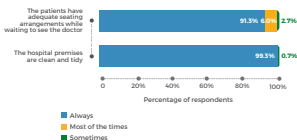
WAITING AREA IN THE OPD, RHRC





SATISFACTION OF BENEFICIARIES REGARDING HOSPITAL FACILITIES.

CHART 9: SATISFACTION LEVEL OF BENEFICIARIES CONCERNING THE HOSPITAL FACILITIES



AVAILABILITY OF ADEQUATE SEATING ARRANGEMENTS

91.3%

of beneficiaries have stated that the hospital always has adequate seating arrangements.

Adequate seating arrangement is essential to reduce physical discomfort, stress and anxiety among not only patients but also the attendants of the patients till they meet the doctor for consultation. It is encouraging to note that RHRC has adequate seating arrangements for the waiting patients.



MAINTENANCE OF A CONGENIAL HOSPITAL ENVIRONMENT

99.3%

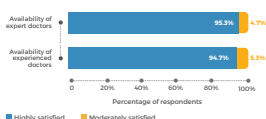
Almost all beneficiaries have stated that the hospital premises are kept clean and tidy all the time.

Interactions with the beneficiaries and support staff of the hospital revealed that the hospital is regularly cleaned and common areas are kept disinfected. The upkeep of a hygienic environment within the hospital premises is imperative to mitigate the likelihood of hospital-associated infections and safeguard patients and their attendees from potential health issues.



SATISFACTION TOWARDS THE ADEQUACY OF HOSPITAL STAFF.

CHART 10: SATISFACTION LEVEL OF BENEFICIARIES CONCERNING THE AVAILABILITY OF HOSPITAL STAFF



95.3%

of the beneficiaries were highly satisfied with the availability of expert doctors.



94.7%

of the beneficiaries were highly satisfied with the availability of experienced nurses.

Patient satisfaction with the availability of expert doctors and nurses is crucial for several reasons.



DR. NABEEL KHAN,
ADMINISTRATOR, RHRC



FACTORS INFLUENCING PATIENT DECISION SEEKING TREATMENT AT RHRC

When the beneficiaries were asked what factors influenced their decision to seek treatment at RHRC, one of the prominent reasons stated was the availability of experienced healthcare professionals.

Beneficiaries shared that the availability of expert medical staff at RHRC resulted in the following.



Trust and confidence on in the treatment regimen



Reduced stress and anxiety about the treatment outcomes



Perception of effective medical care



Prompt attention to patient's needs



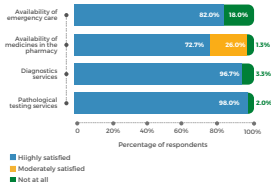
Continued loyalty towards the hospital

FACILITY AT THE EMERGENCY ROOM



BENEFICIARIES' SATISFACTION TOWARDS ACUTE CARE AND CLINICAL SERVICES AT RHRC

CHART 11: SATISFACTION LEVEL OF BENEFICIARIES CONCERNING THE AVAILABILITY OF PATHOLOGICAL & DIAGNOSTIC SERVICES AND MEDICINES & EMERGENCY CARE



98.0%

of the beneficiaries were highly satisfied with the pathological services at RHRC.



96.7%

of the beneficiaries were highly satisfied with the diagnostic services.



72.7%

of the beneficiaries were highly satisfied with the availability of medicines in the pharmacy.



82.0%

of the beneficiaries were highly satisfied with the availability of emergency care.

PATHOLOGICAL TESTS

Beneficiaries emphasised the convenience of accessing a diverse range of pathological tests within the RHRC (Referral Hospital and Research Centre), sparing them from the need to seek external laboratories for their testing needs. Participants in the study shared their utilisation of RHRC services for specific tests, including:



Complete Blood Count (CBC)



Blood chemistry tests, covering electrolytes, lipids, and glucose



Microbiology tests for viruses, bacteria, and fungi



Urinalysis



Thyroid function tests



Biopsy

During interactions, beneficiaries conveyed their satisfaction with the precision of the tests and the prompt delivery of results. They highlighted the significance of accurate and timely results in initiating appropriate treatments at the right juncture. Total 1,91,127 beneficiaries were benefitted by availing various tests at pathology department of RHRC.

“

Dr. A. H. Chelleng, the Head of the Department (HOD), has been a part of this hospital since 1997. The department is comprised of four primary technicians, four lab assistants, one lab attendant, and two home collectors. On average, there is a footfall of 40 to 50 patients, which increases to 70-90 during the summer. The department provides home collection services, and patients prefer to contact the blood collection personnel via phone, which prevents them from the hassle of having to visit the hospital to give the sample.

The department is highly efficient, ensuring no delays in report delivery and maintaining a high level of accuracy. Reports are conveniently shared through WhatsApp for prompt delivery. There is a growing concern about the increasing prevalence of lifestyle diseases among tea estate workers.

Interview with Dr. A. H. Chelleng.

”



DIAGNOSTICS

Towards providing quality diagnostic imaging services to patients in a cost-effective manner, RHRC has a dedicated Radiology department.

The Radiology department has facilities for the following.



X-rays



Ultra Sound Imaging



CT scans

- The Radiology department operates from 7:30 am to 5:30 pm daily.
- After 5:30 pm X-ray technicians are available on call for emergencies.
- The basic charge for an X-ray ranges from Rs. 300/- to Rs.500/- with rates increasing based on the complexity of cases.
- On average, the department handles 10 to 40 patients for X-ray tests each day.
- In the C.T. scan department, there is an average daily attendance of 4-5 cases.
- The cost for a Brain scan is approximately ₹2000/-, while a Spine scan is priced at ₹3000/-.
- After 5:30 pm, the X-ray technicians are available on call for emergencies.



Technicians Mr. Bidhyut Bikash and Mr. Sanjib Borah from RHRC commented that the fees charged within the facility are lower than those outside. They also noted that a significant number of patients attending the OPD seek further diagnostic procedures as advised by the doctors. Furthermore, external patients often visit for X-rays and C.T. scans, highlighting the department's effectiveness in terms of both cost and test accuracy.

X-ray room at RHRC, Assam



PHARMACY

RHRC has two pharmacies, one for the OPD and another for IPD. All the beneficiaries expressed their satisfaction towards the availability of medicines prescribed by the doctors at RHRC.

EMERGENCY SERVICES



The Emergency service operates 24 hours a day.



Staff capacity includes a staff nurse, a trainee nurse, an ANM, and a doctor.



The emergency service runs in three shifts, each lasting 8 hours.



Facilities for Blood transfusion are available with the Emergency services.



The emergency unit has five beds available for patient care.



The staff provides vital checkups such as Random Blood Sugar tests and offers oxygen support.



On average, the unit attends to 25 patients daily, primarily dealing with cases related to fever, accidents, diarrhea, and domestic violence.



A master register is maintained for diagnosis purposes.

“

Dr. Saurabh Buragohain, the senior doctor, has been associated with this hospital as a full-time doctor since 1997. He said that, primarily, general people from nearby places come with lifestyle disorders like diabetes, high blood pressure, and seasonal diseases. He said that the present trend of the emergence of diabetics among tea workers is due to a lack of micronutrients. The prevalence of tuberculosis is high among tea workers. He also mentioned the high prevalence of anaemia among females. He said that, on average, he gets 30 to 40 patients daily.

Doctor Saurabh highly appreciated the hospital's services to the community at such a reasonable charge. He also shared that the hospital provides holistic services to the patients. He expressed his satisfaction engaging with this hospital for a long time. He mentioned that the hospital provides a healthy and delicious diet to its inpatients, which is also one of the factors influencing patient's satisfaction with the hospital.

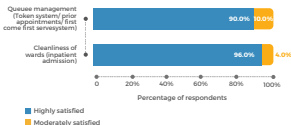
Interview with Dr. Saurabh Buragohain

”



BENEFICIARIES' SATISFACTION TOWARDS CLEANLINESS AND QUEUE MANAGEMENT.

CHART 12: SATISFACTION LEVEL OF BENEFICIARIES CONCERNING THE CLEANLINESS AND QUEUE MANAGEMENT



90.0%

of the patients expressed high levels of satisfaction with the Queue management at RHRC.

Beneficiaries expressed their happiness about fixing appointments, waiting to see the doctors and consulting the doctor as per appointment.



96.0%

of the patients expressed high levels of satisfaction about the cleanliness of the wards at RHRC.

“

Anita Tanti was diagnosed with hypokalaemia in December 2022. She said, 'I received treatment from Doctor Shantanu. I stayed at RHRC Hospital for 26 days. During the time of my stay at the hospital, not only was I provided good quality care, but the hospital wards were maintained very clean and tidy, which is worth mentioning. At the time of admission, I was feeling extremely weak and unable to do any household work.

However, under Doctor Shantanu's care, I gradually regained my strength and returned to normal life. I am immensely thankful to Dr. Shantanu, who is like a God to me, saving my life.'

”



“

Nikhy Gondha, employed as a Nutritionist at RHRC, outlined her daily responsibilities, which involve visiting patients to inquire about their food preferences. She consciously makes efforts to bring in variations in breakfast and dessert options, making the food more palatable and healthier for the patient's consumption. Presently, the breakfast menu features standard items like suji kheer, suji upma, or daily kheer.

Nikhy noted that the hospital includes breakfast, lunch, dinner, tea, and biscuits in the bed charge. Additionally, chicken and fish are provided twice a week, with eggs offered once a week, with the latter being compulsory for diabetic patients. Upon discharge, patients receive a personalised diet chart from her.

She revealed the hospital's plan to establish a dedicated chamber for nutritional counselling for OPD patients. Currently, a team of seven individuals works in the kitchen, preparing an average of 30 meals daily for the patients.

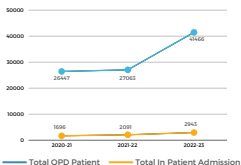
Interview with Nikhy Gondha, Dietician, RHRC.

”



KEY IMPACTS: MAKING HEALTH CARE ACCESSIBLE TO A LARGER POPULATION.

CHART 13: GROWTH TREND IN OPD AND IPD ADMISSION



as 41466 beneficiaries accessed the OPD in the FY 2022-23.



53.2%

increase in number of patients treated in the OPD in F.Y. 2022-23 over the previous F.Y.

2943 beneficiaries accessed the services of the IPD in the F.Y. 2022-23.



62.7%

increase in the number of patients in admissions in the F.Y. 2022-23 over the previous F.Y.

FACTORS BEHIND THE INCREASE IN THE NUMBER OF PEOPLE VISITING RHRC

In interactions with beneficiaries, the research team observed the following factors behind the significant increase in the number of patients accessing health care at RHRC.



Patient satisfaction with the services of RHRC.



Availability of advanced medical equipment.



Reputation of RHRC in the region.



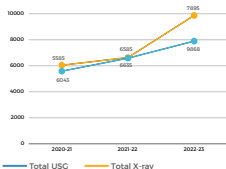
Positive patient experience influencing others to seek medical care at RHRC.



Better community awareness of the services available at RHRC.

KEY IMPACT: RISE IN HEALTHCARE DEMAND DRIVEN BY QUALITY IMAGING DIAGNOSTICS.

CHART 14: GROWTH TREND IN IMAGING DIAGNOSTICS



ULTRA SOUND SONOGRAPHY

9868 beneficiaries accessed the services of USG(Ultra sound sonography) at RHRC.



48.7%

rise in the number of people seeking USG diagnostics in the F.Y. 2022-23 in comparison with the previous year.

X RAY

7895 beneficiaries accessed X- ray at RHRC in the F.Y. 2022-23.



19.9%

rise in the number of people availing X-ray in comparison with the previous Financial year.

FACTORS BEHIND INCREASE IN NUMBER OF PEOPLE AVAILING IMAGING DIAGNOSTIC SERVICES AT RHRC.



Precision of diagnosis.



Timely delivery of diagnostic results.



Affordability of various imaging diagnostics like USG, X rays and ECGs.

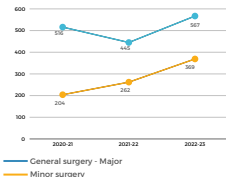


Reliability of the diagnostic outcomes, leading to medical professionals initiate appropriate treatment procedures.



KEY IMPACT: MAKING VARIOUS SURGERIES ACCESSIBLE TO MORE BENEFICIARIES.

CHART 15: GROWTH TREND IN MAJOR AND MINOR SURGERIES



MAJOR SURGERY

567 beneficiaries underwent major surgeries at RHRC during the F.Y. 2022-23.



40.8%

increase in number of patients availing major surgeries in comparison with the previous Financial year.

MINOR SURGERY

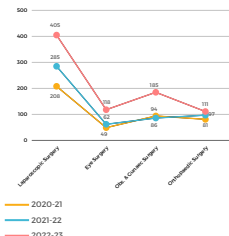
369 beneficiaries underwent minor surgeries at RHRC during the F.Y. 2022-23.



27.4%

increase in number of patients availing minor. Surgeries in comparison with the previous Financial year.

CHART 14: GROWTH TREND IN SPECIALISED SURGERIES



LAPAROSCOPIC SURGERY

405 beneficiaries underwent Laparoscopic surgery at RHRC in the F.Y. 2022-23.



42.1%

increase in the number of patients availing laparoscopic surgeries in comparison with the previous financial year.

EYE SURGERY

118 beneficiaries underwent eye surgery at RHRC in the F.Y. 2022-23.



90.3%

increase in the number of patients undergoing eye surgeries in comparison with the previous financial year.

OBS. & GYNAEC SURGERY

185 beneficiaries underwent Obstetrics and Gynaecology Surgery at RHRC in the F.Y. 2022-23.



115%

increase in number of patients availing Obstetrics and Gynaecology Surgery in comparison with the previous financial year.

ORTHOPAEDIC SURGERY

111 beneficiaries underwent orthopaedic surgery at RHRC in the F.Y. 2022-23.



14.4%

increase in the number of patients availing orthopaedic surgery in comparison with the previous financial year.

FACTORS BEHIND THE INCREASE IN NUMBER OF PEOPLE PREFERRING SURGERIES TO BE DONE AT RHRC.



Better treatment outcomes experienced by patients.



Accessibility of RHRC in comparison with other hospitals.



Trust in the expertise of the Doctors.



Affordability of the cost of treatment.



DISCUSSION WITH THE EMERGENCY STAFF NURSE NIRMALI DAIMARIK

CHAPTER 6

CONCLUSION

The Referral Hospital and Research Centre (RHRC) has proven to be a cornerstone of quality medical care in the northeastern state of Assam and adjacent regions. Through its Corporate Social Responsibility (CSR) intervention, RHRC has successfully addressed the felt healthcare needs of the population, offering accessible and affordable medical services to a growing number of beneficiaries.

The study affirms Referral Hospital and Research Centre's strategic targeting of the right beneficiary group, leading to the realisation of its intended objectives and, consequently, an enhanced quality of life for recipients. The hospital's year-on-year increases in outpatient and inpatient services, diagnostic tests, and surgeries highlight its expanding impact and effectiveness.

Notably, RHRC's commitment to patient satisfaction is demonstrated through high ratings across various aspects of healthcare delivery, reinforcing its efficiency and patient-centric approach. RHRC stands as a pivotal healthcare institution, significantly expanding healthcare access, diagnostic services, and surgical interventions, thereby solidifying its role in advancing healthcare in the region.

TATA CONSUMER PRODUCTS

St. Jude - Premashraya Impact Assessment Report

CONTENTS

Chapter 1 Executive Summary	01 - 04
Project Background	01
Key Activities	01
Key Findings	02
Key Impact	02
Research Design	03
Key Stakeholders	03
Objectives of the Program	03
Research Methodology	03
<hr/>	
Chapter 2 OECD Framework	05 - 06
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Chapter 3 Major Findings of the Study	07 - 19
General Information of the children	08
Operational Facility Index	08 - 09
Additional Services offered by the program	10 - 16
Impact of the program	16 - 19
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Chapter 4 Conclusion	20
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01. EXECUTIVE SUMMARY

Project Background

The free healthcare program is dedicated to offering equal opportunities to all children battling Cancer, irrespective of their economic backgrounds. The holistic approach addresses the various crucial aspects, including accommodation, food, education, recreation, and psychological support, which are vital for the child's well-being and recovery. The program ensures that these children can access comprehensive and cost-free care during treatment through this holistic approach.

The residential support provided through St. Jude ChildCare Centres is the primary focus of this program, offering a safe and hygienic environment for childhood cancer patients and their families during treatment. This initiative targets economically disadvantaged children up to 14 years old, providing accommodation, nutrition and transportation for them and their caregivers. The program also supports the children and the parents by offering them education, recreation, and emotional support for the children and the parents. The program further assists the parents by providing them with skill development activities to enhance their income opportunities.

The recent research findings highlight the importance of maintaining strict hygiene and a regulated diet to minimise infection risks and increase the success rate of curative treatment. St. Jude's "A Home Away from Home" initiative, initiated in 2006, operates in 11 locations nationwide, catering to underprivileged families undergoing cancer treatment.

As part of its Corporate Social Responsibility, Tata Consumer Products consistently supports St. Jude's ChildCare Centre by contributing to the operational costs of their centres in Rajarhat, New Town Kolkata, and Cotton Green in Mumbai.

In Kolkata, the TATA Cancer Centre provides residential support to patients facing financial difficulties. The Premashraya Centre, established opposite the TATA Cancer Centre, benefitted from the space generously provided by the TATA Cancer Centre. However, Cotton Green primarily accommodates patients from the TATA Cancer Centre.

Key activities aligned with the UN's Sustainable Development Goals (SDGs)

The project is aligned with the UN's Sustainable Development Goals (SDGs). This approach ensures a profound and enduring positive impact on the targeted beneficiaries, reflecting a commitment to lasting change in line with global sustainability objectives.

Goal -1 - No poverty

Activities aligned with the goal-

- Free accommodation along with necessary arrangements for the caregivers by reducing their financial burden in the process of treatment.

Goal - 2 - Zero Hunger

- Free dry ration distribution.

Goal -3 - Good Health and wellbeing

- We provide a safe and Hygienic environment to reduce the maximum chances of secondary infections.
- Awareness and training for the parents on preventive measures and diet management.
- Counselling services for the children and the caregivers.

Goal - 4

- Education support for school-going children.
- Support for the cognitive development within the age group 3 to 5 years.
- Recreational support for their overall wellbeing.
- Vocational training for the parents.



Key Findings



ACCOMMODATION AND RATION SUPPORT

100% of the children and their caregivers received free accommodation and ration at the centre.

95.2% of respondents (caregivers) confirmed the availability of free ration and accommodation.



ENROLMENT AND LOGISTICS

84.1% of respondents experienced a swift enrolment process within a week.

90.5% of respondents reported the availability of on-time transportation.



ACADEMIC AND RECREATIONAL SUPPORT

95.2% of the respondents shared that their children received regular academic support.

46% of the respondents shared that their children regularly attended various recreational activities.

77.8% of respondents attended vocational courses, showing a strong interest.



PARENT AND CHILD SATISFACTION

82.5% of parents stated that their children greatly enjoy recreational classes.

90.5% of the respondents acknowledged that the centre's staff regularly monitored their children.



SUPPORT FOR HYGIENE AND DIET MANAGEMENT

100% received hand-holding support on hygiene, diet management, vital checking, and record-keeping of their children's health status.



CLEANING FREQUENCY

61.9% reported twice-daily cleaning occurrences, while 23.8% noted cleaning happening thrice daily.

Key Impact



PREVENTION OF SECONDARY INFECTIONS

92.1% of parents reported that their children remained unaffected by secondary infections due to the project's initiatives.



IMPROVED HEALTH STATUS

76.2% of parents observed an enhancement in their children's health attributed to good nutrition, hygienic accommodations, and stringent monitoring.



REDUCED STRESS AND ENHANCED MENTAL STRENGTH

100% of parents noted decreased stress levels, credited to counselling support, leading to increased mental resilience.



INCREASED EMOTIONAL STABILITY

85.7% of respondents (parents) witnessed heightened emotional stability in their children throughout the treatment procedures.



FINANCIAL RELIEF

100% of parents acknowledged a reduction in their financial burden due to the support provided by the project.

Research Design



Year of Implementation

FY 2022-2023



Year of Assessment

2023-2024



Project location

Premashraya, West Bengal, Kolkata,
Rajarhat, New Town, Cotton Green
Maharashtra, Mumbai



Number of Beneficiaries

140



Project Timeline

Ongoing

Key Stakeholders



Program
Manager



Counsellor



Educational and
recreational
coordinator



Centre Lead



CFO



Education staff



Housekeeping
staff



Vocational
instructor

Objectives of the program



To determine the impact of affordable healthcare on accessible services for underprivileged children with Cancer.



To assess the health improvements in children to reduce secondary infection rates.



To evaluate emotional and psychological enhancement among the children in combatting critical diseases.



To measure the reduction in parents' financial burdens due to the support.



To evaluate changes in parental behaviour regarding children's diet and hygiene.



To analyse the emotional and psychological enhancements of the parents to alleviate stress during treatment.



To evaluate the development of employability skills among the parents.

Research Methodology



Name of the Project

Premashraya



Implementing Partner

St. Jude India Child Care Centre



Research Design

Descriptive Research Design



Sample Size

63

Center Occupancy Details: Beneficiary Coverage in the Year 2022-2023:

NAME OF THE CENTRE	CAPACITY OF THE UNITS	TOTAL OCCUPANCY DURING THE PROJECT PERIOD	TOTAL OCCUPANCY DURING THE FIELD VISIT
Premashraya K1			24
Premashraya K3			26
Cotton Green			12



CAMPUS

02. OECD FRAMEWORK



Relevance

Cancer not only affects health but also incurs substantial treatment costs. Research highlights childhood cancer's potential curability with stringent hygiene and dietary regimens, which are challenging for financially limited parents. The project addresses this gap by offering safe, hygienic stays and nutritious food, reducing financial strain and enhancing children's curability rates. Hence, the project's intervention is highly relevant in mitigating these challenges for underprivileged families.



Coherence

Affordable Healthcare for the Children with Cancer St. Jude's initiative intertwines the core values of India's National Health Policy 2014: equity, justice, integrated care, quality, governance, and effective delivery.

The intervention is also in alignment with many of the SDGs namely

- Goal 1 : No poverty.
- Goal 2 : Zero hunger.
- Goal 3: Good health and well-being.
- Goal 4: Quality Education.

Hence, the program is very coherent.



Effectiveness

The Affordable Healthcare Services for Children with Cancer initiative has proven successful in accomplishing its primary goals of providing safe and hygienic accommodation and adequate nutrition to the children, as well as delivering functional education, recreation, and counselling support. The program has mitigated all its objectives.

The program is high in its effectiveness.





Efficiency

Overall, the project exhibits high operational efficiency by effectively managing infection control, providing emotional support, engaging children in varied activities, and empowering parents through skill-building initiatives.



Impact

The program has demonstrated impact on various fronts. Firstly, it has significantly reduced secondary infection levels among patients to a considerable extent. Additionally, it has contributed to notable improvements in the health status of individuals involved, fostering increased active participation in various activities.

Moreover, the program's initiatives have effectively reduced the financial burden on participants while enhancing their overall wellbeing.

Based on the observed outcomes and impact, it has been rated with 4.5 stars, indicating the program's success in addressing infection control, health improvement, financial relief, and overall participant wellbeing.



Sustainability

Sustainability within the program depends on consistent financial support. The program's continuity relies on ongoing financial assistance. Any instability or inconsistency in funding could significantly impact the seamless execution and overall effectiveness of the program. Maintaining a stable financial framework is critical to ensure the program's sustained operation and continued support to its beneficiaries.

Therefore, the sustainability aspect is rated at 3 Stars.



Relevance



Coherence



Effectiveness



Efficiency



Impact



Sustainability

CHAPTER 3

MAJOR FINDINGS OF THE STUDY



Parents Interview

This chapter presents significant findings, highlighting the significant impact and effectiveness of the services consistently provided to the beneficiaries. The chapter primarily explores the outcomes achieved, emphasising the reduction in secondary infection rates, enhancement of overall health, and pivotal behavioural changes among the parents and the children observed as a result of the received services. The focus is to evaluate these interventions' sustained outputs and enduring impact on the beneficiaries' lives.

INTERACTION WITH ST. JUDE STAFF



The significant findings are broadly divided into the following categories



Services catered to children with childhood cancer.



Improvement of the children's health status and holistic wellbeing.



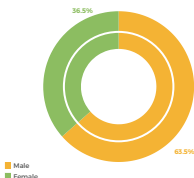
Capacity building of the parents in care management throughout the treatment and maintenance phases.



Empowerment of the parents through alleviating stress and anxiety strategies, alongside developing the employability skill set.

GENERAL INFORMATION OF THE CHILDREN

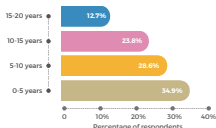
CHART 1: GENDER OF THE CHILD



The age distribution finding shows that the majority of children who have Cancer are male (63.5%), and most of the children fall within the 0-5 age bracket. The few children belong to the age group between 15 to 20 years.

The program primarily focuses on children up to 14 years old but also considers a few cases catering to those above 14, depending on the criticality of the cases.

CHART 2: AGE OF THE CHILD (YEARS)



OPERATIONAL FACILITY INDEX

This refers to assessing the effectiveness, functionality, or quality of various facilities and services. It also refers to evaluating the operational aspects of the program, such as infrastructure, amenities, safety standards, staff-to-child ratios, services provided (like healthcare, education, and emotional support), and overall operational efficiency.

Comprehensive support and relief from the financial burden

Based on the research findings and discussion with the program staff and the beneficiaries, it was evident that all the patients (100%) and their families enrolled in the program received comprehensive support, including accommodation, a basic kitchen setup, and ration assistance. According to their feedback, this support has significantly alleviated their financial strain, as they no longer need to worry about the extra expenses associated with food, lodging, or other costs incurred while seeking accommodation during their children's ongoing treatment.

Upon enrolment at the centres, all respondents immediately accessed three essential services: individual cabins, ration, and kitchen setup.

As per the on-site observation by the research team and the responses from the parents, the finding revealed that individual cabins are well-equipped with essential amenities: a comfortable recline bed, an almirah, a medical open box, three linen sheets, yellow sheets, and a caregiver bed roll. Kitchen setups include basic utensils such as plates, glasses, spatulas, etc.



Vishal Chadak, Sayan's father, shared his heartfelt experience, saying, "I feel extremely relieved leaving my child and wife here. I used to stay at a hotel, and managing the costs of the hotel, along with the substantial treatment expenses, was an immense burden for me. However, here at this centre, I can safely leave them and focus on working to arrange the finances without constant worry."



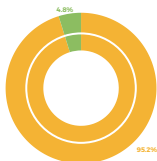
Nutrition Provision and Dietary Support

The program prioritises ensuring optimal nutrition for the children under its care. According to the respondents, upon arrival at the centre, a start-up ration kit encompassing essential dry food items, including rice, pulses, spices, and oil, was provided to all (100%) children.

The program team shared that this ration provision is a monthly activity. The program team said they ensure diversity in the items to consider taste preferences. Additionally, as confirmed by the centre lead, fresh vegetables are supplied weekly, complemented by regular provisions of eggs and milk. This concerted effort guarantees a balanced and nourishing diet for patients' physical wellbeing.

Provision of Ration and Accommodation without any cost for the caregiver

CHART 3: PROVIDE FREE ACCOMMODATION AND FOOD FOR THE CAREGIVER



- Accommodation and food for free of cost
- Only accommodation, they charge a minimum amount for food

According to the research findings, 95.2% of respondents who stayed with the children received free accommodation and food. However, a small percentage of the respondents said they spent some amount purchasing vegetables and fruits.

The centre offers caregivers free accommodation and ration provisions, showcasing the program's commitment to elevating the financial burden on families undergoing treatment.





ADDITIONAL SERVICES OFFERED BY THE PROGRAM

In addition to the essential services mentioned above, the program extended its support by providing various supplementary services. These included educational initiatives aimed at nurturing the children's academic growth, recreational activities for their holistic development, capacity-building sessions for parents to enhance their caregiving and income-generating skills, and transportation facilities ensuring accessibility and overall wellbeing of the children. These supplemental services were integrated to offer comprehensive support and facilitate the overall development and welfare of the children under the program's care.

A certain percentage of the respondents also mentioned that the program supported them in getting information and access to funding sources.

Effectiveness of the services

The below analysis focuses on assessing the efficacy, impact, and success of the services addressing specific needs.



Average Length of hospitalisation



Availability of Family Cubicles for Caregiver accommodation

CHART 4: DURATION OF STAY (IN MONTHS)

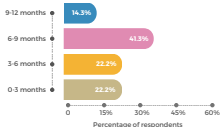


CHART 5: FREQUENCY OF THE VISIT

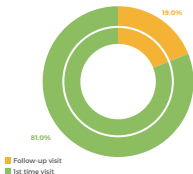
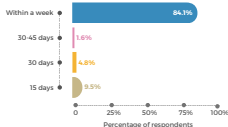


CHART 6: WAITING TIME FOR THE FINAL APPROVAL



Duration of the stay due to the nature of the treatment

Cancer treatment involves three extended phases, leading to prolonged stays at treatment centres. The research findings focus on the minimum and maximum duration of the stays at the centre. According to the findings, the average stay of 41.9% of children was six months, representing a minimum duration of stay for most children. Notably, the finding highlights another segment of children required to stay at the centre for nearly a year, indicating the variability in treatment duration based on individual cases. This finding suggests that the program offers extended-stay facility options to facilitate more comprehensive and effective treatment procedures.



Patient enrolment and readmission

The research team found that most (81%) patients were new enrollees at the centres, whereas 19% came for follow-up visits. Usually, the follow-up visits or readmissions are associated with relapses or follow-up check-ups.

Sampa Chowdhury, the Program Head in Kolkata, highlighted that once a child is enrolled, they remain entitled to readmission if needed, emphasising the institution's commitment to continued patient care.



Efficient Admission Process

84.1% of respondents confirmed swift approval for accommodation at both centres, showcasing an efficient admission system.

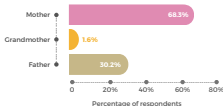


Family Living Arrangements at the centre

The program follows a structured admission protocol process. This process starts with the TATA Cancer Center's hospital's recommendation through its social welfare department.

Following a recommendation, immediate interaction with the children and parents is carried out to verify their status. This involves reviewing and collecting children's case profiles and Aadhar cards, followed by a thorough verification and documentation process. Upon completion, they provide prompt approval for admission to the centre.

CHART 7: STAYING ARRANGEMENT WITH THE CAREGIVERS



Children at both centres live with their parents, predominantly with their mothers (68.3%).

Two caregivers are mandatory for younger children to ensure adequate care and support. In that case, St. Jude firmly upholds community living values, prohibiting certain unconventional relationships among the caregivers.

Sampa Choudhury, the program head in Kolkata, emphasises promoting community values by encouraging only parental stays.



Jayshree Deb Sur, the mother of Rajdeep Sur, shared her experience, stating, "When I first arrived at TATA for my child's treatment, we used to stay at a hotel. One morning, my husband brought us to this centre, and initially, I was hesitant about staying with so many families under one roof. However, as time passed, this place became my extended family, where I could freely share my struggles with others facing similar challenges. Looking back, I realise staying at the centre was a blessing. If we had continued to stay at the hotel, constantly worrying about arranging finances for the treatment, we might have faced a far more difficult situation. I am immensely grateful for the opportunity to stay here."





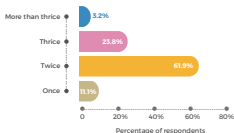
Standard of Patient Care Quality and Supervision

The indicator reflects rigorous daily monitoring and supervision to minimise infection, which is crucial for enhancing children's lifespan and recovery rates. Effective actions were taken to ensure this process.



Effective Cleaning Practices

CHART 8: NUMBER OF TIMES THE ROOM IS BEING CLEANED DURING STAY

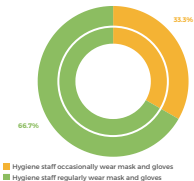


The above findings show that 61.9% of respondents indicated that cleaning staff maintain a twice-daily cleaning routine for corridors, seating areas, kitchens, and toilets. Another 23.8% reported cleaning activities occurring thrice daily.

Parents receive training to clean their cubicles and furniture twice daily, fostering a practice they can continue post-center stay, minimising their children's exposure to infections. Necessary cleaning materials are provided to the parents. Both centres outsource cleaning staff, monitor their activities regularly and document the same, ensuring the field team consistently maintains cleanliness standards.



CHART 9: HEALTH AND HYGIENE SAFETY MEASURES FOLLOWED BY THE HOUSEKEEPING STAFF



The above chart indicates that 66.7% of respondents said that cleaning staff consistently wear gloves and masks while performing cleaning duties, demonstrating a commitment to preventing infection spread.



Mr. Rupesh Kirmarkar, a Housekeeping staff member at Unit No.13 of St. Jude's Childcare Centre at Cotton Green, expressed, "I've been working here for three years and find immense satisfaction in contributing to the noble cause of caring for cancer patients. My daily responsibilities include maintaining overall cleanliness on the ground floor, managing the common washroom area, and kitchen upkeep. Additionally, I assist the admin staff in onboarding new patients when needed."



The research team observed that despite multiple funding sources, Rupesh notably highlighted the support provided by TATA Consumers, showcasing their dedication to this commendable initiative.

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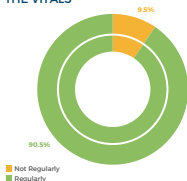
Shrobona Alta, the mother of Arna Alta, expressed her experience with the cleaning process at the centre, stating, "The cleaning process here is highly effective. The cleaning staff ensures the premises are cleaned at least three times a day. We receive training on cleaning practices and personally clean our rooms twice daily. Additionally, we make it a point to clean the kitchen each time we use it, as it is a shared space for cooking. The centre provides us with an ample supply of soaps, towels, gloves, and other cleaning materials. The staff continuously emphasises that rigorous cleaning practices can reduce the secondary infection rate among our children and improve their recovery rates."

”



Regular Monitoring of Children's Vitals and capacity building of the parents

CHART 10: REGULAR VISIT BY HEALTH STAFF TO PATIENT AND TRACKING THE VITALS



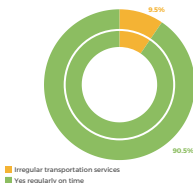
The research finding shows that the centre staff consistently track children's vitals, maintaining health records as reported by 90.5% of the respondents.

The respondents also informed that the parents were trained extensively to measure and record their children's temperatures. The goal is to empower parents to continue these practices at home, ensuring continuity in monitoring and care even after leaving the centre.



Efficient Transportation Services

CHART 11: TIMELY SUPPORT FOR THE TRANSPORTATION FOR THE HOSPITAL



The research findings show that 90.5% of respondents faced no issues with transportation for their children between the centre and the hospital, signifying an efficient service. St. Jude allocated one ambulance per centre, each with a dedicated driver, operating from 9 am to 6 pm. Emergency support during nighttime is available through the TATA centre's help desk at the Premasharaya building, ensuring continuous assistance beyond regular service hours. The administrative team shared that the driver maintains a log book for daily services. However, some parents opt for self-transport due to the centre's proximity, especially at the Premasharaya, Kolkata.

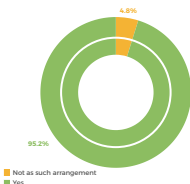


CAMPUS

Comprehensive Educational Support for school-going children in Treatment

Both centres provide education support, primarily facilitating bridge-gap sessions for school-going children, ensuring continuity in their education during treatment.

CHART 12: WHETHER THE CHILD RECEIVED REGULAR SCHOOL ACADEMIC SUPPORT



The finding reflects that a majority of respondents (95.2%) affirmed their children's consistent access to educational support, particularly in language, mathematics, and other subjects, through innovative teaching methodologies. However, a small percentage of the respondents shared that their children did not attend the education support sessions because they were either toddlers or had critical health conditions, which prevented them from participating in classes.

The central education and recreational team outlined a comprehensive educational plan tailored with a holistic approach. The plan segregates theme-based studies from general studies, incorporating history, geography, science, general knowledge, and Environmental Studies (EVS) in thematic modules. Older children are engaged in independent project activities covering diverse subjects, fostering a comprehensive understanding.

Additionally, the educational team shared that they developed individual plans, including a cognitive development program for playgroup children. They further said the in-house staff regularly undergo training for effective teaching. In addition, the central team from Mumbai

conducts online classes facilitated by volunteers based on the children's availability, as informed by the team. Significantly, the emphasis is not on academic pressure due to the children's health conditions. Instead, the focus is on engaging them in varied activities, ensuring they do not feel disconnected from regular academics, and prioritising their recovery and physical wellbeing. The program team also shared that career guidance counselling sessions are provided from the 9th grade onward, showcasing a holistic approach to education that prioritises academic needs.



Recreational Engagement

The program team informed the research team that they regularly conduct diverse recreational activities through various festival celebrations, monthly birthday events, a weekly movie day, and other engaging activities.

CHART 13: RECREATIONAL CLASSES ATTENDED BY THE CHILD

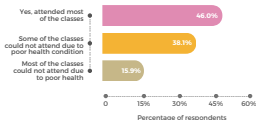
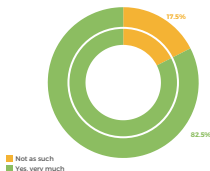


CHART 14: WHETHER THE CHILD ENJOY THE CLASSES



The findings show that most children regularly attend diverse recreational activities through multiple therapies like music, art, energisers and indoor games. However, due to health complications, 38.1% faced challenges in consistent attendance.

It also highlights that 82.5% of respondents affirmed their children's enjoyment in these classes, emphasising their positive influence on emotional wellbeing, a critical factor in battling painful treatment courses.

“

Madhumita Dutta, in charge of educational and recreational activities, shared that they organise frequent Sunday movie days, diverse festival celebrations, and monthly birthday commemorations. These activities provide entertainment and contribute significantly to creating a supportive environment, fostering emotional strength crucial for children during rigorous treatment courses.

”



KITCHEN



Counselling Support

Both centres offer diverse activities aimed at providing counselling to the children and the parents. Professional psychologists at both locations offer individual and group therapies to parents and children. The psychologists said they provide induction training focusing on community living in group settings upon the new enrolment to bridge gapping the relationship between new and old beneficiaries. The psychologists said that they also address the stress and anxiety of the children and parents' concerns through one-on-one sessions.

CHART 15: EFFECTIVE FOLLOW-UP SERVICES AFTER THE DISCHARGE

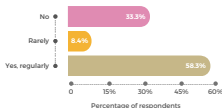


Chart 15 indicates robust follow-up service executed, with 58.3% of beneficiaries across both centres reported receiving periodic calls after returning home, focusing on their children's health status.

The respondents also mentioned receiving repeated calls before follow-up visits, indicating proactive communication and support.

The program team shared that the centre coordinators regularly enquire about patients' status before follow-up visits, confirmation of their arrival date, necessary items to bring, and the nature of the visit (relapse or routine check-up).

Additionally, coordinators gather crucial information over the phone about the children's health and advise them for immediate intervention in emergencies, emphasising the centres' dedication to prompt and comprehensive care.



Enhancement of income generating opportunities - Vocational Course Participation

CHART 16: WHETHER ATTENDED ANY VOCATIONAL TRAINING FROM THE CENTRE

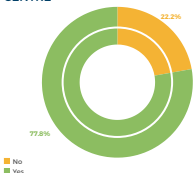
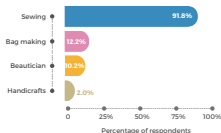


CHART 17: TYPE OF VOCATIONAL COURSE



The findings from both charts depict a robust 77.8% attendance in regular vocational courses, highlighting a significant interest among respondents in skill-based education and training despite such a difficult phase. Most participants (91.8%) chose the tailoring unit, emphasising a prevalent preference for learning garment-making skills over other vocational options. The respondents emphasised that learning to stitch essential items directly contributed to their cloth-making proficiency and offered avenues for income generation.



Ms Pratibha Phorbole, a vocational trainer associated with St. Jude's Childcare Centre in Mumbai, Cotton Green, has served for 11 years as a craft teacher conducting weekly activities for children and parents from Monday to Saturday.

She highlighted its value in utilising time productively and offering a diversion from the stress of their child's treatment. She added that the training provides income-generating opportunities, such as mobile repair for fathers and sewing classes for mothers. These certifications hold high value, enabling parents to practice these skills in their hometowns.

Regarding support from TATA Consumers, Ms. Pratibha mentioned their continuous support for the past three years, expressing anticipation for a long-term partnership.

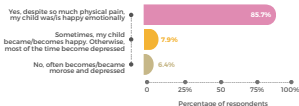


IMPACT OF THE PROGRAM



Enhanced emotional stability of the children during Treatment

CHART 18: WHETHER THE CHILDREN ARE EMOTIONALLY HAPPY THROUGHOUT THE STAY



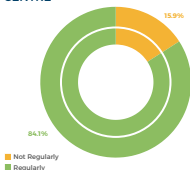
The above chart indicates that 85.7% of respondents said that their children's emotional stability in coping with the challenging phases of treatment increased despite the painful treatment process. Psychologist Atasi Gupta from Premasaraya highlighted the heightened

challenges faced by adolescents during their treatment journey, attributing these difficulties to the additional stress of teenage transitions alongside physical pain management.

To address the children's various emotional challenges, Doctor Gupta engages with them three times a week, conducting individual and group sessions tailored to different age groups. The sessions incorporate imaginative exercises, sound, and music therapies, producing robust positive responses, particularly to music therapy.

Moreover, the centre prioritises teaching children about good and bad touch, an essential aspect of the community living environment, ensuring their safety and wellbeing. This comprehensive approach highlights the centre's commitment to addressing emotional needs and ensuring a secure environment for the children undergoing treatment.

CHART 19: REGULARITY OF ATTENDING THE COUNSELLING SESSIONS AT THE CENTRE



Parents' capacity building

The finding indicates an impressive 84.1% attendance rate of parents in both group and individual counselling sessions, covering vital topics such as community living guidelines, child protection policies, aftercare management, dietary restrictions, infection control, and stress management.

The program team's consistent guidance on diet and hygiene practices empowered parents to learn care management for their children. This support significantly boosted parents' knowledge and confidence in managing their children's wellbeing.



Enhancement of the parents' psychological and emotional well-being

Remarkably, 100% of respondents reported a substantial reduction in stress levels attributed to these sessions. They expressed that they become empowered in handling anxiety, guilt, fear of losing their children, treatment expenses, and peer pressure.

A poignant testimony highlighted the transformative effect of professional guidance and peer support, emphasising a shift from isolation to a supportive community. This indicates the sessions' pivotal role in fostering resilience and a sense of belonging among parents, highlighting their meaningful impact on emotional wellbeing.

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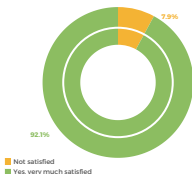
Mallika Samanta, the mother of Soumalya, shared her experience, expressing, "When I first learned about my child's cancer diagnosis, I was completely devastated and in shock, struggling to regain control over myself. However, upon arriving at this centre and witnessing the more severe cases and family situations of others, I gradually found solace. Through regular counselling sessions and observing others, I managed to overcome my emotions. Now, I no longer feel isolated or disconnected. Surprisingly, I do not even miss my home back in my native place. I've also taken the initiative to support others, coping with their stress and anxiety."

”



Infection control efficiency

CHART 20: WHETHER THE CHILD HAS BEEN INFECTED WITH OTHER DISEASES DURING THE STAY



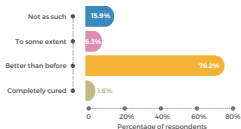
The finding showcases that 92.1% of respondents reported that their children did not experience any secondary infections till the research team conducted the field visit, reflecting the centre's effectiveness in preventing secondary infections, which is crucial for children with weakened immune systems. The research team found that the program has taken up multiple actions for infection control, such as rigorous cleaning of the centre and isolation of the children if affected by communicable diseases. The program also provides mandatory chicken pox vaccine to the parents to prevent infection among children, as the disease becomes fatal due to the effect of chicken pox.

Sampa Choudhury, Program Head in Kolkata, mentioned that the central team in Mumbai maintains the infection tracker to track trends and get diagnosed by doctors, as well as effective measures to prevent the further spread of infection.



Significant Health Improvement

CHART 21: OVERALL HEALTH IMPROVEMENT OF THE CHILD DURING THE STAY AT THE CENTRE



The finding from Chart 21 indicates a notable improvement in children's health status, with 76.2% reporting better health than before.

The significant improvement can be attributed to comprehensive measures such as strict nutrition monitoring, hygiene practices, timely medicine intake, and consistent vitals tracking. The centre's team actively trains and monitors parents regarding the specified tasks.

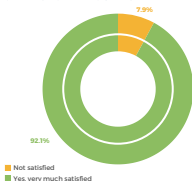
Additionally, continuous emotional support contributes significantly to the recovery rate, highlighting the centre's holistic approach to care.





The satisfaction level of the respondents

CHART 22: SATISFACTION WITH THE SERVICES AND SUPPORT



The research finding highlights overwhelming satisfaction with the program among respondents. They unanimously credited it for significantly reducing their financial burdens, particularly in cities like Mumbai and Kolkata, where remote treatment would have been more challenging. The program's provision of a safe, hygienic environment positively impacted children's survival and recovery rates. Furthermore, respondents found the diverse disease management training immensely beneficial for home-based care. Their gratitude towards the program team was notably high, emphasising its comprehensive support and positive impact on their lives.

“

Seema Gosain, the mother of Aramb Gosain, shared her heartfelt experience: "When I arrived at this centre, I was apprehensive about the surroundings and the people. However, with time, I became an integral part of this place. Besides the invaluable provisions of free accommodation, food, and transportation, I found solace in connecting with other parents facing similar challenges. The moments spent chatting and sharing experiences have been incredibly rewarding: it's a chance to momentarily forget our struggles and share laughter. Moreover, joining the vocational unit and learning various handicraft items has brought immense relief. I am sincerely thankful to the program for its support and opportunities."

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WASHROOM



CHAPTER 4

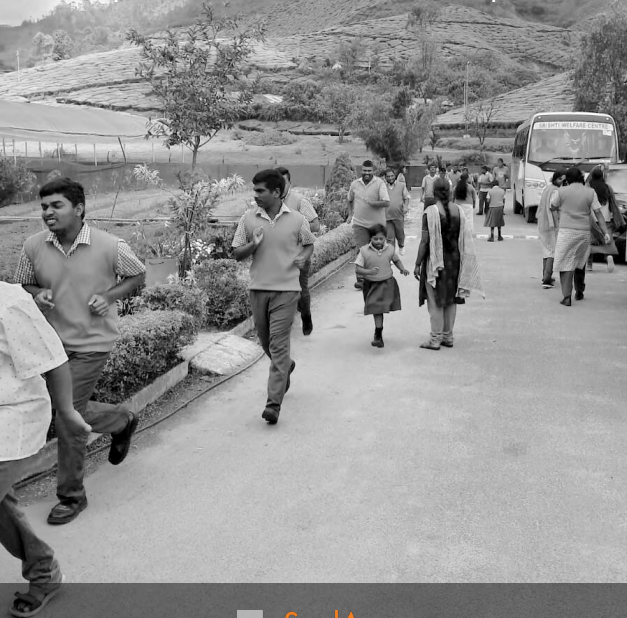
CONCLUSION

The program effectively supports underprivileged children with cancer by minimising secondary infections during treatment. It alleviates financial burdens and rigorously trains parents to manage the treatment regimen crucial for their child's care. Providing a shared platform fosters hope and solidarity among families facing similar challenges. This initiative enables them to find joy amidst adversity, empowering children and families to face their battles with resilience and courage.

TATA CONSUMER PRODUCTS

Srishti

Impact Assessment Report



CONTENTS

Chapter 1 Executive Summary	01 - 02
Background of the Program	01
Key Stakeholders	01
Research Methodology	01
Key Findings	02
Key Impact	02
Chapter 2 OECD Framework	03 - 04
Chapter 3 Introduction	05 - 06
About the Implementing Partner	05 - 06
Chapter 4 Major Findings of the Study	07 - 26
Section 1: Services of DARE for children with disabilities	07 - 20
Section 2: Services for the vocational units of Srishti	21 - 26
Chapter 5 Conclusion	27

01. EXECUTIVE SUMMARY

Background of the Program

Established in 1991, with the support of Tata Consumer Products, Srishti is committed to delivering functional education and rehabilitation services for children with disabilities. It aims to offer employment opportunities to young adults with disabilities in Munnar through a range of vocational units.

Towards this end, Srishti has a special school called DARE (Developmental Activities in Rehabilitative Education) as well as its various vocational units to provide livelihood opportunities for adults with disabilities.

At DARE, the children are trained in communication skills, occupational skills, socialisation skills, activities for daily living, self-help skills, tailoring, candle making, bookmark making, potpourri making, paper bag making, envelope making, handkerchief making, and a host of other handicrafts. These activities cause overall development in the diverse skills of children with various disabilities.

The various vocational units of Srishti are:

Athulya	Handmade paper making unit
Aranya Natural	Natural dyeing unit
Disha	Tailoring unit
Vatika	Gardening unit
Deli	Bakery and confectionery unit
Nisarga	Jam production unit

Key Stakeholders



Year of Implementation

2022-23



Number of Beneficiaries

DARE - 51 students

Vocational units - 127 Special Associates



Project location

Munnar, Kerala



SDG Goals



Research Methodology



Research Design

Descriptive Research Design



Research Approach

Mixed methodology



Sampling Design

Purposive sampling



Sample Size

20 parents of special children

50 special associates

Key Findings



A total of 80% of the parents of children with special abilities reported receiving pre-enrolment counselling from DARE.



As many as 80% of the parents reported receiving training on how to handle their children.



Parents reported that their child is now better at making friends and interact with others due to the accommodating environment at DARE.



The Individual Education Plan (IEP) followed by DARE contributed to optimal learning outcomes as reported by special educators.



Parents reported incremental positive changes in the behavioural, social, and academic skills of their children.



Appreciable improvement in the fine motor skills of the children was reported by parents and special educators.



Considerable improvement in self-care skills among their children was reported by parents.



Special associates at Srishti reported that their job skills improved from working in the vocational units.



Special associates also reported that the workplace provided them with an environment to improve their social skills.



Special associates expressed their satisfaction with various welfare facilities offered to them through the vocational units.

Key Impact



82.6%

of the parents reported enhancement in the speech and language of their children.



100%

of the parents reported improvement in their child's ability to express needs and wants.



80%

of the parents acknowledged that there was improvement in the emotional regulation and control of their children.



100%

of the parents observed improvement in simple problem-solving skills of their children ranging from good, moderate, to slight improvements.



100%

of the parents reported improvement in their children's daily living skills in varying degrees of improvement.



100%

of the parents shared that their children were able to carry out simple academic tasks assigned to them.



98%

of the agreed to the statement that their job skills developed because of their involvement in the vocational unit.



98%

of the parents expressed their agreement with the statement that their social skills developed because of their involvement in the vocational unit.

02. OECD FRAMEWORK



Relevance

Munnar, a mountainous region located in Kerala, has a historical trend of elevated rates of congenital abnormalities among children born to migrant workers. This was largely attributed to endogamy within close-knit relationships. Until Srishti's establishment, there was a lack of any viable treatment or rehabilitation programs for disabled children in the area.

Children with disabilities were often confined to their homes without access to proper education or professional therapeutic interventions. This was particularly true when their parents, primarily tea estate workers, were away at work.

The inception of Srishti addressed this gap by providing much needed resources for the treatment and rehabilitation of children with disabilities. Interactions with parents, special educators, and community members underscored the high relevance of Srishti's interventions for children and youth with disabilities in the region.



Coherence

Srishti's initiative is intertwined with the core values of India's National Health Policy, 2014, namely equity, justice, integrated care, quality, governance, and effective delivery.

Srishti's intervention is also in alignment with many of the Sustainable Development Goals (SDGs), namely

Goal 1: No poverty

Goal 2: Zero hunger

Goal 3: Good health and well-being

Goal 4: Quality education

Goal 5: Gender equality

Goal 8: Decent work and economic growth

Goal 10: Reduced inequalities.



Hence, the program has a very high coherence.



Effectiveness

Srishti's initiative has proven successful in accomplishing its primary goals of delivering functional education and rehabilitation for children and providing a livelihood for adults with disabilities. With a teacher-pupil ratio of 1:6, personalised instruction, high-quality care, implementation of suitable therapeutic interventions, and a classroom environment that is both supportive and accommodating, Srishti has demonstrated remarkable effectiveness in meeting its intended objectives.

The vocational units ensure a stable source of income and well-being for individuals with special needs. These units not only enhance the vocational skills of these individuals but also offer a space for social interaction. Employment in Srishti's units is not only financially rewarding but also serves therapeutic and rehabilitative purposes.

The program can be stated to be high in its effectiveness.



Efficiency

In welfare programs such as Srishti's initiative, efficiency cannot be solely gauged through cost-benefit analysis. Instead, it must be assessed within the framework of inclusivity, specifically examining how individuals with disabilities have benefited from the program rather than focusing solely on revenue generation for a given investment.

For instance, the potential mechanisation of operations might have increased output and revenue for the vocational units but it could have also adversely affected employment opportunities for many disabled individuals.

All of Srishti's units are designed to generate revenue, and the realised income is reinvested to partially cover salaries, as well as the welfare needs of special associates and the requirements of the DARE school.

Considering the nature of the beneficiary group served and the services provided, it can be asserted that Srishti's initiatives are economically and operationally highly efficient.



Impact

Parents of children with special needs have observed significant progress in diverse domains of child development, including gross and fine motor skills, dressing, grooming, toileting, receptive and expressive language, social skills, among others.

The guaranteed monthly income and comprehensive welfare support, encompassing social security measures and assistance for medical care and education, have markedly enhanced the overall quality of life for these special associates. The livelihood opportunities provided by the program have not only instilled a sense of dignity but also contributed to improved self-efficacy, social interactions, and community integration for the special associates. As a result, the program can be characterised as highly impactful.



Sustainability

Srishti's vocational units have been modelled to generate revenue that can partially cover the cost of salaries and the welfare of the special associates. In the context of a non-profit organisation, the notable revenue generated from these vocational units is remarkable. The program inherently incorporates a sustainability element, affirming its high level of sustainability.



CHAPTER 3

INTRODUCTION



Buses used for the transportation of children of DARE, Srishti

About the Implementing Partner

Founded in 1991, Srishti was established with the support of the Tata Tea network to focus on the education and rehabilitation of children and young adults with disabilities, belonging to Munnar. The welfare officers from Tata Tea Estates played a crucial role in identifying deserving individuals and facilitating their access to the services provided by Srishti.

The migrant communities working in the tea estates of Munnar have a long history of a higher occurrence of congenital abnormalities in children. This is attributed to the practice of close endogamy within the community, leading to a higher prevalence of mental and physical disabilities compared to the general population. Before the establishment of Srishti, Munnar lacked educational and rehabilitation facilities for individuals with disabilities.

Consequently, individuals with mental and physical disabilities were often confined to their homes with no professional interventions to address their conditions. Srishti's founding has brought significant relief to parents of special children and young adults by providing care, education, and rehabilitation services.

The services of Srishti can be broadly classified into two groups.

DARE
(School for education and rehabilitation of special children)

- Pre-Primary
- Primary
- Secondary
- Autism
- Speech and Hearing 1 & 2
- Pre-vocational

Vocational units
(Rehabilitation of young disabled adults of Munnar)

- | | |
|------------------|-------------------------------|
| • Athulya | Handmade paper making unit |
| • Aranya Natural | Natural dye making unit |
| • Disha | Tailoring unit |
| • Vatika | Gardening unit |
| • Deli | Bakery and confectionery unit |
| • Nisarga | Jam production unit |



CHAPTER 4

MAJOR FINDINGS OF THE STUDY

This study presents the findings of the two major categories of services provided for individuals with disabilities.



Services of DARE for children with disabilities

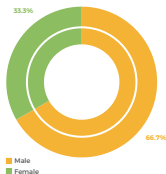


Services for the vocational units of Srishti



Section 1: Services of DARE for children with disabilities

CHART 1: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY SEX

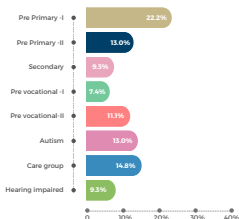


A total of 66.7%, i.e., the majority of the children with special needs at the DARE school, are male, with a smaller proportion of female children.



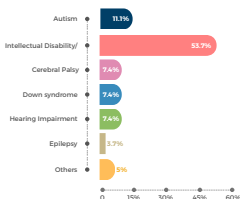
**CHILDREN OF DARE
ASSEMBLED FOR
MORNING PRAYER**

CHART 2: DISTRIBUTION OF CHILDREN WITH SPECIAL NEEDS ACCORDING TO CLASSES



It can be observed that children with special needs are distributed almost equally across all grades, with a relatively higher number in pre-primary I compared to other sections. Age, period of admission at DARE, nature and severity of the disability, length of intervention, and evaluation of skills based on periodic assessments are the determining factors for placing children in particular classes.

CHART 3: DISTRIBUTION ACCORDING TO THE NATURE OF DISABILITY AT DARE



A total of 53.7% of the children, i.e., the majority of children at DARE, have an intellectual disability.

Other than intellectual disability, the DARE school takes care of children with conditions like autism, cerebral palsy, Down's syndrome, hearing and speech impairments, and epilepsy.



Ensuring accessibility to children with special needs

The DARE school operates five vehicles to bring special needs children from their homes to the school.

These students reside in estates located near the school as well as in areas as much as 20-25 kilometers away, with challenging terrains in the hilly regions of Munnar.

These children come from tea estates located in places such as Arivikad, Chittavurrai, Devikulam, Graham's Land, Pullivasal Island, Gundumally, and Letchmi.

The children staying far off are picked up as early as 7:00 a.m. to reach the school by 9:00 a.m.

**100%**

of the parents of special children the research team interacted with expressed their satisfaction with the transportation facility.

**100%**

of the parents stated that accessibility to the school would not have been possible in the absence of the vehicles.

Within the premises of the school, accessibility to classrooms for children with mobility disabilities is ensured with the availability of ramps, wheelchairs, and assistance by the support staff of DARE.

Certified special educators

The school has 9 special educators who are professionally trained, well-qualified and experts in handling various disabilities such as intellectual disabilities, autism, speech and hearing disorders, locomotor disabilities, and emotional and behavioural disorders.

All the special educators are RCI certified and have more than 10 years of experience in this field.

**100%**

of the special educators expressed that they chose the profession due to their passion and commitment towards training children with special needs.

**100%**

of the special educators expressed that DARE has an accommodative and supportive environment for children with special needs. This aspect was further confirmed by parents of the children with special needs.



Collaborative support services

Apart from providing functional education, DARE has facilities for the administration of various therapeutic interventions such as physiotherapy, occupational therapy, speech and hearing therapy, music therapy, and yoga therapy, which are focussed on enhancing multiple skill domains such as gross motor and fine motor skills, activities of daily living, grooming, receptive language, and expressive language.

Provision of nutritious diet

At DARE, the research team observed that utmost attention was given to serving a balanced nutritious diet to the children to enhance their general health and cognitive abilities, strengthen their immune systems, and improve sensory functioning.

The menu is cautiously selected, ensuring that it is easy to digest for children and boosts their energy levels.

Apart from lunch, milk, tea, and snacks are also given during the morning and evening breaks to help children maintain their energy levels.



100%

of the parents acknowledged that the food served to their children at Srishti is nutritious and good for their health.



100%

of the parents shared that they were not charged for the food of their children, and it is served free of cost.



94%

of the parents expressed that their children started practising the habit of eating on their own without their support after they started having their lunch at DARE.



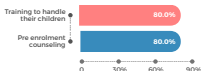
Collaborative care

Srishti works closely with parents of children with special needs, recognising them as primary caregivers. Parents need to be well-informed about their children's conditions, to enable them to offer crucial support for home-based interventions. This includes fostering independence in daily activities such as toileting, bathing, and grooming, as well as assisting with emotional and behavioral control and regulation.

Towards this end, DARE adopts the approach of collaborative care, wherein parents play an equal role in bringing about holistic improvements in their children. Srishti offers the service of counselling and training to parents and conducts periodic parent-teacher meetings to keep the parents informed of their child's progress and the therapeutic interventions administered.

Counselling services availed by parents

CHART 4: SERVICES AVAILED BY PARENTS



80% of the parents, that is, a significant majority, reported receiving counselling support before enrolling their children at Srishti.

Pre-enrolment counselling encompassed information about:



The nature of the child's disability



Potential interventions that would be administered at Srishti



Child's strengths, weaknesses, and challenges

This helped in establishing realistic expectations and instilled greater understanding and awareness among the parents.

Training support to parents of special children

**80%**

of the parents also reported receiving training to handle their children at home.

Training helped the parents in the following areas:



Deeper comprehension of the cognitive, emotional, behavioural, and physical aspects of their child's disability



Communication strategies including non-verbal communication techniques



Behavioural contingency management in terms of administering positive reinforcement, negative reinforcements, punishments, and omission training based on the nature of exhibited behaviour.

Instilling a sense of security among parents

Many of the parents the team interacted with during the course of the study shared that they are relieved from the anxiety about their child's safety when they go to work in the tea estates.

With the feeling that their children are secure in the premises of the school under the eyes of caring educators, they can concentrate on their work.

**100%**

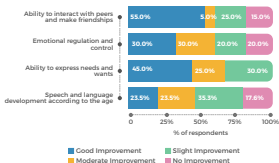
of the parents shared that they were relieved from anxiety about their child's safety during their work time.



**RESEARCH TEAM
INTERACTING WITH A
PARENT AT DARE**

Enhancement of diverse skills

CHART 5: ENHANCEMENT OF DIVERSE SKILLS



Key Impact: Remarkable speech and language development



82.6%

of the parents reported enhancement in speech and language of their children ranging from good, moderate, to slight improvement.

Improvement in speech and language varies according to the nature and severity of the disability, age of the child, early or delayed intervention, and length of training period undergone at Srishti.

Key impact: Ability to express needs and wants.



100%

of the parents reported improvement in their child's ability to express their needs and wants.

One of the basic treatment goals targeted in any special education program is enabling the children to express their basic needs and wants.

The child should be able to communicate their basic needs such as thirst, hunger, and wish to use the toilet. The study suggests that this goal has been remarkably achieved.

“

Rithika Prabha, 20 years old, born to Murugaya and Vigneshwari, was diagnosed with autism of ASD level 3, at the age of 2.5 years. She also had a co-existing intellectual disability. Her mother delivered her by C-section with a birth weight of 2.1. Her parents admitted her to a special school in Tamil Nadu, where she studied till 2012, without any signs of improvement.

At 11 years old, her parents took the decision to admit her to DARE. At this time, she still displayed limited cognitive abilities with hyperactivity, self-harming tendencies, and violent behaviors toward others. Obsessed with carrying sharp objects, she used to hit herself and others. When she first joined, her communication skills were very poor and she was unable to express common needs and wants. She seemed to be whining, fussing, growling, and repeating non-words in an unusual tone. She was fully dependent on her family members for carrying out activities of daily living.

After joining DARE, individual treatment goals were set to bring improvements in her emotional, behavioral, and social skills. Upon sustained administration of various therapeutic interventions for a considerably long period of time, she started showing small improvements. She was trained and is now able to carry out her daily tasks by herself to an extent and able to express her needs. She is now able to eat food by herself.

These improvements, though seemingly small, are difficult to bring about because of the severity of the disorder, but they carry great personal meaning for the individual and the caregivers in the family.

Rithika's grandparent who had come to drop her at school shared that she has improved a lot after joining DARE and thanked the school for the services received.

”



Key Impact: Emotional regulation and control

**80%**

of the parents acknowledged that there was improvement in the emotional regulation and control of their children.

Children with autism and attention deficit disorders have problems regulating and controlling their emotions. Any small change in routine or displacing/replacing of things of daily use can cause frustration and intense outbursts of anger.

Many of the parents acknowledged that they observed a good improvement in their child's emotional behaviour and attributed the training imparted by Srishti to being responsible for the same.

Improvement in social skills

**85%**

of the parents acknowledged that there was improvement in their child's social skills ranging from good, moderate, to slight improvements.

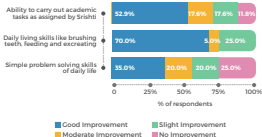
It was observed from school settings and the interactions with the parents and special educators that Srishti strived to create a supportive and enabling environment, in which special children are presented with opportunities to practice and generalise social skills of interacting with similar children.

Special educators at DARE motivated the children to interact with other children, and the research team observed that children with lesser disabilities help the severely disabled in things such as helping them reach the dining room, fetching the dinner plate, or getting a tumbler. The research team noticed the empathy displayed by the special children in offering seemingly simple but meaningful help to other children in need. This can be largely attributed to the values instilled by the special educators at Srishti.



Key Impact: Improvement in cognitive and behavioural skills

CHART 6: LEVEL OF IMPROVEMENT IN DAILY TASK SKILLS



Key Impact: Improvement in simple problem solving skills of daily life



100%

of the parents observed improvement in simple problem-solving skills of their children ranging from good, moderate, to slight improvements.



100%

of the parents reported improvement in their children's daily living skills in varying degrees.



100%

of the parents shared that their children were able to carry out simple academic tasks assigned to them.

Key Impact: Considerable improvement in simple problem-solving skills of daily life

Most parents expressed satisfaction about their child's ability to be involved in simple problem-solving tasks. One of the parents observed her child's ability to stand on the tip of her toes, to reach out to an object placed at a height above her hand's reach. This involves the application of gross motor skills to solve the problem.



100%

of the parents observed improvement in simple problem-solving skills of their children ranging from good, moderate, to slight.

Key impact: Significant Improvement among children in their daily living skills.

Most of the parents expressed their satisfaction with the improvement in the daily living skills of their children through the interventions at Srishti. Most parents stated their children were better able to carry out activities of daily living such as brushing teeth, putting on uniforms, combing hair, and going to the toilet independently after enrolment at Srishti.



100%

of the parents observed improvement in their children's daily living skills.



KEY THERAPEUTIC INTERVENTIONS AND THEIR IMPACT ON CHILD DEVELOPMENT

DARE offers multiple therapeutic interventions to enhance the behavioral, cognitive, emotional, social, language, and motor skills of its special children.

Impact of Individualised Education Plan

Thematic Area

Process

Impact



A customised educative approach

A standardised curriculum for all children may not cater to the diverse needs arising from individual disabilities.

Optimal learning outcomes made possible through tailored learning experience.

Hence, DARE adopts an educative approach tailored to meet the unique requirements of each child.

Incremental positive changes in behavioural, social, and academic skills.



Personalised instruction

Special educators at DARE provide one-to-one instruction to the children.

Enhanced progress tracking for each child.

Development of targeted skills for each child.



Individual goal setting

Implementing an IEP aids in the precise delineation of objectives for every child.

Increased engagement in learning.

Even among children of the same age group and with identical disabilities, customised goals aligned with their abilities and interests are essential.

Enhanced motivation to learn due to the realisation of achievable goals.

Therefore, DARE devises individualised goals and monitors each child's progress accordingly.

Enhanced sense of self-efficacy.

Improved collaboration with parents.

“

Mrs. Sandhya Jayaprakash, special educator, at DARE, says, "DARE follows a personalised instruction plan with goals set for each child. We do have contingency management through the use of various reinforcers, which show good results. As each child exhibits diverse abilities and challenges, we do follow IEP for optimal learning outcomes".

”



Impact of Speech and Language Therapy

Special children face challenges in pronouncing sounds correctly have problems with the flow of speech and may speak at a slower pace. They also face problems with moderating the pitch and volume of their voice appropriately. DARE employs speech and language therapy to aid in the proper development of speech and language among its student body.

Thematic Area

Process

Impact



Speech disorders

Speech and language trainers at DARE help the children utter the right sounds, help in improving the pace and quality of speech.

Visible improvement in children's speech and language as felt by the parents and educators



Problems in comprehending spoken language

Language trainers provide auditory training to children. Assistive devices such as hearing aids and cochlear aids are also provided so that children have better access to auditory information.

Remarkable improvement in child's understanding of spoken language as observed by parents and educators



Social communication skills

The therapists at DARE help the children understand non-verbal communication such as gestures, facial expressions, body language, and eye contact.

Considerable enhancement in social communication skills as reported by parents and educators

“

Mrs. Reena Vargis says, "Early identification of speech and hearing disorders in children is crucial. The formative years provide an opportune time to train children for enhanced speech and language skills, introduce assistive devices, and enhance their comprehension of verbal communication. DARE has a dedicated section for children with speech and hearing disorders, ensuring comprehensive training for improved communication".

”



Case study of Meera

Mera, an 11-year-old girl, weighed 2.6 kg at birth when her mother Jothi delivered her through C-section. At birth, she had neonatal jaundice and received treatment for three days. Concerns arose at 1.5 years among her parents about her limited speech and responsiveness, leading to a diagnosis of mild hearing loss at 1 year and 6 months.

Her screening tests showed an auditory awareness at 35 dB. When admitted to DARE at the age of 7, she lagged behind both in expressive and receptive language. She had emotional regulation problems and lacked social skills mainly attributed to her disability, but she exhibited normal motor and cognitive development.

DARE provided Meera with speech therapy following which she was able to comprehend oral communication through lip movements and national sign language. Due to DARE's intervention, she now demonstrates proficiency in comprehending spoken Tamil and understanding beginner-level English. Meera finds joy in watching educational and entertaining videos as well as engaging in activities such as dancing and singing rhymes.



**CHILDREN OF DARE IN
A DANCE THERAPY
SESSION**



**CHILDREN OF DARE AT
A YOGA THERAPY
SESSION**

Impact of Occupational therapy

DARE provides occupational therapy as an intervention to develop the children's motor skills, bringing about improved levels of sensory integration and self-care skills.

Thematic Area

Process

Impact



Development of fine motor skills

DARE engages its children in activities that enhance hand-eye coordination.

Appreciable improvement in fine motor skills as reported by special educators and parents.

Providing children with tasks of playing with small objects, finger painting, inserting thread in a needle help in developing fine motor skills.



Sensory integration

DARE trains its special children to handle sensory challenges in activities like textured play which help in regulating their hypersensitivity or hyposensitivity.

Remarkable improvement in sensory integration as observed by special educators and parent.



Self-care skills

DARE trains its special children to carry out activities of daily routine by themselves.

Considerable improvement in self-care skills as noticed by parents.

Children are taught activities like buttoning their shirts, combing their hair, and eating with hand or spoon.

“

Mrs. Vijayalakshmi, sports trainer, DARE says, 'The day at DARE begins with the morning assembly, followed by the dance therapy session in which we play music and make children do jumba. Dance aids in enhancing the coordination and balance among special children, besides the health benefits it has. It is known to improve the gross and fine motor skills of children as they change their steps according to the flow of music. Yoga helps in building muscle strength and aids in bringing more flexibility. The breathing exercises that we teach help them to improve their respiration capacity. I feel both dance therapy and yoga therapy are greatly beneficial to the children at DARE'.

”



Impact of Music therapy

Music has a definitive role in improving the communication skills, emotional expression and regulation and cognitive development of children. DARE employs Music as a therapeutic intervention to aid the development of children in these skills.

Thematic Area

Communication skills



Process

DARE trains its children in vocalisation which helps them in relaxation of the vocal cord and increasing flexibility.

Children learn new words and sounds for communication.

Impact

Enhanced communication skills as observed by the parents and special educators.

Emotional expression and regulation



This uses the calming effect of music to reduce anxiety and stress, which leads to special children experiencing positive emotions.

Improved positive emotions leading to more engagement with school and motivation in acquiring skills.

Cognitive development



This involves employing music as an intervention to stimulate cognitive processes such as memory, attention, and learning new things.

Incremental improvement in cognitive processes of special children.

“

Mrs. Mary Rani, the music teacher at DARE, says, 'I have found the application of music therapy helps special children in a lot of ways. Children experience singing as an enjoyable activity and the rhythm and repetitive patterns of sounds and words help in improving the memory and focus of children. Music helps in reducing the anxiety of children in a huge way. Many children in DARE excel in singing and have won prizes in singing competitions'.

”



Case study of Augustin

Augustin, 19 years old, was born with blue baby syndrome and congenital heart disease. He underwent pediatric heart surgery and was also diagnosed with Down's syndrome when he was 6 months old. Though he was admitted to a mainstream school where he studied till 2nd standard, he could not mingle with his classmates, lagged behind in academics, and had mild intellectual disability. As there was not much acceptance of him in his school, his parents shifted him to DARE. At the time of admission, he had poor social skills and preferred to stay isolated, and was not participating in any physical activities or classroom activities.

The accommodative environment and the one-to-one care provided by the special educators helped improve his socialisation with his classmates. The various educative and therapeutic interventions brought gradual but consistent positive changes in his self-care skills, emotional regulation, and communication skills. Augustin is not only able to take care of himself but also displays his helping tendency as he fetches plates, gets food, and serves his friends who are severely disabled. He looks cheerful these days. Despite his persistent complaint of leg pain, he shows much interest in the dance therapy sessions.



His father shared that there has been good improvement in Augustin in different skills over the years and thanked the special educators of Srishti for the same.



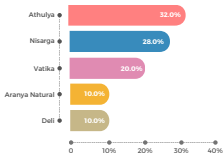


Section 2: Services for the vocational units of Srishti



Special associates of Vatika involved in gardening work

CHART 7: TYPE OF VOCATIONAL TRAINING SPECIAL ASSOCIATES ARE INVOLVED AT SRISHTI



Distribution of respondents across various vocational units at Srishti

The unequal distribution of respondents across various vocational units was because they had different disabilities and only those who could comprehend the questions and communicate were selected.

(Note: The relatively higher proportion of parents for Athulya – the handmade paper making unit and Nisarga – the Jam production unit – was due to the ability of the parents to comprehend the questions and respond without help.)

Those parents who were not able to orally respond used sign language to communicate with the research team.



“

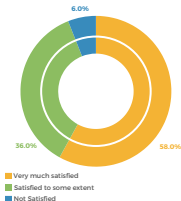
Malliga, 52 years old, a special associate at Aranya, explained that the dye-making unit uses only natural discarded products for the production of eco-friendly dyes. Natural and organic resources such as eucalyptus, mulberry leaves, surulpatta, reetha, kadukka, pomegranate, and lemon grass are used for the production of dyes. These natural discards are well boiled for an hour after which a metallic salt is added and three basic colour shades of ferrous, alum, and copper are made. She also cheerfully highlighted some of the basic methods that are followed such as block printing, mordant printing, and shibori, which is an intricate tie and dying process.



Malliga, as one of the senior employees of her unit, guides all the younger members in various tasks. She serves as an inspiration for all members of the unit.

”

CHART 8: SATISFACTION WITH MONTHLY INCOME



A majority of the parents (58%) reported high levels of satisfaction with the monthly income received. A considerable proportion of parents (36%) had moderate levels of satisfaction with their monthly income.

“

Murugeswari, 49 years, supervisor, Athulya, says, 'I come from Palayamunnar tea estate, and I have been working here for 32 years. Srishti provides us with a good salary and takes care of us completely. The transportation from home to the unit is free of cost.

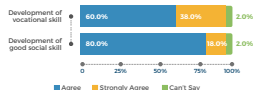
We are provided lunch at a subsidised rate as well as free medical treatment.

”



Development of vocational and social skills among the special associates

CHART 9: LEVEL OF DEVELOPMENT IN VOCATIONAL AND SOCIAL SKILLS AFTER INVOLVEMENT IN THE VOCATIONAL UNIT



**SPECIAL ASSOCIATES
ALONG WITH THE STAFF
OF NISARGA (JAM
MAKING UNIT), SRISHTI**

Key Impact: Development of vocational skills



60%

of the parents agreed that they had experienced growth in their job skills because of their involvement in the vocational unit.



38%

of the parents reported strong agreement with the same.

The vocational units of Srishti were designed to accommodate individuals with disabilities and the tasks there were chosen to suit the abilities of the individuals.

The staff of the vocational units were sensitive to the needs of the disabled people and provided hand-holding support to the special associates till they became competent in accomplishing the tasks by themselves independently.

Key Impact: Development of social skills



80%

of the parents agreed that their social skills had developed because of their engagement in the vocational unit.



18%

of the expressed strong agreement with the statement.

The work setting of the various vocational units at Srishti provides an opportunity for the special associates to meet and interact with their peers every day, understand the tasks given to them, and communicate and collaborate on tasks assigned to them on a regular basis. The challenges faced on job assignments foster an environment of cooperation and empathy among people with disabilities, which is greatly responsible for the development of social skills.



SPECIAL ASSOCIATE OF ARANYA, DISPLAYING CLOTH DIPPED IN DYE BATH.



SPECIAL ASSOCIATES AT ATHULYA UNIT

“

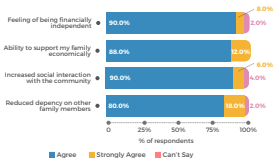
Indira, the staff at Aranya, says, 'In our department, we have dedicated team members with diverse disabilities, including orthopedic disabilities, partial visual impairments, night blindness, mild mental retardation, and speech and hearing disabilities. They engage in a range of tasks such as drying, chopping raw materials, boiling, fermentation, and mordanting. We carefully assign simple or challenging tasks based on each special associate's capabilities. There is a noticeable bonhomie among the special associates as they warmly greet each other with smiles in the morning, exchange handshakes, and express mutual acknowledgment in various ways.

The workplace serves as a platform for them to develop valuable social skills”.

”

Key impact: Improvement in self-efficacy

CHART 10: OPINION ON IMPROVEMENT IN SELF-EFFICACY



Key Impact: Reduced dependence on other family members

The study suggests that engaging in vocational activities and the ability to be productive has reduced their general dependence on other family members. The special associates reported becoming increasingly independent in taking care of themselves and their families. This was one of the major impacts of the special associates' involvement in vocational units at Srishti.

This is established by the fact that 80% of the parents agree to the same in moderation and 18% strongly agree to it.

Key Impact: Increased interaction with the community.

The special associates reported that being economically active boosted their confidence to come out of the shell, and they were now able to access neighborhood shops, visit local markets to purchase things, and take public transportation for traveling, all of which enhanced their opportunities for community interaction.



90%

of the parents agreed that their interaction with the community increased moderately.



6%

of the parents strongly agreed to the same.



Key impact: Ability to economically support their families

The special associates reported they were happy about their ability to support their families. If not for their job, they would have never managed to earn a living and support the economic sustenance of their families.



88%

of the parents expressed their agreement with the statement that they are able to economically support their families.



12%

of the parents strongly agreed to the same.

Key impact: Feeling of being financially independent

Being in a job with the ability to be economically productive instilled a feeling of being financially independent among the special associates of Srishti.



90%

of the parents agreed that they were financially independent.



10%

of the parents strongly agreed to the statement regarding financial independence.

“

Ramraj, aged 43, progressed through the ranks at Athulya, Srishti's handmade paper-making unit, advancing from a special associate to a supervisor. Despite facing a lower limb disability, he brings with him a commendable 27-year work history, following in the footsteps of his father, who also served in the unit.

Ramraj's expertise spans the entire handmade paper-making process, from selecting cellulosic material to utilizing molds and decks, sheet preparation, and product design. He has made a special place for himself at Srishti for the innovative designs he has introduced to the unit.

In adopting environment-friendly practices, Ramraj details how Athulya utilises natural materials discarded as waste, such as elephant dung, banana fiber, worn-out marigold leaves, carrot leaves, tea fibres, coffee husks, and eucalyptus leaves, steering away from sole reliance on the wood pulp for paper production. He says that while special associates initially grapple with small tasks, consistent support enables them to develop proficiency over time, often beginning with repetitive tasks before transitioning to new ones.

He expressed profound gratitude to Srishti for positively impacting his life and that of the other special associates in the unit.

”



Key impact: Better access to healthcare

One of the unique aspects of Srishti's dealing with its special employees is that they are treated at par with tea estate workers, and all statutory and non-statutory welfare services meant for estate workers are also made available for them.

The special associates are not only provided with support for primary healthcare in hospitals but also given financial aid for major surgeries.

“

Mariyamma, special associate, Athulya,

shares, “Two years ago I suffered from severe lower abdominal pain, and became very sick, following which I was diagnosed with uterine fibroid. I first took medical help at Kottayam Government Hospital from where I was referred to a private hospital in Ernakulam. The doctors in the hospital said that the uterine fibroid had to be removed immediately or else it would turn fatal for me. They demanded a payment of ₹2.5 lakh for the surgery. My husband and I were totally shattered not knowing what to do, when Srishti rushed to help us. Srishti took care of the entire medical expenses for the surgery, and also all the travel and food costs involved.

They also gave paid leave to my husband who is also employed here, to take care of me for about 3 months till I recovered. If it had not been for Srishti's support, I would not have been alive today”.

”



CHAPTER 5

CONCLUSION

The research team observed that the comprehensive educational and therapeutic interventions offered by DARE have proven to be transformative for children with special needs. The profound impact extends across various facets of their lives, encompassing progress in functional areas such as academics and significant improvements in daily living skills, emotional well-being, and behavioural regulation, as reported by the parents and the special educators. Parents the research team interacted with during the course of the study expressed utmost satisfaction with the nature and quality of services received by their children. It has also significantly relieved them from anxieties about their child's well-being when they were at work.

Furthermore, the vocational units established by Srishti have not only been financially remunerative but have also played a pivotal role in rehabilitating and enhancing the quality of life for adults with disabilities. The research team observed the nature of camaraderie and bonding among the special associates and that the vocational units serve as a platform for continuous socialisation. These units have enhanced their capacities, and improved their dignity and self-efficacy. Now, these special associates are perceived as productive and contributing members by their families and not as burdens to be taken care of throughout their lives.



TATA CONSUMER PRODUCTS

SWASTHA

Impact Assessment Report

CONTENTS

Abbreviations	01
Chapter 1 Executive Summary	02
Project Details	02
Chapter 2 Research Methodology	03 - 06
Research Design	03
Mixed Methodology	03
Sampling Design	04
Stakeholders	04
Key Findings	05
Key Impacts	06
Chapter 3 OECD Framework	07 - 09
Chapter 4 Introduction	10
About the Implementing Partner	10
Chapter 5 Major Findings of the Study	11 - 19
Chapter 6 Vocational Rehabilitation of Special Employees	20 - 27
Chapter 7 Conclusion	28

ABBREVIATIONS

ADHD	Attention Deficit Hyperactivity Disorder
DDRS	Deendayal Disabled Rehabilitation Scheme (DDRS)
OECD	The Organisation for Economic Cooperation and Development
SDG	Sustainable Development Goals
UN	United Nations

01. EXECUTIVE SUMMARY

The Coorg Foundation, established by Tata Coffee in 1994, has been rendering services towards fostering economic, ecological, environmental, and social transformations in Coorg, a picturesque district in the southwestern region of Karnataka. Operating as a distinct and autonomous social arm of Tata Coffee, the Coorg Foundation is committed to bringing about socioeconomic development to the local community in Coorg. The Coorg Foundation provides educational and rehabilitation services to specially-abled children through Swastha.

Swastha, at its Suntikoppa center, delivers a customised design to meet the specific requirements of individuals with special needs. Upon completing their education, Swastha provides pre-vocational training and facilitates access to meaningful employment at both its Suntikoppa and Polibetta centers in the Coorg district.

Furthermore, Swastha is committed to enhancing the community integration of its beneficiaries by securing placements in external companies and offering training to empower them as entrepreneurs for sustainable livelihoods. The organization provides a comprehensive range of therapies, including speech and hearing therapy, drama and music therapy, counselling, skill development programs, yoga, sports, and cultural activities. This study aims to evaluate the impact of Swastha's services on the well-being of students with special needs during the financial year 2022-23.

Project Details



Year of Implementation

FY 2022-23



Year of Assessment

2023 - 2024



Project Locations

Suntikoppa and Polibetta centres of Swastha, Coorg.



Number of beneficiaries

123



Alignment with SDG Goals

- SDG 1 - No poverty
- SDG 2 - Zero hunger
- SDG 3 - Good health and well-being
- SDG 4 - Quality Education
- SDG 5 - Gender Equality
- SDG 8 - Decent Work and Economic Growth
- SDG 10 - Reduced inequalities



Research Methodology



Research Design

Descriptive Research Design



Research Approach

Mixed methodology



Sampling Design

Purposive sampling



Sample Size

40 parents of children with special needs
15 parents of employed candidates

CHAPTER 2

RESEARCH METHODOLOGY



Special employees trained in coffee brewing as a means of livelihood towards community integration.

Research Design

Descriptive research investigates and picturizes the existing scenario without the need for manipulating the variable to establish casual relationships. Due to this reason, a descriptive research design was deemed fit for realising the purpose of the study.

Research Approach

Mixed Methodology



An appropriate mix and balance of both Quantitative and Qualitative tools were used for better research validation.

Quantitative tools were used for precision.

Qualitative tools were used for getting enriched, bring out phenomenon underlying deep beneath.

Sampling Design

Purposive Sampling

A purposive sampling is one in which research participants are chosen based on specific characteristics or criteria relevant to the research question.

In this research study, parents of special children were chosen, as they can be expected to have a deeper understanding of their children's conditions, experiences and needs and can provide valuable and nuanced insights into the lives of their children.

Sample size



**Parents of children
with special needs**

40



**Parents of
employed candidates**

15

Stakeholders



**Special
Educators**



Therapists



**Community
Members**



**RESIDENTIAL FACILITY FOR
CHILDREN WITH SPECIAL
NEEDS AT SWASTHA**

Key Findings



87.5%

of the parents were highly satisfied about the counselling given to them, with the rest moderately satisfied of the same.



95.0%

of the parents of special children expressed that there was improvement in their child's speech and language ability ranging across good, moderate and slight improvements.



82.5%

of the parents were highly satisfied about the periodic meetings conducted by Swastha special educators with them.



100.0%

of employees of the vocational units confirmed that they received regular medical check ups at Swastha.



100.0%

of the parents of hostellers expressed their satisfaction with the hostel facilities.



80.0%

of the employees were in strong agreement with the statement that their involvement in vocational units led to development of Job skills.



100.0%

of the parents shared they perceived a sense of safety, of their children's stay in the residential facility at Swastha.



80.0%

of the employees also were found to be in strong agreement with the statement that the workplace helped them in developing good social skills.



100.0%

of the parents expressed that their children received regular, periodic medical check ups at Swastha.



93.4%

of surveyed employed candidates expressed confidence in their ability to contribute to their family income and a sense of self-assurance in meeting their own economic needs.



12.5%

of the parents shared that Swastha also helped them with financial assistance for undertaking critical life- saving surgeries of their children.



93.4%

of individuals with special needs expressed belief in their capacity to independently support themselves economically in the future.



80%

of the parents stated that they received Government ID card for disabled people, through the guidance of Swastha.



72.5%

of the parents reported their children getting disability pension from the disability welfare department facilitated as a part of CBR by Swastha.

Key Impact



88.0%

of the parents of hostellers, claimed that better development in their children attributed to the extended socialisation opportunity through the hostel facility.



100.0%

of the parents expressed that there was improvement in their children's ability to express their needs and want, across varying degrees of improvement.



86.0%

of the parents shared that their children's social communication skills has improved significantly.



97.5%

parents stated that they observed changes in their child's ability to regulate and control emotions.



100.0%

of the parents interacted during the study expressed that there was an improvement in their child's simple problem-solving skills.



100.0%

of the parents acknowledged that they observed changes in their children's ability for daily living skills.



100.0%

of the parents observed improvement in the Gross motor skills of their children, with majority of parents among them (47.5%) noting moderate improvement in the Gross motor skills.



PARTICIPANT WITH SPECIAL NEEDS
EMPLOYEES WORKING IN THE PRINTING
UNIT OF SWASTHA, POLIBETTA CENTRE.

03. OECD FRAMEWORK



Relevance

The Swastha CSR initiative in Coorg aims to provide inclusive and comprehensive support for children with special needs. This program seeks to mainstream these individuals by offering tailored education, vocational training, and therapies, thus addressing a critical gap. Its relevance lies in promoting the inclusion and empowerment of individuals with special needs, contributing to their personal development and societal integration.



Coherence

The Swastha CSR intervention towards education and rehabilitation of children with special needs is in alignment with many of the SDGs namely:

- Goal 1: No poverty.
- Goal 2: Zero Hunger.
- Goal 3: Good Health and Well-being.
- Goal 4: Quality Education.
- Goal 5: Gender Equality
- Goal 8: Decent Work and Economic Growth.
- Goal 10: Reduced Inequalities.

The program also aligns with the Deendayal Disabled Rehabilitation Scheme (DDRS) and the goals of the National Program for Persons with Disabilities.

The program helps in realising the rights of disabled persons like the right to equality, dignity and respect for the integrity of disabled persons, and rights disabled people to live in the community, as enshrined in the Disability Rights Act, 2016



Effectiveness

The effectiveness of the Swastha program in achieving its objectives is evidenced by key findings and immediate impacts. The program has garnered high satisfaction rates among parents, with improvements noted in children's speech, language abilities, social communication skills, emotional regulation, and problem-solving abilities. Furthermore, the initiative has successfully provided necessary medical check-ups, financial assistance, and government support.

The rehabilitation through vocations also has been found to be therapeutic in bringing about improvements in the disabled adults.

Hence the program can be stated to be high in its effectiveness.





Efficiency

The Swastha program demonstrates high efficiency in its utilisation of resources and timely implementation. The revenue-generating vocational units not only provide income for beneficiaries but also contribute to the operational sustainability of the program. Beyond tangible financial gains, the initiative offers invaluable intangible benefits, enhancing the overall impact and efficiency of the education and vocational rehabilitation efforts for children with disabilities.

Hence it can be stated that the Swastha program is high in its efficiency.



Impact

The program has had a profound and positive impact, evidenced by notable improvements in the development of children with special needs, including advancements in motor skills, self-care, language, and social skills. It has significantly enhanced overall well-being by providing a stable income, comprehensive welfare support, and educational assistance. Additionally, the employment opportunities have fostered dignity, self-efficacy, social integration, and community involvement among the participants, indicating enduring and transformative effects.



Sustainability

The Swastha program is highly sustainable, as its vocational units are designed to offer sustainable livelihood opportunities both within the organization and in the broader community. The community-based rehabilitation approach fosters community integration, promoting sustained benefits for individuals and reducing dependency on long-term care.



Relevance



Coherence



Effectiveness



Efficiency

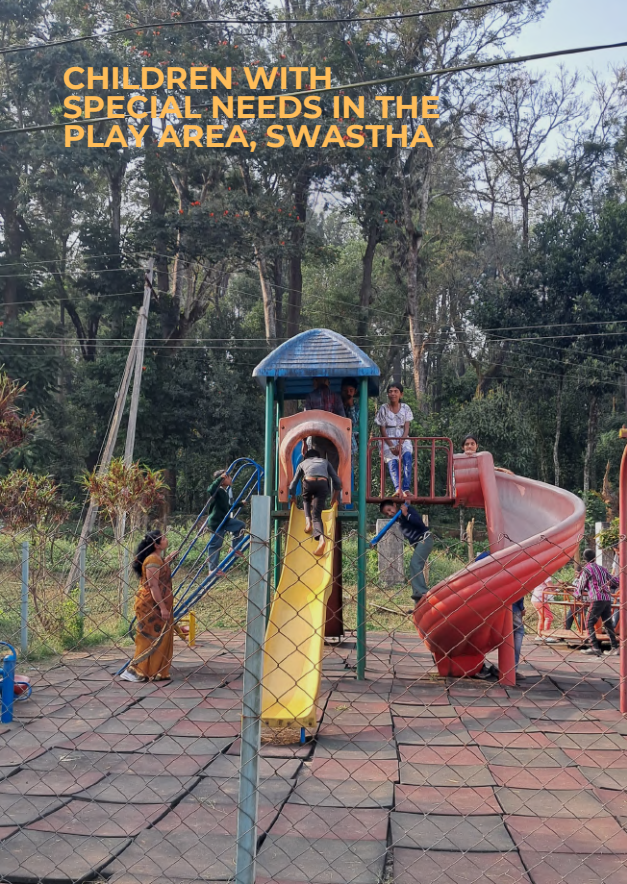


Impact



Sustainability

CHILDREN WITH SPECIAL NEEDS IN THE PLAY AREA, SWASTHA



CHAPTER 4

INTRODUCTION

The Coorg Foundation established in 1994, by Tata Coffee has been at the forefront of driving economic, ecological, environmental, and social change in Coorg, Karnataka. Coorg Foundation supports the education and rehabilitation of individuals with disabilities through its social initiative Swastha – A special school founded for the purpose. Swastha delivers a tailored curriculum designed to meet the specific requirements of individuals with special needs. Upon completing the pre-vocational training at Swastha, the trained individuals fit into the various vocational units at its Suntikopa and Polibetta centres for gainful employment.

This impact assessment study aims to evaluate the social impact created by Swastha towards enhancing special children's development in various domains and improving rehabilitated individuals' quality of life during FY 2022-23.

About the Implementing Partner

Swastha is a unique residential school in the Coorg District, offering free care and training to special children in Sunticoppa and Pollibetta, providing facilities like a hostel, food, and conveyance. The centre has dedicated special educators, speech therapists, and psychologists. Many Swastha alumni are now employed or self-employed. Swastha offers customised education based on a child's abilities, imparts pre-vocational and vocational skills, Speech therapy, drama and music therapy and counselling services for parents of special children. Towards vocational rehabilitation, the centre imparts training in various crafts like envelope making, screen printing, offset printing, book binding, and mushroom cultivation.

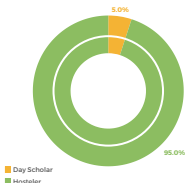


CHAPTER 5

MAJOR FINDINGS OF THE STUDY

Key Impact: Extended care and socialisation made possible through dedicated residential facility

CHART 1: STATUS OF CHILD



In order to provide extended care and avenue for socialization, which can foster independence and development of multi domain skills, Swastha has a residential facility, where 95% of the beneficiaries stay.

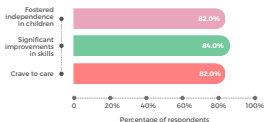
This facility goes beyond traditional schooling providing a supportive and structured living environment.



88%

of the parents of hostellers claimed that better developments could be attributed to the extended socialisation opportunity through the hostel facility.

CHART 2: PERCEIVED MERITS OF HOSTEL STAY AT SWASTHA



- Most Parents (84%) expressed that they were able to witness significant improvements in their children's behaviours at Swastha.
- Many of the parents (82%) acclaimed the presence of the hostel as a pivotal factor in fostering independence in their children.
- A notable proportion of parents (82%) acknowledged that the hostel offers the best of round-the-clock care and supervision.



100%

of the parents of hostellers expressed their satisfaction with the hostel facilities.



100%

of the parents shared they have a sense of safety, of their children's stay in the residential facility at Swastha.

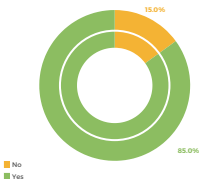


EMPOWERING PARENTS

The involvement of family members who are the primary caregivers is essential for better treatment outcomes. Consistency is very vital in therapeutic interventions for children with special needs.

Swastha collaborates with parents through counselling, training and regular PTA meetings, not only to explicate the child's conditions but also to bring about the consistency of strategies applied at school for behaviour modification at home, which helps in further reinforcement of positive behaviour patterns.

CHART 3: WHETHER THE RESPONDENTS WERE GIVEN TRAINING ABOUT HOW TO HANDLE THEIR CHILD?



85%

of the parents acknowledged that they received training about handling their children. This training helped the parents in getting more understanding of the nature of tasks that can be given to the children in fostering independence in daily activities of their children.



COUNSELING PROVIDED TO PARENTS

All beneficiaries comprising 100% of the parents have affirmed that they received counseling before enrolling their children at Swastha.

These counseling sessions proved instrumental in enhancing their comprehension of their child's disability and clarifying the expectations regarding their child's developmental progress.

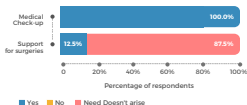
CHILDREN WITH SPECIAL NEEDS IN THE PLAY AREA, SWASTHA





HEALTH CARE OF CHILDREN AT SWASTHA

CHART 4: HEALTHCARE FACILITIES RECEIVED



100%

of the parents expressed that their children received regular, periodic medical check ups at Swastha.



12.5%

of the parents shared that Swastha also helped them with financial assistance for undertaking critical life- saving surgeries of their children. It can be added here that the need for the same did not arise with parents of other children (87.5%).



GOVERNMENT WELFARE SCHEMES FACILITATED THROUGH SWASTHA

Swastha facilitated the parents of the special children to avail the following welfare schemes from the Government.



80%

of the parents stated that they received a Government ID card for disabled people, through the guidance of Swastha.



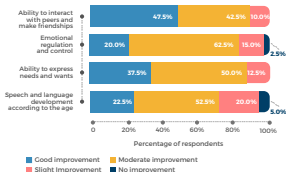
72.5%

of the parents reported getting a pension from the district disability welfare department.



ENHANCEMENT OF SKILLS ACROSS MULTIPLE DOMAINS

CHART 5: LEVEL OF IMPROVEMENT IN EMOTIONAL & BEHAVIOURAL ABILITIES



Significant speech and language development among children observed



95%

of the parents of special children expressed that there was improvement in their child's speech and language ability after their admission into Swastha.

Some of the parents of children who had admitted their children in mainstream schools or other special schools prior to admission at Swastha, stated that there was not much improvement in their children's speech and language earlier. At Swastha, they were able to see more improvement in their children in this domain of child development.

Key Impact

Remarkable improvement in children's ability to express their needs and wants



100%

of the parents expressed that there was improvement in their children's ability to express their needs and want, across varying degrees of improvement.

Most Parents shared that social communication skills has improved significantly, with their children now being able to make eye contact, understanding social cues etc., which could be one of the outcomes of speech and language therapy.

Some of the parents shared that their child were not even be able to express he/she was hungry and ask for food before admission at Swastha. Many of the children were not able to seek water when they felt thirsty earlier. Some were not able to tell their parents to help them to take for toileting.

After admission to Swastha, their child was able to use expressive language and ask for what they wanted.

Key Impact



97.5%

of parents stated that they observed changes in their child's ability to regulate and control emotions.

“

I have been serving Swastha for the past 10 years. I provide articulation therapy for the children, which involves practice for correct placement of the oral parts like the tongue and lips for proper production of specific sounds. I give resonance exercises which involve modifying pitch, tone and volume for producing a more balanced and clear voice. I also impart exercises regularly for strengthening the muscles in the vocal cord region.

The school collaborates with voluntary organisations like Rotary club, Lion's club, etc., in getting assistive technologies for children with Hearing Aids and Cochlear implants. We also teach the children sign language.

We have a daily plan, weekly plan, monthly plan and yearly plan to monitor the progress of each individual child.

Every child's progress is tracked in accordance with the individual treatment goals set for the child'.

- Manjunathan, special educator for speech training at Swastha

”



THE PROCESS OF SPEECH AND LANGUAGE THERAPY FOLLOWED AT SWASTHA

INITIAL EVALUATION	DIAGNOSIS	GOAL SETTING	TREATMENT PLANNING	THERAPEUTIC INTERVENTIONS	PROGRESS MONITORING
1. Evaluation of Child's Medical history	Diagnosis undertaken by the Speech and Language Therapist at Swastha based on the evaluation	Establishing specific and measurable goals for each child	Speech therapist prepares a customised treatment plan for each child	1. Speech sound Therapy	Regular weekly, monthly and annual review meeting conducted for monitoring the progress of each child
2. Development history tracking the milestone developments				2. Language Therapy	
3. Use of standardised tests for speech assessment				3. Voice Therapy	

“

Biju, holding a special diploma in special education, has been serving Swastha for the past 12 years as special educator. He handles a mixed group of children in the age group of 14 to 18 years.

He said “Children with special needs generally face difficulties in expressing, managing and regulating their emotions. For instance children with Autism exhibit intense emotional reaction even for small changes in the routine.

Children with speech disorders can not express their emotions leading to frustration. Children with ADHD often have emotional outbursts out of sudden anger or frustration.”

At Swastha, we give training to children for better emotional regulation and it requires considerable time and concerted efforts and right therapeutic interventions to bring about it.

Interview with Special educator- Biju

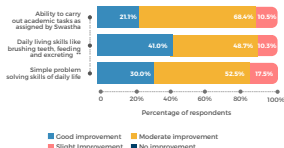
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Key Impact

Improvement in problem solving, daily living and academic skills

CHART 6: IMPROVEMENT IN PROBLEM SOLVING, DAILY LIVING AND ACADEMIC SKILLS.



Key Impact

Improvement in simple problem-solving skills in daily life



100%

of the parents interacted during the study expressed that there was an improvement in their child's simple problem-solving skills through varying degrees of good, moderate and slight improvements.

Some of the parents stated that Swastha trained their children in problem solving by giving them Puzzle games with simple, large sized puzzles easy to grasp of their children.

Some parents observed that their child's spatial awareness has now improved better than earlier. Parents also stated that their child's simple decision making has improved following training at Swastha, that they were now able to pick up the right footwear for the right leg, buttoning their shirts correctly, and the like.

Key Impact

Improvement in children's abilities in daily living skills



100%

of the parents interacted during the study shared that they noticed good amount of independence in their child's ability to carry out activities for daily living like brushing teeth, taking bath, toileting, dressing oneself, etc.,

A parent shared that his son can now identify his tooth brush, pick it up from the stand, apply tooth paste on it and can brush himself without any assistance or guidance. Another parent stated that the child approaches the toilet by herself, flush the toilet after use without asking for help from the family members, which she was not doing earlier.



CLOTH BAGS STITCHED BY PARTICIPANTS AT SWASTHA

Key Impact

Improvement in their children's ability to carry out academic tasks



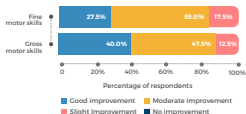
100%

of the parents shared that there is a definite improvement in their child's ability to carry out academic tasks with majority of respondents observing moderate improvement, followed by good improvement and slight improvement.



LEVEL OF IMPROVEMENT IN MOTOR SKILLS

CHART 7: LEVEL OF IMPROVEMENT IN MOTOR SKILLS.



“

Ramjee, Physiotherapist, Swastha, said 'I am in the field of paediatric physiotherapy for the past 10 years and serving Swastha for the past 2 years.

Here at Swastha, we follow a very structured and elaborate assessment of every child before deciding the particular type of physiotherapy interventions that has to be given. We assess whether the child has achieved its age appropriate development milestones. In physiotherapy, the emphasis is on improving the gross motor skills of the children, by trying to correct the body postures and movements distorted by muscular and skeletal abnormalities by way of specific exercises through the use of adaptive devices.

The treatment process starts with Individualised assessment, then setting individual treatment goals, providing therapeutic interventions according to the goals, and periodically monitoring the progress of the child.




Bringing about progress in child with congenital deformities involves a pretty longer time, but with continuous effort we try to achieve consistent improvements in the child.

Interview with Physiotherapist- Ramjee

”



THERAPEUTIC INTERVENTIONS FOLLOWED BY SWASTHA

THERAPEUTIC INTERVENTIONS	KEY THERAPEUTIC COMPONENTS	OBSERVED OUTCOMES
 Occupational Therapy	<ul style="list-style-type: none">• Play based therapeutic interventions.• Strength and coordination exercises.• Balance and posture training.	<ul style="list-style-type: none">• Enhanced muscle tone and strength for performing gross motor activities.
 Physical Therapy	<ul style="list-style-type: none">• Use of braces and orthotics.• Use of assistive devices.• Use of large physio-balls, sponge balls, bean bags, volley balls, foot balls, and hoop activities.	<ul style="list-style-type: none">• Enhanced co-ordination and motor planning.• Improved balance and stability.• Improved gait leading to proper heel to toe movement & posture.
 Use of Assistive Equipment	<ul style="list-style-type: none">• Use of walkers, crutches, parallel bars, and therapy balls.	<ul style="list-style-type: none">• Enhanced posture and overall mobility.



**A SPECIAL CHILD OF SWASTHA
UNDERGOING PHYSIOTHERAPY SESSION.**



**A SPECIAL CHILD OF SWASTHA
UNDERGOING PHYSIOTHERAPY SESSION.**

Key Impact

Progress in Gross motor skills



100%

of the parents observed improvement in the Gross motor skills of their children, with majority of parents (47.5%) noting moderate improvement in the Gross motor skills followed by observation of good improvement among children.

Most of the parents interacted by the research team showcased their awareness towards the activities which involve the application of gross motor skills and shared that Swastha trained their children in gross motor activities like jumping, crawling, walking, running and other physical activities.



A SPECIAL EDUCATOR AT SWASTHA, HELPING A CHILD TO PUT BEADS IN A STRING TO IMPROVE FINE MOTOR SKILLS.

Key Impact

Enhancement in Fine motor skills



100%

of the parents observed improvement in the fine motor skills of their children, with majority of parents (55%) noting moderate improvement in the fine motor skills followed by observation of good improvement among children.

“

Fine motor skills are crucial for seemingly basic tasks such as holding a pencil, feeding oneself, or constructing models with building blocks. Upon admission, many children exhibit delays in fine motor skills.

At Swastha we train children by assigning activities like threading a needle, weaving around cardboard shapes, and stringing beads. We've noticed a gradual but steady improvement in the fine motor skills of students over a period of time.

Interview with Special Educator

”



CHAPTER 6

VOCATIONAL REHABILITATION OF PARTICIPANTS



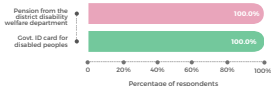
PRINTING

PRESS SET UP AT POLIBETTA CENTRE, FOR VOCATIONAL REHABILITATION.



GOVERNMENT WELFARE BENEFITS FACILITATED BY SWASTHA

CHART 8: WELFARE BENEFITS FACILITATED THROUGH SWASTHA



Interactions with the participants of the vocational units availed welfare services meant for disabled people, through facilitation of the same by Swastha.



100%

of all the participants received pension from the District disability welfare department.



100%

of all the participants received their ID card for disabled persons.



REGULAR MEDICAL CHECK UPS

People with disabilities are prone to congenital health conditions or comorbidities. Many would be under regular medications for specific health issues. Disability can also put individuals at risk to secondary health conditions or complications.

Swastha organises regular, periodic medical check ups for all its special children so as to monitor existing medical conditions as well as a measure of preventive health care. These medical check ups also help to assess the effectiveness of medications, increase or decrease the dosages of medicines, and address any possible issues arising out of these medications.



100%

of participants of the vocational units confirmed that they received regular medical check ups at Swastha.

“

Ram Gowtham, the Design consultant, has been associated with Swastha for the past 7 years and training the special participants in the art of screen printing.

He said 'The disabled candidates exhibit a lot of sitting tolerance, stay focussed without getting distracted for long hours, and display genuineness and honesty in their work.'

The people employed at Swastha get a means of sustainable livelihood and apart from the direct benefit of economic productivity, art aids as a therapeutic intervention aiding their general improvement across domains.

I am happy that I can contribute to the wellness of the special participants at Swastha through my professional consultation.'

- Ram Gowtham, Design Consultant

”



PARTICIPANTS GIVEN TRAINING IN MAKING WINDOW COVERS, AT POLIBETTA CENTRE.

“

Rekha K.N., a 37-year-old woman, faces a locomotor disability in her lower limbs. Despite her disability, she exudes confidence with the gait of her walking. She became a part of Swastha at the age of 20 and has been engaged in screen printing for the past 5 years, earning a monthly income of Rs. 13,000/-.

Reflecting on her journey, Rekha shares,

"Before joining Swastha, I experienced a sense of inferiority, hesitating to socialize and restricted my movements inside my home. However, the supportive environment at Swastha transformed my outlook.

I developed a keen interest in screen printing, and now, I'm delighted to engage with my colleagues and other members of the Swastha community."

Rekha, who has three elder sisters leading settled lives, takes pride in her contribution to caring for her parents. Her parents take turns staying with each of her sisters for a month. While Rekha may not match her sisters' economic status, her employment with Swastha enables her to share the responsibility of supporting her parents financially as much as her sisters do. 'I am thankful to Swastha, which made me economically productive, and I am happy that I am able to support my parents including their major medical expenses.'

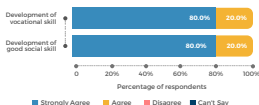
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Key Impact

Significant improvement in vocational and social skills among the employees

CHART 9: LEVEL OF DEVELOPMENT IN VOCATIONAL AND SOCIAL SKILLS AFTER INVOLVEMENT IN THE VOCATIONAL UNIT



The study revealed the following:



80%

of the employees were in strong agreement with the statement that their involvement in vocational units led to development of job skills.



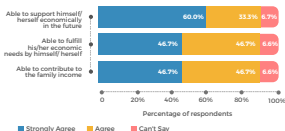
80%

of the employees also were found to be in strong agreement with the statement that the workplace helped them in developing good social skills.

Key Impact

Development of Self efficacy among the employees

CHART 10: DEVELOPMENT OF SELF EFFICACY AMONG THE EMPLOYEES



93.4%

of surveyed employees expressed confidence in their ability to contribute to their family income attributed to getting employment at Swastha.



93.4%

reported a sense of self-assurance in meeting their own economic needs.



93.4%

of participants expressed belief in their capacity to independently support themselves economically in the future.

Being engaged in an economically productive activity through the day, had the positive impact of imparting a sense of self efficacy among the special employees at Swastha.

Interactions with the parents of the special employees revealed that some of their concerns regarding the employment of their children and their future has been alleviated to some extent now thanks to Swastha.



Case Story- Teena

Tina, 28-years old, with the condition of Down's syndrome, became a part of the Suntikopa Centre of Swastha at the age of 22. Initially she was not mingling with any one and had only limited vocational skills. Special educators at Swastha identified her interest in hand papermaking and trained her in hand paper bag making, beginning with simple steps. However, mastering the art posed challenges, particularly in holding scissors firmly and placing papers accurately. With the persistent effort of the staff at Swastha, Tina gradually moved on from simple tasks to complex tasks in paper bag making.

Tina finds satisfaction in being able to be productively occupied at Swastha, and the training led to her better hand-eye co-ordination, better focus and functional skills. The training also helped her to socialise with others in the centre.

Swastha provides her residential care, and complementary food, and takes care of her entire needs free of cost. She is on continuous rehabilitation training and the staff at Swastha expressed happiness about the transformation underwent by since her admission at Swastha.





Case Story- Jovitha

At the age of 31, Jovitha, who faces challenges with speech and hearing, joined the vocational unit at Swastha in 2023. Recognizing her talent in screen printing, the staff at Swastha offered intensive training to help her overcome communication challenges, acquire soft skills, and excel in the techniques of screen printing and design creation.

Swastha's nurturing environment not only honed Jovitha's technical abilities but also boosted her self-confidence. Despite initial difficulties in grasping the nuances of screen printing, the Swastha staff guided her through each step, ensuring she understood before progressing to the next level.

Today, Jovitha has developed a strong confidence in screen printing, and based on her progress, the screen printing unit is confident in assigning her independent tasks. Swastha provides her with shelter care, and complimentary food, and attends to her daily needs.

Thanks to the committed efforts of the Swastha staff, Jovitha has made significant progress in enhancing her functional skills and has shown remarkable improvement in social integration.



Key Impact

Disabled individuals mainstreamed into the Community

The study observed that Swastha was successful in mainstreaming special employees by enabling access to various livelihood options in the larger community apart from employing them in the vocational units run by it, located within the premises of Swastha.

Towards bringing about better community integration of special employees and fostering inclusivity, Swastha has trained its special children in the following vocations.

- Beekeeping
- Vermiculture
- Suitable roles in companies in Coorg

Swastha regularly places its rehabilitated people in hospitality services in companies in Coorg.

“

Shamvel Nizam, employer of Thoufeeq, a rehabilitated person from Swastha says ‘ Every year we use to take in special employees from Swastha and place them in our business units according to their capacities. Thoufeeq was originally employed at our coffee shop and later we found him capable of carrying out hospitality services. Now he is working in our holiday resort. Thoufeeq does his job pretty well and is dedicated to the job. He earns around Rs.17,000/- a month.

- Shamvel Nizam, employer of Thoufeeq

”

Interactions with the employers of the disabled people, parents and community members of the special employees in the course of the study revealed that



Mainstreaming has created conditions for better inclusivity.



Participants gain a sense of belongingness with the community.



Mainstreaming serves as an essential precondition for equitable society.



Community members are better sensitized towards the needs and abilities of the disabled people.



Barriers, stigma and stereotypes people get reduced with more inclusion of special employees in the community.



Mainstreaming is creating equal access to special employees to the resources, recreation, livelihood and social activities in the community.



Disabled individuals develop better communication, problem solving skills and adaptation to the opportunities and challenges community.

Bee keeping as a means of livelihood for
community integration



**PARTICIPANTS TRAINED IN BEE KEEPING AS A
MEANS OF LIVELIHOOD IN THE COMMUNITY.**

CHAPTER 7

CONCLUSION

The impact assessment study reveals that Swastha plays a pivotal role in fostering the advancement of children with special needs in Coorg and nearby districts. The center offers a holistic approach to their educational and vocational rehabilitation, standing as a beacon of hope for their overall progress.

Through a myriad of therapies, education, and vocational training programs such as screen printing, tailoring, printing, and paper crafts, and placing students for jobs in the community, facilitating entrepreneurship, Swastha has not only addressed the unique learning needs of these special children but has also empowered them with valuable life skills.

Swastha's commitment to fostering an inclusive and supportive environment has not only enabled academic achievement but has also instilled a sense of confidence and independence among the students. By recognizing and nurturing the individual talents and abilities of each child Swastha has proven that with the right resources and guidance, every child can reach their full potential.

Furthermore, the vocational training provided at Swastha goes beyond just skill development; it serves as a pathway to economic independence and social integration for these children in the future. The center's emphasis on diverse vocational skills ensures that each child can explore and excel in areas that align with their interests and capabilities, preparing them for a more inclusive and fulfilling life beyond the confines of the classroom.

In essence, Swastha has not only become a catalyst for academic and vocational excellence but has also contributed significantly to breaking down societal barriers and fostering a more inclusive community.

SPECIAL EMPLOYEES TRAINED IN VERMICULTURE AS AN ALTERNATIVE SOURCE OF INCOME IN THE COMMUNITY.





REPORT PREPARED BY



SoulAce
Path to Sustainability

TATA CONSUMER PRODUCTS

Tata Chemicals Society for Rural Development, Mithapur

Impact Assessment Report

CONTENTS

Abbreviations	01
Chapter 1 Executive Summary	02
Introduction	02
Key Stakeholders	02
Chapter 2 OECD Framework	03 - 04
Chapter 3 Research Methodology	05 - 10
Research Approach	05
Sampling Design	06 - 10
Chapter 4 Major Findings of the Study	11 - 41
Section 1: Water Harvesting Structures	11 - 14
Section 2: Micro-Irrigation System	15 - 17
Section 3: Livestock Management	18 - 22
Section 4: Provision of Household Tap Connection	23 - 25
Section 5: Mobile Health Unit	26 - 31
Section 6: Women Empowerment through Cluster and Rural Enterprise Development	32 - 36
Section 7: Skill Development Program	37 - 40
Chapter 5 Conclusion	41

ABBREVIATIONS

TCSR	Tata Chemicals Society for Rural Development
NGO	Non- Governmental Organisation
FY	Financial Year
SGD	Sustainable Development Goal
MHU	Mobile Health Unit
FMD	Foot and Mouth Disease
AI	Artificial Insemination
OECD	The Organization for Economic Co-operation and Development

01. EXECUTIVE SUMMARY

Introduction

The Tata Chemicals Society for Rural Development (TCSRSD) believes in adopting comprehensive strategies in crafting region-specific designs and implementing need-based development programs. This involves employing a participatory development approach that fosters community ownership. TCSRSD is driven by its vision of fostering sustainable development and empowering communities. Its programs are meticulously designed to align with the United Nations Sustainable Development Goals.

TCSRSD actively engages in partnerships with various government departments, NGOs, educational institutions, and technical organisations to leverage their expertise and knowledge, contributing to the success of its community development initiatives. The focus of TCSRSD's CSR interventions is to foster both farm and non-farm livelihoods through diverse programs addressing key thematic areas such as agricultural development, livestock management, skill development, cluster development, and support for self-help groups. These interventions aim to generate a significant positive impact on social capital, economic capital, and environmental sustainability. TCSRSD's interventions also serve as enablers in areas such as health and nutrition, scholarships, learning and migration programs, as well as initiatives related to access to clean drinking water and sanitation facilities.

This Impact assessment report evaluates the impact created by TCSRSD in the following areas.



Individual water harvesting structures



Micro irrigation systems



Self Help groups



Mobile Health Unit



Household drinking water connection



Livestock Management



Skill development programs



Year of Implementation

FY 2022 - 2023



Year of assessment

2023 - 2024



Project location

Mithapur, Gujarat



Number of Beneficiaries

61,998



SDG Goals



Sample size

186

Key Stakeholders



Sarpanch



Community leaders



Program coordinators



Doctors and nursing staff



School Principal and Teachers



Field staff

02. OECD FRAMEWORK



Relevance

TCSR D's Corporate Social Responsibility (CSR) initiatives were meticulously designed based on comprehensive needs assessment studies. Each programmatic intervention, spanning diverse areas such as agriculture, livestock management, women empowerment, drinking water, health, and nutrition, was strategically tailored to address identified needs and bridge existing gaps. Beneficiaries consistently expressed satisfaction with the programs, attesting to the tangible improvements in their quality of life. Consequently, TCSR D's CSR interventions were relevant, precisely aligning with and fulfilling the genuine needs of the communities involved in the projects.



Coherence

TCSR D's CSR interventions were found to be furthering the following SDG goals.

- Goal 1: No poverty.
- Goal 2: Zero hunger.
- Goal 3: Good health and well-being.
- Goal 4: Quality Education.
- Goal 5: Gender Equality.
- Goal 6: Clean water
- Goal 8: Decent work and Economic Growth.
- Goal 10: Reduced inequalities.
- Goal 17: Partnership for goals.

The CSR interventions were also found to be in tune with the National Rural Livelihood Mission and Integrated Rural Development program.

Hence, the program can be said to be very coherent.



Effectiveness

The quantitative and qualitative findings of the study revealed that the intended objectives were achieved and the programs catered to the right beneficiary groups. The program can be stated to be high in its effectiveness.





Efficiency

The CSR interventions of TCSR D are implemented with a well-defined team structure, with clearly defined roles and responsibilities for each thematic area. The CSR interventions are designed to garner maximum community participation and to strengthen the existing infrastructure.

The tangible and intangible outcomes of the project seem to exceed the investments made.

Thus, the program was found to be high in its efficiency.



Impact

The CSR initiatives have brought about substantial improvements in the socio-economic conditions of diverse beneficiary groups, as evidenced by the study. The research reveals an expansion in cultivation area, income growth, and enhanced productivity attributed to individual watershed structures, micro-irrigation systems, and livestock management interventions. The introduction of mobile health units has increased healthcare access and improved health-seeking behaviour. Vocational skill training for unemployed youth has resulted in a significant number of securing sustainable livelihoods. The SHG interventions have demonstrated the empowerment of women across various dimensions. Therefore, TCSR D's CSR activities can be deemed highly impactful.



Sustainability

The study notes extensive community participation and engagement in decision-making processes. The effective execution of numerous interventions ensures the potential for scaling up and replicating them in the future for a broader range of beneficiary groups. The assets, knowledge, and skills generated can sustain benefits for the beneficiary groups without fostering a perpetual sense of dependency.



Relevance



Coherence



Effectiveness



Efficiency



Impact



Sustainability

CHAPTER 3

RESEARCH METHODOLOGY



Research Methodology



Descriptive Research Design

Descriptive research is one that investigates and pictures the existing scenario without the need to manipulate the variable to establish casual relationships. Due to this reason, a descriptive research design was deemed fit for realising the purpose of the study.

Research Approach



Mixed Methodology

- An appropriate mix and balance of both quantitative and Qualitative tools were used for better research validation.
- Quantitative tools were used for precision.
- Qualitative tools were used for getting enriched, bring out phenomenon underlying deep beneath.

Sampling Design



Cluster Sampling

The population under investigation for the study was widespread both geographically and across different interventions. Hence, the population was segmented into clusters, and clusters were selected based on their representative character of the entire population.

1. CSR Intervention: Individual water harvesting structures

Key Findings



33.3%

of the beneficiaries fall under the category of small farmers, while 66.6% are semi-medium farmers.



88.0%

of the farmers recalled farm ponds as a dependable water supply source.



83.0%

observed decreased reliance solely on rainfall.



92.0%

observed an effective reduction of soil erosion.



82.0%

observed improved planning of crop planting schedules.



82.0%

perceived increase in crop productivity.

Key Impact



88.3%

of beneficiaries noted a considerable increase in water retention in their wells.



70.0%

of beneficiaries conveyed that they were able to maintain cultivation during non-rainy seasons.



41.6%

more beneficiaries were able to implement crop rotation.



10% - 40%

Range of increase in expansion in cultivable area by beneficiaries.

22.0%

Average increase in cultivable land.



10% - 25%

Range of Increase in productivity realised by beneficiaries.

17.0%

Average increase in productivity.



10% - 25%

Average increase in productivity.

17.0%

Average increase in income.

2. CSR Intervention: Micro Irrigation system

Key Findings



15.0%

were small farmers, and 85% were semi-medium farmers.



92.0%

of farmers recalled uniform water distribution to all the plants through the use of micro irrigation systems.



88.0%

of farmers recalled increased water efficiency because of micro irrigation systems.



86.0%

of farmers recalled better fertigation.



78.0%

of farmers indicated increased water efficiency.

Key Impact



20% - 50%

reduction in labour cost.



20% - 40%

Increase in the efficiency of fertiliser usage.



30% - 50%

Increase in savings of water usage.



20% - 50%

Increase in cultivable area.



10% - 40%

Expansion in the cultivable area by beneficiaries.

30%

Average increase in cultivable land post-intervention.



10% - 25%

Increase in productivity realised by beneficiaries.

15%

Average increase in productivity.



10% - 25%

Increase in income levels as observed by beneficiaries.

16%

Average increase in Agricultural income.


85.0%

of beneficiaries expressed happiness regarding the availability of uninterrupted water supply post-intervention.


100.0%

of beneficiaries expressed satisfaction with the operation and maintenance of the water supply.


80.0%

of the beneficiaries observed a reduction in waterborne illnesses among their children to a larger extent.

5. CSR Intervention: Mobile Health Unit

Key Findings


62.5%

of the beneficiaries' respondents received treatment for the common cold and fever.


45.0%

received treatment for Gastrointestinal disorders. (45%).


90.0%

of beneficiaries incurred high medical expenses for medical treatment in private clinics before the CSR intervention of MHUs.

Key Impact


100.0%

of the beneficiaries reported that the cost of treatment in the MHU was nominal.


67.5%

of the beneficiaries felt they did not have to depend on other family members to get medical care.


RS. 1100/-

was the cost saved on average per beneficiary per visit to the MHU.


100.0%

of the beneficiaries felt that essential medicines and referral services were made accessible to them.

6. CSR Intervention: SHG meetings.

Key Findings


76.6%

of the SHG members attend the SHG meetings whenever conducted.

When the SHG members were asked to recall the necessary registers to be maintained in an SHG,


93.3%

of SHG members were able to recall the Loan register spontaneously.

Key Impact

The SHG women were empowered in various aspects, like


73.3%

acknowledged Familial recognition.

3. CSR Intervention: Livestock Management

Key Findings



70.0%

of the cattle owners attended at least 3 camps organised by TCSR D.



30.0%

of the cattle owners attended at least 2 Veterinary camps in a year.



2.3 LITRES

Average milk yield before the CSR intervention.



4.9 LITRES

Average milk yield after the CSR intervention.



92.0%

of the beneficiaries recalled improved accessibility to veterinary care as a benefit of attending veterinary camps.



88.0%

expressed that the veterinary care camps positively influenced the overall health perception of their cattle.



96.0%

of the beneficiaries perceived better cattle health due to deworming done in their cattle.

Key Impact



100.0%

of beneficiaries reported a higher milk yield of their cattle.



98.0%

expressed a reduced burden of maintaining a breeding bull.



46.0%

The average increase in income of beneficiaries.



2.6 LITRES

Average increase in milk yield.

4. CSR Intervention: Household tap connection for drinking water supply

Key Findings



500 to 700 mts.

Distance walked by women to reach the water source before the intervention.



1 to 2 hours

Time spent by women fetching water every day.

Key Impact



Community-women are relieved of the need to travel to water sources after a household water connection.



92.0%

of beneficiaries expressed that girl children in their households find more time for studies as they are relieved from fetching water to their households.


80.0%

were able to recall the savings register immediately.


76.6%

recalled minutes book and attendance register without any difficulty.


53.3%

availed loans for investing in some or other income-generating activity.


36.6%

availed loans for major family expenses.


30.0%

of SHG members availed loans for their family members' medical expenses or their children's education.


76.7%

perceived increased self-esteem.


63.0%

were able to spend on the medical expenses of children.


63.0%

were able to meet the simple needs of children on their own.


73.0%

were able to voice out their opinion publicly.


87.0%

were aware of women's rights.

7. CSR Intervention: Skill Development Program.

Key Findings


96.7%

of the students shared that the teachers tried to understand their feedback during the course of sessions of the skill development program.


96.7%

of the students expressed that the teachers gave them adequate examples for gaining a better understanding.


93.3%

of the students were highly satisfied with the lecture session and classroom infrastructure.


90.0%

of the students were also highly satisfied with the course curriculum and practical sessions.

Key Impact


66.7%

of the candidates were able to support themselves without depending on their family members to a certain extent.


58.0%

of the candidates were able to contribute towards buying groceries and other monthly needs of the family to some extent.


41.7%

were able to contribute to the general expenses of the family.



Medical expenses of the family members (33.3%), 25% was spent on siblings' educational expenses (25%), and payment of monthly rent (25%) were the other expenses made by the candidates.

CHAPTER 4

MAJOR FINDINGS OF THE STUDY



SECTION 1: BENEFICIARIES OF INDIVIDUAL WATER HARVESTING STRUCTURES.



A beneficiary standing in the backdrop of his farm pond constructed through TCSR

TCSR has played a pivotal role in empowering farmers to harness water resources individually on their farmlands by facilitating the construction of individual water harvesting structures such as farm ponds and farm bunds. This initiative has yielded significant positive outcomes, including the replenishment of groundwater through well recharge. The direct benefits of this approach are manifold:



Enhanced water storage capacity, contributing to improved agricultural activities and essential irrigation.



The utilisation of fertile soil excavated during the construction of these structures for land reclamation, resulting in increased agricultural production.



Stones obtained from the construction process are utilised to build farm boundaries, offering protection to crops against wild and stray animals.



Reduction in soil salinity.



A rise in the water table of the surrounding area.

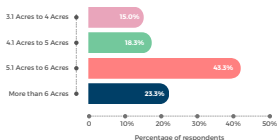
This section deals with the impact of farm ponds constructed with the facilitation of TCSR.



DISCUSSION WITH BENEFICIARIES OF TCSR'S FARM POND INTERVENTION.

TARGETING THE RIGHT BENEFICIARY DEMOGRAPHIC

CHART 1: AREA OF LAND OWNED



The study revealed that the landowners fall into the categories of small and semi-medium farmers as per the Ministry of Agriculture's classification. Approximately 33.3% of the beneficiaries fall under the category of small farmers, while 66.6% are semi-medium farmers. Targeting these groups is strategic, given that their average annual farm income is expected to be lower than that of large farmers. The intervention is thus directed toward the appropriate beneficiary demographic.

The allocation of farm ponds occupies a substantial portion of the farmland, and farmers' willingness to set aside a specific area for a farm pond is a crucial factor in motivating them to adopt this practice. Observations indicate that farm ponds do not significantly encroach upon the land designated for cultivation purposes.

KEY FACTORS CONSIDERED WHILE DESIGNING FARM PONDS BY TCSR.D.



The topography of the land was analysed to locate appropriate sites for constructing ponds.



Areas featuring optimal slopes were selected to ease the flow of natural runoff water.



Priority was given to locations that would minimise soil erosion.



Sites were chosen based on their capacity to effectively retain water, thereby minimising seepage into the ground.



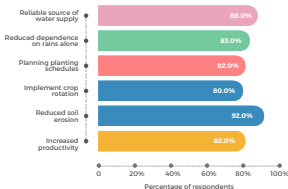
The proximity to cultivated areas was considered to maximise the availability of groundwater for crops.



The dimensions of the farm ponds were taken into account, with the depth capped at 6 feet to prevent the infiltration of saline water from the sea, which could otherwise compromise the entire water reserve.

BENEFITS EXPERIENCED POST-CONSTRUCTION OF FARM PONDS

CHART 2: RECALL BY BENEFICIARIES



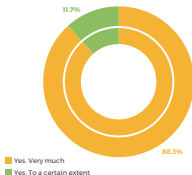
Interactions with farm pond beneficiaries indicated a multitude of advantages, including the provision of a dependable water supply (88%), decreased reliance solely on rainfall (83%), and effective reduction of soil erosion (92%).

A significant number of beneficiaries expressed that the presence of a reliable water source allowed for improved planning of crop planting schedules (82%). The farm ponds facilitated crop rotation, ensuring successive irrigation for various crop varieties (80%).

All the more, with the enhanced water supply, beneficiaries reported a perceived increase in crop productivity (82%).

KEY IMPACT: ENHANCED WATER RETENTION

CHART 3: EXTENT OF INCREASE IN WATER RETENTION IN THE FARM LANDS/ WELLS



A significant majority of beneficiaries (88.3%) noted a considerable increase in water retention in their wells.

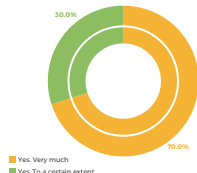
They explained that farm ponds functioned as reservoirs for rainwater and surface runoff, with the surplus water effectively percolating deep into the ground, thereby recharging the groundwater.

Beneficiaries observed enhanced water infiltration in moist soil, resulting in improved water recharge in the farm wells.



KEY IMPACT: INCREASED WATER AVAILABILITY FOR CROPPING DURING NON-RAINY SEASON

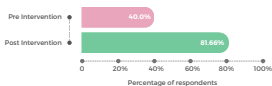
CHART 4: EXTENT OF INCREASE IN WATER AVAILABILITY FOR CULTIVATION DURING NON RAINY SEASON AFTER THE CONSTRUCTION OF WATERSHED STRUCTURES



A significant majority of beneficiaries (70%) conveyed high levels of satisfaction with the ability to maintain cultivation during non-rainy seasons, attributing it to the guaranteed water storage facilitated by the farm ponds.

KEY IMPACT: ENHANCED CROP ROTATION

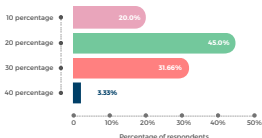
CHART 5: IMPACT ON CROP ROTATION



The increased availability of water resources has enabled beneficiaries to cultivate a variety of crops, with 41.66% more beneficiaries indicating their ability to implement crop rotation following the construction of farm ponds.

KEY IMPACT: INCREASE IN CULTIVABLE AREA, IMPROVEMENT IN PRODUCTIVITY AND ENHANCED AGRICULTURAL INCOME

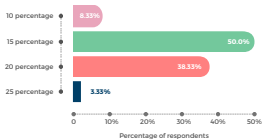
CHART 5: INCREASE IN CULTIVABLE AREA



Beneficiaries reported that the enhanced water availability for cultivation allowed them to expand the cultivated area, with a range of increases from 10% to 40%.

A majority (45%) experienced a 20% expansion, while 31.66% extended their cultivable area by 30%. The expansion of cultivated areas suggests the potential for higher income through increased agricultural produce. Observations after the construction of farm ponds indicated that a significant number of beneficiaries reported an increase in their agricultural income.

CHART 6: INCREASE IN AGRICULTURAL PRODUCTIVITY



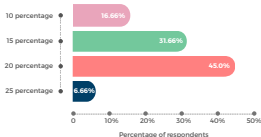
Beneficiaries expressed a productivity improvement ranging from 10% to 25%, with a predominant 50% of beneficiaries noting a 15% increase.



38.3%

of the beneficiaries reported a 20% increase in productivity.

CHART 7: INCREASE IN AGRICULTURAL INCOME



Corresponding to an increase in productivity, an increase in agricultural income ranging from 10% to 25% was also noticed.



45.0%

of the beneficiaries reported a 20% increase in agricultural income.



31.6%

of the beneficiaries reported a 15% increase in agricultural income.





SECTION 2: BENEFICIARIES OF MICRO-IRRIGATION SYSTEM.



Discussion with beneficiaries of TCSR's micro irrigation intervention

PROMOTION OF MICRO IRRIGATION SYSTEM (MIS):

TCSR, Mithapur, facilitated the farmers' adoption of micro irrigation systems like drip irrigation, sprinkler irrigation, and rain gauges with the intent of tackling the issue of limited water availability and enhancing water efficiency. As a value addition, farmers were also trained in fertigation.

The implementation of micro irrigation systems resulted in multiple benefits, like



Significant improvement in water utilisation efficiency on farms



Reduction of labour costs



Enhanced crop productivity



Optimal use of fertilisers



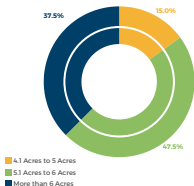
Mitigation of Soil erosion



Uniform crop coverage

TARGETING THE RIGHT BENEFICIARY GROUPS FOR MICRO-IRRIGATION

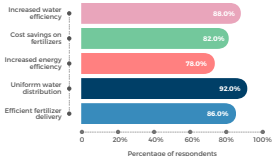
CHART 8: AREA OF LAND OWNED



The study revealed that 15% of small farmers and 85% of semi-medium farmers comprised the beneficiary group. This target group can be expected to have relatively lesser agricultural earnings as well as resources in comparison with large farmers. Hence, it can be stated that the farmers have been rightly chosen for the intervention of providing micro-irrigation.

PERCEIVED BENEFITS OF MICRO-IRRIGATION

CHART 9: RECALL OF PERCEIVED BENEFITS OF MICRO IRRIGATION

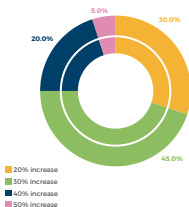


When the beneficiaries were asked about the benefits they perceived due to micro irrigation like sprinkler and drip irrigation, most of the farmers (92%) recalled uniform water distribution to all the plants, followed by increased water efficiency (88%) as the most important benefit of micro irrigation systems introduced by TCSR D.

Eighty-six percent (86%) of the farmers also noted that they were able to supply fertilisers right to the plant location, which helped them in making efficient use of fertilisers combined with the benefit of cost savings (82% of farmers). Since water consumption was reduced, many of the farmers (78%) were also able to recall increased energy efficiency as one of the resulting benefits of micro-irrigation systems.

KEY IMPACT: INCREASE IN CULTIVABLE AREA, INCREASE IN PRODUCTIVITY AND INCREASE IN AGRICULTURAL INCOME POST-INTERVENTION

CHART 10: INCREASE OF AREA UNDER CULTIVATION POST-INTERVENTION



Beneficiaries noted an increase between 20% to 50 % of the increase in their area of cultivation.



45.0%

of the farmers observed an increase in their cultivable land area by 30%.



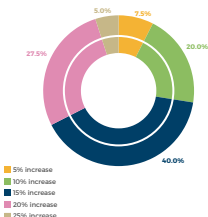
20.0%

of farmers realised a 40% increase in their land brought into cultivation following the adoption of a micro irrigation system.



INCREASE IN AGRICULTURAL PRODUCTIVITY

CHART 11: INCREASE IN PRODUCTIVITY



Beneficiaries observed an increase in agricultural productivity between 5% to 25%.



40.0%

of the farmers observed a 15% increase in their agricultural productivity.



20.0%

of the farmers noticed a 10% increase in their agricultural productivity.



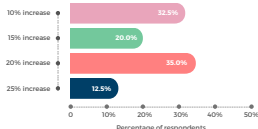
27.5%

of the farmers realised a 20% increase in their agricultural productivity.

The findings infer that a significant proportion of farmers experienced positive outcomes in terms of agricultural productivity. Though the extent of productivity varies, there is an overall promising trend in productivity improvements among the beneficiaries. These findings indicate the potential effectiveness of the CSR intervention of micro irrigation systems that contributed to enhanced productivity for a notable portion of the farming population.

INCREASE IN AGRICULTURAL INCOME

CHART 12: INCREASE IN AGRICULTURAL INCOME



Beneficiaries reported an increase of 10% to 25% of their agricultural income.



35.0%

of the farmers reported a 20% increase in agricultural income post-implementation of the micro irrigation systems.



32.5%

of the farmers observed a 10% increase in agricultural income and 20% of the farmers noticed a 15% increase in their agricultural income.

The finding suggests that the introduction of micro-irrigation systems had a positive influence on the economic well-being of the farmers.





SECTION 3: LIVESTOCK MANAGEMENT.

Livestock plays a vital role as an essential asset for households dependent on agriculture and related endeavours. Besides contributing to direct agricultural income, they also serve as supplementary sources of household earnings. Recognising the significance of livestock, TCSR D has been actively engaged in implementing programs to enhance milk production in dairy animals, reduce animal healthcare costs through preventive measures, and promote the cultivation of fodder.

Regarding livestock management, TCSR D has the following interventions.



Breed improvement through Livestock Management



Animal Health Care and FMD Vaccination

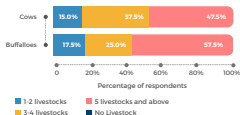


Deworming



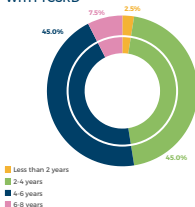
Balanced Nutrition

CHART 13: LIVESTOCK OWNED BY THE BENEFICIARIES



The research findings indicated that a significant portion of cattle owners possessed more than five cows (47.5%) and five buffaloes (57.5%), highlighting that their primary source of income is derived from milk production. The intervention in livestock management by TCSR D effectively addresses the challenges faced by cattle owners in handling large herds.

CHART 14: YEARS OF ASSOCIATION WITH TCSR D



The research findings indicate that a significant majority of livestock owners (90%) have been utilising TCSR D services for a period ranging from 2 to 6 years. A small fraction (2.5%) of cattle owners have been affiliated with TCSR D for less than 2 years. The duration of association with TCSR D suggests that cattle owners have accessed various livestock management services, resulting in enhanced cattle health, decreased disease incidence, lower cattle mortality rates, and improved financial gains.





Amir Vadse is a beneficiary of the livestock management program of TCSR D.

Amir Vadse, a beneficiary of livestock services in Lalpursi, Mojab village, says

'I am a member of the Charan community, relying entirely on cattle for my livelihood. Since the initiation of veterinary camps by TCSR D, I have been consistently utilising their services. I have benefited from FMD vaccination, cattle services, and artificial insemination. The knowledge I have gained about proper cattle care, including the dos and don'ts, has been invaluable.

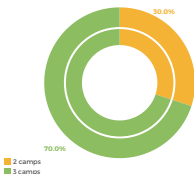
Before TCSR D introduced its services, accessing a private veterinary doctor would cost me between Rs. 150 and Rs. 200 per visit. However, with TCSR D, I receive these services at a highly affordable rate of Rs. 30.

Before TCSR D's intervention, our village experienced a high mortality rate of buffalo calves, with approximately 20-25 deaths occurring annually, mainly due to tick-borne diseases. Thanks to TCSR D's timely diagnosis and treatment, calf mortality has significantly decreased, resulting in a positive impact on our community.'



KEY IMPACT: REDUCED MORTALITY AMONG CATTLE.

CHART 15: NO. OF VETERINARY CAMPS ATTENDED FOR THE CATTLE IN THE PAST ONE YEAR THAT WERE ORGANIZED BY TCSRD

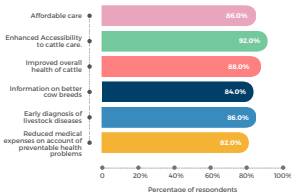


The study revealed that the majority of cattle owners attended at least 3 camps organised by TCSRD in a year, while the rest attended at least 2 Veterinary camps in a year.

Cattle owners engagement in veterinary camps suggests that they highly valued the benefits derived from these camps, including services such as deworming, FMD vaccination, treatment for injuries and illnesses, diagnosis of animal health issues, management of external wounds, parasite control, and nutritional counselling.

RECALL BY BENEFICIARIES OF THE BENEFITS EXPERIENCED THROUGH LIVESTOCK MANAGEMENT PRACTICES.

CHART 16: RECALL BY BENEFICIARIES IN PERCENTAGE



When queried about the advantages they gained from cattle care, the majority of cattle owners (92%) cited improved accessibility to veterinary care as the foremost benefit based on their recollection. Following closely, 88% expressed that the veterinary care camps positively influenced the overall health perception of their cattle.

Furthermore, a significant proportion of livestock owners (86%) found the services to be economically accessible. The early detection of diseases was identified as a crucial factor contributing to decreased mortality, resulting in lower medical expenses associated with preventable health issues.



THE BENEFICIARY OF THE LIVESTOCK MANAGEMENT PROGRAM WITH A VETERINARIAN IS TCSRD, MITHAPUR.



KEY IMPACT: BETTER CATTLE HEALTH DUE TO DEWORMING.



96.0%

of the beneficiaries perceived better cattle health due to deworming done in their cattle.

Beneficiaries perception of better health in their cattle was attributed to the following reasons.



Control and reduction of gastrointestinal worms



Better weight gain of their cattle



Maintaining proper digestive function



Better fertility and conception rates

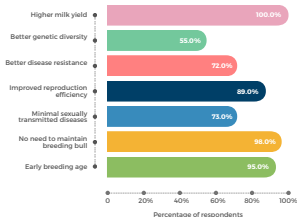


KEY IMPACT: ENHANCED ACCESS TO ARTIFICIAL INSEMINATION OF CATTLE.

One of the significant services availed by cattle owners is the artificial insemination of their cattle. Interbreeding of the cows through artificial insemination has resulted in better offspring with higher milk-yielding capacity.

Cattle owners observed the following benefits achieved through artificial insemination of their cows.

CHART 17: BENEFITS OF AI RECALLED BY CATTLE OWNERS IN PERCENTAGES

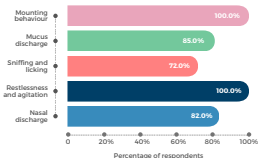


All Beneficiaries (100%) reported a higher milk yield in their cattle, followed by the benefit of reduced burden of maintaining a breeding bull (98%).

Livestock owners experienced other benefits like early breeding age, reduced sexually transmitted diseases, better genetic diversity and disease resistance and improved reproduction efficiency.

KEY IMPACT: IMPROVED CAPABILITIES IN IDENTIFYING THE OESTRUS CYCLE OF CATTLE.

CHART 18: OBSERVATIONS MADE BY BENEFICIARIES

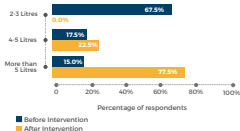


Cattle owners shared that, as a result of consultations on cattle care provided by TCSR, they have gained improved capabilities in recognising the oestrus cycle period in their cattle, which is an indicator of the optimal time for artificial insemination (AI).

Cattle owners now exhibit heightened awareness of behavioural indicators during the oestrus cycle, with 100% reporting the ability to identify mounting behaviour, as well as restlessness and agitation in their cattle. Furthermore, they are now attuned to other signs such as sniffing, licking, unusual mucus discharge, and nasal discharge.

KEY IMPACT: INCREASE IN MILK YIELD OF CATTLE.

CHART 19: INCREASE IN MILK YIELD OF CATTLE

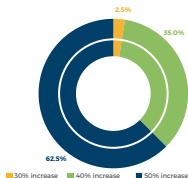


Before the implementation of artificial insemination, only 5% of cattle owners indicated an average milk yield of 5 litres or more. Following the intervention, this figure increased significantly, with 77.5% of cattle owners now reporting a higher range of milk yield.

After the intervention, cattle owners who initially reported a milk yield in the 2-3 litres range saw an increase in their milk production beyond this range, with 67.5% experiencing higher yields.

KEY IMPACT: INCREASED INCOME LEVELS AMONG CATTLE OWNERS.

CHART 20: PERCENTAGE OF RESPONDENTS REPORTING INCREASE IN INCOME FROM MILK YIELD



Following the increase in milk yield, 62.5% of the cattle owners reported an increase in monthly income by 50%, while 35% of cattle owners reported a 40% increase in monthly income.

KEY IMPACT: OVERALL IMPROVEMENT IN BREED QUALITY.

All the beneficiaries (100%) expressed that they observed an overall improvement in the breed quality because of AI.

The beneficiaries attributed their perception of the improvement of breed quality to the following factors.



Reproductive performance in terms of conception rate



Reduction in calving intervals



Increased lactation period



More quantity of milk



Higher fat content of the milk produced

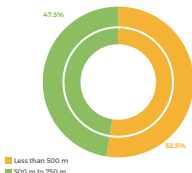


SECTION 4: PROVISION OF HOUSEHOLD TAP CONNECTION.

KEY IMPACT: AVAILABILITY OF WATER AT HAND'S REACH.

TCSR D's provision of household water connections has significantly alleviated the burdensome task of trekking long distances to procure water for homes. It has also saved considerable time for them, which they can invest in other productive activities.

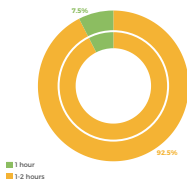
CHART 21: DISTANCE TRAVELLED TO FETCH WATER PRE-INTERVENTION



According to community women, the previous practice of carrying at least two water pots—one on the head and another on the hip—was physically taxing.

The necessity of walking to the community water source, situated 500 to 750 meters away from their households, imposed considerable physical strain on them. With the intervention in place, women now find relief from the arduous physical demands they once experienced.

CHART 22: TIME SPENT EARLIER TO FETCH WATER EVERY DAY



Community women conveyed that meeting the water requirements for their families necessitated making a minimum of 6-7 trips to the community water source. This was substantiated by the observation that a majority of community women had to spend between 1 and 2 hours daily fetching water.



Heeraba Batiya, community leader Chandrabaga, says, 'The household water connection provided by TCSR D is very beneficial to all the community members. Earlier, women had to toil a lot to fulfill the water needs of their families. Now, the water from the community pond is stored in the village tank and supplied to all households. All the households contribute towards the operation and maintenance of the water supply. We as a community are grateful to TCSR D for this intervention addressing the pressing issue faced by the village for so long.'

Heeraba Batiya, Community leader, Chandrabaga



KEY IMPACT: AVAILABILITY OF UNINTERRUPTED WATER SUPPLY.

The majority of the beneficiaries (85%) expressed happiness regarding the availability of uninterrupted water supply post-intervention. It was shared that water supply is now available throughout the day.

The continuous availability of water within households has not only alleviated the burden on women in fetching water but has also afforded them the advantage of commencing their domestic tasks earlier, eliminating the need for a separate time allocation.

SATISFACTION ABOUT THE OPERATION AND MAINTENANCE OF WATER SUPPLY.

All the beneficiaries (100%) expressed satisfaction with the operation and maintenance of the water supply.

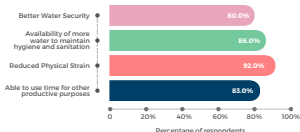
It is noteworthy that every household contributes Rs. 100/per month as a contribution to the collective funds designated for the payment of the water supply operator's salary. This highlights a heightened sense of community ownership in sustaining the intervention.

INTERACTION WITH A BENEFICIARY OF HOUSEHOLD WATER CONNECTION.



KEY IMPACT: ENHANCED QUALITY OF LIFE.

CHART 23: BENEFITS RECALLED

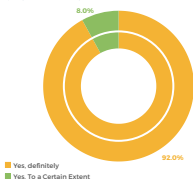


Beneficiaries expressed that they experienced an improvement in their overall quality of life. The majority of women conveyed that having a household water connection has lessened the physical exertion of fetching water from distant sources.

86% of the beneficiaries reported having increased water access, enabling them to maintain better hygiene and sanitation practices. The assurance of a consistent water supply, along with the ability to use the time saved for more productive activities, were cited as significant factors contributing to the perceived enhancement in their quality of life.

KEY IMPACT: GIRL CHILDREN AT HOME FIND MORE TIME TO STUDY.

CHART 24: MORE TIME FOR GIRLS TO STUDY AT HOME



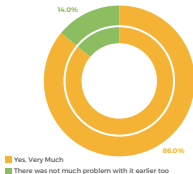
Women in the community (92%) expressed that girls in their households who previously shared the responsibility of fetching water with their mothers are now relieved from this task. This has enabled them to focus more on studying school lessons and completing their home assignments.



Research Team interacting with a beneficiary

KEY IMPACT: ENHANCED PERSONAL HYGIENE AMONG CHILDREN.

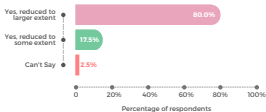
CHART 25: PROPER PERSONAL HYGIENE AMONG CHILDREN



The majority of beneficiaries (86%) disclosed that the increased availability of water at home has provided them with more resources to maintain better personal hygiene for their children.

KEY IMPACT: REDUCTION IN WATERBORNE ILLNESSES.

CHART 26: REDUCTION IN WATER BORNE ILLNESSES



The majority of the respondents (80%) revealed that the availability of tap water connection at home has resulted in a reduction in waterborne illnesses among their children to a larger extent.





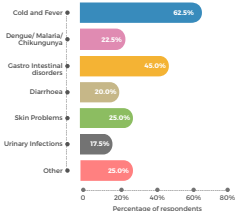
SECTION 5: MOBILE HEALTH UNIT



Beneficiaries are waiting in the Queue to see the Doctor

KEY IMPACT: QUALITY CARE FOR COMMUNICABLE DISEASES MADE POSSIBLE.

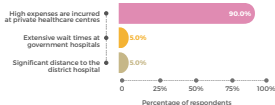
CHART 27: COMMUNICABLE DISEASES FROM WHICH THE RESPONDENTS SUFFERED IN THE LAST ONE YEAR



The study revealed that beneficiaries reported receiving quality care for a range of communicable diseases in the past year. The majority of the respondents (62.5%) reported receiving treatment for the common cold and fever, followed by Gastrointestinal disorders (45%).

Urinary infections, skin problems, malaria, dengue, and Chikungunya were other diseases for which beneficiaries sought treatment from the MHU.

CHART 28: CHALLENGES ENCOUNTERED IN ACCESSING HEALTH CARE FACILITIES BEFORE THE INTERVENTION.



Before the intervention, a majority of beneficiaries (90%) stated that they used to incur high medical expenses as they had to visit private health facilities for health check-ups. Excessive waiting time due to overcrowding at government hospitals and significant distance to district hospitals were cited as other challenges to beneficiaries' access to health facilities.

“

Dawood bhai Makoda, 65 years, is a community volunteer. Bimrana says The TCSR D-operated mobile health unit visits the village every 15 days. I notify community members in advance about the scheduled day and time of the visit, allowing them to prepare for their visit to the MHU. The presence of the MHU in the village has greatly enhanced healthcare accessibility, especially for the elderly and women.

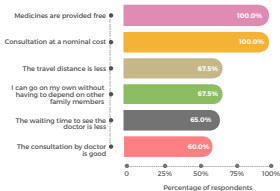


In the absence of the MHU, residents would have to travel 20 kilometres to reach the government hospital in Dwaraka or 80 kilometres to reach the government hospital in Kambalia. The community generally prefers utilising the services of the MHU over seeking care at government or private hospitals.”

”

KEY IMPACT: IMPROVED ACCESSIBILITY AND AFFORDABILITY OF HEALTH CARE.

CHART 29: REASONS FOR CHOOSING THE SERVICE OF MHU OVER OTHER HEALTH CARE FACILITIES ARE:



The study revealed that health services became more accessible and affordable following the TCSR D intervention of the Mobile Health Unit.



IMPROVED ACCESSIBILITY

Most elderly beneficiaries and women have noticed improved accessibility to healthcare services, as they previously faced challenges in travelling to distant health facilities independently, without relying on their spouses, children, or other family members.

With the introduction of the mobile health van within proximity, they now have the option to undergo health check-ups independently.

Some of the reasons cited by the beneficiaries for approaching the MHU were that the Doctor's consultation is good (60%) and there is, a lesser waiting time (65%).



IMPROVED AFFORDABILITY

All recipients (100%) of MHU health care expressed appreciation for the reasonable consultation fees associated with the Mobile Health Unit (MHU). It is important to highlight that the MHU charges Rs. 5/- for each patient registering for a consultation with the Doctor. This measure was undertaken to instill a sense of contribution towards their healthcare and to emphasise the value of the services provided.

All the beneficiaries (100%) also confirmed that the medicines are provided free of cost.

KEY IMPACT: SIGNIFICANT COST SAVINGS ON MEDICAL CARE.

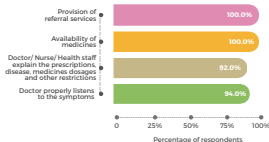
AVERAGE COST SAVINGS PER VISIT	RS.
Consultation	200
Travel	400
Purchase of Medicines	500

The study revealed that post-MHU intervention, the beneficiaries were able to save an average of Rs.1100/- per visit to the MHU.

The beneficiaries shared they would have spent Rs.200/- on average for consultation with a private clinic, Rs.400/- for travel and Rs.500 for the purchase of medicines per visit.

BENEFICIARIES PERCEPTION OF THE MHU SERVICES

CHART 30: EFFICIENCY OF THE SERVICES PROVIDED TO PATIENTS



The study revealed that beneficiaries positively perceived the services of the MHU operated by TCSR D.

All beneficiaries (100%) expressed their recognition of the accessibility of essential medicines and referral services. There was generally positive feedback regarding the doctors' attentive approach to listening to their symptoms (94%), and the health staff received a commendation for effectively explaining accurate prescriptions and medication dosages.

“

Nina Bai Manek, 50 years old, expresses, "I've been coming to the MHU for the past 10-12 years. Whenever I have general illnesses, the MHU services suffice for me. The doctors are kind and take time to inquire about my symptoms."

The nurses provide good advice on medications and their dosages. Since the MHU comes to my village, I don't have to rely on other family members to take me to the hospital."

”



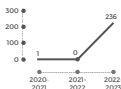
EMPOWERING WOMEN THROUGH CLUSTERS AND SELF HELP GROUPS.

“

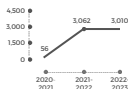
TCSR D recognises that achieving holistic societal development necessitates the active involvement of women, who serve as role models for their daughters and daughters-in-law and act as the primary educators for their children. Despite women's equal contributions to family income through engagement in agricultural and farm-related tasks and fulfilling domestic responsibilities in rural settings, their efforts are often undervalued compared to those of their male counterparts. TCSR D is dedicated to advancing the socio-economic well-being of women by establishing self-help groups (SHGs) and connecting them with both economic and social initiatives. In a strategic approach, TCSR D supports the institutionalisation of women's groups to elevate the socio-economic standing of rural women. The organisation facilitates SHGs in establishing links with banks, encouraging the initiation of savings, and accessing loan facilities for economic endeavours. Furthermore, TCSR D has provided support to these members through vocational skills training, entrepreneurship development programs, and exposure visits.

”

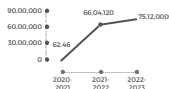
NEW SHGS FORMED.



MEMBERS IN SHGS.

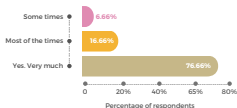


SAVINGS IN SHGS.



Focussed group discussion with SHG members.

CHART 31: REGULAR PARTICIPATION IN SHG MEETINGS



76.66%

of SHG members attend the SHG meetings every time.

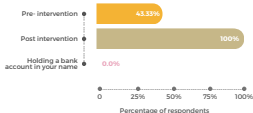


16.66%

of SHG members attend the meetings most of the time.

Regular attendance in SHG meetings is indicative of high levels of social cohesion, commitment and collaboration towards group efforts.



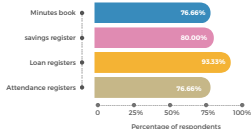
CHART 32: STATUS OF OWNING A BANK ACCOUNT

KNOWLEDGE OF THE OPERATIONAL PROCEDURES AND FUNCTIONING OF SHGs.

100% of SHG women expressed that they were well aware of the operational procedures and functions of SHGs.

The SHG members had knowledge about the purpose and objectives of an SHG. They were aware of the opening of a bank account, documents required for opening a bank account, scheduling regular meetings, group savings, loans, interest rates, etc.

KNOWLEDGE OF REGISTERS TO BE MAINTAINED BY SHGs.

CHART 33: FREE RECALL WITHOUT CUES

When the SHG members were asked to recall the names of registers to be maintained, the following were the percentages of recall.



93.33%

of SHG members were able to recall Loan registers spontaneously.



80.0%

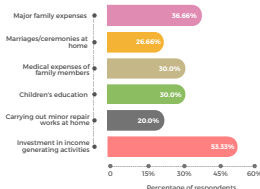
of SHG members were able to name savings registers immediately.



76.66%

of SHG members recalled the minutes book and attendance register without any difficulty.

This is indicative of the fact that the SHG members were quite aware of the various registers to be maintained for its functioning. Loans are availed by SHG members for varied purposes.

CHART 34: PURPOSES FOR WHICH LOAN FROM SHG WAS AVAILED

The study revealed various purposes for which the SHG members availed loans.



53.33%

of SHG members availed of loans for investing in some or other income-generating activity.



36.66%

of the SHG members availed of loans for major family expenses.



30.0%

of SHG members availed loans either for their family members' medical expenses or for their children's education.

Expenses for marriages/ home ceremonies and minor repair works at home were the other reasons cited by SHG members for availing of loans from their SHGs.

All the SHG members expressed satisfaction that they were able to contribute to family needs, apart from investing in their small business ventures.

KEY IMPACT: SHG INVOLVEMENT HAS BEEN INSTRUMENTAL IN EMPOWERING WOMEN.

CHART 35: EXTENT TO WHICH FAMILY MEMBERS RECOGNISE BETTER NOW AFTER INVOLVEMENT WITH THE SHG

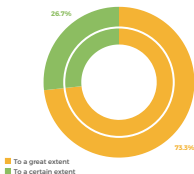


CHART 36: EXTENT OF INCREASE IN SELF-ESTEEM AFTER ASSOCIATION WITH THE SHG

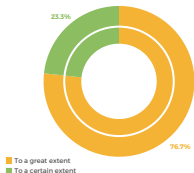


CHART 37: ABILITY TO SPEND FOR THE MEDICAL EXPENSES OF CHILDREN

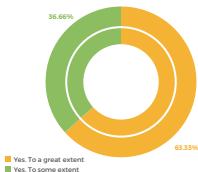


CHART 38: ABILITY TO MEET OUT SIMPLE NEEDS OF CHILDREN BY THEMSELVES

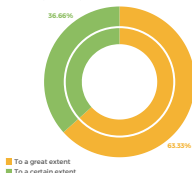


CHART 39: ABILITY TO VOICE OUT OPINION WITHOUT FEAR

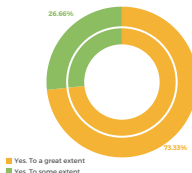
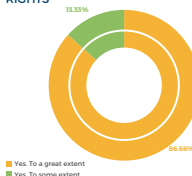


CHART 40: AWARENESS ON WOMEN'S RIGHTS



The study revealed that SHG involvement has resulted in empowering women in multiple aspects. Based on beneficiaries' strong agreement to statements that reflected the indicators of empowerment.

- Familial recognition (73.3%)
- Increased self-esteem (76.7%)
- Ability to spend for the medical expenses of children (63%)
- Meeting the simple needs of children on their own (63%)
- Ability to voice out opinion publicly (73%)
- Awareness of women's rights (87%)



SECTION 6: WOMEN EMPOWERMENT THROUGH CLUSTER & RURAL ENTERPRISE DEVELOPMENT.



Women's cluster in the process of making Ganesha idols with coconut fibre

The TCSR D Cluster & Rural Enterprise Development Program, launched in the FY 2003-04, strives to equip rural women with skills and empower them for self-employment by establishing small enterprises. This CSR intervention was intended to provide an alternative to farm-based livelihood to the community women as the region faces challenges like scarce rainfall and low groundwater levels. At the core of this initiative is the Rural Entrepreneurship Development Program (REDP), which plays a crucial role in assisting individuals and self-help group (SHG) clusters in setting up enterprises.

The primary objective is to enhance entrepreneurial qualities and skills within the target population, ensuring the sustainable growth of these enterprises. TCSR D collaborates with partners such as GRIMCO and various government initiatives to support the formation and development of SHG clusters. These clusters span diverse industries, including leather and rexene, bandhani, block print, bead, jute, clay work, coconut fibre artisan, and paper clusters.

The following table indicates the different clusters and sales made in FY 22-23.

CLUSTER - WISE SALES	NUMBER OF WOMEN	RS.
Bandhani	123	5,43,889
Jute	20	7,16,045
Rexene	25	4,09,580
Bead	10	96,220
Coconut Fibre	17	4,98,791
Patchwork Bedsheets	20	2,47,150
Total	215	25,11,675

The data reveals that the highest sales were achieved in the jute-making cluster, followed by the Bandhani and Coconut fibre work-making clusters.



Women of the coconut fibre craft-making cluster assembled together and planned their workflow



Some of the crafts were made with coconut fibres by the cluster



A woman beneficiary of the Bandhani cluster displaying her work in progress

KEY FINDINGS:



To kickstart the cluster formation process, TCSR D initiates awareness campaigns showcasing diverse enterprises, encouraging women from various Self-Help Groups (SHGs) to participate. Each cluster focuses on a specific vocational activity, providing women with an extra avenue for income generation.



Each cluster draws its members from different SHGs according to their interest in the vocation.



TCSR D imparts training in entrepreneurship and technical training to the clusters according to the specific vocation.



To foster self-reliance and instil a sense of self-efficacy, clusters undergo training to independently strategise their production, source their own raw materials, and create their own product designs.



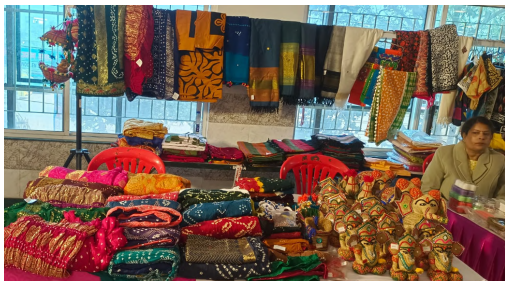
In addition to the initial seed funding for cluster initiation, the remaining expenses are covered using the revenue generated by each individual cluster.



Clusters secure loans from banks to support their ongoing production activities and demonstrate success in timely loan repayment.



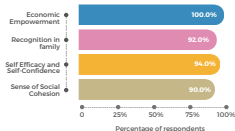
TCSR D also supports clusters by establishing market connections and implementing sales promotion strategies through avenues such as shops, exhibitions, and bulk orders.



Products of Bandhani and coconut fibre works were displayed in an exhibition

KEY IMPACT: MULTIDIMENSIONAL EMPOWERMENT OF WOMEN.

CHART 41: PERCENTAGE OF RECALL OF BENEFITS



ECONOMIC EMPOWERMENT OF WOMEN

100% of the women beneficiaries noted that involvement in an income-generating activity through the clusters had enabled them to productively contribute to their family income. They expressed their happiness that they were able to spend for the basic needs of the family, like purchasing some groceries, spending for their children's medical needs, paying tuition fees, etc.



BETTER FAMILIAL RECOGNITION

92% of the women beneficiaries acknowledged that there was better recognition in their families after their involvement in cluster activity.



SENSE OF SELF- EFFICACY AND SELF-CONFIDENCE

94% of the women beneficiaries shared that after joining the clusters, they felt a sense of self-efficacy and were more confident in their abilities.



FOSTERING A SENSE OF SOCIAL COHESION

90% of the female beneficiaries experienced a heightened sense of social cohesion after joining the clusters. This was attributed to their collaborative efforts in working together, cooperating towards common goals, and realising shared income through their collective activities.

“

Parul Ben was one of the first members to join the Jute craft-making cluster in Suraj Karadi village when approached by the TCSRD staff. Although she faced initial resistance from her family to engage in income-generating activities, she successfully persuaded them and joined the cluster. Displaying not just an interest in economic pursuits but also acting as a catalyst, Parul motivated fellow villagers to become part of the cluster. Within a year, the cluster grew from 2-3 members to a formidable group of 20.

Parul takes pride in her ability to operate various machines, crafting a diverse range of Jute items such as bags, folders, mobile holders, door mats, boxes, wall hangings, and pen holders. The cluster has achieved success in securing bulk orders, and each woman in the group earns between Rs. 2000 and Rs. 3000 per month, which escalates to Rs. 8000 during festival seasons. Devoting a significant amount of time to the cluster, these women efficiently manage household responsibilities early, ensuring a commitment of ample time for their craft. Parul expresses her contentment, stating,

"All the women in our cluster find joy in contributing to their family income. The confidence gained here even led me to establish a small catering centre. I am delighted to meet most of my family's economic needs through these endeavours."

”





SECTION 7: SKILL DEVELOPMENT PROGRAM



Technical Training Centre, Mithapur

Addressing rural unemployment is pivotal for economic growth. A significant driver of rural-to-urban migration is the prevalence of unemployment among rural youth. TCSR D initiated skill development interventions in Mithapur to confront this substantial challenge by equipping local youth with employable skills, with the overarching goal of creating employment opportunities and enterprises. This endeavour aims to curtail the migration of unemployed youth to urban areas in pursuit of low-wage jobs.

Towards this end, TCSR D offers courses like Welder, Technician, Fitter Technician, Domestic electrician, Fashion & Technology, Beauty and wellness and Computer Technology.

STUDENT'S PERCEPTION OF THE SKILL DEVELOPMENT PROGRAM.

ENSURING EFFECTIVE LEARNING	ALWAYS	SOMETIMES
Concepts explained in a simple manner	93.3	6.7
Adequate examples are given for understanding better	96.7	3.3
Hands-on experience	93.3	6.7
Opportunities for group activities and group learning	93.3	6.7
Trying to understand student's feedback in the course of the sessions	96.7	3.3

The study reveals that the students attending the skill development program had a positive perception of the program.



96.7%

of the students shared that the teachers tried to understand their feedback during the course of sessions.



96.7%

of the students expressed that the teachers gave them adequate examples for gaining a better understanding.

Explanation of concepts in a clear manner, adequate hands-on experience, opportunities for group activities and group learning were some of the other positive experiences of the students leading to an overwhelming positive perception about the program.

PLACEMENT OF TRAINED YOUTH



166

students were trained in the centre during the FY 2022-23.



35

students were placed in various jobs by the Skill Development Centre.



RS. 9000/-

was the average monthly income of the employed students.



STUDENTS SATISFACTION TOWARDS VARIOUS ASPECTS OF THE PROGRAM

SATISFACTION LEVEL OF THE BENEFICIARY WITH CLASSROOM SESSIONS, CURRICULUM, INFRASTRUCTURE AND TEACHER'S QUALIFICATION	HIGHLY SATISFIED	MODERATELY SATISFIED
Lecture sessions	93.3	6.7
Practical sessions	90.0	10.0
Course curriculum	93.3	6.7
Classroom infrastructure	93.3	6.7
Teacher qualification experience	96.7	3.3



96.7%

of the students expressed high levels of satisfaction towards the teacher's qualifications and experience.



93.3%

of the students were highly satisfied with the lecture session and classroom infrastructure.



90.0%

of the students were also highly satisfied with the course curriculum and practical sessions.



Case study of Rita B. Varsakiya

Rita B. Varsakiya, a 23-year-old resident of Bimrana village, completed her tailoring training at the Technical Training Institute of TCSR D in the year 2023. Her father, employed as a truck cleaner, earns a monthly income ranging from Rs. 5000/- to Rs. 7000/-and, being the only wage earner, was finding it difficult to run the family with his meagre earnings. Despite her interest in continuing her education, Rita could not continue with her education due to economic constraints. Undeterred, Rita sought a means to contribute to her family's income and discovered her interest in tailoring.

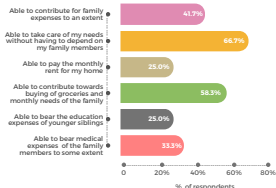
Facing the challenge of not knowing how to start, Rita's opportunity came when the program staff of Badte Kadam, the skilling program of TCSR D, informed her about an upcoming tailoring batch. Rita decided to join the course, encouraged by her instructor, Ms. Sunita Nayani. Throughout the tailoring program, Rita demonstrated a keen enthusiasm for learning various cutting techniques, stitches, and dress material patterns.

Upon completing the course, Rita initiated her tailoring venture from home. She found fulfilment in earning around Rs. 3000 per month, with the income surging to Rs. 6000-7000 during festival seasons. Rita, now brimming with confidence, envisions pursuing further education after her marriage. Her journey showcases resilience, determination, and the transformative power of skill development programs.



IMPACT OF THE SKILL DEVELOPMENT PROGRAM: ABILITY FOR SHARED FINANCIAL RESPONSIBILITIES AMONG EMPLOYED CANDIDATES.

CHART 42: CONTRIBUTIONS MADE BY THE EMPLOYED CANDIDATES FOR THE FAMILY



The newfound earning capacity of the candidates made them make some other productive contributions to their families.



66.7%

of the candidates were able to support themselves without depending on their family members to a certain extent.



58.3%

of the candidates stated that they were able to contribute towards buying groceries and other monthly needs of the family to some extent.



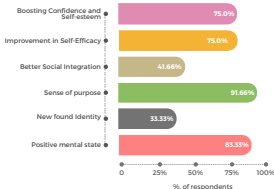
41.7%

of the candidates were able to contribute to the general expenses of the family.

Contributing to the medical expenses of the family members (33.3%), siblings' educational expenses (25%), and payment of monthly rent (25%) were the other expenses made by the candidates.

KEY IMPACT: POSITIVE EFFECT AMONG EMPLOYED CANDIDATES OBSERVED.

CHART 43: PSYCHOLOGICAL IMPACT OF BEING EMPLOYED



The study revealed that being employed and having a capacity to share family responsibilities has resulted in a positive effect among the employed candidates.



91.6%

of individuals reported a heightened sense of purpose.



83.3%

noted an overall positive mental state.



75.0%

of candidates observed an enhancement in their self-efficacy, along with increased self-confidence and self-esteem.

Other psychological benefits mentioned by employed individuals included improved social integration (41.66%) and the development of a newfound identity (33.33%).



CHAPTER 5

CONCLUSION

The study documented positive transformations in various aspects, leading to enduring changes in the quality of life of community members through TCSR D's CSR interventions.

Notable outcomes include enhanced water availability for cultivation in non-rainy periods, increased crop yield, and enhanced income resulting from individual watershed structures, micro-irrigation systems, and livestock management programs.

The introduction of household drinking water connections has significantly reduced the drudgery experienced by women, allowing them to redirect their time towards more productive pursuits.

Self-help groups have fostered greater social cohesion among female beneficiaries, empowering them across various dimensions. Youth participating in skill development programs have acquired vocational skills, increased earning capacity, and experienced heightened self-confidence and self-esteem.

All CSR interventions were identified as relevant, coherent, effective, efficient, impactful, and sustainable. These initiatives have visibly brought about positive changes and are poised to catalyse further socio-economic transformations within the community.

TATA CONSUMER PRODUCTS

Jalodari Himachal Pradesh

Impact Assessment Report

CONTENTS

Abbreviations	01 - 02
Chapter 1 Executive Summary	03 - 04
Project Activities	03
Research Methodology	03
Research Design	03
Key Findings	04
Key Impact	04
Chapter 2 OECD Framework	05 - 06
Chapter 3 Introduction	07
About TCPL	07
About Implementing Partner	07
Chapter 4 Research Methodology	08 - 11
Research Methodology	08
Study Tools	09
Objectives of the Study	10
Data Collection	11
Chapter 5 The Program	12 - 16
Location of Engineering Measures	15
Location of Vegetative Measures and Peripheral Activities	16
Chapter 6 Major Findings of the Study	17 - 53
Social and Demographic Profile of the beneficiaries	17 - 27
Social Impacts of Engineering Measures	27 - 32
Vegetative Measures - Fuel Fodder and Horticulture	33 - 37
WaSH program in Schools	38 - 42
Milk Kiosk - Doodh Ganga Dairy	43 - 44
Biogas and Energy Efficient Chulha	45 - 47
Toilet Repair	48
Vermicompost	48 - 49
Training and Awareness Generation	50 - 53
Way Forward - Conclusion and Areas of Improvement	54
Limitations	55
Annuxures	56 - 89

ABBREVIATIONS

AMC	Antecedent Moisture Conditions
CGWB	Central Ground Water Board
CO₂	Carbon Dioxide
CSR	Corporate Social Responsibility
DAAC	Distributed Active Archive Centre
ESRI	Environmental Systems Research Institute
FDC	Forest Development Committee
FGD	Focused Group Discussions
GOI	Government of India
GPS	Government Primary School
Hec/Ha	Hectare
HHs	Households
HSG	Hydrologic Soil Group
HYSOGS250M	Global Hydrologic Soil Groups
IEEE	Institute of Electrical and Electronics Engineers
IGARSS	International Geoscience and Remote Sensing Symposium
IMD	Indian Meteorological Department
ISRO	Indian Space Research Organisation
KII	Key Informant Interview
KVK	Krishi Vigyan Kendra
LPG	Liquified Petroleum Gas

Ltr/Lts	Litre/ Litres
MBGL	Metres below ground level
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NASA	National Aeronautics and Space Administration
NOC	No Objection Certificate
NRSC	National Remote Sensing Centre
ODF	Open Defecation Free
OECD	Organization for Economic Cooperation and Development
ORNL	Oak Ridge National Laboratory
SCS-SN	Soil Conservation Services - Curve Number
SCT	Staggered Contour Trenches
SMC	School Management Committee
TCPL	Tata Consumer Products Limited
UN	United Nations
WASH	Water, Sanitation and Hygiene
WSIVDM	Water Security Through Integrated Village Development Model
WTF	Water-Table Fluctuation

01. EXECUTIVE SUMMARY

Project Activities

Jalodari – Water security through integrated village development model – First year (2022-23) of Phase -II.



Vegetative Measures

Fuel Fodder/Horticulture Plantation



Engineering Measures

- Staggard Contour Trenches
- Recharge Ponds
- Gabion/Protection Wall



Peripheral activities

- Training on Horticulture Components and Biogas
- Biogas
- Sanitation Units- Toilets
- Vermi Compost
- WASH Activities in School
- Awareness Activities
 - Village Level Meetings
 - Orientation Workshops
 - Organic Kitchen Gardening Workshops
 - Sandesh Yatra, Wall Paintings
 - Home Stayed vegetable & Kitchen gardening
 - Exposure Visit

Research Methodology



Stakeholders covered

Beneficiary families, Village Pradhan, Farmers, Forest Development Committee (FDC) members, project team, School students, teacher and Parents



Quantitative techniques

The quantitative study was used to assess the impact of divergent CSR Activities through Structured tool of Interview Schedule. This helped in getting quantifiable information.



Qualitative techniques

Qualitative Techniques of Interviews with key program stakeholders, Interviews with community people were adopted for a better understanding.



Project Year

2022-2023



Year of Assessment

2023-2024



Number of Beneficiaries

1680 Households



Implementing Partner

Tata Trusts, Himmotthan Society



Project location

Paonta Sahib / Nahan, Sirmaur , Himachal Pradesh



SDG Goals



Research Design



Geography covered

Sirmaur District, Himachal Pradesh



Direct beneficiaries covered

1680 Households



Sample size

186

Key Findings



VEGETATIVE MEASURES

Fuel Fodder/Horticulture Plantation - (15 Hec) 7000 No



ENGINEERING MEASURES

- Staggered Contour Trenches - 90
- Recharge Ponds - 254
- Gabion/Protection Wall - 01
- Loose Boulder Check Dams - 35



PERIPHERAL ACTIVITIES

- Horticulture Training - 6
- Biogas - 8
- Sanitation Units- Toilets - 9
- Vermi Compost - 6
- School WASH Trainings - 7 training in 5 Schools



AWARENESS ACTIVITIES

- Village Level Meetings - 75
- Orientation Workshops - 5
- Organic Kitchen Gardening Workshops - 6
- Exposure Visit - 11



169

out of 254 recharge ponds planned under Engineering measures successfully completed in 2022-23.



25%

Run-off (46,771 cum) stored by engineering measures.



75 - 90%

Survival of 3741 horticulture plantation.



100%

Students in schools oriented on WASH.

Key Impact



7,540

People benefitted directly from the project.



99%

Families participated in the program and Himmotthan has developed strengthened community which will pave the way for overall development of the villages.



1 TO 2 FEET

Water level rise due to engineering measures.



95%

Families feel that there is increase in water level due to Engineering measures in upper reaches which will help increased water availability for irrigation.



96%

Families feel that there is increase in greenery. The plantation will help in income, nutrition, soil & water conservation, improve environment, CO2 reduction thus mitigate climate change.

02. OECD FRAMEWORK



Relevance

The program was devised to save the environment by engineering measures to ensure water security.

It also contributed to the overall goal of the GOI for achieving a healthy society and livelihood opportunities.



Coherence

The program contributes to 13 sustainable Development Goals of the UN - 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 15, 16 & 17.

- SDG 1: No poverty
- SDG 2: Zero Hunger
- SDG 3: Good Health and well-being
- SDG 4: Quality Education
- SDG 5: Gender Equality
- SDG 8: Decent Work and Economic Growth
- SDG 10: Reduced Inequality
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action
- SDG 15: Life on Land
- SDG 16: Peace Justice and Strong Institution
- SDG 17: Partnerships for the Goals



Effectiveness

The program is expected to successfully meet its primary water security goals through engineering measures and create an enabling environment in the villages to contribute to the objective in the future.





Efficiency

The program implementation is efficient as the key objective is being delivered by effective cooperation of government and community.

The effective community organisation and efficient implementation of the activities has developed trust with the community and government departments.



Impact

The program has a very high impact in terms of the environment and enabling communities to initiate development activities in their villages.



Sustainability

The Forest Development Committee (FDC) has been formed which will ensure maintenance of the engineering measures created in the forest area in coordination with government officials.

The other vegetative measures and interventions at the family level are expected to be maintained by the owners.

All the peripheral activities like biogas, vermicompost, toilet repair work, and WASH in schools are expected to be sustainable as the community is well-oriented.



Relevance



Coherence



Effectiveness



Efficiency



Impact



Sustainability

CHAPTER 3

INTRODUCTION



Dagyon Village

About TCPL

Tata Consumer Products Limited (TCPL) is committed to improving the lives of 2 million community members by 2030. TCPL strongly believes in the Tata Group philosophy of giving back to the community and acknowledges the role played by communities in the growth of their business. Towards community development, TCPL undertakes different programs,

About Implementing Partner

Himmothan has been working in integrated village development since 2001 when it started working in Uttarakhand with funding from Tata Trust and associated group organization/program such as Himmothan Pariyojana and is registered as Himmothan Society in 2007. The funding for the core team continues, ensuring program sustainability. Himmothan also approached and received projects from other funding agencies/companies such as HCL, Eicher, Hans Foundation, etc., contributing to the organisation's growth and reaching wider communities. The core funding from Tata Trust has been the organisation's strength, and it can work with the basic objective of the Western Himalayan region for the welfare of communities and the environment. They have taken up WaSH, livelihood, animal husbandry, education, agriculture, water and sanitation hygiene, and spring shed management projects. They also formed Trishuli, a producer company, as a federation of farmers for marketing local organic produce in places like Delhi. More than 5,000 groups from Uttarakhand, Leh Ladakh, and Himachal Pradesh are involved in the federation.



FGD AT DAGYON VILLAGE

CHAPTER 4

RESEARCH METHODOLOGY



Group Photo with Community and Study team Dagyon village

Research Methodology



Impact Assessment

A mixed methodology involving both Quantitative and Qualitative surveys has been adopted for the study covering all aspects and activities.



Quantitative

It primarily involved a close-ended survey to define and measure the indicators of the parameters for assessing the impact of the program. The target group was the direct beneficiaries/individuals/communities. The indicators were pre-defined covering all aspects/activities across project interventions.



Qualitative

Involved interviews (KIs) and Focused Group Discussions (FGDs) with major stakeholders for an in-depth understanding of the activities carried out under the program as well as collecting feedback and suggestions. This helped in correlating the findings of quantitative surveys.

Study Tools

Primary data was collected using two types of questionnaires.



Questionnaire for Primary Beneficiaries:

Structured questionnaires were developed reviewing the project details for each of the focus areas and indicators (theme-wise and project level) were predefined before conducting the surveys.



Questionnaire for Secondary Beneficiaries and Stakeholders:

Questionnaire for Secondary beneficiaries and stakeholders: Semi structured questionnaires were developed for each type of sample of this group. Stakeholders (key informants) were identified across the project interventions.



STUDY TEAM GETTING INFORMATION FROM BENEFICIARIES



FDG AT DAGYON VILLAGE

Interview guides were developed for FGDs across project interventions & target groups.

Assessment Approach Hydrological Impact of Engineering Measures

Objectives of the Study

The primary objectives of the study were to:



Change in surface water holding capacity and reduction in Run-off



Change/improvement of Groundwater table/recharge

The assessment approach consists of various steps for each objective as shown below:

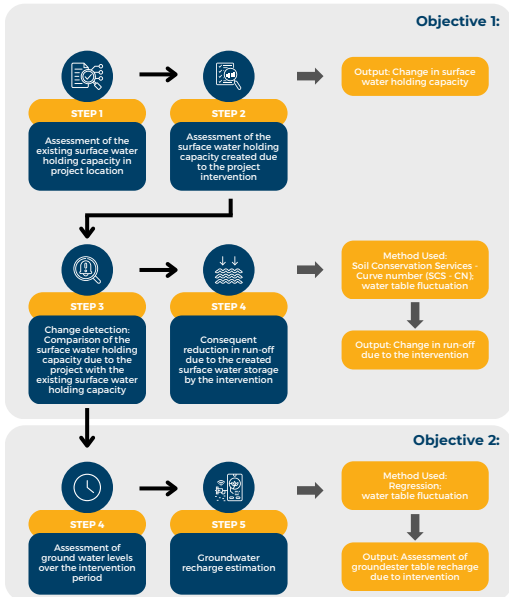


Figure 1: Approach of the Assessment

Data Collection

The following datasets have been collected from the implementing partner, Himmotthan, to facilitate the objectives of the study:

- The interventions that were done, their locations and dimensions
- Intervention boundaries (Figure 1)
- Photos from the field survey (Annexure 3)

In addition to the above datasets, additional data was collected from various sources to fill in the data gaps that were present in the conduct of the assessment. These are as follows:

- Depth to water level from Central Ground Water Board (CGWB)
- Rainfall data from Indian Meteorological Department (IMD)
- Other datasets that were used in the assessment are as follows:
- Soil types from National Remote Sensing Centre[1]
- Aquifer system from Central Ground Water Board (CGWB)
- Specific Yield from Central Ground Water Board (CGWB)
- Land Use Land Cover change between 2019 - 2023 from ESRI Living Atlas[2]
- Global Hydrologic Soil Groups for Curve Number Based Runoff Modelling[3]

[1] Soil and Land Resources Assessment Division, National RemoteSensing Centre, ISRO

[2]Karra, Kantijs, et al. "Global land use/land cover with Sentinel-2 and deep learning." ICARSS 2021 IEEE International Geoscience and Remote Sensing Symposium. IEEE, 2021.

[3]Ross, C.W., L. Prihodko, J.Y. Anchang, S.S. Kumar, W. Ji, and N.P. Hanan. 2018. Global Hydrologic Soil Groups (HYSGS250m) for Curve Number-Based Runoff Modeling. ORNL DAAC, Oak Ridge, Tennessee, USA. <https://doi.org/10.3334/ORNL-DAAC/1566>

STUDY TEAM GETTING INFORMATION FROM BENEFICIARIES



CHAPTER 5

THE PROGRAM

Phase II of the project - "Water Security through Integrated Village Development Model (WSIVDM)-TCPL" is under implementation from Feb 2022 to Jan 2025. In phase I, 14 villages were covered. The focus of the project was on water security and implementing an integrated village development model. Before entering any village there is no recognition of the organisation and hence, they take around 6 months in rapport building and develop communication and initiate some activities. Biogas, Vermicompost and WASH projects in schools are some of the activities undertaken to develop good rapport in the villages. They organised training through Krishi Vigyan Kendra (KVK) and the horticulture department for the farmers. Though villages are declared ODF, there are few households where toilets needed repair that did not have doors, or the seats were broken, or water was not available - such toilets were included in the project. An amount of ₹ 4,000 was invested in toilet repair. For the construction of biogas, ₹50,000 per plant was invested where pit digging and labor work with the mason was done by the plant owners as their contribution and made stay arrangements for the mason who had come to construct the biogas from far-off places.



**LOOSE BOULDER STRUCTURE CONSTRUCTED
AT BELWALI VILLAGE**

Biogas was included to reduce the load on the forest for fuelwood and to ensure improved health, as it eliminates smoke in the kitchen while using slurry for organic agriculture. The families who had 3 to 4 livestock (cows/ buffaloes) and were ready to develop organic plots were selected under the project.

There is a government subsidy available of ₹ 11,000 for the biogas plant, which has not been availed yet. However, Himmatthan is contemplating availing the same in the future so that more plants can be constructed under the project.

Training on vermicompost and organic farming was organised through Krishi Vigyan Kendra (KVK).

The WaSH project in 10 schools was initiated, where 5 were completed in the first year of phase II. For implementing WaSH in Schools, Himmotthan has taken NOC from the BEEO (Basic Elementary Education Officer) in place of the Chief Education Officer.

The major challenges faced by the community were water resources for which work needed to be done in the forest area and required permission from the Government of Himachal. The Himmotthan team had to approach the state secretary for this. They applied for permission on 20th December 2019 and received permission towards the end of 2020 in October.

In the second phase, three out of nine zones were covered, including the Byas completed and Dunga Janglot (ongoing) water zones. Work in 16 villages was initiated in Paonta Sahib and Nahan Blocks of Sirmaur District - Himachal Pradesh. Himmotthan formed a Forest Development Committee (FDC) in the villages, where they worked on engineering measures in the forest areas. One committee in Byas has already been registered. All payments are routed through the FDC; hence, transparency is maintained in the project. For village activities, approval from Gram Panchayat was obtained by Himmotthan.

“

Ms. Seema Attri, from Himmotthan, mentioned that they first developed a rapport with the community. Once trust was built up and strong relationships with the gram panchayat were established, they explained how beneficial the project was. They work in difficult terrain, and the communities are very backward; hence, much time is consumed in the initial stages. There is not much NGO culture. However, education and awareness activities were not accepted earlier. The people from the community were taken for exposure visits to the work done in phase I. Initially, couple of beneficiaries agreed to participate in the project.

Ms. Seema explained the process being followed for community mobilization in detail, where they first contacted panchayat members, including Pradhan, and obtained a no objection certificate (NOC). They then contact Asha and Anganwadi workers, and they contact a few families through them. Meetings are then organised with women and other community members using the 80:20 formula, i.e., hearing 80 % and speaking 20%. Once the trust is built, they discuss the program they wish to implement.

”

“

Mr. Virendra Verma, Team Leader of Himmotthan Society, added that the communities face water scarcity as the groundwater level is going down in the area and has gone down to 260 feet in the irrigation bore well. Industries are exploiting the groundwater in the plain areas, and at the same time, some of the springs in hilly regions have dried up or have reduced discharge. Working in reserve forest area and getting approvals from Govt. of Himachal Pradesh was a bit of a challenging task. So, the interventions took time. While visiting under deep forest area team Himmotthan faced various wild animals like cobra, snakes, python, deer, monkeys etc. It was very tough and risky visiting in deep forests during rainy season. All the payments for completed work of underground water recharge activities were made through the Forest Development Committee (FDC) after all the work on ground was verified by forest department team.

”

For firewood, they need to go 2 to 3 km deep in the forest, where they face the risk of snakes and wild elephants. Forest fires also occur often, and there was one in 2020. The Sal Forest can catch fire easily. Engineering measures like trenches made in the forest area not only help in water conservation but may also help control the spread of forest fire to some extent; the fact is needed to establish with some years of experience, though. The FDC carried out the work in the forest on engineering measures and earned a livelihood in the form of labor wages.

The project staff faced many challenges during implementation from various sources, including the forest department, as they also faced some challenges by doing good work being done under the project, which would convey a message of good work in the region to follow.

The following activities were carried out under the TCPL program in first year of Phase -I



Engineering/Mechanical Measures



Horticulture/Vegetative Measures



WASH Activities



Milk Kiosk at Majra Market
Doodh Ganga Dairy



Biogas



Toilet Repair



Vermicompost



Training and Awareness generation

AGRI FIELD OF NARESH KUMAR



Locations of Engineering/Mechanical Measures

The first part of the project's second phase was implemented in Byas and Chandrapur Reserve Forest Beats of Simaur District of Himachal Pradesh. The measures implemented as a part of the water conservation efforts include recharge ponds, staggered contour trenches (SCT), and a gabion/protection wall. The details of the same are as follows:

TABLE 1: DETAILS OF THE INTERVENTIONS

PARTICULARS		UNITS/QUANTITIES	
1	Total Area Covered	80 Hectares/ 2.24Sq. Km.	
2	Area Treated	80 Hectares/ 2.24 Sq. Km.	
3	No. of Villages Covered	2	
4	No. of Different Engineering Measures Completed in II Phase	Staggered Contour Trenches [4]	90
		Recharge Ponds [5]	254
		Gabion/ Protection Wall	1

[4] The locations, dimensions, and the associated volumes are provided in Annexure 1

[5] The dimensions of the SCT that were considered were 5m x 0.9m x 0.6m for the calculation of volume

The map below gives the locations of the recharge ponds that were created. The Staggered Contour Trenches were not mapped as they were very close to each other, and thus, the area where the intervention was undertaken has been shown.



The additional parameters considered are geology, hydrogeology, and geomorphology; the information about the same is provided in Annexure 2.

While some of the assessments, such as the runoff estimation and the contribution of the interventions to the groundwater levels, were done only considering the intervention area of 2.24 sq. Km., some assessments, such as the Rainfall and the groundwater depth assessments, had to be done considering the entire watershed (269.27 Sq. Km.) or the entire district due to the constraints faced with data availability. Care was taken to ensure the results were not misrepresented to varying assessment units in this condition. [6] The above map shows the watershed and the intervention area.

[6] The Rainfall and the groundwater depth assessments were done with the district as the unit of assessment as these parameters, i.e., Rainfall and groundwater, are not bound on the surface by any constraints and can be reasonably generalised for the area, especially considering that the intervention area in the project is only 2.24 sq. Km.

Location of Vegetative measures and peripheral activities

WS-IVDM-2 (TCPL), PONTA SAHIB, SIRMAUR, HIMACHAL PRADESH

	NAME OF GRAM PANCHAYAT	SN	NAME OF VILLAGE	HHs	BLOCK	DISTRICT
1	Katwari Bagrath	1 2 3 4	Katwari Bagrath Chiyan Mamyana Mehat Bhatna Kyalna	55 63 106 43	Paonta Sahib	Sirmaur Sirmaur Sirmaur Sirmaur
2	Kando Kansar	5 6 7 8	Kansar Kando Phagad Mandhara Swada Landasi	253 125 119 71		Sirmaur Sirmaur Sirmaur Sirmaur
3	Birla	9 10 11 12 13 14	Birla Dagyon Tirmali Dayar Thandoli Dabhuri Tikkar Dadriya	78 88 177 44 90 65	Nahan	Sirmaur Sirmaur Sirmaur Sirmaur Sirmaur Sirmaur
4	Bias	15 16	Chandpur Kotri	61 242	Paonta Sahib	Sirmaur Sirmaur
			Total	1,680		

FDG AT VILLAGE KANSAR

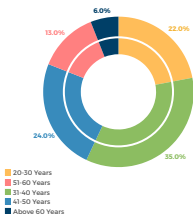


CHAPTER 6

MAJOR FINDINGS OF THE STUDY

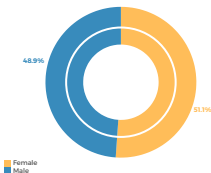
SOCIAL AND DEMOGRAPHIC PROFILE OF THE BENEFICIARIES

CHART 1: AGE-GROUP DISTRIBUTION OF THE RESPONDENTS



The respondents under the study are from various age groups, mostly from 31 to 40 years of age, while there were considerable respondents in the age group 20 to 30 years and 41 to 50 years of age. There were some respondents in the age group 50 and above as well.

CHART 2: GENDER DISTRIBUTION OF THE RESPONDENTS



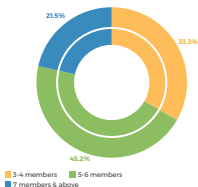
The study covered almost equal percentages of men and women under the study, with a slightly greater number of women respondents.

CHART 3: EDUCATIONAL STATUS OF THE RESPONDENTS

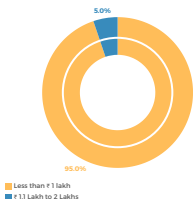


The education status of the respondents is low as most of them have studied up to 12th standard, and one-fourth have a primary education level. In contrast, around half the respondents have studied till matric or 12th standard. Very few respondents are graduates among the respondents.

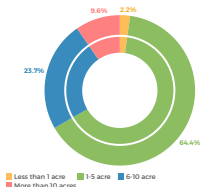
CHART 4: FAMILY SIZE



Most families among the respondents are big families with more than 5 members, while a third of the respondents have family sizes of 2 to 4 members only.

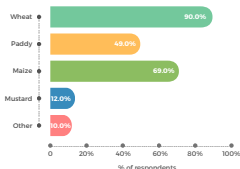
CHART 5: ANNUAL FAMILY INCOME OF THE RESPONDENTS

Most respondents have reported their annual family income as less than ₹ 1 Lakh, while very few families said that their annual family income is up to ₹ 2 Lakh.

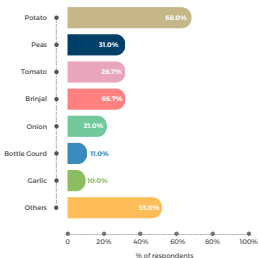
CHART 6: LAND OWNERSHIP & ACRES OF LAND OWNED BY THE RESPONDENTS

Most respondents belong to the marginal and small farmer categories, where marginal owners own less than 1 ha, and small farmers own 1 to 2 ha of land (1 ha = 2.47 Acres). One-fourth of the respondents belong to the semi-medium farmer category and own 2 to 4 ha (6 to 10 acres) of land. Very few families belong to the medium category and own more than 4 ha (10 acres) of land.

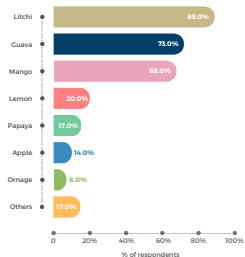


CHART 7: MAJOR CROPS CULTIVATED BY THE RESPONDENTS

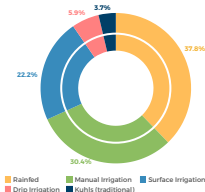
Most of the respondents grow wheat in the study area, and a considerable number of families also grow maize crops, while around half of them grow paddy as well. Very few families also grow mustard.

CHART 8: MAJOR VEGETABLES GROWN BY THE RESPONDENTS

Most of the respondents grow potatoes, while around a fourth of the respondents grow peas, tomatoes, brinjal and onions. Few respondents also grow bottle gourd and garlic etc.

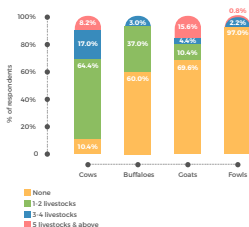
CHART 9: MAJOR FRUIT TREES CULTIVATED BY THE RESPONDENTS

Most of the respondents have started growing Litchi, Guava, and Mango, while some of the respondents are also growing Lemon, Papaya and Apple, and very few are growing oranges. Most respondents have started growing Litchi, Guava, Mango and Papaya under the program, as came out during the focus group discussion with the community.

CHART 10: NATURE OF IRRIGATION

More than one-third of the respondents depend on Rainfall for irrigation, while around half of the families use surface and manual irrigation using tubewells. Few progressive farmers have started using drip irrigation. Kuhls, a traditional irrigation method in Himachal Pradesh that uses surface channels to redirect water from natural running streams (khuds), is being used by very few respondents for irrigation.

CHART 11: LIVESTOCK OWNERSHIP



Most of the respondents own at least 1 or 2 cows, while a fourth of the respondents own 3 to 5 or more cows.

Around 40% of the respondents also own 1 to 3 buffaloes. One-third of the respondents rear goats, and half of them own more than 5 goats.

Very few respondents (3%) rear fowls (local poultry), ranging from 3 to 5 or more birds.

Therefore, a sufficient amount of dung is available in the project area for vermicompost and biogas.



BIOGAS AT VILLAGE KANSAR

LIVESTOCK FOR PROVIDING FEED (DUNG) FOR BIOGAS AT VILLAGE KANSAR



IMPACT OF THE PROGRAM



ENGINEERING MEASURES

This section provides a summary of the key findings of the assessment and the limitations encountered in the process of the assessment. For more accurate quantification outcomes, further studies will have to be done using datasets of higher details and corroboration from the field.



KEY FINDINGS

In summation, the key findings from the above assessments are as follows:



The total surface storage created in the intervention area due to the project is 4,278 cubic meters.



Rainfall influences the groundwater levels to a significant extent. However, the influence of Rainfall has not been enough to offset the influence of other factors that have led to falling levels of groundwater.



Negative correlation between the Rainfall and groundwater depth. The groundwater levels in Sirmaur district have been falling despite increasing Rainfall.



Groundwater recharge directly due to Rainfall in the intervention area is about 50% of the total rainfall received.



The volume of surface runoff stored by the intervention measures 11.36 % of the total runoff generated between Feb 2022 and Nov 2023 (or) 3.99 % of the total Rainfall received between Feb 2022 and Nov 2023.

HYDROLOGICAL IMPACT OF ENGINEERING MEASURES

The results of the assessment to identify the impacts of the interventions on water management are presented in the below sections. It includes an assessment of surface water holding capacity and the associated run-off reduction, Rainfall and water level trends, estimation of recharge due to Rainfall, and the estimation of recharge due to the interventions.



Change In Surface Water Holding Capacity and Run -Off Reduction

To identify the change in surface water holding capacity, it is first necessary to identify the existing available surface storage. To do this, the land use and land cover from 2019 to 2023 were compared for the entire watershed and the intervention area during the project's second phase.

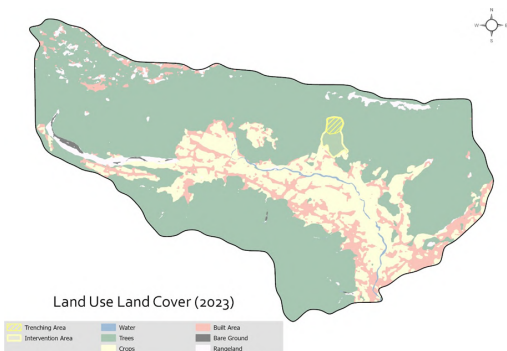


Figure 2: Land Use Land Cover of Bata Watershed - 2023

TABLE 2: AREA UNDER VARIOUS LAND USE AND LAND COVER IN THE BATA WATERSHED (IN SQ. KM.)

YEAR	WATER	TREES	CROPS	BUILT AREA	BARE GROUND	RANGELAND
2019	1.075339	185.1731	48.29174	20.13684	1.091054	13.50521
2020	1.177002	185.8696	46.98014	21.76856	1.046604	12.43083
2021	1.185544	192.4149	46.9634	21.80626	0.912349	5.990342
2022	0.895623	190.1695	47.1537	22.02612	0.750016	8.275944
2023	1.126999	191.707	44.57568	24.46604	0.715839	6.681162

However, since the intervention area only covers a part of the entire Bata watershed, the land use that is present is only of one type - Trees. This was confirmed with on-site verification and satellite imagery as well. Further, since the interventions that were created are surrounded by trees, it is impossible to identify the same through remote sensing. The land use in the intervention area has also not changed since 2019.

To mitigate this effect, the change in surface storage in the intervention area was considered to be net positive, i.e., no surface storage was considered in the pre-intervention period, and the surface storage of about 4.278 cubic meters created through the project[1] was considered as the storage post-intervention.



Analysis of Rainfall Trends

Overall, while the values of rainfall have shown a slight positive trend, the depth to water level has shown a slight negative trend over a 10-year period. The graphs below show the trend in their change over time.

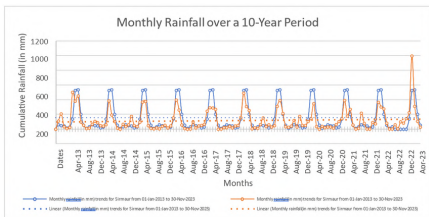


Figure 3: Monthly Cumulative Rainfall over a 10-year Period (in mm)

The trends of normal and actual Rainfall reveal that over 10 years, the rains have been below normal for most of the years. The slight positive trend that comes through is due to the extremely heavy rainfall received in 2023 and also the rainfall that is being received during the non-monsoon months.



Change in Water Level

The depth to water level data, obtained from the annual Ground Water Yearbook for Himachal Pradesh published by the Central Ground Water Board (CGWB). However, the data that was available was not complete, and regression models were used to fill in the missing values. The detailed dataset is provided in Annexure 3. The figure below shows the groundwater level trends in Sirmour District:

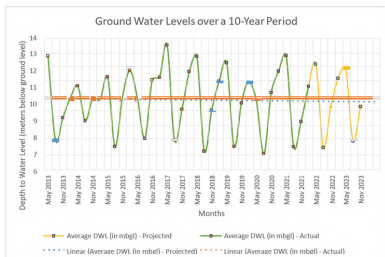


Figure 4: Ground Water Levels over a 10-year Period (in mbgl)

For this step of the assessment, the rainfall data from IMD is to be compared with the depth-to-water level data from the CGWB. The rationale behind this is that Rainfall is the most critical variable that determines the level of water availability below ground. Thus, by establishing the role of Rainfall in the change in water levels, we would be able to identify the role of the measures implemented on the ground.

A regression analysis of Rainfall and depth to water level was done for the same effect to understand the strength of the relationship between these two variables. The p-value obtained is greater than 0.05, thus signifying a good strength of correlation. Further, the obtained R2 value of 0.48 also reveals that among the factors that influence groundwater levels, Rainfall has had a 50% influence. However, the correlation analysis between the Rainfall and groundwater levels yields a result of -0.68, meaning a negative correlation. Detailed results are provided in Annexure 5.

This essentially means that rainfall influences groundwater levels to a significant extent. However, over the period 10 years, the rainfall received has shown positive trends and the groundwater level shows negative trends signifying that the influence of rainfall has not been enough to offset the influence of other factors that have led to falling levels of groundwater. The rate of fall in groundwater levels is very gradual and is in the order of inches over the 10-year period and is likely to recover. The availability of the most recent measurements will help in assessing the same more accurately.

Note: The last available data on groundwater depth data is till January 2022. The data from November 2022 to November 2023 has not been published yet. Thus, in the absence of the necessary data, statistical methods were used to project the values for this period. This projected data might not necessarily reflect the true level of ground water levels and the derived estimates are bound to change on the availability of official measurements of ground water depth for 2023.



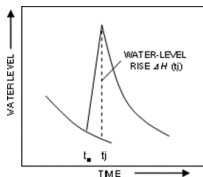
Estimation of Ground Water Recharge Due to Rainfall

The water-table fluctuation (WTF) method provides an estimate of groundwater recharge by analysis of water-level fluctuations in observation wells. The water-table fluctuation method is based on the premise that rises in groundwater levels in unconfined aquifers are due to recharge arriving at the water table. Recharge is calculated as the change in water level over time multiplied by specific yield[8].

$$R(t_j) = S_y \cdot \Delta H(t_j)$$

where $R(t_j)$ (m) is recharge occurring between times t_0 and t_j . S_y is specific yield (dimensionless), and $\Delta H(t_j)$ is the peak water level rise attributed to the recharge period (cm).

The specific yield values were obtained from the Groundwater Estimation Commission's report on groundwater resource estimation methodology[9][10]. As per the report, specific yield values of 0.16 were used for the intervention site based on the aquifer types of sandstones observed in these regions[11].



As per the results of the method, for the years 2022 and 2023, about 50% of the rainfall has recharged directly to the ground in the Intervention site. The remaining 50% is accounted for by the surface storage, runoff, evapotranspiration, soil storage, and other losses. The results and calculations are presented below:

[8] USGS CWBQ: Techniques/Methods -Water-Table Fluctuation (WTF) Method

[9] <https://cgwb.gov.in/Documents/CEC97.pdf>

[10] Detailed Guidelines (cgwb.gov.in)

[11] Annexure 2

TABLE 3: WATER TABLE FLUCTUATION METHOD

YEAR	Precipitation (P in mm)	ΔH ANNUAL	SY	Rm	Rmm	as % of P
2014	1170.96	2.388181818	0.16	0.382109	382.1091	32.6%
2015	1278.7	4.745	0.16	0.7592	759.2	59.4%
2016	1034.51	4.636363636	0.16	0.741818	741.8182	71.7%
2017	1400.12	6.474545455	0.16	1.035927	1035.927	74.0%
2018	1418.57	6.451818182	0.16	1.032291	1032.291	72.8%
2019	1403.49	5.717272727	0.16	0.914764	914.7636	65.2%
2020	1112.86	4.955454545	0.16	0.792873	792.8727	71.2%
2021	1293.82	6.204545455	0.16	0.992727	992.7273	76.7%
2022	1487.05	5.689181818	0.16	0.910269	910.2691	61.2%
2023	2058.6	4.969927273	0.16	0.795188	795.1884	38.6%
Average Recharge directly due to Rainfall received						62.3%

Over almost a 10-year period, the average rate of groundwater recharge directly due to rainfall stands at 62.3% which is quite high, however, is justified considering the geomorphological and hydrogeological parameters of the intervention site.



Estimation of Ground Water Recharge Due to The Interventions

The SCS/NRCS - C.N. method was used to estimate the runoff that is being generated over the intervention area. The SCS curve number method is a simple, widely used and efficient method for determining the approximate amount of runoff from rainfall even in a particular area. Although the method is designed for a single storm event, it can be scaled to find average annual runoff values. The major requirements for this method are Rainfall and curve numbers, where the curve number is based on the area's hydrologic soil group, land use, treatment and hydrologic condition. The formula to calculate the runoff is as follows:

$$Q = \frac{P - I_a}{1 + \frac{P - I_a}{S}} = \frac{P - 0.35P}{1 + 0.75\frac{P - 0.35P}{S}} \text{ for } P > 0.35$$

Where, $Q = 0$ for $P \leq 0.35$ for Indian conditions

$$S = \left(\frac{25400}{CN} \right) - 254$$

Where,

Q = Runoff (mm)

I_a = Initial abstraction ($I_a = 0.35$) - for all soils under AMC I, II, III other than black soils under AMC I





P = Daily rainfall depth (mm)

S = Potential maximum retention after runoff begins

One of the factors that the curve number is dependent on is the Antecedent Moisture Conditions (AMC). The various AMC values are as follows:

AMC	Soil Characteristics	Total Rainfall in Previous 5 Days	
		Dormant Season	Growing Season
I	Dry Condition	< 13 mm	< 36 mm
II	Average Condition	13 mm to 28 mm	36 mm to 53 mm
III	Wet Condition	> 28 mm	> 53 mm

The other key factor that the curve number is dependent on is the hydrologic soil group which are as follows:

	HYDROLOGIC SOIL GROUP (HSG)	SOIL TEXTURES	RUNOFF POTENTIAL	WATER TRANSMISSION
	Group A	Deep, well drained sands and gravels	Low	High rate
	Group B	Moderately deep, well drained with moderate	Moderate	Moderate rate
	Group C	Clay loams, shallow sandy loam, soils with moderate to fine textures	Moderate	Moderate rate
	Group D	Clay soils that swell significantly when wet	High	Low rate

$$CN_w = \sum CN_i * A_i / A$$

Where,

CN_w = Weighted curve number.

CN_i = Curve number from 1 to any number; A_i = Area with curve number CN_i; and

A = Total area of the watershed.

The standard tables that were used to identify the curve number for various land uses under different hydrologic soil groups are included in Annexure 6.

Using the CN II, curve numbers for AMC I (conditions) and AMC III (wet conditions) can be derived as CN I and CN III respectively using the below formulae:

$$CN_{II} = \frac{CN_{III}}{2.281 - 0.0128 CN_{III}} \quad CN_{III} = \frac{CN_{II}}{0.427 + 0.00573 CN_{II}}$$

Based on these assessments, the following were estimated:



Surface Storage



The volume of surface storage created by the intervention = 4,520.91 m³ (4277.91 m³ of recharge ponds + 243 m³ of SCT)



Rainfall & Runoff

- Total rainfall received over the intervention period (Feb 2022 to Nov 2023) = 32,20,111.25 m³.
- Total runoff generated over the intervention area = 11,31,236.42 m³.
- Percentage of rainfall that is converted to runoff = 35.13%.
- The intervention area received enough rainfall to fill the surface storage structures 28.42 times.



Runoff Reduction

Thus,

- The volume of surface runoff stored by the intervention measures (Feb 2022 to Nov 2023) = 1,28,496.62 m³.

Which is,

- 11.36 % of the total generated between Feb 2022 and Nov 2023 (or).
- 3.99 % of the total rainfall received between 2022 and Nov 2023.

This means that the interventions that were created as a part of this project have contributed to a reduction in surface runoff by about 4% in the intervention area. This number is bound to increase in the coming years, provided that the storage measures are designed properly, and their storage capacity maintained.

Thus, in total, about 50% of the Rainfall is converted into direct recharge, about 4% of the Rainfall is stored in intervention-created surface storage, and the remaining 46% accounts for factors such as runoff, evaporation, evapotranspiration, and other losses.

SOCIAL IMPACTS OF ENGINEERING MEASURES

Communities in Chandpur are very confident of the positive impact of Engineering measures carried out in the upper reaches of village Chandpur in Byas Panchayat of Paonta Block.

There was groundwater depletion in the region where the water level in tubewells and hand pumps was going down every year. The use of pesticides and chemical fertilizers was also on the increase.

During the FGD in Chandpur, people mentioned that all the families were involved in working on engineering measures in the forest area and have been getting wages for the same.

There is water conservation due to the activity and water level rise is seen in tube wells and handpumps. Since the wild animals get water in the forest, there are fewer incidences of wild animals entering the villages and destroying crops. There was water scarcity in the village earlier and springs dried during summer.

There is a pond in the village where there is an increase in the water level. The one pond in the village is used for livestock, especially buffaloes. There is an increase in water in the two natural springs also while there is an increase in water flow in the Bata River.

Observation in open wells also shows that there is an increase in water level up to one foot after intervention as compared to the level before intervention. Farmers are growing wheat, rice, strawberry, sugar cane and garlic in the area. The produce is sold in the market, but the income so far is just for survival. Members from every family worked on the project in the forest area on engineering measures.

“

Mr. Naresh Kumar, S/O Mr. Prithvi Singh, Forest Development Committee (FDC) member, said that FDC was formed two years ago with efforts of Himmatthan where people from the village selected the members in the presence of officials from the forest department and Himmatthan. During the regular meetings of FDC, members started thinking and discussing village development.

In his opinion, due to the intervention, the water level has increased as there was less water in the hand pumps, but now water is available. The area under irrigation has also increased to some extent as more water is available for irrigation. The water in the hand pump used to get dried during summer, but this year, water was available. Earlier, they had to go handpump, which is far to fetch drinking water. Water was also available for livestock, and there were fewer problems this year. They expect that the situation will further improve as this is only the first year after the implementation of engineering measures in the forest area.

”



People keep going to the forest for fodder and firewood and observe the status of the engineering measures. They notice that desilting is required in the trenches as it is filled with soil coming from the upper region. FDC has discussed this issue.

There was a forest fire earlier, and since the forest is just 2 km away, there was fear among the community that it could spread to the village. People from the village and forest debarment doused the fire. However, there was no fire last year, and it could be possible that the trenches. It may have helped in reducing the chances of fire as there would be some moisture in the trenches. The moisture level in the soil has increased, as people have observed. The village has three open wells, and people observed an increase in the water level to one foot. With more water availability, they can be assured of more irrigation as they have planted strawberries, which need irrigation every 3 days during summer.

People are growing more vegetables now. The monkey menace, however, continues; hence, they grow vegetables only near homes in kitchen gardens.



ASSESSING WATER LEVEL IN OPEN WELL OF NARESH KUMAR AT VILLAGE CHANDPUR

“

Mr. Satpal, FDC President, said that the local people have gotten labor wages from the program. Fodder would be available for livestock as a result of moisture conservation. The water level has increased in the area, which can be seen from water level rise to 1 foot to 2 feet in the three open wells in the village in a year as well as in hand pumps which give considerably more water during summer and there is an increase in moisture in the soil.

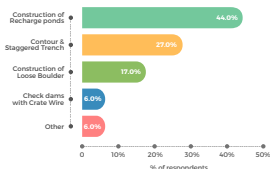
Since all the area is under agriculture, they have started vegetable cultivation after the program initiation this year. They are growing garlic and onion as there is increased moisture in the soil and less dependency on rainfall.

Because of some grass available in the forest, wild animals, such as rabbits, elephants, wild boars, and blue bulls, are not coming to the village, which destroys crops. They do get water and grass in the forest area now.

There is a need to design the engineering measures, and FDC would take care of the same and maintain the structures as they realize their responsibility. There is a stream passing by near the village coming from hills and has increased water to some extent in the first year itself.

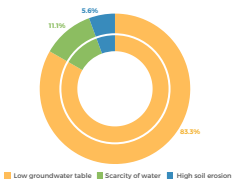
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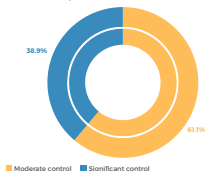
CHART 12: INTERVENTIONS CARRIED OUT UNDER ENGINEERING MEASURES

In the community in the Chandpur village, in the upper reaches of which engineering measures have been carried out, the respondents are aware of the measures where the respondents most recognise the construction of recharge ponds. Contour and staggered trenches are remembered by slightly less than a third of respondents, loose boulder check dams by around one-fifth of the respondents, while check dams with crate wire are mentioned by very few respondents.

Although all community members are aware of all the engineering measures carried out under the project, as reflected during the FGD, the respondents mentioned only one option among the measures asked by the surveyors.

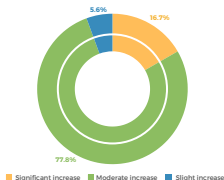
CHART 13: CONCERNS IN THE AREA BEFORE THE PROJECT INTERVENTIONS IN TERMS OF ENGINEERING MEASURES

Most respondents considered the low groundwater table as the major concern in the area before the Project interventions in terms of engineering measures. Some respondents mentioned scarcity of water, and very few of them mentioned high soil erosion as a concern in the area before project intervention.

CHART 14: CONTROL IN SOIL EROSION IN THE AREA POST PROJECT ACTIVITIES/ INTERVENTIONS

Most of the respondents suggest that there is moderate control of soil erosion in the area project activity, while more than a third of respondents mentioned that there is significant control of soil erosion.

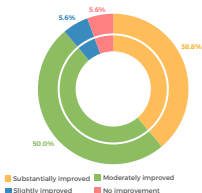
During FGD, community members mentioned that the impact on erosion control would be seen after some time as the activities were recently implemented.

CHART 15: INCREASE IN THE GROUNDWATER TABLE IN SURROUNDING AREAS/BORE-WELLS

Most of the respondents suggest that there is a moderate increase in the water table in the surrounding area after the implementation. One-sixth of the respondents suggest that there is a significant increase in the water table. Very few respondents say that there is only a slight increase in the water table.

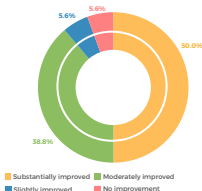
During FGD and interaction with the FDC president, and as was observed in the open wells, there was an increase of 1 foot to 2 feet in the water level in the three open wells in Chandpur village.

CHART 16: IMPROVEMENT IN WATER AVAILABILITY FOR IRRIGATION USE DUE TO PROJECT INTERVENTIONS



Half of the respondents experienced a moderate improvement in water availability for irrigation after the project interventions, while less than half of the respondents said that there was a significant improvement in water availability. Very few respondents feel that the improvement is either slight or there is no improvement.

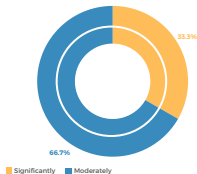
CHART 17: INCREASE IN WATER RETENTION IN THE AGRICULTURAL LANDS POST PROJECT INTERVENTIONS



Half of the respondents agree that there is significant retention of water in the agricultural lands after the project implementation, while very few say that there is no improvement. The rest of the respondents feel that there is a slight to moderate increase in water retention in agricultural lands.

The increase in water retention is also confirmed by the observation of water levels rising in open wells, as shown to the team by the farmers during FGD in Chandpur village.

CHART 18: HIGHER YIELD OF CROPS POST PROJECT INTERVENTIONS

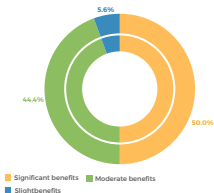


A third of the respondents say that they are getting significantly higher crop yields after the implementation, while the rest of the respondents feel that they are getting moderately higher yields.



ASSESSING WATER LEVEL IN OPEN WELL OF NARESH KUMAR AT VILLAGE CHANDPUR

CHART 19: SOCIO-ECONOMIC BENEFITS REALIZED BY THE COMMUNITY DUE TO THE PROJECT



Half of the respondents realize that there are significant benefits from the project, while the rest realize that there are moderate socio-economic benefits.

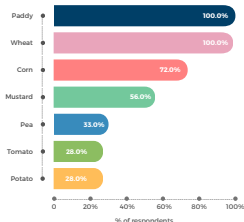
One of the interesting socio-economic benefits communities mentioned during the FGD is that due to the water and grass availability in upper reaches after the project, there is less attack on their crops by wild animals such as rabbits, wild boars, etc., which are used to destroy their crops.



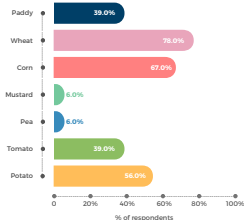
**CROPS GROWN POST INTERVENTION
BY NARESH KUMAR AT
CHANDPUR VILLAGE**

CHART 20: MAJOR CROPS GROWN POST PROJECT INTERVENTIONS

MAJOR CROPS GROWN POST PROJECT INTERVENTIONS

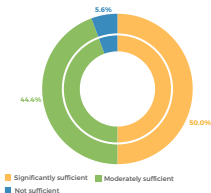


MAJOR CROPS GROWN BEFORE PROJECT INTERVENTIONS



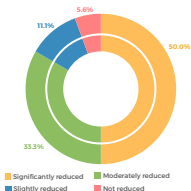
All the respondents grew paddy and wheat after the interventions, while paddy was grown by far less than half of the respondents, and wheat was grown by a fourth of the respondents. Corn (Maize) is grown by slightly more farmers now, while mustard and peas are grown by considerably more farmers as compared to before project implementation. Tomato and potatoes are grown by a considerably lesser number of farmers after the project implementation.

CHART 21: CATTLE GETTING SUFFICIENT FODDER AFTER PROJECT INTERVENTIONS



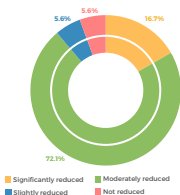
Half of the respondents mentioned that cattle are getting significantly sufficient fodder after project interventions, while less than half of the respondents mentioned that cattle are getting moderately sufficient fodder. Very few respondents mentioned that cattle are not getting sufficient fodder even after project implementation.

CHART 22: REDUCTION IN EXPENSES ON PROVISION OF FODDER TO THE CASTLE AFTER PROJECT INTERVENTIONS



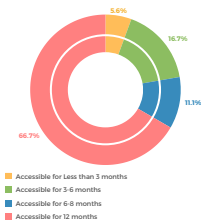
Half of the respondents feel that there is a significant reduction in expenses on the provision of fodder to the cattle after project interventions. One-third feel that there is a moderate reduction, while one-tenth feel there is a slight reduction in fodder expenses. Very few respondents feel there is no reduction at all.

CHART 23: REDUCTION IN WATER SCARCITY IN THE PROJECT AREA



More than two-thirds of respondents feel that there is a moderate reduction in water scarcity in the project area after project implementation and slightly more than one-fifth of respondents feel that there is a significant reduction in water scarcity. Very few feel that there is no reduction in water scarcity.

CHART 24: WATER AVAILABILITY FOR DOMESTIC USE POST-PROJECT INTERVENTIONS



Most of the respondents mentioned that there is water availability accessibility throughout the year after the project implementation. More than one-fourth of the respondents say that water availability is for 3 to 8 months, while very few say that there is accessibility of water for domestic use for less than three months even after project implementation.



VEGETATIVE MEASURES - HORTICULTURE

All families in Dagyon village were given 10 plant saplings, which included Mango, Guava, lemon, Jackfruit, Litchi and papaya saplings were planted by the families. As per the community in Dagyon village, the families prepared the pits for plantation and applied manure.

In Kansar village, a horticulture tree plantation for all 50 families was done where 800 saplings were planted. The families in Kansar planted 5 to 50 saplings as per the land availability and their interest. The families dug the pits for plantations and applied organic manure. They had planted Mango, Guava, Lemon, Jackfruit and Litchi on their farms. Before the program, there were no fruit trees in the village.

There are around 71 households in the village of Swada Nadasi, of which 14 have horticulture tree saplings in the first year of phase II of the TCPL program. Each family has planted 5 to 20 saplings of Papaya, Mango, Jackfruit, Litchi and Guava.

There are 106 households in Mehat village, Paonta Block District Sirmaur, where 60 households did a plantation a year ago, where each family planted 15 to 30 fruit trees depending on land availability. They dug the pits and applied manure. They realise several benefits of horticulture plantation, such as nutritious fruits, possible income sources, shade, oxygen, soil erosion control, water conservation, and CO2 absorption. The trees will benefit the next generation as the fruit trees will be there for 30 to 40 years once they are grown and taken care of.

The communities in the villages mentioned several positive impacts of Horticulture tree plantation such as nutrition, oxygen, biodiversity (many birds have started coming into the area), good for the next generation, a benefit for the environment; there is improvement in greenery, help in erosion control (as raindrops hit the soil with lesser speed); will help in Rainfall in longer period; water conservation (as water can percolate in the soil); availability of firewood near home (as pruning is required for fruit trees); overall environmental temperature control; leaves can degenerate and convert in fertiliser; add to income. With discussion, the community also realised that the program would help in climate change mitigation by carbon absorption.

“

Vipin Thakur S/O Tejveer Singh in Kansar village has planted 150 saplings in 60 beegha with a 90% survival rate. The horticulture garden has come up very well and is now an income source for the next generation. They dug pits for the plants with their own hands and applied manure. They organised water from another source. Another project implementing organisation helped in making trenches on the farm of size 13'x2'x2' and 6'x3' which helped in water conservation on the farm.

They planted new plants between 10-year-old plants. He suggested that they need solar fencing (which has a mild current) to protect plants from wild animals.

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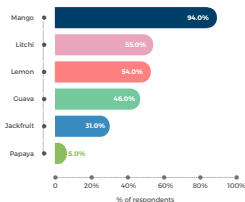


Village Kotari, Byas Panchayat, Paonta Bock district Sirmaur. There are 242 households in the municipality village Kothari. They have initiated organic farming in kitchen gardens where they grow vegetables.

40 families in Kotari village have planted 10 plants each. The area is rainfed, and there were few plants dried up, but there was a 90% survival rate. They planted Jackfruit, Mango, Guava, Papaya and Litchi. Litchi could not survive in the area. They are not using chemical fertilizers.

They get oxygen, nutritious fruits and consequently better health and additional income; the firewood would be available to some extent, they get shade, and they will also help in rituals; there will be erosion control and water conservation. The benefits will also be available for the next generation as trees live several years. All families in Chandpur have planted 5 to 20 plants depending on land availability and interest, with 99 % survival.

CHART 25: TYPE OF TREE PLANTED



Most of the respondents have planted Mango saplings and around half of the respondents have planted Litchi, Lemon and Guava saplings under the TCPL program in the first year of phase II, while one-third have reported having planted Jackfruit. Very few respondents mentioned that they have planted Papaya.



AGRICULTURE LAND IN KATARI VILLAGE

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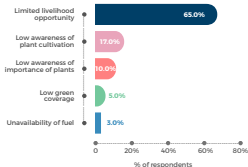
Rajkumar from Kansar village has planted 20 to 25 plants under the program, and there is a more than 90% survival rate. As per him, he takes care of the plants where one or two plants were eaten by animals. He had planted Guava, Jackfruit, Mango, etc., while he also planted Neem, Aonla (Indian Gooseberry) and Sandle wood (Chandan) plants on his own.

He says that the most important benefit of trees is giving oxygen intake of carbon. Irrigation, however, is a big concern.

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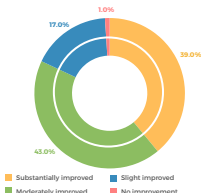
CHART 26: CONCERNS IN THE AREA BEFORE THE PROJECT INTERVENTIONS



A major reason for considering the plantation of the fruit trees respondents was for sustained income, as livelihood opportunities are limited in the area. Very few respondents have mentioned low awareness of plant cultivation and the importance of plants as they have green cover in the area; however, the community during the FGD mentioned that they did not have many fruit trees before the program implementation.

In Dagyon during FGD, people said that they needed to collect firewood almost daily, for which they spent 2 hours in the collection, where mainly women were involved and needed to walk around 3 km to the panchayat forest to fetch the same.

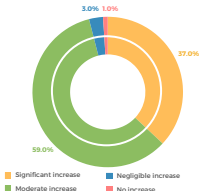
CHART 27: IMPROVEMENT IN LIVELIHOODS AND INCOME OPPORTUNITIES DUE TO PLANTATION



Most of the respondents feel that there will be moderate to significant improvement in livelihoods and income opportunities due to the plantation, though around one-sixth of the respondents think there will only be a slight improvement in income from the plantation.

During FCD, people mentioned that sustainable income from the fruit trees will be available to them and the next generation. They realise that in the face of climate change, where there is untimely Rainfall and extreme climate events, the frequent crop loss and the income from fruit trees will provide income support to some extent.

CHART 28: INCREASE IN GREEN COVERAGE IN THE AREA DUE TO THE CSR PROJECT

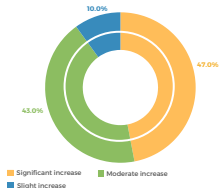


Most of the respondents realise that there will be a moderate to significant increase in green

coverage in the area due to the TCPL project. Hardly 4% of respondents feel that there will be a negligible increase in green coverage.

During FGD, people mentioned that there would be increased green coverage in the area, which would also help improve the environment by giving out oxygen and absorbing carbon. The greenery will also help in soil and water conservation.

CHART 29: INCREASE IN AVAILABILITY OF FUEL AND FODDER ETC.

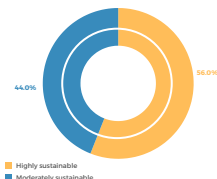


Most of the respondents feel that there will be moderate to significant increases in the availability of fuel and fodder due to plantation.

The communities in all the villages mentioned that the availability of fuel and fodder will increase by horticulture.



FGD AT VILLAGE KOTARI

CHART 30: SUSTAINABILITY OF PLANTATION PROJECT

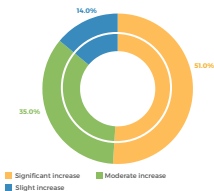
All of the respondents feel that the plantation project is sustainable in the long run, and more than half of the respondents feel that it is highly sustainable.

There was a survival rate of around 75% in Dagyon village because of water scarcity, as mentioned by the community. Mango has been more successful in the village of Dagyon as compared to other trees.

In Kansar, around 90% of plants in the village survive, as per the community. The survival rate of fruit tree plantation in Mehat village is more than 75%, as came out during FGD. The low survival rate is because of less water availability in the community. In the village, Swada Nadesi, Papaya could not survive well, and the rest of the plants were running well. Overall, there is a 75% survival rate, including papaya, which died probably because of the late plantation. There was a survival rate of around 75% in Dagyon village because of water scarcity, as mentioned by the community. Mango has been more successful in the village of Dagyon as compared to other trees.

**HORTICULTURE - PLANTATIONS AT VILLAGE KANSAR****HORTICULTURE - PLANTATIONS AT VILLAGE KANSAR****HORTICULTURE - PLANTATIONS AT VILLAGE KANSAR**

CHART 31: EXTENT OF INCREASE IN AWARENESS OF PLANT CULTIVATION AND ITS IMPORTANCE



Most of the respondents feel that there is a significant increase in awareness level among the community on cultivation and the importance of fruit tree plantation.

The community mentioned that the trees help in erosion control, fodder availability, and fruit availability, which are nutrition, thus in health improvement, firewood availability near home, providing income source, providing oxygen (improving environment). The community, after discussion, also realized that the plants help in CO₂ absorption and thus help in climate change mitigation as well.

The community in Kansar village mentioned several positive impacts of Horticulture tree plantation such as nutrition, oxygen, biodiversity (many birds have started coming into the area), benefit for the next generation, a benefit for the environment; there is improvement in greenery, help in erosion control (as raindrops hit the soil with lesser speed); will help in Rainfall in longer period; water conservation (as water can percolate in the soil); availability of firewood near home (as pruning is required for fruit trees); overall environmental temperature control; leaves can degenerate and convert in fertiliser; add to income. With discussion, the community also realised that the program would help in climate change mitigation by carbon absorption.

In people's opinion, at Swada Nadasi, horticulture plants will help in more Rainfall, contribute to health and nutrition, save money, add to income, improve the environment, provide oxygen, control soil erosion, conserve water and help in biodiversity. The next generation will also enjoy the benefits of the trees they planted as the fruits will be available for a long time. The fruit trees also help in worship as mango leaves, etc., are needed for that. They can also get firewood later when they prune the trees. Guava also has medicinal value, and people make teeth cleaner from guava branches. Papaya is already known to be good for health, as mentioned by the people during FGD. Lemon provides vitamin C, and after Covid-19, people have realized its importance. It is also good for digestion and keeps us cool during summer.



A WOMAN COLLECTING FODDER FOR LIVESTOCK AT SWADA NADASI



WaSH Activites in Schools

In the Primary School Katwari Bagrath, Mr. Teeka Ram Sharma, the Head Teacher, mentioned that toilet repair, garbage pit, water filter, hand wash station, soak pit and syntax tank for water storage were provided under the project. Children were given education on awareness of hand wash and personal hygiene.

Before the project implementation, the toilets were choked as there was no water facility and no hand washing facility near the toilet. The toilets were so dirty that children did not like to use them, but they still had to use them in case of emergency as per Ms. Kamlesh, an Anganwadi worker. There was a water tank earlier which was not cleaned properly, but now there is clean water available from the water filter and children and their parents feel safer drinking water from the same. The water filter is regularly cleaned every 15 days and is properly maintained. The area around the hand wash is also cleaner, and there is no watery mud as there was before. The height of the taps is also now at an appropriate level for small children.

Rohit Tushar and Dhiraj, studying in class 2nd, were not washing their hands earlier as a regular habit. There was a single tap, and therefore, I had to wait for a long time. There are three taps now, and I do not have to wait much to wash my hands. Children are very happy now and do not avoid coming to school anymore.

Mr. Sewa Ram, centre Head Teacher at Government Primary School, Kansar, Paonta Block Sirmaur, joined on deputation two months ago while Mrs. Sarla Sharma, Junior Basic Teacher, has been working for 1 year and 4 months.

The children were happy that toilet repair was done in the school, along with the provision of a syntax tank for water storage in the toilet. A dust bin, water filter and hand wash station were provided under the program. Under WASH orientation, regular sessions were taken on personal hygiene and sanitation, hand washing, and cleanliness habits.

As per Mrs Sarla, the toilet was very dirty before repair, and there was no water facility available, which made it very difficult for children to use the same. There was a foul smell emanating from toilets all the time, which even made studies uncomfortable. Now there is less smell and much more cleanliness. The tiles in the toilets have helped improve the cleanliness.

“

Mrs. Bavija Sharma, mother of Saket (prenursery) and Sanskrit (5th standard), Mrs. Sangeeta Devi mother of (Ananya Negi 3rd Std, and Deva's prenursery), Mrs. Neeta mother of Ankur (4th std.) and Mr. Rajkumar father of Patidh (4th std.) were met for focused group discussion in Kansar village.

The parents said that there is a profound change in the children after the WaSH program in the school. They were not very alert about washing hands, and as parents, they also sometimes ignored that children have not washed their hands before meals or after going to the toilet, but now, they are very particular and remind parents of the same.

They take proper baths every day now. Earlier, their children used to say that the toilet in school was very dirty, and they did not like to use it, but now they enjoy coming to school. Water Filter is also a good initiative.

”



INTERACTION WITH PARENTS BAVIJA SHARMA, SANGEETA DEVI NEETA AND RAJKUMAR AT GPS KANSAR

After getting trained under the WaSH program from Himmatnagar, teachers also regularly orient the children and encourage them to maintain hygiene. All the children regularly wash their hands before meals and after using the toilet.

The students have also encouraged their parents to wash their hands with soap and insist on keeping soap at home all the time. An environment of cleanliness has started, and students encourage each other to keep the environment clean. The teachers, however, suggested that the water filter be of smaller size.

During FGD in the village Swada Nadasi, the community expressed happiness in the WaSH program in the primary school and middle school Swada Nadasi, implemented by Himmotthan, under which they were taught how to wash hands using soap, etc. The children also teach parents about personal hygiene habits and how to wash their hands. Arushi, who studies the 7th standard, very confidently demonstrated the way hands are to be washed. The toilet in the school has been reconstructed, and the children are happy about it. Nakshay, who studies the 4th standard, said that there was a foul smell from the toilet earlier.

Interventions done at this Chiya Mamiya Primary School were the provision of a water tank, handwashing station, garbage pit (segregated) and drinking water filter. There are a total of 6 washrooms available for the students - 3 for female students and 3 for male students. All 6 washrooms have running water supply. The hand washing station has two taps, and soap is available. There are 39 students in Primary (22 boys and 17 girls) and 17 in middle (11 boys and 6 girls). There are 4 teachers at Chiya Mamiya School (1 female staff member and 3 male staff members).

Interaction with Primary School Children revealed that trainings were conducted on hand washing practices - the students mentioned that the training was conducted by Ms. Seema Atti from Himmotthan Society (Tata Trusts). They now make it a point to wash their hands in the morning, before and after eating, after every washroom use, and after reaching home. They also demonstrated how to wash hands properly using soap. There is a continuous water supply available in the toilets, so there is always cleanliness, and children ensure that they clean the washroom every time they use it.

The students tell their parents about how to wash their hands and encourage them to wash their hands well, too - the parents are appreciative that they are being taught good habits in school and that they are following them well. On being asked about what kind of water they should drink; they responded that drinking filtered water helps them stay safe as it filters out germs. At home, their parents usually filter the water with a cloth and mostly drink warm water. They mentioned that drinking warm water saves them from catching cold. Two kids from the class take the responsibility of cleaning the water filter every two weeks. Sometimes, they are assisted by kids from the middle school. The taste between the filtered water and regular water at home was, however, the same. During FGD in the village Swada Nadasi, the community expressed happiness in the WaSH program in the primary school and middle school Swada Nadasi, implemented by Himmotthan, under which they were taught how to wash hands using soap, etc. The children also teach parents about personal hygiene habits and how to wash their hands. Arushi, who studies the 7th standard, very confidently demonstrated the way hands are to be washed. The toilet in the school has been reconstructed, and the children are happy about it. Nakshay, who studies the 4th standard, said that there was a foul smell from the toilet earlier.



TOILET REPAIR AT GPS KANSAR

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GPS KATWARI BAGRATH

WATER TANK PROVIDED UNDER THE PROJECT IN GPS KANSAR



GARBAGE BIN CONSTRUCTED AT GPS KATWARI BAGRATH



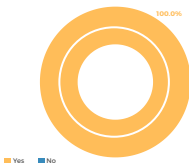
WATER FILTER PROVIDED AT GPS KANSAR

CHART 32: SEPARATE TOILET FACILITIES FOR BOYS AND GIRLS IN SCHOOL



All the students responded that they have separate toilets for both girls and boys in school. As per Junior Basic Teacher Mrs Sarla at Government Primary School, Kansar, there are separate toilets for boys and girls now, while earlier, they used the same toilet. The surroundings of the school are much cleaner now as the dustbin is in use. Earlier, there was tank water, which was not properly cleaned, but now clean water is available to children from the water filter. They now maintain proper hygiene after the WaSH program.

CHART 33: IMPACT ON KNOWLEDGE AND AWARENESS ON HEALTH & HYGIENIC PRACTICES



All the students responded that the intervention has enhanced their knowledge and awareness of health and hygienic practices.

The interaction with children in GPS Kansar showed that children had inculcated the habit of hand washing and personal hygiene as they demonstrated how it is done.

The children said that they are very happy to come to school now. They do not take leave unnecessarily now.

Children of the school are now well motivated, and few of them wish to join the army, while some other students want to become doctors or teachers. The toilet, which is clean now, is a great change for them. Students are aware that there will be less illness because of cleanliness. They take a bath daily and wash their hands with soap and water properly. The children knew that there were germs that were not visible, and it was necessary to wash them out with soap.



INTERACTION WITH ROHIT TUSHAR DHIRAJ AT GPS KATWARI BAGRATH



STUDENTS DEMONSTRATING HOW TO WASH HANDS LEARNED UNDER WASH AT GPS KANSAR



STUDENTS DEMONSTRATING HOW TO WASH HANDS LEARNED UNDER WASH AT GPS KANSAR

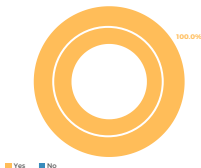
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CHART 34: IMPACT OF ACCESS TO TOILET FACILITIES ON ATTENDANCE



All the students reported that the access to toilet facilities has increased their attendance.

As per Junior Basic Teacher Mrs Sarla at Government Primary School, Kansar, there has been an increase in the student's attendance after the implementation of the program. Earlier, children had to stand in a queue for a long time as there was only one tap for hand washing, and there was a loss of studies. The surrounding environment and sanitation have improved as children are careful not to spread the waste all around.

“

He was also happy about the benefit of the toilet repair, water filter, water tank, tap water and soak pit provided in the Primary school. He mentioned that attendance in school has increased due to the WaSH program implemented in schools. There is an increase in interest among students, and they have inculcated handwashing habits.

Mukesh from Katwari Bagrath who is also SMC (School Management Committee) Pradhan

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MILK KIOSK - DOODH GANGA DAIRY

Milk Kiosk - Doodh Ganga Dairy was initiated at the Majra Market under the project to support the livelihood of beneficiaries from nearby villages. Cluster coordinator Lokesh explained that people in the area rear livestock but are not able to get good prices for milk because of middlemen and their inability to supply in the market as they lack resources.

The Himmotthan team surveyed around 500 families who had milk to sell but were not getting the right price for the produce. They started meeting people and formed producer groups (P.G.) of families who wanted to sell milk. Each group generally has 5 to 7 members, although there are more members in some groups but to a maximum of 15 members. They have so far formed 15 such groups with a total of 225 members. Initially, it was difficult to implement the project because there was a trust deficit due to other companies making false promises and cheating communities.

Sunita Devi is now able to sell 4 ltr while they had 2 ltr milk available earlier and were not able to sell as there was no one free at home to supply the milk. She now has an additional ₹ 6,000 in her hand every month. This is a major boost to the family income. Though in a joint family, women are mostly responsible for the care of the livestock, male members do help in the collection of fodder from the forest.

The project has also given women members an encouragement to come out of their homes and do not have any more hesitation in communicating with authorities. The exposure visit organised by Himmotthan to Jadipani, a village in Uttarakhnad, has also helped to shed inhibition.

In Chandpur village, one of the members of the milk Kiosk in Majra, Mrs. Jwali Devi, has 5 livestock and is able to sell 3 lots of milk every day @ ₹ 50 per lot. Earlier, they used the milk for their own consumption and made ghee from the milk they could not consume but could not sell. Another member, Suma, had 2 livestock and now sells 2 ltr of milk every day. Both are members of the Riti producer group, which has 10 members.

The collection centre in the village near their home and now able to earn ₹ 3000 to 4000 a month. They are also now feeling liberated and empowered as they have income in their hands. They can decide how to spend the amount, and since in the village, women carry out tasks related to livestock rearing, it gives them the satisfaction of getting a reward for their efforts in their hands. Before the start of the milk kiosk, local milk collectors who were in the business used to collect milk from home but did not get a good price. They did not have anyone at home who had enough time to sell the milk in the town. As a result of the efforts, many more families are coming forward to join. There is a very minimal amount of ₹ 100 to join a membership of the Self-Help Group as a membership fee.



STUDENTS DEMONSTRATING HOW TO WASH HANDS LEARNED UNDER WASH AT GPS KANSAR

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Ms Anita Devi W/O. Shri Achchar Singh, Ms. Sunita Devi W/o Suresh Kumar and Mana Devi from village Sainwala Mubarikpur near Majra joined Sadabahar Group (producer group) in March 2023, where there are 9 members.

Anita Devi has 2 milch livestock, which produce 5 Lts. of milk a day. Earlier, they did not have much milk and only sold 2 to 3 ltr at a distance of 1 ½ km distance and supplied to a home in Majra town @ ₹ 40 per ltr. Her son had to spend ½ an hour to supply the milk, and his college studies suffered a lot because of that. Now there is a collection centre in the village within 50 meters from home and a lot of time is saved and gets a better price as well where she gets ₹50 per ltr. The person at the collection centre comes on a bike to collect milk, and one lady employed by the project collects the milk from group members after checking the quality of the milk. Now they can sell 5 ltr per day.

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FGD ON DOODH GANGA MILK KIOSK AT MAJRA TOWN





BIOGAS

All families in Dagyon village have LPG for cooking; however, they do make Makka (maize roti) on firewood occasionally. LPG costs them ₹1150 per cylinder, which runs for 1 to 1 ½ months, and they need to pay an additional ₹350 for transportation.

Biogas was constructed for Dilip Singh and Mrs Asha W/O Mr Jaiprakash 6 months ago. Dilip Singh has three livestock, while Asha has four. There is a saving of nearly ₹12,000 every year as they save 8 cylinders a year now after the construction of biogas. As the life of biogas is more than 30 years, they will be able to save a considerable amount of money and will be hassle-free from arranging LPG cylinders.

The vessels, kitchen walls and clothes used to get black soot while children also used to suffer in smoke-filled kitchens along with women.

They utilise the biogas slurry, which they say is excellent manure for their kitchen garden, where they grow ginger, garlic, etc and apply it for growing potatoes. The taste is also better after they start using the slurry, and there is more production as well.

The open-dried dung was hard, while slurry from biogas is pulverised, is easy to apply, and has better plant intake. The slurry dissolves easily in irrigation water. The slurry is also always ready to be applied anytime, while sun-dried manure takes time to be ready.

There are fewer chances of weeds growing along with plants as compared to when sun-dried manure was used since it has the seeds of the weeds consumed by the livestock.

Most of the families in the Swada Nadasi village do most of the cooking on fuelwood, and therefore, their LPG cylinder runs for 3 to 4 months. The families, mainly women, go to collect firewood about 2 km into the forest. Biogas saves money and provides good manure. It saves time spent collecting firewood, and breathing trouble is avoided. It helps in reducing drudgery and saves time. There is also fear of wild elephants and even tigers in the forest while collecting firewood. People also fall into hills while collecting wood. The area is also snake-infested, and cobra snakes have also been noticed in the forest area.

“

Mrs. Shanta Devi in Mehat village has a biogas plant constructed under the program. She saves a lot of money now as the family used to spend ₹ 1,100 per cylinder, which lasted 1 to 1 ½ months. Bringing the cylinder home was also a task in hilly areas.

They still use firewood to cook Makka (maize) roti and boiling water for bathing and livestock.

They use slurry in ginger and garlic, which taste better than sun-dried manure and also get higher yields. The slurry is also easier to apply than dead dung.

They were aware of the benefit of biogas and were thinking of the earlier construction of biogas but could not afford it; they were very thankful to TCPL for providing funding and Himmatthan for constructing the biogas plant for them.

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BIOGAS PLANT AT MEHAT VILLAGE



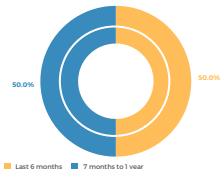
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Mrs. Taro Devi, the biogas owner in Kotari village, has been using it since December 2022. They have 10 members in the family, and all the food is cooked on biogas except Makka roti, which is cooked on firewood. They do not use LPG anymore, which used to finish a month earlier. It is a saving of around ₹ 14,000 a year. She also gets slurry, which is a good manure and is easy to apply in the field, especially for vegetables. She also agreed that there are fewer weeds grown in the slurry than when using sun-dried manure, as these had seeds of the weeds, which germinate along with crops where it is applied.

This has also saved considerable amount of time spent in weeding. They mentioned that cow dung has insect-repellent quality, and thus, slurry from biogas plants is also better insect-repellent as it spreads evenly in more areas.”

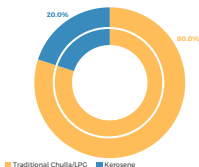


CHART 35: COMPLETION OF BIOGAS PLANT



The biogas plants have been constructed within the last six months to one year. Cooking on one of the plants has yet to start as it has recently been commissioned, and the initial feeding is still going on. The rest of the families have started cooking on biogas.

CHART 36: COOKING FUEL USED BEFORE BIOGAS



Most of the biogas owners had been using traditional wood stoves and LPG stoves before the biogas plant was constructed.

Most of the families in the project villages are using LPG for cooking except for Makka roti and spending ₹1,100 to 1,150 per cylinder, and in some villages, they need to pay an additional amount ranging from ₹250 to 350 per cylinder as these are far.

All respondents faced difficulties earlier due to cooking all the meals on traditional stoves as there was a lot of smoke and pollution inside the kitchen. Most of the respondents faced drudgery in bringing firewood from the forest.



BIOGAS PLANT INSTALLED IN KOTARI VILLAGE

“

Mrs. Asha Devi w/o Jay Prakash, Dagyon got the biogas constructed in Dagyon village, and her family did the pit digging for the biogas plant, brought the material to the site from the road, and helped the mason during the construction of the plant. The land is also considered to be his contribution, and he ensures regular daily feeding of the biogas plant with a proper mix of dung and water.

Asha has connected the water pipe to an inlet of biogas, which makes it easy to mix dung with water to feed the plant daily. Both families cook all the food on biogas except Makka (maize) roti, which is cooked on firewood. With biogas, there is less smoke in the kitchen as compared to earlier when they were cooking all the food on firewood. There was suffocation breathing problems, and irritation in the eyes while cooking on firewood.

”



MRS ASHA COOKING ON BIOGAS STOVE IN DAGYON VILLAGE



TOILET REPAIR

There were few families in some of the villages which were selected among the most vulnerable to repair toilets. The beneficiaries were not present during the FGD. They could not be interviewed individually or in groups due to the paucity of time. In the village of Kansar, one toilet repair work was done under the project. Though the village Mehat, like other villages in the project area, is ODF few, homes and toilets are broken. The community present in the FGD informed that the beneficiaries were satisfied with the work done and demanded that more such work should be done, as many others also need support for the repair of toilets.



VERMICOMPOST

The community in Bhatna Kyalna village realize the benefits of vermicompost as there are fewer weeds because the seeds of the weeds present in cow dung get converted into organic manure along with dung, which is completely digested by earthworms.

The quality of vermicompost is very good; it can easily mix with soil and is also good for plant intake. Few families are using it in onion, garlic and ginger crops; the area is rainfed and only a few homes have sprinkler irrigation systems. Although the land is good and fertile due to the lack of irrigation facilities, there is less production.



**VERMICOMPOST OF RAMESH KUMAR
AT VILLAGE KATWARI BAGRATH**

“

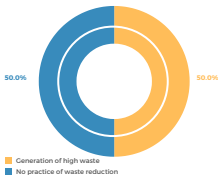
Mr. Ramesh Kumar, one of the beneficiaries, has got a vermicompostpit constructed, but it is yet to be started. Ramesh is very confident of the benefits of the vermicompost as he is aware of the good quality of the vermicompost manure. He has been doing an organic kitchen garden using sun-dried dung as manure. He planted around 40 plants under the program with a 90% survival rate.

They have felt the positive impact of the WASH activity in the school as children are happier to go to school and wash their hands properly. They also suggest their parents wash their hands and follow hygiene habits. WASH awareness was also done in the village, and the community is now well aware of maintaining hygiene.

”

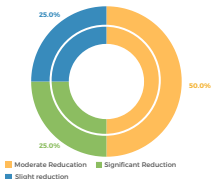


CHART 37: WASTE MANAGEMENT CONDITIONS BEFORE PROJECT INTERVENTIONS



Before vermicompost, the respondents mentioned that there was high waste generation and there was no practice of waste management or waste reduction.

CHART 38: WASTE REDUCTION OBSERVED AFTER THE CONSTRUCTION OF VERMICOMPOSTS



Most of the respondents said that a moderate to significant reduction was observed after the construction of vermicompost pits. One-fourth of the respondents say that there is a slight reduction in the waste.

During the FGD, it was observed that the vermicompost pits are ready, and families have started feeding cow dung and waste material in the vermicompost pits, but some families are yet to be fed with earthworms.





TRAINING AND AWARENESS GENERATION

The community in Dagyon village mentioned that Himmotthan had initiated village meetings in 2022, and regular meetings were held in the village. Prior to this, there were no meetings, and communities were busy with their own work. However, now they are discussing various issues and problems of the village during the meetings. As an impact, they have been able to mobilize other resources and a project through other organisations was implemented in the village. They are working on various proposals, and there is an increase in awareness level.

In the Kansar village, meetings were held once or twice every month conducted by Himmotthan. There was a lot of awareness generated from the regular meeting, which is reflected by their understanding of the benefits of horticultural trees and personal health and hygiene.

Earlier, there were no gatherings of the community to discuss issues faced by the community, but now they are much more aware and discuss various issues and have thought of making proposals for Panchayat.

They mentioned the WASH activity in the school where toilet repair, water filter, water tap, water tank, etc. have been provided under the project. There is a definite impact on the lives of children as their interest in going to school has increased after intervention, and children also encourage parents to use soap and maintain hygiene.

General issues faced by the communities, as mentioned by them, are water scarcity for irrigation purposes. Most of the area is rainfed, and there is no timely rainfall now. There is a considerable reduction in the production of maize and wheat due to untimely Rainfall. They used to grow many other crops, such as Chana (Gram), urad (black lentil), Masoor (red lentil), Alsí (flax seed), and Kolth (Horse gram). But now they are not growing these anymore. The crop timing has changed. They also had good production of Maize, potato, ginger, and Arbi (Taro root) is reduced now. They realise that this is the impact of climate change. There was discussion on climate change and how their efforts of plantation will help in climate change mitigation and contribute to the global efforts of reducing greenhouse gas emissions to control global temperatures. Since glacier melting in the Himalayan region due to climate change is a major environmental issue, the positive impact of the program also paves the way to contribute to mitigating the impact.

“

Pariksha Devi, one of the ward members in Mehat village, was worried that the springs (boudi in the local language) were drying up. Though the village is ODF, few homes and toilets are broken.

After Himmotthan's training and awareness programs, the community is more aware of health hygiene and sanitation. They also received training on vermicompost, which a Block Development officer also visited. Krishi Vigyan Kendra (KVK) provided a 3-day training on organic farming and vermicompost after the program started. Now, they realize the benefits of organic farming as there are diseases and sicknesses caused by the use of chemical fertilizer. KVK has made cards for farmers.

Mrs. Pariksha Devi helps the community understand government schemes, and now people are also aware and go to Gram Sabha as ward members; she also gives proposals to Gram Sabha. They have proposed a cow shed, land levelling (Bhumi Sudhar), etc., under MNAREGA.

The community has gained confidence after the arrival of Himmotthan in the village. They learn to work together for the benefit of the village, and earlier, some hoses used to get left out, but now they consider everyone. All households have tap water, but sometimes few families have to get water from springs (boudi).

”



Firewood scarcity is also another issue where families, especially women, have to travel 12 km to collect firewood from the forest and spend 6 hours for the same.

Menace by monkeys is also another issue, as they destroy their crops frequently. The scarcity of fodder for livestock is also another major issue in the village attributed to untimely Rainfall. They also have to get the fodder from the forest.

Meetings in Mehat village were started by Himmotthan in 2022 and are held every month, usually on the second day of the month. Fuelwood fodder is scarce at 4 km daily in the forest and takes 2 hrs.

The community members in Swada Nadasi were also taken on an exposure visit to Uttarakhand on the vermicompost technique. The vermicompost in the village is under planning as of now.

In the village Kotari, Byas Panchayat, Paonta Bock district Sirmaur, there are 242 households. They have initiated organic farming in kitchen gardens where they grow vegetables.

There is now much cleanliness in the village Dagyon after training from Himmotthan on WaSH. Few families have started the construction of soak pits. The community mentioned that the hospital is Nahan, which is 40 km away and takes one and a half hours to reach. They also need to walk 5 km to catch the bus and need to carry the sick person on their shoulders. The family loses considerable man-days if a person is sick, and therefore, the training on water sanitation, health, and hygiene has been very useful in taking personal care and avoiding illness. There is also a saving in treatment costs, which includes travel costs, medicine, and doctor's fees.

All families in Kotari are doing kitchen gardens after receiving training from KVK. They have made furrows for the vegetable crops with roots and creepers on corners. All use manure made from dung using open dried method. They get improved seeds from KVK and from the Block office. Organic vegetables are better in taste compared to what they get in the market, which is grown using chemical fertilizer, which also contains traces of chemical pesticides and is harmful.

“

Mr. Rajendra Singh Thakur and Pradhan Katwari Bagrath Panchayat appreciated the work done under the project, which started in 2022 with meetings organised by Himmotthan in the village. Mr. Ranjendra Singh was well aware of the benefits of vermi compost which is being implemented in the village along with a biogas plant and WaSH program in 2 schools in the Panchayat. He was very happy with the biogas being constructed in his Panchayat and professed for the construction of more plants in the villages.

Similarly, the plantation is done by almost every family in the village, and they were confident of the success of guava, mango, and litchi.

Mr. Singh mentioned that people are less dependent on natural springs, while earlier people used to carry water from the same. Now, taps are in every household, and at the same time, some of the springs have gone dry. This, he said, is because of less plantation being done by the forest department and there is depleting forest cover. He mentioned that trenches are being made in that area under some other program, and due to this, there is an increase in spring water. He mentioned that he himself wanted to implement the same through Panchayat. He mentioned the forest fire last year and said that the trenches could help reduce the spread of the fire to some extent. The pine trees catch fire easily, and a barrier could help.

He said that the community awareness level has increased now with the Himmotthan project, and there is more involvement of women.

”



As a result of the training and orientation on WaSH in Kotari, a few families have started grey water management, and all families have started proper hand wash and cleanliness habits.

As a result of meetings in Chandpur, the community has started focusing on issues and has discussed solar fencing, for which they gave a proposal to the panchayat level. They also discussed retaining a wall for the stream and approaching the road to the village. They have taken these issues to Gram Sabha. Ward member Mrs. Shivani dev w/ o Ranjeet mentioned that community mobilization has a great impact on the community.

In Swada Nadasi, Himmotthan started coming to the village 1 ½ years ago and started conducting group meetings, while earlier, the community did not have regular meetings and did not discuss issues of the village. People are now aware of personal hygiene after getting training under the program. Some have soak pits near the kitchen where kitchen water is diverted. Some have made drainage for kitchen water to safer areas, and the environment is cleaner.

People discussed various issues during the meetings, such as:



Drinking water problem



Fodder scarcity



Toilet repair



Risk of falling from trees while collecting firewood and fodder



Less water, hence, fodder availability is also scarce



Need for Roads



Cow sheds



Water storage for irrigation - tanks could be constructed

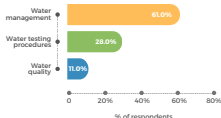


The community is interested in the kitchen garden

As an impact of the efforts of Himmotthan, the community has started to not only discuss issues but also take it forward to Gram Sabha (Panchayat)

Himmotthan started visiting Kottari village 1 ½ years ago. The community carried out a swatchhta rally (Sandesh yatra) in November 2022.

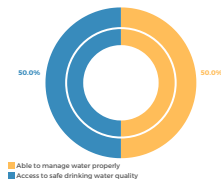
CHART 39: TOPICS COVERED IN THE AWARENESS PROGRAM



All respondents feel that the awareness program was useful.

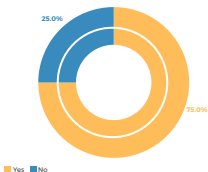
More than half of the respondents recalled that water management was covered in the awareness program, while one-fourth remembered about water testing, and very few respondents recalled that water quality was part of the awareness program.

CHART 40: BENEFITS ATTAINED FROM THE AWARENESS PROGRAM



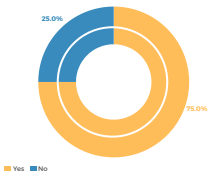
Half of the respondents say that they can manage water properly after the awareness program, while the others feel that they have access to safe drinking water now.

CHART 41: WHETHER PRESENTLY PRACTICE OR HAVE KITCHEN GARDEN



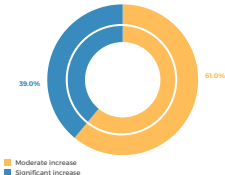
Three-fourths of the respondents mentioned that they have a kitchen garden and have adopted an organic kitchen garden.

CHART 42: WHETHER SELL PRODUCE LOCALLY



All the respondents who are following organic kitchen hardening are selling the produce locally.

CHART 43: INCREASE IN BIO-DIVERSITY IN THE PROJECT AREAS

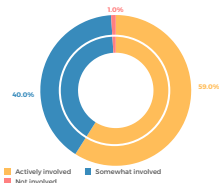


Around two-thirds observe that there is an increase in bio-diversity in the project areas.

During the FGD, communities mentioned that more birds were coming to the project villages after the project villages.

Also, with the availability of grass and water in the upper reaches of forest areas where engineering measures have been carried out, there are more wild animals there, although these come less often to the village. Different trees that have been planted will result in more bio-diversity in the long run when they grow taller and bear fruits.

CHART 44: PARTICIPATION IN THE IMPLEMENTATION OF THE PROJECT



All the respondents mentioned that they participated in the implementation of the project, though some mentioned that they were somewhat involved.

During FGD, all the people said that they were involved in transporting saplings to the site, pit digging and applying manure to the horticulture plants.

For biogas, the beneficiaries dug the pits, helped the mason in construction and made stay arrangements for the mason. They provide the land for biogas and are regularly feeding it with dung and water mix.

In engineering measures, people from the villages were involved as labourers.

WAY FORWARD - CONCLUSION & AREAS OF IMPROVEMENT (RECOMMENDATIONS)

The Himmotthan Society has developed excellent community connections. They have developed a good rapport with the community. Few of the community meetings could be organised at short notice where considerably good gatherings were there. This has shown that trust is built between the community and the organization. The activities were carried out with great zeal, and the construction work was done perfectly.

It was suggested by Mr. Hiten, from Tata Group that Himmotthan, needs a long-term vision and not tick-mark activities in each village. They can have a real-time increase in activities and seek support for the same, and this is very much possible. There would be funding support if there is a perceived need. However, there is a need for more meetings to understand what needs to be done in the area.

The project activities are spread too thin except for engineering and vegetative measures, where very few interventions have been implemented in the villages, though there is more demand for the same. They need to look for village adoption where a holistic approach is considered, touching everything that can be taken care of in a program. We need to encourage communities to carry out some of the activities on their own, which they can implement on their own and do not require much funding, such as vermicompost and toilet repairs.

They also can look into livestock perspective as the people as there is a lack of veterinary facility in the area for which they can think of barefoot veterinarians who can give treatment to livestock and take care of Artificial Insemination (AI.) and regular checkups, etc.

The excellent IEC material developed by Himmotthan can be shared with other implementing organisations which the TATA group has funded.

Based on the hydrological assessments and the observations from the field, the following are recommended to improve the effectiveness of the project interventions and the creation of impact on the ground:



Impact assessment studies need to be conducted a few years after the implementation of interventions on the ground to better assess the efficiency of hydrological structures.



With run-off, sediments and silt tend to store in surface storage bodies. Regular desilting of surface storage areas like recharge ponds needs to be undertaken to ensure that they are able to function at their maximum capacities.



The communities in the Himalayan states have traditional watershed and spring shed management practices. Efforts need to be undertaken to study them and incorporate them in the implementation of projects such as this one. Ensuring the incorporation and integration of the practices that the communities are familiar with as a part of their culture would assist in the long-term sustainability of the efforts.



Continuous monitoring of groundwater levels in open wells or borewells over the entire duration of the project period would ensure reliable assessment and evaluation of impacts created.

ANNEXURES 1

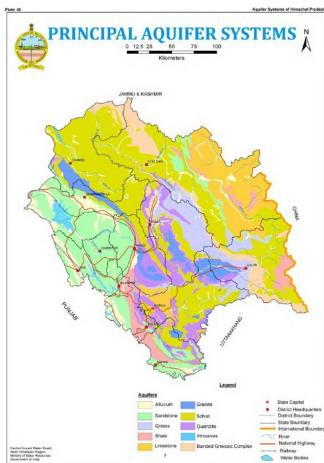
ADDITIONAL INFORMATION

Note: Information obtained from Himmatthan and validated using data from other sources such as the National Remote Sensing Centre ISRO, Geological Survey of India, Central Ground Water Board, the Indian Meteorological Department, and NASA



GEOLOGY OF THE AREA

This area is dominated by a good cover of sedimentary rocks of the Siwalik group in upper ridges and sediments transported by two major river systems viz, Yamuna and Bata rivers in the lower valley region. The upper ridges of this watershed are mainly dominated by sandstone with alternate bands of shale or shale associated with some calcareous material. The lower valley and flat region of this area is mainly dominated by a good cover of transported clayey Silty soil and sandy soils of the doon group, where the settlement and agricultural land are situated.



ANNEXURES 2

HYDRO-GEOLOGY



HYDRO-GEOLOGY

Paonta Valley is a narrow tectonic valley or dun and has fluvio-glacial sediments, hydro-geologically the unconsolidated and semi-consolidated / consolidated rock formations are forming different aquifers in this valley.

Intergranular pore spaces in the sedimentary formations and secondary fissured porosity in hard rocks, topographic setup coupled with precipitation in the form of rain and snow, mainly govern the occurrence and movement of ground water.

Porous alluvial formations occurring in the valley area form the most prolific aquifer system whereas the sedimentary semi-consolidated formations and hard rocks form an aquifer of low yield prospect. In the valley area of Paonta, groundwater occurs in porous unconsolidated alluvial formations (Valley fills) comprising sand silt gravel cobbles/pebbles, etc.

Groundwater occurs both under Unconfined and confined conditions.



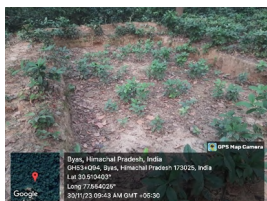
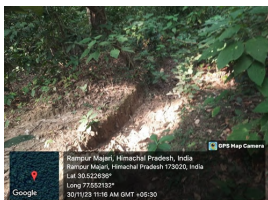
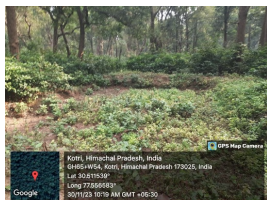
Hydrometeorology of the project area. The climate is sub-humid sub-tropical in the lower part of the tract lying in valley and Siwaliks region. The region has distinct seasons summer (April-June), monsoon (July-September), autumn (October-November) and winter (December-March). Summer variation is very high; temperatures go up to about 42 degrees in the valley part, but it is around 35 degrees in the lower Siwaliks region. The rainy season usually begins in the middle of June and lasts till the middle of September. A shower or two are received in April and May. The April and May rains may also bring hailstorms. During monsoon, rains are more active in the month of July and August. About 80 percent of the rainfall is received by the area during July and August months. The cold season starts from December to about the middle of March. The hot season that follows lasts till the middle of June. Up to the middle of September is monsoon season and October and November constitute the post-monsoon season. On average annually the area receives around 1300 mm rain.

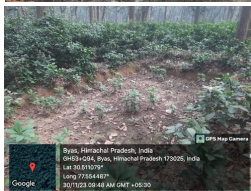
ANNEXURES 3

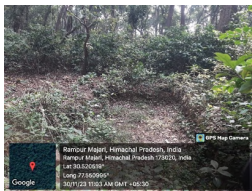
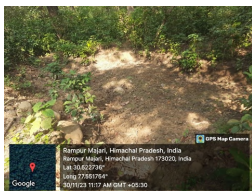
PHOTOS OF ENGINEERING MEASURES FROM THE FIELD

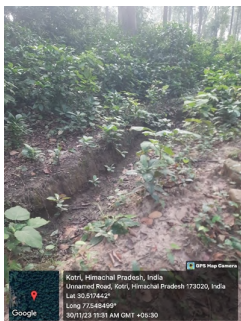












Jalodari Assam

Impact Assessment Report



CONTENTS

Abbreviations	01
Chapter 1 Executive Summary	02 - 05
Project Background	02
Research Methodology	02
Key Stakeholders	02
Component 1: Key Findings and Key Inputs	03
Component 2: Key Findings and Key Inputs	04
Component 3: Key Findings and Key Inputs	05
Chapter 2 OECD Framework	06 - 08
Chapter 3 Introduction	09 - 13
Component 1: Installation of Iron Removal Plants	10
Component 2: Distribution of Point of Use Tata Swachh Water Filters	11
Component 3: Menstrual Hygiene Management	12 - 13
Chapter 4 Research Methodolgy	14
Chapter 5 Major Findings of the Study	15 - 37
Component 1: Installation of Iron Removal Plants	15 - 26
Component 2: Distribution of Point of Use Tata Swachh Water Filters	27 - 29
Component 3: Menstrual Hygiene Management	30 - 37
Chapter 6 Conclusion	38

ABBREVIATIONS

APPL	Amalgamated Plantations Private Ltd
CML	Center for Micro Finance and Livelihood
IRP	Iron Removal Plant
POU	Point of Use
MHM	Menstrual Hygiene Management
SDG	Sustainable Development Goal
WaSH	Water, Sanitation, and Hygiene
AMC	Annual Maintenance Contract

01. EXECUTIVE SUMMARY

Project Background

Tata Consumer Products Limited (TCPL), along with the Center for Micro Finance and Livelihood (CML), an associate organization of TATA TRUSTS, a social enterprise affiliated with TATA TRUSTS, took on the responsibility of addressing the longstanding drinking water crisis in the APPL tea estates and nearby villages in Jorhat, Assam. The pressing issue of heavy iron contamination in the water sources has resulted in frequent waterborne diseases within the community. To find a reliable solution, TCPL entrusted CML with implementing WaSH (Water, Sanitation, and Hygiene) interventions in three tea estates and their surrounding areas under Project Jalodari. In villages where the IRPs were not installed, point-of-use filters (Tata Swach water filters) were supplied to address the issue of poor water quality. The other aspect of the program was imparting proper information on menstrual hygiene practices and bringing about better behavioural changes toward maintaining menstrual hygiene.



Project Year

2020-2023



Year of Assessment

2023-2024



Beneficiaries covered

3,000+ HHs (Water) & 4,280 (MHH)



Project location

Jorhat, Assam



SDG Goals



Research Methodology



Research Approach

Mixed Methodology



Research Design

Descriptive Research Design



Sampling Design

Purposive sampling



Sample Size

200

Key Stakeholders



MHH Sakhis



Doctors



Beneficiary



Village Water
Committee
Members



Operators of
IRP



Estate
Medical and
Welfare Team



Women and
Adolescent
Girls

Key Findings

of the project on installation of Iron removal plants (IRPs).



100.0%

of beneficiaries shared that water supplied earlier had a high iron content, indicated by the discolouration of water prior to the installation of IRPs.



71.8%

of the beneficiaries shared that reduced water flow from the taps was due to sediment buildup owing to heavy iron content.



98.1%

of the beneficiaries shared that they used to boil water for drinking, which was not effective in removing iron content from the water.



77.1%

of the beneficiaries shared that they underwent issues like stained teeth, dry and itchy skin, and gastrointestinal issues because of the consumption of iron-rich water.

Key Impact

of the Project on the distribution of Iron removal plants (IRPs).

SENSE OF SECURITY ABOUT SAFE DRINKING WATER



98.1%

of the beneficiaries expressed a sense of security about getting safe drinking water post-intervention.

DECREASE IN HEALTH CARE EXPENSES



90.3%

of the beneficiaries experienced a decrease in healthcare expenses post-intervention.

INCREASED ACCESSIBILITY



45.6%

of the beneficiaries were happy with the ease of access to IRPs at any time of the day, post-intervention.

REDUCTION OF EXPENSES FOR SAFE DRINKING WATER



35.0%

of the beneficiaries experienced a saving in expenses towards the purchase of packaged drinking water post-intervention.

REDUCTION IN WATERBORNE ILLNESSES



Post-intervention, 24.3% of the beneficiaries did not suffer any waterborne diseases, and 73.8% reported waterborne instances to be rare.

Key Findings

on the project on distribution of Point of Use Tata Swachh water filters.



95.2%

of the beneficiaries received poor taste and odour in the drinking water prior to the use of POU filters.



90.5%

of the beneficiaries reported turbidity in water prior to the intervention.



87.5%

received 15-litre capacity Tata Swachh water filters, while the rest received 25-litre capacity ones.

Key Impact

of the project is the installation of point-of-use Tata Swachh water filters.



100.0%

of the beneficiaries were free from waterborne diseases post-intervention.



Free from medical expenses on treatment.



57.1%

of the beneficiaries spent less than Rs. 500/- to Rs. 1000/- and more before the intervention.



Post-intervention, no beneficiary reported medical expenses on account of waterborne illnesses.

ENHANCED PRODUCTIVITY



The majority of the beneficiaries (76%) reported enhanced productivity by way of reduced abstaining from work and wage loss following the absence.

IMPROVED SCHOOL ATTENDANCE AMONG CHILDREN



64.0%

of the beneficiaries reported children's better school participation now, owing to lesser occurrence of water borne diseases, which were prevalent prior to intervention.

Key Findings

on the project of Menstrual Hygiene Management (MHM).



In the pre-intervention scenario, community women in the project communities shared some of the restrictions.



92.0%

of the beneficiaries were not allowed to participate in religious functions.



97.0%

of the beneficiaries expressed that they were not allowed to perform religious rituals at home.



45.0%

of the beneficiaries shared that they were advised to be isolated within the home.



56.0%

of the beneficiaries were not allowed to attend school due to possible discomfort from wet clothes.



81.6%

were not used to discussing matters on menstrual hygiene with their family members.

Key Impact

on the Menstrual Hygiene Management (MHM) project.



Post-intervention, 84.2% of the beneficiaries found MHM sakhis to be the main source of information about menstrual hygiene.



Almost all the respondents (98.7%) expressed that they received proper guidance regarding their concerns on maintaining menstrual hygiene from the MHM sakhis.

INCREASED USE OF REUSABLE CLOTH PADS AS SANITARY MATERIAL



21.1%

of the beneficiaries were using reusable cloth pads before the intervention, which increased to 67.1% of beneficiaries using these after the intervention.

DECREASED ADOPTION OF UNSAFE SANITARY PRACTICES



14.5%

of the beneficiaries were using relatively unsafe sanitary materials before the intervention, it was reduced to 1.3% of the beneficiaries after the intervention.

SAFE DISPOSAL OF SANITARY PADS



93.2%

of the beneficiaries used matka incinerators for safe disposal of used sanitary pads.

02. OECD FRAMEWORK



Relevance

The Project Jalodari in Assam is highly relevant as it addresses the real needs of the communities involved, particularly in the areas of water, sanitation, and hygiene (WASH).

Residents in the three tea estates managed by APPL and nearby villages had been grappling with a prolonged drinking water crisis caused by iron contamination.

The installation of iron removal plants and the distribution of TATA Swachh water filters have significantly alleviated the community's drinking water challenges.

As a result, community members now experience relief from a longstanding and critical issue.

The Menstrual Hygiene program has played a crucial role in dispelling social stigma, myths, and taboos surrounding menstruation that were prevalent in the project communities.

This initiative has led to improved menstrual hygiene practices, addressing unhygienic practices that were previously common. Therefore, the CSR intervention can be deemed highly relevant.



Coherence

The CSR intervention is found to be furthering the SDG goals.

- Goal 3: Good Health and well-being.
- Goal 5: Clean water and sanitation.
- Goal 10: Reduced inequality.



The program is in alignment with the guidelines of the National Rural Drinking Water Program of the Government of India.

The Program is also in alignment with the Tata Water Mission guidelines.

The MHM program is aligned with the Tata Trust's guidelines for Menstrual Hygiene Management.

Hence, the program can be stated to be very high in its coherence.





Effectiveness

The program has played a crucial role in enhancing the health outcomes of beneficiaries by providing access to safe drinking water, a pivotal factor in mitigating waterborne diseases.

Economically disadvantaged beneficiaries have experienced a reduction in expenses related to purchasing packaged drinking water.

The Menstrual Hygiene Management (MHM) program has successfully resulted in positive transformations in beliefs and practices, promoting personal hygiene. Furthermore, the program has contributed to the empowerment of women on multiple fronts. Hence, the program can be considered highly effective.



Efficiency

The provision of affordable access to pure drinking water has been successfully implemented, with beneficiaries demonstrating optimal utilisation of the iron removal plants (IRPs).

To ensure continuous and uninterrupted water supply, the responsibility for the operations and maintenance of the IRPs has been transitioned to village water committees. Beneficiaries utilising point-of-use water filters reported lower expenses for obtaining pure drinking water in comparison to the cost of packaged alternatives.

The Menstrual Hygiene Management (MHM) program has not only raised awareness among the direct beneficiaries but also had the cascading effect of beneficiaries further spreading awareness at familial and community levels. Positive shifts in attitudes and menstrual practices are beginning to emerge in the project communities. Hence, the program can be considered to be highly efficient.



Impact

Installing IRPs and distributing POUs have resulted in a sense of security in accessing safe drinking water, overall positive health outcomes, and reduced treatment costs attributed to the reduction of waterborne diseases.

Women and adolescent girls have shed their inhibition in discussing menstrual hygiene with their family members, and teachers attributed to the MHM program.

The beneficiaries have started using safe menstrual products in place of unsafe materials, and the attitudes of families towards menstrual taboos were found to be gradually changing.

Hence, the program has a high impact.





Sustainability

Entrusting the operation of Iron Removal Plants (IRPs) to village water committees and implementing a user fee for water collection are strategic measures aimed at ensuring the sustainability of the project.

A nominal fee was collected for Point-of-Use (POU) devices from beneficiaries to cultivate a sense of responsible usage among the beneficiaries.

Through consistent monitoring and motivation of Menstrual Hygiene Management (MHM) Sakhis, the program is positioned for prolonged sustainability, thereby generating a more enduring positive impact on menstrual hygiene. Thus, the program can be said to be high in its sustainability.



Relevance



Coherence



Effectiveness



Efficiency



Impact



Sustainability

CHAPTER 3

INTRODUCTION



Adolescent girls and women beneficiaries of MHM during a research discussion

The current impact assessment study has taken up three components implemented under the CSR program of Jalodari, Assam.

These projects pertain to the WASH theme, and these are



COMPONENT 1

Installation of Iron removal plants



COMPONENT 2

Distribution of Point of Use Tata Swachh water filters



COMPONENT 3

Menstrual Hygiene Management

This section highlights the major activities carried out under each of these three projects.



COMPONENT 1: INSTALLATION OF IRON REMOVAL PLANTS.

Iron removal plants were installed in the divisions of Tea estate (Bhelaguri, Dallim, Teok, Rajoi, Debrapara,) and nearby villages Morongial, Bolimara, Era Gaon and Haluvapathar.

The iron removal plants have the following features:

- 3 tanks (2 raw water & 1 treated)
- HIX (hybrid Ion Exchange Technology) for iron removal process
- Filtration capacity - 1000 LPH (liters per hour)
- Sediment filter present & UV disinfectant present for any microbial contamination.



IRON REMOVAL PLANT, DALIM DIVISION.

Activities involved in the installation of Iron Removal Plants.



Boring.



Construction of system platform.



Construction of Soak pit.



System installation with water ATM.



System commissioning and trial run.



Mobilising community members for water user groups through social behavioral change communication session for awareness on water quality and health.



Training of water user groups on their tasks and responsibilities towards IRP.



Appointing an operator and O & M training in day-to-day operations.



Implementation of self-sustained revenue model for IRPs in villages.



BCC sessions for the community members and water user group members on responsible and safe water usage.



COMPONENT 2: DISTRIBUTION OF POINT OF USE TATA SWACHH WATER FILTERS.



The distribution of point-of-use water filters was undertaken to check the bacteriological issues in drinking water primarily in areas that were not covered by the IRP program.



Under Project Jalodari, two types of Point of Use (PoU) filters, one with a capacity of 25 litres and another with a capacity of 15 litres, were distributed.



The total distribution of PoU devices amounted to 527, with 87 in Bhelaguri, 259 in Kakajan, and 181 in Teok Tea Estate.



Beneficiaries incurred costs for TATA Swachh Cristella Advance Filters, paying rates ranging from 300 to 500, sometimes in instalments. In comparison, market filters with fewer features were priced between 1600 and 3200, considerably more expensive than TATA filters.



During the team's assessment, all beneficiaries were observed using functional and well-maintained TATA filters. Regular cleaning by beneficiaries played a significant role in preserving the filters condition



While some beneficiaries kept other filters for non-consumable purposes such as cleaning and cooking, the majority reported that market filters ceased to function over time, whereas TATA filters demonstrated a longer lifespan.



Many beneficiaries had been using TATA filters for nearly two years or more, praising their effectiveness in water purification and iron content removal, unlike other filters that were found to be ineffective for removal of microbial contamination.



COMPONENT 3: MENSTRUAL HYGIENE MANAGEMENT

The Menstrual Hygiene Management initiative aims to raise awareness about menstrual hygiene and promote positive behavioural practices among women and adolescent girls in tea estates.

The program also seeks to dispel myths surrounding menstrual practices, reduce social stigma among women (19-55 years) and adolescent girls (10-18 years) and promote open discussions to address concerns appropriately.

One of the key aspects of the program involved training MHM Sakhis or facilitators on menstrual hygiene. They were trained through a designated module designed by TATA Trust on Menstrual hygiene covering various aspects of puberty, menstrual cycle, issues related to menstruation, maintenance of proper menstrual practices, disposal of sanitary pads and reproductive sexual health.

Some of the activities involved in the MHM intervention are:



Mobilising women and adolescent girls for participation in awareness sessions.



Imparting basic knowledge of menstrual hygiene through a variety of learning activities.



Providing counselling and guidance at individual and group levels.



Organising refresher training at regular periodic intervals.



Distribution of sanitary pads.



Training in pad stitching is imparted to community women through designated workshops.



Organising MHM melas for larger community participation.



Celebration of MHM day in the estates of the project communities.

Menstrual Hygiene Management program consisted of 2 essential components:



Selection and training of MHM Sakhis.



MHM Sakhis facilitates the dissemination of knowledge and desirable behaviour practices related to menstruation.

Training of MHM Sakhis

The training process involved.



Identifying women volunteers based on their commitment levels and communication skills. The minimum educational qualification was 10th or 12th grade.



Enlisting their participation in a training program through a well-designed module on Menstrual hygiene and reproductive sexual health.



Online and offline mock sessions imparting intensive training for over a month.



MHM sakhis were trained through mock sessions, role plays, games, and exercises on menstrual education, guidance and awareness generation. Video recordings of the sessions were observed, and feedback was given for improvements.



Regular periodic monitoring of MHM sakhis interactions with beneficiaries undertaken and guidance given to them to improve their skills.

Beneficiaries covered across different Tea estates.

PROJECT COMMUNITIES	NO. OF BENEFICIARIES COVERED
Bhelaguri Tea estate	1,208
Kakajan Tea estate	1,992
Teok Tea estate	947
Outside Tea estates	133
Total	4,289

Distribution of cloth pads was made to 3009 beneficiaries.

Training Sessions for beneficiaries

Beneficiaries attended four module training sessions lasting 1 to 1.5 hours each,



SAKHIs employed diverse games and activities to foster engagement, overcoming initial shyness barriers and effectively delivering essential training content.



Furthermore, each participant received a menstrual tracking calendar to monitor bleeding dates and patterns.



Some beneficiaries were equipped with "matka," an indigenous waste disposal method, as part of the program.



Additionally, they actively engaged in events promoting menstrual hygiene awareness. All trainees were provided with one reusable cloth pad & period calendar.



CHAPTER 4

RESEARCH METHODOLOGY



Research Team with MHM Sakhis

TCPL empanelled SoulAce, a third-party Social Impact Assessment Agency, to conduct an impact assessment study to evaluate the immediate and long-term impacts of Project Jalodari, Assam, for the fiscal year 2022-23

Objectives of the study



To evaluate the extent to which the installation of Iron removal plants has addressed the needs of the beneficiaries in the project communities.



To assess the impact created by the distribution of point-of-use water filters among the beneficiaries.



To estimate the impact created by the menstrual hygiene management program among women and adolescent girls in terms of change in attitude and behaviour towards menstrual hygiene.

Mixed Methodology

The research employed a combination of Quantitative and Qualitative methods to extract comprehensive insights.

The quantitative tool of interview schedules aided in precision and presenting data in a numerical format amenable to statistical analysis. Meanwhile, qualitative tools such as interviews and focused group discussions were used to unravel nuanced information that was not immediately apparent.

The balanced use of both approaches helped in gaining a wholesome understanding of the social impact created by the project.

Ensuring Triangulation

Employing both Quantitative and Qualitative methods contributed to the verification and validation of the research findings.

Research Design

A descriptive research design was used to depict the current state of the social impact scenario without the necessity to manipulate variables or establish causal relationships between variables.

Sampling Design

Purposive sampling, a method of non-probability sampling, was used to select the respondents based on their prior experience of availing the services of the intervention and their ability to answer the questions of the tool.

Sampling Size

Installation of Iron removal plants	Point of use water filters	Menstrual hygiene management
103	21	76

Commitment to research ethics

Ethical values about research, like informed consent, anonymity, beneficence, nonmaleficence, and justice, were strictly adhered to in the research.

CHAPTER 5

MAJOR FINDINGS OF THE STUDY



COMPONENT 1: INSTALLATION OF IRON REMOVAL PLANTS.



IRON REMOVAL PLANT AT BHELAGURI

DEMOGRAPHY OF BENEFICIARY POPULATION

CHART 1: DISTRIBUTION BY GENDER
OF RESPONDENTS

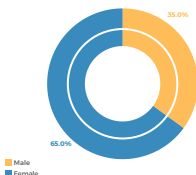


CHART 2: DISTRIBUTION BY
OCCUPATION OF THE MAIN BREAD
WINNER

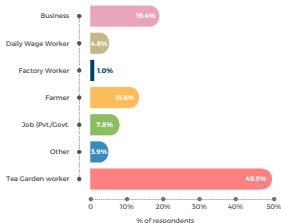
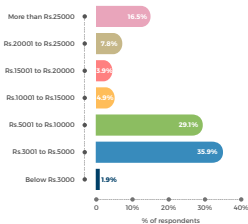
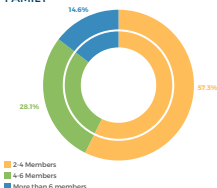


CHART 3: DISTRIBUTION BY MONTHLY FAMILY INCOME (INR)**CHART 4: DISTRIBUTION BY SIZE OF FAMILY****PREDOMINANT WOMEN PARTICIPATION**

The study enlisted the participation of women (65%) predominantly, reflecting the major responsibility borne by women in fulfilling the water needs of the family.

**EMPLOYMENT STATUS**

The installation of IRP plants in key tea estate areas resulted in a predominant representation of respondents from the tea estate workers community, accounting for 49.5%.

In addition to tea estate workers, the positive impact of IRP plants extended to households where primary earners engaged in diverse occupations such as small businesses, farming, daily wages, and government jobs, showcasing the broad involvement of community members in various professions.

**ECONOMIC STATUS**

The majority of the beneficiaries, comprising 35.9%, had monthly earnings as less as in the range of Rs. 3000 to Rs. 5000.

A considerable portion, constituting 29.1%, fell within the monthly family income bracket of Rs. 5000 to Rs. 10,000. Low-income groups often face greater challenges in accessing essential resources and services, and the data highlights the relevance of CSR intervention in addressing the needs of a deserving population.

**FAMILY SIZE**

While a significant portion of families consisted of four members, 42.7% of households had either 4-6 members or more than six members.

The increase in family size corresponds to an increased responsibility to meet the water requirements of additional family members, necessitating greater effort and additional resources to fulfil these needs.

“

Suphal Karmakar, Beneficiary, Teok Tea Estate, Dalim Division IRP:

“I have a family of 11 members. We go to bring water at IRP four times a day. Earlier, the water was insufficient, and its quality was extremely poor. Now, thanks to the IRP, we can bring adequate clean water. We get excess water without hassle or additional cost from the IRP during any celebration at the home.”

”

PRE-INTERVENTION STATUS

CHART 5: QUALITY OF DRINKING WATER FETCHED FROM DIFFERENT SOURCES PRIOR TO INSTALLATION OF THE WATER ATM (PRE-INSTALLATION)

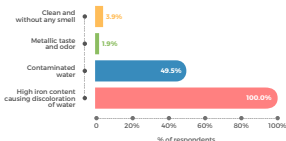
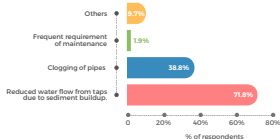


CHART 6: DIFFICULTIES FACED RELATED TO WATER SUPPLY IN THE CASE OF HIGH IRON CONTENT (PRE-INSTALLATION)



QUALITY OF DRINKING WATER (PRE-INTERVENTION)



100.0%

beneficiaries expressed that before the intervention of IRP, the water supplied earlier had a high iron content, indicated by the discoloration of water.



49.5%

of beneficiaries stated that the water received was highly contaminated.



3.9%

of the beneficiaries felt that the quality of water was good before the intervention.



71.8%

of the respondents also added that iron content in the water led to reduced water flow from the taps because of sediment buildup.



Clogging of pipes and the need for frequent repairs and maintenance were also necessitated because of the high iron content of water.

STATUS OF DRINKING WATER PRIOR TO THE INTERVENTION IN THE PROJECT COMMUNITIES



TEA ESTATE PIPELINES

The residents of Bhelaguri, Dalim, and Debrapara IRP beneficiaries expressed the profound challenges they endured in the past, relying on the tea estate pipeline connections at the colony lines.



FREQUENT DISRUPTIONS TO WATER SUPPLY

Despite depending on this source three times a day for one hour, their access to water was marred by frequent disruptions.



DISCONCERTING WATER QUALITY

The water received from the pipelines had an appalling taste and was red in colour, along with an unpleasant odour.

Beneficiaries expressed that they were often discomfited at the sight of discoloured water.



LACK OF CHOICE

With a sense of despair, they recounted the grim reality of the water quality, highlighting that other water sources in the community were even more dismal than the pipeline connection.



FAILED MAKESHIFT ATTEMPTS

These residents found themselves compelled to use local filters made from sand and coal, but these makeshift solutions failed to adequately purify the water.



HEALTH CONCERNS

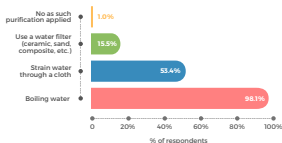
Beneficiaries were concerned about the effect of poor quality of water on their health and particularly about the health of their children.



FEELINGS OF DESPAIR AND FRUSTRATION

Having had to use poor-quality water often led to frustration and feelings of despair among the beneficiaries earlier.

CHART 7: INEFFECTIVE METHODS TO REMOVE IRON CONTENT



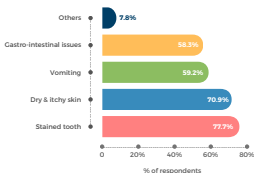
Many of the methods to purify water for drinking purposes were found not to be effective in removing iron content, which was evident by the observation of various methods employed, like boiling water, as stated by 98.1 % of the respondents.

Though boiling water is effective in killing microorganisms present in water and can reduce iron content to a minimal extent, studies have shown boiling is not an effective method to remove iron content.

The other methods used, like straining water through a cloth and the use of water filters, were also reported to be not very effective in addressing the problem of iron content in water.

Prior to the installation of the iron removal plants, it was found that beneficiaries did not have a reliable solution to the problem within their means and reach and had to restore to whatever method came in handy to address the problem.

CHART 8: HEALTH ISSUES FACED EARLIER DUE TO HIGH IRON CONTENT IN WATER(PRE-INSTALLATION)



The major health issues faced by the beneficiaries prior to the installation of the IRP were:

Stained teeth (77.7%) were caused by the red colouration of the iron-loaded water.

Many of the beneficiaries reported that the hardness of the water resulted in dry and itchy skin.

Excessive iron intake is known to disturb the nutrient absorption process in the intestine and can lead to chronic inflammation of the digestive system. This could be the reason for 59.2% of beneficiaries reporting vomiting and 58.3% reporting gastrointestinal issues due to the consumption of iron-rich water.

“

“Earlier, we faced a huge drinking water crisis because of its bad quality. Many of us suffered from waterborne diseases frequently earlier. However, we no longer suffer because of the Iron Removal Plant (IRP) installation. The water quality has significantly improved, and we are grateful for this positive change.”

Ganesh Kalandi, Tea Worker from Bhelaguri IRP

”

“

Rina Karmakar, Beneficiary, Teok Tea Estate, Dalim Division IRP:

“Nowadays, we get clear water from the IRP, and we have no complaints about its quality. After consuming water from the IRP, we no longer suffer from diseases like frequent stomach upset, vomiting, and other symptoms.”

”

FOCUS GROUP DISCUSSION WITH BENEFICIARIES OF IRON REMOVAL PLANTS, TEOK TEA ESTATE.



KEY HIGHLIGHTS ON IRON REMOVAL PLANTS AT BHELAGURI AND DEBRAPARA



INCEPTION

The IRPs in Teok, Dalim and Bhelaguri were launched in 2021 and primarily benefit tea estate workers.



AWARENESS SESSIONS

Awareness sessions conducted by the implementing agency have sensitised the beneficiaries adequately on safe water collection, proper storage, safe water handling practices and prevention of waterborne diseases.



AVERAGE WATER CONSUMPTION PER FAMILY

The beneficiaries shared that the average water consumption per family is 20 litres, with an average of 4-6 family members.



EASE OF ACCESS IN CASE OF EXCESS DEMAND

They said they get excess water easily in case of any demand for water access for the household due to any special occasion.



TIME OF WATER COLLECTION

The tea workers usually access the water ATM from 6:00 am to 4:00 p.m.

The operator usually closes the ATM option at night for safety reasons.



CHALLENGES FACED

100 households from the 10-number colony in Bhelaguri face challenges due to the 1 km distance



KEY HIGHLIGHTS ON IRP OPERATIONS FOR TEA GARDEN



AFFORDABLE WATER SUPPLY

The tea estate workers are provided with a free water ATM card and a 20-litre water can for collecting water.

Tea estate communities are provided water free of cost. The O&M charges are boreed by the tea estate management.



TIMING

Initially operated for 6-8 hours, which has been increased to 10 hours now.

The timings are from 6 a.m. to 4 p.m., which were felt to be convenient by the community members and tea estate workers.



OPERATOR

A designated operator has been appointed to take care of the daily operations of the water ATM.

Community members expressed satisfaction at the regular cleaning work of the water tanks done once in 15 days and reported consistently receiving quality water from the inception.



ENSURING SUSTAINABILITY

To ensure the sustainability of the water ATM, the operation and maintenance of the water ATM have been handed over to the concerned tea estate management. Beneficiaries expressed their satisfaction towards the functioning of the water ATM.



KEY HIGHLIGHTS ON IRON AND FLUORIDE REMOVAL PLANT AT ERAGAON VILLAGE



INCEPTION

Issue of fluoride contamination was found at Eragaon.

The Iron & Fluoride removal plant was installed in the Eragaon village in 2023.



VILLAGES BENEFITTED

The total beneficiaries under this IRP are 450 Households. Beneficiaries who live near villages like Eragaon, Bolimora, Kakajan villagers, and Hazaorika Gaon. Malakar Basti, Darikial vill, Station Tinali, Tiruail village, Likson vill, dahuti vill , Bagisachowk, Nagadera, Debrapara village collect water from this IRP.



AWARENESS GENERATION

The members also distributed leaflets to households on correctly using water and waterborne diseases. The villagers also attended the awareness program on potable drinking water and other WaSH-related components.



FEE FOR WATER COLLECTION

The beneficiaries must deposit Rs. 100/- as the membership and pay Rs.10/- for 20 litres of water.

The villagers usually recharge their water ATM cards. The membership includes an ATM card and a 20-litre jar. The IRP installation comes with a one-year AMC.



OPERATIONS OF THE IRP

The water committee provides the salary of the operator and accountant. The operator attends to the IRP from 10 a.m. to 4 p.m.



INCREASED DEMAND FOR WATER

Community members shared they required another tank to ease the increasing demand.



ENSURING SUSTAINABILITY

The operations of the IRP have been entrusted to the village water committee to ensure community ownership and sustenance of the project.

“

"Earlier, we used to purchase water from outside @ Rs. 60/- to 70/- per 25-litre water can, which is much higher than the IRP per 20 litre @Rs.10/-"

Dilip Borthakur, member of the Eragaon Village Water committee

”

“

"Earlier, we used to collect water from the government supply sources; the water quality was so bad due to heavy weight and cloudiness. Now the water is so light and crystal clear."

Mihir Dutta, Beneficiary, Eragaon IRP

”

“

"We now have no complaints about the water quality. Diarrhoea has also reduced a lot compared to earlier, and we also give the water to the kids without further filtration."

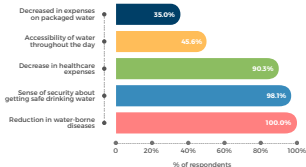
Trishna Gogoi, Beneficiary, Eragaon IRP

”

KEY IMPACT OF INTERVENTION OF INSTALLATION OF IRON REMOVAL PLANTS.

IRP INSTALLATION HAS PROVIDED COMMUNITY MEMBERS WITH MULTIPLE BENEFITS

CHART 9: BENEFITS OF WATER ATMS



REDUCTION IN WATERBORNE DISEASES

All the beneficiaries stated that waterborne diseases were reduced since consuming the water from the IRP.



SENSE OF SECURITY ABOUT SAFE DRINKING WATER

Almost all the beneficiaries (98.1%) respondents expressed a sense of security about getting safe drinking water, after the intervention.



DECREASE IN HEALTH CARE EXPENSES

90.3% of the beneficiaries shared that they experienced a decrease in healthcare expenses after they started to consume water received from the IRP.



ACCESSIBILITY

45.6% of the beneficiaries were happy that they were able to access water from the IRP whenever needed.



REDUCTION OF EXPENSES FOR SAFE DRINKING WATER

35% of the beneficiaries who had spent considerable money for getting packaged drinking water earlier shared that there was a reduction in expenses for the same.

“

"Earlier, we sometimes had to buy water from outside or seek permission from the garden for additional water supply on special occasions. Now, we have easy access to an adequate quantity of water without any hesitation, thanks to the Iron Removal Plant (IRP)."

Suresh Majhi, Tea Worker from Bhelaguri IRP

”

IMPACT: REDUCTION IN WATERBORNE DISEASES AMONG BENEFICIARIES

CHART 10: FREQUENCY OF WATERBORNE DISEASES PRE & POST INSTALLATION OF WATER ATM

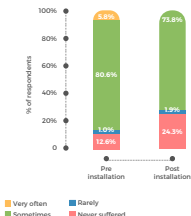
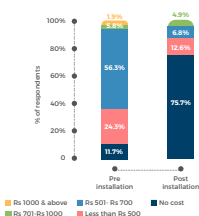


CHART 11: EXPENSES ON WATERBORNE DISEASES PRE AND POST INTERVENTION



DECLINE IN FREQUENCY OF OCCURRENCE OF WATERBORNE ILLNESS

The research findings indicate a significant decline in the occurrence of waterborne diseases among the recipients.

This is supported by the fact that around 81% of the respondents reported occasional experience, and close to 13% reported frequent experience with waterborne diseases before the intervention.

However, after the intervention, 74% mentioned that they rarely contracted waterborne diseases, while 24% mentioned a total absence of such diseases.

This suggests a positive impact of the intervention on reducing the frequency of waterborne diseases among the beneficiaries.



REDUCTION IN EXPENSES ON ACCOUNT OF MEDICAL TREATMENT

Only 11.7% of the respondents explicitly mentioned experiencing no treatment costs for waterborne diseases, while a substantial 75.7% reported zero treatment expenses, suggesting improved health outcomes attributed to the consumption of iron-free water.

The percentage of individuals spending less than Rs. 500/- on treatment decreased significantly from 24.6% before the intervention to 12.6% afterward.

Significantly, before the intervention, 56.3% of respondents were incurring expenses in the Rs. 500/- to Rs. 700/- range, but this figure plunged to a mere 6.8% post-intervention.

This downward shift in health expenses indicates a positive change in the financial burden associated with waterborne disease treatment after the adoption of iron-free water consumption.



KEY IMPACT: ENHANCED QUALITY OF LIFE

86% of the beneficiaries attributed an improved quality of life to enhanced health resulting from a decrease in waterborne diseases.

This positive shift has led to a reduction in medical expenditures, fewer instances of work absenteeism due to illness and increased productivity.



KEY IMPACT: BETTER SAVING OF TIME AND LABOUR

82% of the beneficiaries, in particular women beneficiaries, mentioned that getting access to safe drinking water from the water ATMs has resulted in better savings of their time and labour.

This saving of time and labour has allowed them to redirect the time previously spent fetching water toward other domestic activities. The reliable water supply enables quicker completion of cooking tasks, facilitating timely preparation of children for school.

Furthermore, women expressed that the saved time allowed them to get ready for work earlier, engage in gardening activities, take care of the livestock, pursue favourite hobbies, or enjoy leisure activities such as watching television.



KEY IMPACT: GREATER COMMUNITY COHESION

The beneficiaries who were earlier grappling with water issues have found new hope through the IRPs, which has greatly reduced their drudgery towards getting safe drinking water.

The IRPs, being owned and now managed by village water committees, necessitated the community members to come together and contribute their part to the maintenance of the IRPs, which has led to better community cohesion.

“

The IRP project is indeed a commendable initiative, contributing to the overall health benefits of the beneficiaries. Over the past couple of years, we have not witnessed any epidemic of waterborne diseases. Additionally, reporting cases related to waterborne diseases has significantly reduced."

“

The program has significantly impacted the community; people benefit greatly from it. They no longer worry about arranging separate filtration processes, reducing their workload. Additionally, the program has increased awareness regarding potable drinking water.

Jibon Kurmi, Welfare Officer, Kakajan Tea Estate

”

“

"As part of the maintenance of IRPs in the tea estates, we monitor the regular functioning of the IRPs, including the total water supply. We also raise awareness at the household level through the distribution of leaflets. The previous drinking water conditions in this area were extremely poor. The IRP has proven to be extremely beneficial. The recently introduced Jal Jeevan Mission program provides water for fixed hours but does not include iron removal facilities."

Hafiza Khatun, Welfare Officer, Dalim Division, Teok Tea Estate

”

DOCTOR JAYANTA KONWAR, SENIOR MEDICAL OFFICER, KAKAJAN TEA ESTATE

”





COMPONENT 2: BENEFICIARIES OF TATA SWACHH WATER FILTERS.

This section delves into the findings and impact of the project on the distribution of TATA SWACHH water filters.

DEMOGRAPHY OF BENEFICIARY POPULATION

CHART 12: GENDER DISTRIBUTION OF RESPONDENTS

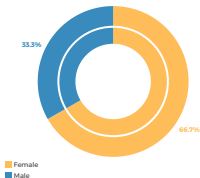


CHART 15: TOTAL NUMBER OF FAMILY MEMBERS

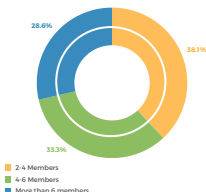


CHART 13: OCCUPATION

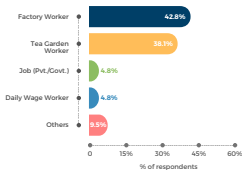
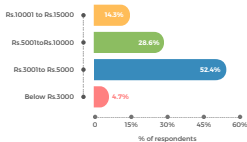


CHART 14: MONTHLY FAMILY INCOME (IN RS)



INTERACTION WITH RAMA KALANDI, A BENEFICIARY OF TATA SWACHH FILTER



LARGER WOMEN PARTICIPATION

The survey enlisted the participation of a predominantly female majority (66.7%), as women play a significant role in meeting family water requirements and their greater awareness of household water-related issues.



OCCUPATIONAL STATUS

The majority of respondents were factory workers (42.8%), followed by tea garden workers (38.1%) and those engaged in private/government jobs, daily wages, and other jobs.



ECONOMICALLY DISADVANTAGED BENEFICIARIES

The majority of beneficiaries (52.4%) had a monthly family income in the income bracket of Rs.3001 to Rs. 5000.



28.6%

of the beneficiaries fell in the income bracket of Rs.5001 to Rs.10,000.

The analysis of this data suggests that the beneficiaries generally have lower income levels, and it implies that the intervention of TATA SWACHH water filters effectively targeted the appropriate beneficiary groups, as these individuals were likely allocating a substantial portion of their earnings to secure access to clean drinking water.



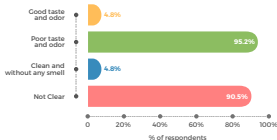
FAMILY SIZE

Barring 38.1% of beneficiaries with a family size of 2-4 members, the rest of the beneficiaries had more than 4 members in the family.

Larger family size implies greater demand for safe drinking water and consequently higher expenses associated with meeting the need.

PRE-INTERVENTION SCENARIO

CHART 16: QUALITY OF DRINKING WATER FETCHED FROM DIFFERENT SOURCES PRIOR USING TATA SWACHH FILTERS (PRE-STATUS)



The majority of beneficiaries (95.2%) expressed that they used to receive water, which was of poor taste and odour.

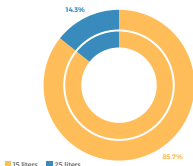


90.5%

of the beneficiaries reported that the water used to be murky and not clear.

Only a negligible proportion (4.8%) of the beneficiaries shared that the water they were getting before the intervention was of good taste and clean without any odour.

CHART 17: CAPACITY OF THE TATA SWACHH FILTER USED



85.7%

of the beneficiaries were using 15-litre capacity Tata Swachh water filters while the rest used 25-litre capacity ones

The beneficiaries expressed the sufficiency of the Tata water filters in fulfilling the drinking water needs of the family.

KEY IMPACT

CHART 18: FREQUENCY OF SEEKING MEDICAL ATTENTION EARLIER FOR WATER-BORNE DISEASES

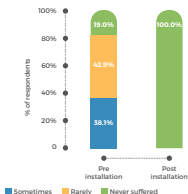
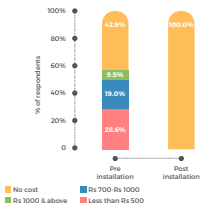


CHART 19: EXPENDITURE ON WATER-BORNE DISEASES - PRE & POST INSTALLATION



KEY IMPACT: BETTER HEALTH OUTCOMES

Only 19% of the respondents shared that they never suffered from waterborne diseases before the intervention, while all the 100% of respondents stated they were free from waterborne diseases after they started using Tata Swacchh water filters.



KEY IMPACT: COST SAVINGS DUE TO DECREASED NEED FOR MEDICAL CARE

Excluding 42.9% of the beneficiaries, the remaining beneficiaries incurred expenses for treating waterborne diseases before the installation. Among them, 28.6% spent less than Rs.500/-, and 19% spent approximately Rs.700/- to Rs.1000/- for such treatments before the intervention.

None of the respondents reported any expenditure on treating waterborne diseases after the intervention, suggesting improved health attributed to the absence of illnesses caused by impure water consumption.



KEY IMPACT: ENHANCED PRODUCTIVITY

The majority of the beneficiaries (76%) reported enhanced productivity. Instances of absence from work due to ill health were reported to be reduced, which has resulted in better work engagement and better productivity.



KEY IMPACT: IMPROVED SCHOOL ATTENDANCE AMONG CHILDREN

64% of the beneficiaries reported children's better school participation owing to good health. Previously the attendance was less due to water borne diseases amongst the children.



COMPONENT 3: MENSTRUAL HYGIENE MANAGEMENT



Discussion with MHM Sakhis, Kakajan Tea estate.

DEMOGRAPHY OF BENEFICIARY POPULATION

CHART 20: PERCENTAGE
DISTRIBUTION OF RESPONDENTS BY
AGE-GROUP

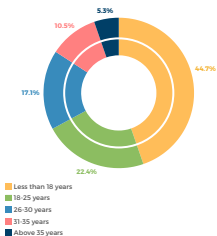


CHART 21: PERCENTAGE
DISTRIBUTION OF RESPONDENTS BY
MARITAL STATUS

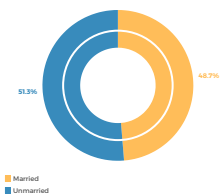
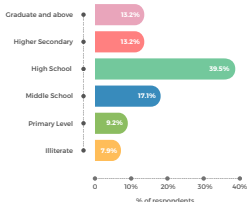
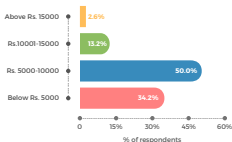


CHART 22: EDUCATION OF THE RESPONDENT**CHART 23: MONTHLY FAMILY INCOME (INR)****AGE GROUP OF BENEFICIARIES**

The majority of beneficiaries (44.7%) were less than 18 years old, indicating they were adolescents.

**39.4%**

of the considerable population were in the age group between 18 years to 30 years, which can be considered to be young adults.

Age is an important factor in an intervention on menstrual hygiene management as adolescents can be expected to have lesser exposure and experience in handling menstrual hygiene than older adults.

Adolescents are often faced with misinformation and stigma, and they are in a stage of exploring various menstrual hygiene practices, like the use of sanitary products, disposal methods and frequency of changing sanitary pads.

Other than the adolescents, each stage of the life cycle of women has certain prominent issues pertinent to menstrual hygiene, and knowledge of informed practices is crucial across all age groups for the maintenance of not only physical but psychological health too.

With each age group across different stages of the life cycle posed with problems specific to the age group, the study evidenced that the intervention has addressed the need for awareness of menstrual hygiene, leading to healthier behavioural practices in all age groups.

**MARITAL STATUS OF BENEFICIARIES**

The majority of the beneficiaries (51.3%) are married, and an almost equal proportion of beneficiaries are married women.

For unmarried women, knowledge and maintenance of proper menstrual hygiene is essential for the prevention of infection, better reproductive sexual health and enhanced social participation.

For married women, knowledge of menstruation is important for pregnancy planning, family planning, and proper post-partum care.

The study shows both married and unmarried women are benefitted from the menstrual hygiene management program.

The study identified that the intervention addressed the distinct challenges in menstrual hygiene practices for both married and unmarried women, which is crucial for promoting adherence to desirable menstrual practices.



EDUCATIONAL STATUS OF THE BENEFICIARIES

The largest segment of beneficiaries, comprising 39.5%, had attained education up to the higher secondary level.



17.1%

of beneficiaries had completed middle school.

A smaller percentage, accounting for 13.2%, had graduated, and an equivalent percentage had finished their education at the higher secondary level.

A lesser proportion of beneficiaries fell into categories such as illiteracy or having attended school up to the primary level.

Beneficiaries with more years of schooling or higher education can be expected to have more knowledge of menstrual hygiene compared to those with fewer years of schooling.

The study indicates that the intervention has positively impacted women with varying educational backgrounds, imparting fundamental knowledge about menstrual hygiene and promoting improved behavioural practices.

PRE INTERVENTION SCENARIO



RESTRICTIONS FACED DURING THE PRE-INTERVENTION PERIOD

Community-women in the project communities shared some of the restrictions they faced during the pre-intervention period.



92.0%

of the beneficiaries were not allowed to participate in religious functions.



97.0%

of the beneficiaries expressed that they were not allowed to perform religious rituals at home.



45.0%

of the beneficiaries shared that they were advised to be isolated within the home.



56.0%

were not allowed to attend school due to the possible discomfort of wet clothes.

A considerable proportion of women (48%) expressed that their daughters were advised not to venture out of home either to play, talk with others, or visit the local shops.

CHART 24: FREE DISCUSSION ON MENSTRUATION ISSUES WITH FAMILY MEMBERS OR FRIENDS PRIOR ASSOCIATION WITH MHM SAKHIS

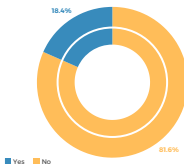
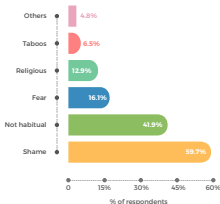


CHART 25: REASONS FOR NOT DISCUSSING WITH FAMILIES & FRIENDS





ABSENCE OF DISCUSSION ON MENSTRUAL HYGIENE

The majority of beneficiaries (81.6%) reported that they usually stayed away from discussing matters of menstrual hygiene with their family members.

The reasons cited are:



FEELING OF SHAME

The majority of the beneficiaries (59.7%) shared that they used to feel shameful about discussing matters of menstrual hygiene with their family members.

Many of the beneficiaries felt that menstruation was something private which could not be discussed with others.



NOT HABITUATED

The next major reason cited by the beneficiaries was that they were not accustomed to discussing matters of menstrual hygiene with their family members. Societal norms and cultural taboos prevented them from taking up these matters for discussion with anyone.



FEAR

The social stigma regarding menstruation also caused fear in the minds of the beneficiaries of the potential negative reactions and lack of approval, which made them not open up about these matters with others.

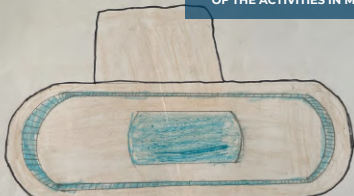


RELIGIOUS AND SOCIAL TABOOS

Other related reasons cited by the beneficiaries were religious and social taboos regarding menstruation, being considered something impure.

মুতুশী ভূইয়া
১০/০৫/১৮

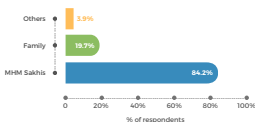
MOUTUSHI BHUINYA DREW THE PICTURE OUT OF HER LEARNING, PART OF THE ACTIVITIES IN MHM PROGRAM



আমি যেই দিনে চিহ্ন লিখি তাহলে
সেদিন বর্ষা লাগে।

POST INTERVENTION SCENARIO

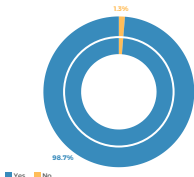
CHART 26: SOURCE OF INFORMATION FOR MOST USEFUL FACTS AND INFORMATION REGARDING MENSTRUATION



The majority of beneficiaries in the community (84.2%) shared that MHM sakhis were the main source of information about menstrual hygiene post-intervention.

GUIDANCE ON ADDRESSING VARIOUS SYMPTOMS OF MENSTRUATION

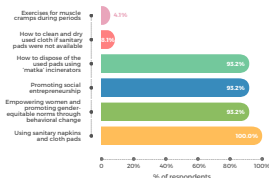
CHART 27: WHETHER RECEIVED GUIDANCE ON ADDRESSING VARIOUS CONCERNS REGARDING MENSTRUATION FROM MHM SAKHIS?



Almost all the respondents (98.7%) expressed that they received proper guidance regarding their concerns about maintaining menstrual hygiene from the MHM sakhis.

DISSEMINATION OF INFORMATION ON MENSTRUAL HYGIENE

CHART 28: TOPICS COVERED IN AWARENESS CAMPS



All the beneficiaries shared that they were told about the use of sanitary napkins and cloth pads.

Beneficiaries were aware that the use of sanitary pads or cloth pads was essential to stay dry during menstrual periods. Beneficiaries shared that using these helps them stay away from odours, skin rashes, and infections.



93.2%

of the beneficiaries were also aware of the use of matka incinerators for disposal of used sanitary pads.

Apart from menstrual hygiene, these awareness sessions also empowered the beneficiaries with ideas on promoting gender equitable norms and promoting social entrepreneurship.



Barsha Rajwara, MHM Sakhi, Teak Tea Estate

"I have observed significant changes among adolescents and women. They have become more vocal about their concerns by discussing them with us or visiting doctors. There have been noticeable improvements in their sanitary pad usage and personal hygiene practices."

“

“Earlier, I used normal clothes as sanitary material but often suffered from itching and rashes due to poor hygiene practices and lack of knowledge about cleaning and drying materials. During the training program, I discussed my problem with the SAKHs and was immediately advised to use Fab Famine as well as reusable cloth pads. After the training, I changed my sanitary materials and no longer suffered from irritation and rashes. Now, I am stitching my own reusable pads. I also gained immense benefits from regularly practising the asanas I learned in training.”

Testimonial from Neetu Telenga, a Resident of Kakajan Tea Estate

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“

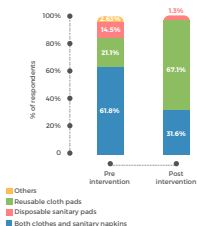
Monica Tanti, an Adolescent Girl from Teak Tea Estate

“The training has not only improved my practices but also empowered me to convince my mother to change her sanitary material practices. I have identified my problems and visited doctors for faster recovery.”

”

IMPACT: ENHANCED USE OF SAFE MATERIALS

CHART 29: CHANGE IN USE OF MATERIALS FOR SANITARY HYGIENE



REDUCED USE OF CLOTH AS A SANITARY MATERIAL:



61.8%

of the beneficiaries were using both clothes and sanitary napkins before the MHM intervention, which reduced to 31.6% using both options after the intervention.



21.1%

of the beneficiaries were using reusable sanitary pads before the intervention, which increased to 67.1% of beneficiaries beginning to use these after the intervention.



14.5%

of the beneficiaries were adopting relatively unsafe sanitary options before the intervention, which reduced to 1.3% after the intervention.

A positive shift in beneficiaries behaviour, from giving up the practice of using cloth as sanitary material to using disposable sanitary pads more, attributed to the intervention, is evident from the study.



MATKA INCINERATOR IN THE BACKYARD OF A BENEFICIARY'S HOME.

KEY IMPACT: OVERCOMING HESITATION AND ENHANCED OPENNESS IN DISCUSSIONS ON MENSTRUAL PRACTICES.

One of the key impacts of the MHM program was that it encouraged adolescent girls to overcome their reservations to openly discuss matters regarding menstruation and menstrual hygiene with their parents, teachers and friends.

This was evidenced by the impressive articulation of their acquired knowledge on topics related to menstruation, such as symptoms, issues related to menstruation, seeking medical help, use of safe, sanitary materials, and safe disposal practices during the study.

Adolescent beneficiaries went beyond mere verbal expression, actively demonstrating yoga postures and engaging in practice sessions for the research team.

The ability to openly discuss personal experiences on menstruation reflects a dynamic shift in moving away from traditional societal norms, breaking the myths and social taboos regarding menstruation. This positive impact can be attributed to the awareness imparted through MHM's project intervention.

KEY IMPACT: ENHANCED EMPOWERMENT OF WOMEN

The Program of MHM has empowered the women beneficiaries in the following ways.



ACQUIRING ESSENTIAL KNOWLEDGE

Community-women and adolescent girls seemed to have gained basic knowledge on various aspects of their reproductive health, menstrual cycles, and hygiene practices. This knowledge empowers them to make informed decisions about their well-being.

“

“Earlier, I used to be very much embarrassed to talk about menstruation with my mother even. I used to feel hesitant about asking my father for money, often having to provide various reasons. After participating in the program, I gained confidence and now confidently ask him for money to purchase sanitary pads, and he never refuses. I no longer feel shy about asking for sanitary pads, even from my father.”

Testimonial from Mamata Ravidas, an Adolescent Girl from the Kakajan Tea Estate

”



ENHANCED CONFIDENCE IN SELF

The study evidenced that the MHM program has significantly enhanced the self-confidence of women.

The beneficiaries seemed to be self-assured and moving away from societal taboos regarding menstruation. Most beneficiaries are no longer confined to isolation or restricted in their movement to school, play or work during periods.



COMMUNICATION SKILLS

Engaging in discussions with MHM sakhis and other participants within the program setting has encouraged the women to develop effective communication skills. Coming together for the program and finding the approval of other participants during discussions have honed the communication skills of the beneficiaries, extending beyond the program at the family, school and community levels.



COMMUNITY ENGAGEMENT

Beneficiaries disseminated information gained by them to others in the community. This sharing has not only led to spreading awareness but has also promoted a supportive environment encouraging women to collectively advocate for menstrual health practices.



IMPROVED ACCESS TO RESOURCES

Post-intervention, women were found to have enhanced access to menstrual hygiene products. Beneficiaries shared that they now have better access to sanitary products to manage their periods more effectively than before. This resulted in a better sense of independence and control among them.



SENSE OF PERSONAL AGENCY

As beneficiaries are now equipped with knowledge and resources, the MHM program has empowered women to take charge of their health. They now have a sense of control over their body and physical and mental well-being.



Testimonial from Shanu Sharma, a Resident of the Kakajan Tea Estate

"Earlier, I used my saree as sanitary material for myself and my daughter. I often felt hesitant to dry my clothes in the sunlight properly. Additionally, we used to stay in separate rooms during menstruation. However, after attending the program, we changed our sanitary pad usage and dispelled misconceptions about period blood as dirty. We successfully convinced my mother-in-law to stay with other family members during menstruation. I also empower my husband and son to understand periods as a normal process. Now, my son frequently brings sanitary napkins for my daughter, and both of them help with household chores during my monthly cycle."



CHAPTER 6

CONCLUSION

Project Jalodari in Assam has effectively addressed critical community needs, particularly in the realms of water, sanitation, and hygiene (WASH). The implementation of iron removal plants and the distribution of TATA Swachh water filters have successfully alleviated the prolonged drinking water crisis caused by iron contamination in three tea estates managed by APPL and nearby villages, resulting in tangible relief for community members and a notable reduction in waterborne diseases.

The Menstrual Hygiene Management (MHM) program has emerged as a catalyst for positive change, dispelling societal stigma and misconceptions surrounding menstruation within the project communities. This initiative has not only led to improvements in menstrual hygiene practices but has also triggered a ripple effect, with beneficiaries actively spreading awareness at both familial and community levels.

The transition of responsibility for the operations and maintenance of iron removal plants to village water committees ensures a sustained and uninterrupted supply of safe drinking water. The program's provision of affordable access to pure drinking water, coupled with positive shifts in attitudes and practices related to menstrual hygiene, has contributed significantly to improved health outcomes for beneficiaries.

Economically disadvantaged individuals have witnessed reduced expenses linked to purchasing packaged drinking water, while the empowerment of women on various fronts is evident through positive transformations in beliefs and practices. Overall, the success of Project Jalodari signifies its efficacy in enhancing the well-being of the communities involved, establishing it as a commendable and impactful initiative.