

## MAHAN, Melghat

### Report of MAHAN trust – April 2023 to March 2024

#### 1. Background

Melghat is a picturesque yet profoundly underserved region in north east part of Maharashtra, where the echoes of humanity's struggle resonate through the heart of the majestic Satpuda mountain ranges and valleys. Here, amidst the serene beauty of nature, a harsh reality unfolds—a reality where basic healthcare remains a distant dream, and the shadows of superstition loom large over the lives of its inhabitants ~3,00,000.

Imagine a place where 78.24% of the population are tribal, their livelihoods tethered to the earth they till, yet trapped in a cycle of poverty so pervasive that it touches every aspect of their existence. In Melghat, where the Korku tribe reigns supreme, life is a relentless battle against deprivation, with more than 75% of families dwelling in huts devoid of even the most fundamental amenities, such as metered electricity.

But it's not just material poverty that plagues these lands; it's the poverty of knowledge, the poverty of healthcare, and the poverty of hope. In a region where illiteracy grips more than half the population in its unyielding grasp, where medical facilities are but a distant rumour, and where ancient superstitions hold sway over the minds of the vulnerable, the consequences are dire.

Picture the desperation of a parent, watching helplessly as their child succumbs to malnutrition, their tiny frame unable to withstand the ravages of hunger and disease. Imagine the anguish of a community, mourning the loss of young lives cut short by preventable illnesses, their cries of grief echoing through the hills, unheard and unheeded.

In the face of such adversity, there shines a beacon of hope—a vision born from the wisdom of Mahatma Gandhi, who believed that the true soul of India resides in its villages and youth should go to villages to serve India. It was this vision that inspired the inception of MAHAN—Meditation, AIDS, Health, Addiction, Nutrition—an organization committed to bringing light to the darkest corners of Melghat.

Moved by compassion and driven by a sense of duty, the founders of MAHAN Dr. Ashish and Dr. Kavita Satav, embarked on a journey of healing and transformation, determined to break the shackles of ignorance and superstition that held the community in bondage. With November 1997 marking the beginning of their noble endeavour, they set out to bridge the gap of healthcare disparity, to empower the marginalized, and to restore dignity to those whose voices had long been silenced.

This is not just a story of struggle; it is a story of resilience, of courage, and of unwavering faith in the power of compassion to change lives. As MAHAN continues to weave its tapestry of hope across the rugged landscape of Melghat, may their legacy be written in the smiles of children who thrive, in the laughter of families reunited, and in the triumph of the human spirit over adversity.

Source of Inspiration:

Mahatma Gandhiji, Sant Vinoba Bhave, Swami Vivekanand, Vasant Rao Bombatkar, Dr. Abhay Bang, Dr. Prakash Amte

## 2. Service-based Interventions

**SAMMAN: (Community Based Management of severely malnourished Children: SMC)**

**Project Aim:** To reduce the prevalence and deaths due to severe malnutrition (Severe Acute Malnutrition: SAM, Severe Under Weight: SUW) in under 5 children in tribal villages of Melghat.

**Key activities:** Treatment of 199 SMC with MAHAN LTF (Locally prepared therapeutic food) and MAHAN VIT-MIN-MIX (minerals and vitamin supplement) in 27 tribal villages by trained village health workers (VHWs) , 3 to 4 times a day, for 90 to 180 days period. Behaviour change communication (BCC): 18,874 children episodes were conducted e.g. Nutrition demonstration, flip chart, nail cutting, community growth chart, etc.

**Impact/Achievement:**

1. Recovery rate of only SAM (Severe Acute Malnutrition) (without SUW): 80%.
2. Recovery rate of total SAM (SAM+SUW): 71.79%.
3. Prevalence of SAM (April 2023) was 2.89%, which was reduced to 1.65% in March 2024, reduction by 42.9%.
4. Recovery rate of only SUW (without SAM) : 44.16%.
5. Recovery rate of total SUW (SUW+SAM)– 43.2%
6. Prevalence of SUW (April 2023) was 9.64%, which was reduced to 6.39% in March 2024, reduction by 33.71%.
7. Case fatality rate (CFR) of severely malnourished children (SMC) was 0.50% (only 01 child died during treatment) **Achieved WHO target of <4% deaths in SAM children on treatment.**

8. Reduction in prevalence of severe malnutrition in intervention area by 69% as compared to baseline. (Baseline Prevalence of SMC – 22.26%, at the end of March 2024, the prevalence of SMC was 6.90 %)

## SUCCESS STORY

### **1) Magic of dedication and science**

In the heart of Nagzhira village, nestled amidst the verdant beauty of nature, there existed a tale of resilience, hope, and transformation embodied in the journey of a little boy named Vivan Bharat Selukar.

Vivan's story was not just about overcoming severe malnutrition; it was a testament to the power of community, perseverance, and the unwavering dedication of those who believed in his potential for a brighter tomorrow.

Born into a world shadowed by the harsh realities of malnutrition, Vivan's journey began with struggle and uncertainty. His tiny frame bore the weight of a battle he had not chosen, but fate had deemed his to endure. With each passing day, his parents watched helplessly as their son's once vibrant spirit seemed to wane under the burden of hunger and illness.

But amidst the darkness, a glimmer of hope emerged in the form of the SAMMAN Program of MAHAN trust, a beacon of light that would illuminate the path to Vivan's transformation. With the support of dedicated Village Health Workers (VHW) and supervisors, Vivan's parents were empowered with knowledge, equipped with tools, and infused with hope. He was treated with essential drugs and LTF- MN by MAHAN field staff.

The journey was not easy. It demanded sacrifices, persistence, and an unwavering commitment to change. But Vivan's parents, fuelled by love and determination, embraced the challenge with open hearts. They diligently attended the health education sessions, absorbed every piece of information from the flipcharts, and embraced the practices advocated by the program with unwavering faith.

And as the days turned into weeks, and the weeks into months, the fruits of their labour began to manifest. Vivan, once frail and fragile, began to blossom like a flower in the springtime. His laughter echoed through the village, a melody of joy that resonated with the promise of a brighter future.

In just two short months, Vivan's transformation was nothing short of miraculous. His weight, once a cause for concern, became a symbol of triumph as it steadily climbed from 6.66 kg to

8.61 kg. But it wasn't just the numbers on the scale that spoke of his victory; it was the sparkle in his eyes, the rosy hue of his cheeks, and the newfound vigour that danced in his every step. Moreover, his gradation shifted from SUW/SAM to moderate underweight (MUM)/No wasting, marking a milestone in his journey towards health and vitality. The shadows of malnutrition that had once clouded his future were now fading into the past, replaced by the promise of a life filled with abundance and possibility.

Vivan's story serves as a beacon of hope for countless others who find themselves trapped in the grip of malnutrition. It is a reminder that with determination, support, and a community united in purpose, even the most daunting of challenges can be overcome.

As the sun sets over Nagzhira village, casting a golden glow upon the horizon, Vivan's laughter rings out once more, a symphony of resilience that echoes through the hearts of all who hear it. And in that moment, amidst the beauty of the world reborn, there exists a profound truth: that where there is love, there is always hope, and where there is hope, miracles can flourish. Thanks to donors for continued support.



Before

After

**Challenges in near-term:**

Our team has achieved almost all annual targets, but we have achieved challenge as to - How to sustain and scale up in all tribal and rural areas of India?

**MCPEPAG:** (Mortality control program for economically productive age group)

**Project Aim:** To reduce death in the age group of 16-60 years from 27 tribal villages.

**Key activities:** Treatment of patients of Hypertension, diarrhoea, Malaria, Pneumonia and Asthma by VHW in village itself and referral of TB, Coronary Artery Disease, & other diseases for confirmation & management. Treated 6979 people aged between 16 – 60 years of age.

Behaviour Change Communication (BCC) of >46,633 person episodes were done. Provided antenatal care (ANC) to >628 pregnant women. Provided Local therapeutic food to 628 pregnant women for 3 to 7 months.

**Impact:** Age specific mortality rate(16-60 years) and MMR have been reduced in intervention area.

Parameters	Intervention Area (April 23- March 24)	Baseline
<b>Age Specific Mortality Rates (16-60)</b> (per lakh population of that age group)	218.84	419.65 (JAN – DEC 2018)
<b>Prevalence of Uncontrolled Hypertension (16-60)</b> 27 villages	4.79%	5.45%
<b>MMR (per lakh live births)</b>	202.83 (1 death)	547.9 (OCT – 2017 – SEPT 2018)

**Success Story**

1. In the quaint village of Rora, Situ Chotelal Jambekar, a 45-year-old female, faced a daunting health challenge when her blood pressure soared to **165/101mm Hg** in June 2023. With swift intervention from the MAHAN Trust, Situ was put on **Amlodipine tablets** and she embraced lifestyle changes. On March 21, 2024, hope blossomed as Situ's blood pressure reduced to healthy **122/69mm Hg**, marking a remarkable turnaround. Situ's journey epitomizes the transformative impact of the MAHAN Trust in Rora, offering not just medical assistance but also empowering individuals to take charge of their health. Through their dedication and support, Situ's story became a beacon of hope, inspiring the community to prioritize preventive healthcare and embrace positive lifestyle changes.



**Situ Chotelal Jambekar**

**Challenges in the near term-**

Our team has achieved most of annual targets , but we have challenge as to -how to sustain and scale up in all tribal areas of India?

**HBCC (Home-Based Child-Care Program)**

**Project Aim:** To reduce child deaths and malnutrition of children <5 years of age from tribal villages of Melghat.

**Key activities:** Treatment of 4,285 childhood illnesses like neonatal sepsis, birth asphyxia, diarrhoea, malaria, pneumonia, normal new-born care etc. by VHWs. Behaviour change communication of 18,874 person-episodes have been done.

**Impact:** There is reduction in child deaths as compared to baseline.

Intervention Area	Vital events Number	Targets to be achieved.	Rates achieved in this year	Target achieved or not	Baseline
Under 5 Mortality Rate	18	< 70/ 1000 live births.	35.93	100%	88.09
Neonatal Mortality Rate.	09	< 25	17.96	100%	50
Infant Mortality Rate.	13	< 35	25.95	100%	76.19
Low Birth Weight baby	111	22.72%		100 %	30.6%

## **SUCCESS STORY -**

### **1. Magic of sacrifice and training:**

In the heart of the remote tribal area of Melghat, where the whispers of the wind dance through the dense forest and the rhythm of life beats to the tune of tradition, lies a beacon of hope and healing: MAHAN Trust. For villages like Kobdadhana, it is more than an organization; it is a lifeline, a guiding light that pierces through the darkness of adversity.

In this land of ancient customs and untamed wilderness, Sangita Parvat Uike embarked on her journey of motherhood. On a crisp February morning, her world blossomed with the arrival of her baby boy, a tiny bundle of joy weighing 2.800 kilograms. Amidst the celebration and joyous embraces, a shadow loomed over Sangita's newfound happiness. Sepsis, a silent menace, crept into life of Sangita's baby, threatening to snatch away the very essence of her motherhood. In the midst of uncertainty and fear, MAHAN Trust emerged as a guardian angel, a persistent presence in the face of adversity.

With a sense of urgency, MAHAN Trust's dedicated team especially village health worker jumped into action, ensuring prompt medical attention for Sangita's precious newborn baby. Day and night, they tirelessly worked to combat the insidious grip of neonatal sepsis, their unwavering commitment shining bright amidst the darkest of nights. Administering Amoxiclav syrup, a beacon of hope in liquid form, became a ritual of healing, a prayer whispered with every dose. From February 23 to 29, 2024, each drop of medicine became a testament to MAHAN Trust's dedication to delivering effective healthcare solutions, even in the most remote regions.

And then, amidst the trials and tribulations, a miracle unfolded. The infant, cradled in the arms of resilience, responded to the healing touch of MAHAN Trust's care. His tiny fingers, once cold with illness, now reached out with newfound strength, a symbol of hope reborn. She became normal.

Sangita's journey, fraught with challenges and uncertainties, serves as an emotional reminder of MAHAN Trust's enduring commitment to the well-being of mothers and children in Melghat's tribal heartlands. In her triumph over adversity, in the resilience of her child, lies the essence of MAHAN Trust's mission: to build healthier, more resilient communities in the face of adversity.

As the winds of change sweep through the tribal lands of Melghat, one thing remains constant: the unwavering dedication of MAHAN Trust to stand as a beacon of hope, a

lifeline for those in need, a guardian angel in times of darkness. And as Sangita's baby boy grows and thrives, his story becomes a testament to the power of compassion, resilience, and the enduring spirit of humanity.



**Before**

**After**

**Challenges in near-term:** How to sustain and scale up in all tribal areas of India?

### **Blindness Control Program**

**Project Aim:** To improve vision of poor tribal and prevent blindness.

**Key activities:**

1. Treatment of patients in hospital: 3538
2. Number of eye surgeries: 178
3. Free of cost spectacle distribution to poor people=1437
4. Treatment of children=590
5. School going children screened: 17803
6. Villagers Screened: 45149
7. Vit A & Albendazole supplementation 213.



**Free of cost patients transport by MAHAN ambulance to MAHAN hospital**



**Vitamin A supplementation**



Dr.Kavita Satav operating cataract

**Impact:**

1068 patients were given vision, their blindness was prevented and 35606 parents were benefitted.

**Success story:-**

**1) Title: Muniya Phattu Salame: A Beacon of Hope in Rural India**

In the heart of Jawra village, nestled within the Betul district of Madhya Pradesh, resides a poor tribal female Muniya Phattu Salame. At 86 years old, Muniya's life had been a testament to resilience, hard work, and the indomitable spirit that characterizes the rural communities of India.

Muniya had spent her life as a labourer, toiling day in and day out to make ends meet. However, in recent years, her world had grown dimmer as her vision began to fail her. Despite her best efforts, the onset of unilateral mature senile cataract rendered her unable to continue her work, plunging her into a world of uncertainty and dependency. Supported only by her son and daughter-in-law, who earned a modest income of 4000 rupees per month, Muniya faced immense challenges. Living in a simple hut, she grappled with the harsh reality of her diminished sight, unable to afford medical treatment or even contemplate the possibility of surgery.

Through the diligent efforts of the Blindness Control Program team of MAHAN trust, Muniya's plight was brought to light. Identified during a door-to-door village outreach, Muniya was diagnosed with cataract, a condition that had robbed her of her vision and her independence.

Despite initial hesitations fuelled by economic constraints and fear, Muniya's journey took a transformative turn when she learned of the support provided by MAHAN for free cataract surgery for the tribal population of Melghat. With transportation, surgery, and medication all offered free of cost, Muniya saw a glimmer of hope amidst her darkness.

Empowered by knowledge and supported by her family, Muniya made the courageous decision to undergo surgery. On 12th March 2024, she embarked on a journey that would change her life forever. With skilled hands and compassionate hearts, Dr. Kavita Satav

and medical team at the base hospital of MAHAN performed the surgery that restored Muniya's vision and her zest for life.

The moment Muniya opened her eyes post-surgery, a world of clarity and possibility unfolded before her. Tears of joy glistened as she beheld the beauty of the world with newfound clarity. Grateful beyond words, Muniya expressed her heartfelt thanks to MAHAN trust and the dedicated individuals who had made her transformation possible.

Today, Muniya stands as a beacon of hope in her community, a living testament to the power of compassion and generosity. Her inspiring journey serves as a reminder that no obstacle is insurmountable when met with determination, support, and the kindness of strangers.



Post-operative picture of an operated Patient.



### Operated Patients



Figure : Vision correction with spectacle.

### **Challenge:**

To mobilize people for cataract surgery due to misbeliefs, social barriers and poor relative's compliance.

**MAHAN Mahatma Gandhi Tribal Hospital & Sant Vinoba Bhave Children Hospital,  
Jamanalal Bajaj surgical and eye hospital**



**Figure: WAITING space for patients**



**Present hospital**

**Project Aim:**

To improve health status of poor tribal of Melghat by reducing deaths and malnutrition and by providing emergency medical care to serious patients, etc.

**Key activities & Achievement:** Treatment of patients by expert physician, eye surgeon and paediatrician.

- Patients treated in the Hospital: 4,570 (OPD)
- Patients treated in the Hospital: 574 (IPD).
- Serious patients admitted and treated in intensive care unit and ward: 255 e.g. Heart attack, Brain Haemorrhage, Cerebral Malaria, Meningitis, Tetanus etc. in ICU.
- Cesarean surgeries : 2 LSCS

### **Impact:**

- **Saved 237 precious serious patients in our ICU. (18 Deaths) (Case fatality rate, CFR of ICU patients was 7.59% and achieved target of ICU mortality <10% in India.**

### **Success story: The Triumph of Resilience: Mangal Zolya Jawarkar's Journey to Recovery**



In the heart of the tranquil village of Rabang, amidst the verdant hills of Melghat, a story of remarkable resilience unfolded. At the age of 45, Mangal Zolya Jawarkar, a beloved member of the community, faced a daunting array of health challenges that threatened to overwhelm him. Diagnosed with a complex web of ailments including diabetes mellitus, diabetic foot and gangrene, chronic renal failure (CRF), severe hypertension, pulmonary oedema (congestive cardiac failure), acute respiratory distress syndrome, severe hypoxia, acidosis, Mangal's journey to recovery seemed like an insurmountable mountain to climb.

However, in the face of adversity, hope flickered brightly at the MAHAN Tribal Hospital in Melghat. Guided by Dr. Ashish Satav, a team of compassionate healthcare professionals, transformed live of Mangal towards healing. Every step of his journey was marked by unwavering dedication, resilience, and the unshakeable support of MAHAN trust.

The journey was arduous, with countless obstacles to overcome. Mangal's diabetes had taken a severe toll on his body, leading to complications that threatened his very existence. Severe hypertension and pulmonary oedema left him gasping for breath, while

the spectre of gangrene loomed ominously over his diabetic foot. With each passing day, his condition deteriorated, and the odds seemed stacked against him.

Yet, within the walls of the Mahatma Gandhi Tribal Hospital, a beacon of hope emerged. A team of skilled physicians, nurses, and specialists rallied around Mangal, employing cutting-edge treatments and unwavering determination to combat his myriad health issues. Through a combination of meticulous medical care, innovative therapies, and compassionate support, they fought tirelessly to turn the tide in Mangal's favour. Day by day, Mangal's strength grew, fuelled by the boundless resilience of the human spirit. Despite the overwhelming challenges he faced, he refused to surrender to despair. Encouraged by the unwavering support of MAHAN trust, he pressed on, determined to reclaim his health and rebuild his life.

Slowly but steadily, progress was made. The pulmonary oedema began to recede, allowing Mangal to breathe more freely. His blood pressure stabilized, bringing relief to his weary heart. With each passing milestone, hope blossomed anew, casting aside the shadows of doubt and fear.

Through sheer determination and the tireless efforts of MAHAN trust's healthcare team, Mangal emerged victorious. Against all odds, he conquered his ailments, emerging from the crucible of illness stronger and more resilient than ever before. As he walked out of the doors of the MAHAN Tribal Hospital in normal condition, surrounded by the jubilant cheers of his loved ones, Mangal carried with him not only a newfound lease on life but also a testament to the power of hope, resilience, and the indomitable human spirit. Mangal Zolya Jawarkar's journey serves as an inspiration to us all, a reminder that no matter how daunting the obstacles may seem, the human spirit is capable of overcoming even the greatest of challenges. In the face of adversity, let us draw strength from his example, and may his story continue to inspire hope and resilience in the hearts of all who hear it.

### Speciality Camps:

<u>Sr. No.</u>	<u>Camp speciality</u>	<u>Number of patients</u>
1	Multi-speciality diagnostic Camp	466 (250 general, 118 paediatrics, 98 ENT)
2	General Surgery Camp (Rotary camp- Hydrocele/ Hernia)	09
3	Plastic Surgery Camp	182
4	Rotary club surgery and gynaecology Camp	69
5	DMIMS Check-up camp	379
6	Gynaecology Camp	10 hysterectomies,

### Success story:

1) Once upon a time in the quaint village of Berdaballa nestled amidst the lush greenery of the countryside, there was a little bundle of joy named Kartik Rajesh Patoarkar. Kartik came into this world with a beautiful smile, but with a little twist - he was born with a cleft lip disorder. Despite the love and care of his parents, the sight of their child facing such a challenge filled their hearts with worry and uncertainty about his future.

In Berdaballa, where resources were scarce and medical facilities limited, Kartik's parents felt helpless, not knowing where to turn for help. But fate had a plan in store for them, and a ray of hope shone upon their lives when they heard about the MAHAN Mahatma Gandhi tribal Hospital, renowned for its expertise in providing free plastic surgery to children with cleft lip disorders.

With renewed optimism, Kartik's parents embarked on a journey to MAHAN tribal Hospital, their hearts brimming with anticipation and prayers for their beloved son. Upon reaching the hospital, they were greeted by a team of dedicated doctors and nurses who welcomed them with warmth and compassion.

Under the skilled hands of the surgical team led by Dr. Dilip Gahankari, Kartik underwent a successful cleft lip repair surgery. The procedure went smoothly, and after a few days of post-operative care, Kartik's smile was transformed into a perfect arc of happiness.

The day finally arrived when Kartik was ready to return home, his face beaming with newfound confidence and joy. As he bid farewell to the hospital staff who had become like family during his stay, Kartik's parents couldn't contain their happiness and gratitude. They knew that their son's future was now filled with endless possibilities, thanks to the kindness and expertise of the team at MAHAN tribal Hospital.

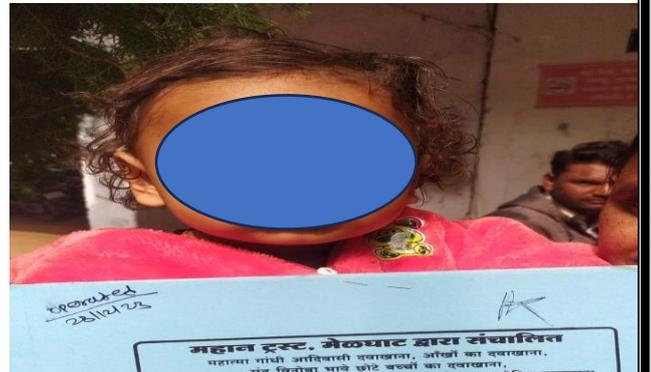
Back in Berdaballa, Kartik's arrival was celebrated with much fanfare and joy. The villagers marveled at the miraculous transformation of the once timid and insecure little boy who now radiated confidence and happiness. Kartik's smile became a beacon of hope for many families in the village who were facing similar challenges, inspiring them to seek help and never lose faith.

As Kartik grew older, he became a symbol of resilience and triumph over adversity, a living testament to the power of love, compassion, and medical expertise. His journey from a tiny village in the countryside to the halls of MAHAN tribal Hospital and back home again had

touched the hearts of many, leaving behind a legacy of hope and healing that would endure for generations to come.



**Before Surgery**



**After Surgery**

### **UMANG.**

**Project AIM:** To improve nutrition and socio-economic status of tribal and to reduce addiction.

#### **Kitchen Garden:**

- A kitchen garden serves as a vital resource, providing fresh produce and herbs that enhance the flavour and nutritional value of meals while reducing dependence. These gardens are typically small-scale, often found in rural homes alike, reflecting India's rich agricultural heritage and cultural emphasis on self-sufficiency.
- Kitchen gardens has a wide variety of crops, ranging from leafy greens like spinach and fenugreek to staple vegetables such as tomatoes, cucumbers, and eggplants. Additionally, aromatic herbs like coriander, mint, and curry leaves are commonly grown, adding depth and fragrance.

#### **Nutrition Farm:**

- A nutrition farm represents a modern approach to agriculture that prioritizes the production of nutrient-rich foods using sustainable and environmentally friendly practices. These farms go beyond traditional farming methods, focusing on soil health, crop diversity, and organic cultivation techniques to maximize the nutritional content of the produce.
- One of the key objectives of nutrition farms is to address malnutrition and food insecurity by growing a wide range of nutrient-dense crops rich in vitamins, minerals, and antioxidants. This is particularly relevant where issues of micronutrient deficiency persist despite overall food availability.
- Community involvement is central to the success of nutrition farms, with many initiatives focusing on empowering local farmers through training programs, seed banks, and cooperative networks. By promoting sustainable farming practices and increasing access to diverse, nutritious foods, these farms contribute to improved public health outcomes and resilient food systems.

### **RESULTS:**

- Provided nutritious food to 129 under five children, and 93 pregnant women by development of kitchen gardens (KG) and nutrition farms (NF) respectively. It has reduced malnutrition and low birth weight babies of 10 villages.
- Tribal produced 14072.571 kg of vegetables, pulses, oilseeds, etc. in nutrition gardens and farms on 230 acres of land which has benefitted >180 families.
- Deaddiction of many persons and 3 villages (Ghota, Kot, Sawariya-T) are celebrating festivals without social alcohol drinking for 10 years.
- Training of 10 yuvadooths and 81 farmers (10 villages) for NF & sustainable organic farming.

**• Success story:**  
**Sustaining Life: The Transformative Impact of the DOH Model in Melghat's Tribal Villages**

In the rugged terrain of the Melghat tribal region, where the scorching summer sun beats down relentlessly, the quest for water has long been a daily struggle for the communities of Ghota and Berdaballa. Yet, amidst the dry landscape, a beacon of hope emerged in the form of the innovative Doh model, heralding a new era of water conservation and transformational change.

Nestled amidst the hills and valleys of Melghat, the villages of Ghota and Berdaballa were no strangers to the harsh realities of water scarcity. For generations, the inhabitants had grappled with the perennial challenge of accessing clean, reliable water sources, particularly during the challenging summer months when the land lay parched and dry.

Doh model – a groundbreaking approach to water harvesting and conservation that has revolutionized life in these remote tribal villages. Developed through a collaborative effort between local communities and grassroots organization, Dilasa and Caring Friends, the Doh model harnessed the power of indigenous knowledge and modern technology to create sustainable water solutions tailored to the unique needs of the region.

At its core, the Doh model embraced a holistic approach to water management, encompassing a range of strategies aimed at maximizing water availability, minimizing wastage, and fostering community participation. From traditional rainwater harvesting techniques to innovative watershed management practices, every aspect of the model was designed to empower local residents and safeguard their precious water resources.

As the scorching summer sun bore down with unforgiving intensity, the impact of the Doh model became increasingly evident. Rainwater harvesting structures dotted the landscape, capturing every precious drop of rainfall and channelling it towards storage reservoirs for future use. Check dams and contour trenches slowed the flow of rainwater, allowing it to percolate into the soil and replenish underground aquifers.

The benefits were manifold. Access to clean water for drinking, cooking, and sanitation improved dramatically, reducing the burden on women and children who had once spent hours each day fetching water from distant sources. Agriculture flourished as farmers were able to irrigate their fields more efficiently, leading to increased crop yields upto May (summer season) and food security for the community.

But perhaps most importantly, the DOH model brought about a profound shift in mindset, instilling a sense of stewardship and collective responsibility for the environment among the villagers of Ghotia and Berdaballa. No longer passive victims of water scarcity, they became proactive custodians of their natural resources, working hand in hand to safeguard their future for generations to come.

Today, as the summer sun beats down once more on the rugged landscape of Melghat, the villages of Ghotia and Berdaballa stand as shining examples of the transformative power of the Doh model. Through innovation, collaboration, and a deep respect for the land, they have forged a path towards a more sustainable and prosperous future, proving that even in the harshest of environments, water – the source of life – can be both abundant and enduring.

**Village (Ghotia) where Doh model is present**





**Village where Doh model is absent**

### **3. “Shanti-Nilayam”- Abode of peace (Devotion of Wairagkar family)**

It has benefitted few poor people of Melghat who were on verge of death.

#### **Success story:**

- 1) The echoes of the Melghat Plastic Surgery Camp 2023 under leadership of Dr. Dilip Gahankari (Plastic surgeon from Australia), continue to resonate, leaving an indelible mark on the hearts of attending doctors and the lives of the courageous patients who underwent transformative surgeries. The majority of those treated were impoverished tribals, grappling with extensive burn contractures, cancer, and disability, their aspirations hampered by the harsh constraints of poverty. The camp emerged as a beacon of hope, offering not just medical interventions but a lifeline to those who had long endured silent battles against their own bodies.

In one deeply poignant case, a 60-year-old tribal woman emerged from the shadows of despair. For a year, she battled extensive breast cancer, the pain, foul smell leading to isolation exacerbated by her disability, preventing her from engaging in the most basic aspects of life. Financial barriers had rendered her voiceless, with even close relatives hesitating to lend a helping hand due to the overwhelming stench of her affliction. She was brought to MAHAN hospital in very critical condition of extensive breast cancer with secondary infection, sepsis, severe anaemia, hypotension (septic shock) and encephalopathy. The surgical team, led by the compassionate Dr. Abhishekh Vaidya and his dedicated associates, Dr. Mohit Relekar, undertook a challenging surgery, gifting this brave woman not just a medical remedy but a chance at a new life unshackled by pain and societal neglect. Today, she stands liberated from her misery, surrounded by a team of MAHAN trust that has rallied to offer care and compassion. She is living normal life.



Figure 1: Breast cancer before surgery



Figure 2 Breast cancer after surgery

#### 4. Mental health program

1	Mental health camp by IPH	10 patients benefitted
2	Deaddiction camp	2 out of 3 patients benefitted.

#### 5. Research Interventions:

## **RESPIRE PROGRAM**

\* Under the project titled Finding the Missing Millions Using a Village Health Worker Intervention in A Rural Tribal Setting of Central India (MTBHT) with various work packages MAHAN has conducted a systematic review with an aim to identify the evidence that will underpin the theory of change and logic model. Systematic reviews were conducted to know a) the barriers to, and enablers of, TB diagnosis and notification and b) interventions to address barriers to, and enhance enablers of, TB diagnosis and notification. The search included a total of 15079 studies and after title and abstract screening and the full text screening by two independent reviewers and a third reviewer for conflict resolution, 34 studies were finally included in our systematic review.

\* MAHAN is also conducting a scoping review with the aim of knowing about policies developed and implemented to control tobacco smoking in India and the barriers and facilitators in achieving these policy goals.

\* MAHAN has also initiated with the study titled Understanding the views and experiences of people living with chronic respiratory disease (CRD): an adapted Photovoice study. Under this project MAHAN has also conducted various activities such as stakeholder and community engagement. A total of 24 participants were recruited in this photovoice study. MAHAN team have completed the three stages of this study that is the initial interviews, the photo taking activity and the final interviews. MAHAN team is currently undergoing the data transcription, translation and analysis of the results.

### **6. Policy Changes**

- **Research, Analysis, Advocacy & write petition in Honourable High Court of Maharashtra over the period, resulted into state govt. framing new policies, improving existing policies & implementing the models developed by MAHAN at other places.**

#### **1. Counsellor Program**

**Project Aim:** To strengthen the government health system and mobilize the patients for hospital care.

This is the best example of leveraging of government welfare scheme through counselling of tribal for hospitalisation of severely malnourished children and hospital deliveries along with monitoring & improving services of 17 government hospitals in Melghat.

#### **Impact/Achievement:**

- Benefitted 1,07,451 poor tribal patients especially children and pregnant women. Hospitalisation of 282 severely malnourished children and 4,089 hospital deliveries.

Statistically significant Improvement in Hospitalized severely malnourished babies.  $P < 0.0001$ .

- Thousands of children, pregnant mothers, severe malnourished babies have been saved. It has improved quality of hospital care, esp. treatment, quality of food served to severely malnourished babies in hospitals, referral services (ambulance) and increased number of serious patients attending higher referral hospitals.
  - **Government of Maharashtra has assured in our PIL that, it will be replicated in all tribal hospitals of Maharashtra.**

- **Success story:**

Lata's (name has been changed) journey of poor tribal pregnant woman, from a critical condition to a successful delivery and recovery is a testament to the efficient and effective healthcare system and dedicated counsellor's work at Melghat.

Upon her referral to SDH Dharni on September 3rd, 2023, Lata's situation seemed precarious with her haemoglobin level at a mere 7.8 gm/dl. However, swift action was taken by the medical team led by doctor and counsellor. Despite the challenges, including the urgent need for blood and specialized tests, the team worked seamlessly to ensure Lata's well-being.

Doctor's quick decision-making and resourcefulness played a crucial role. Securing AB positive blood from Burhanpur by the counsellors amidst the urgency of the situation exemplifies their dedication and proactive approach to patient care. Additionally, arranging for 4 units of fresh frozen plasma (FFP) at such short notice highlights the team's commitment to providing comprehensive medical attention.

The decision to proceed with an immediate caesarean section was critical for both Lata and her unborn child's safety. The successful operation resulted in the birth of a healthy baby boy weighing 2.6 kg, bringing immense joy and relief to Lata and her family.

However, the challenges did not end with childbirth, as Lata experienced seizures post-delivery. Yet again, the medical team responded promptly and effectively, administering the necessary treatment. Her Haemoglobin level also increased to 10.9 gm/dl This intervention proved instrumental in stabilizing Lata's condition and facilitating her recovery.

Today, Lata is not only a mother to a healthy baby boy but also a symbol of resilience and triumph over adversity. Her successful journey from a critical condition to stable health underscores the dedication, expertise, and collaborative efforts of the medical professional's team (medical officer, counsellors, nurses and ambulance driver) in Melghat. Lata's story stands as a beacon of hope

and inspiration, showcasing the transformative impact of quality healthcare on tribal lives in Melghat.



**Counsellor and medical team at village Patia : transport of Lata for hospitalization**

- **Changes in state government policies because of MAHAN trust:**
- **Research, Advocacy, PIL has mobilised Maharashtra Govt. to change 10 Policies.**

**Benefitted Lakhs of poor tribal children, pregnant mothers, saved thousands of lives.**

- Government of Maharashtra (WCD department) has assured to start 3<sup>rd</sup> party verification of vital statistics and various government schemes by independent agency UNICEF.
- Community based monitoring of government schemes has been started.
- SUW has been included for nutritional therapy by government of Maharashtra and Government of India benefitting lakhs of severely malnourished children.
- The RSV data has been shared with GAVI (Global Alliance for Vaccination and Immunization). It will help for prioritizing maternal RSV immunization.
- Regular transfer and promotions of MBBS doctors working in tribal areas.
- Reservation of seats for PG after 3-5 years' service in tribal/rural area. (50% PG diploma seats and 20% PG seats).
- Government has started integrated approach of BCC in tribal areas of Maharashtra.
- Government has made available 7.5% of the resource endowment to the public health department, DMER and WCD for tribal areas.
- >9336 kitchen gardens have been developed by government in tribal blocks of Maharashtra.
- Involvement of local voluntary organizations in government program has been accepted by government.

## 7. Presentation and acceptance of the MAHAN research in many international symposia, Conferences/ Workshops, etc.

- 1) Presentation of MAHAN at Respire GFPG workshop Jakarta, Indonesia.
- 2) Dr. Ashish Satav presented oral research paper on RSV burden in India, in international RSV in RSV conference in Mumbai in presence of >200 international experts and 200 national experts.

## 8. Paper Publication in International Journal

1. Wang X, Li Y, Shi T, Bont LJ, Chu HY, Zar HJ, [Satav AR](#), et al. Global disease burden of and risk factors for acute lower respiratory infections caused by respiratory syncytial virus in preterm infants and young children in 2019: a systematic review and meta-analysis of aggregated and individual participant data. **Lancet** (London, England). 2024.
2. [Satav AR](#), [Satav KA](#), Kelkar AS, Sahasrabhojaney VS, Dani VS, Raje DV, et al. Verbal autopsy to assess causes of mortality among the economically productive age group in the tribal region of Melghat, central India. The Indian journal of medical research. 2023;158(3):217-54.
3. Satav KA, Satav AR, Dani VS, Gogate PM, Kumbhare SD, Reddy P. Ocular morbidity among children (aged 6-18 yr) of the tribal area of Melghat, India: A community-based study. The Indian journal of medical research. 2023;158(4):370-7.
4. [Satav A](#), Wairagkar N, Khirwadkar S, Dani V, Rasaily R, Agrawal U, et al. Community-Minimal Invasive Tissue Sampling (cMITS) using a modified ambulance for ascertaining the cause of death: A novel approach piloted in a remote inaccessible rural area in India. Arch Public Health. 2023;81(1):72.
5. Löwensteyn YN, Willemsen JE, Mazur NI, Scheltema NM, van Haastregt NCJ, Buuren A, [Satav AR](#), et al. Nosocomial RSV-related In-hospital Mortality in Children <5 Years: A Global Case Series. The Pediatric infectious disease journal. 2023;42(1):1-7.

## 9. Presentation of work in many national/state symposia/conferences/workshop/journals:

- 1) Presentation (PPT) of MAHAN work in IIT Bombay Prayog Citara NGO CSR workshop.
- 2) Presentation (PPT) of MAHAN work in AIIMS , Bhopal.
- 3) PPT by Dr. Satav in National Mental Health Dialogue conference by NIMHANS (online).
- 4) MAPCON Nagpur -Medical Practice in resource limited settings. Panel discussion. Dr. Satav.
- 5) Speech of Dr. Ashish Satav in panel discussion during platinum Jubilee of Govt. Medical College, Nagpur.
- 6) Presentation of MAHAN nutrition work in national conference in Indian school of business Hyderabad.

- 7) Presentation of MAHAN nutrition work in national workshop by National Health Resource Centre, New Delhi.
- 8) Presentation of MAHAN work and BCP in Hyderabad Ophthalmology CPVE meeting.
- 9) Presentation of MAHAN nutrition work in John Hopkins's branch Jhpiego, New Delhi.

#### 10. Other important activities.

- 1) Meeting with USAID, Dr. Atul Gawande USA, in Delhi.
- 2) Leadership development program by Psychiatrist Dr. Nadkarni sir.
- 3) Dr. Ashish as chief guest at Savangi Meghe medical college.
- 4) Meetings with Respire, UK teams.
- 5) Ronnie-Lee JDC, Israel, visit to MAHAN for tele ICU.
- 6) Meeting with JDC, international supporter.
- 7) Meeting with Dr. Eric, USA, international collaborator.
- 8) Meeting with Gates Foundation for RSV project.
- 9) Visit of Dr. Annekoos and Baastian, The Stichting Geron, The Netherlands to MAHAN.
- 10) Visit of Dr. Eric, USA, international collaborator, to MAHAN.
- 11) Online meeting with CDC USA.
- 12) Nagpur Sahyadri Doordarshan television: interview of Dr. Ashish Satav.
- 13) Interview of Dr. Ashish and Dr. Kavita Satav by Dr. Naik, Granthali publication.
- 14) Plot purchase for MAHAN at Paratwada.
- 15) Dr. Ashish Satav, chief guest speaker for valedictory function: AIIMS, Nagpur.
- 16) Dr. Ashish Satav, chief guest speaker for valedictory function: VNIT, Nagpur.

#### **OTHER COMMUNITY DEVELOPMENT ACTIVITIES**

This program has helped a lot of uneducated and poor people in seeking the government facilities and schemes.

Few of these schemes were also not functioning as per guidelines and because of our efforts, people are able to avail it's benefits again.

We have helped over - 220 people in getting the benefits of specific schemes of the government such as - Shraavan Bal Yojna, Aadhar Card, Pradhanmantri Kisan Yojna, Ration Card, Vidhva Pension Yojna, Matdaan Card Yojna, Sanjay Gandhi Niradhar, Sukanya Smarudhhi Yojna, Job Card, Caste Certificate, Domicile Certificates. Pick Vima Card, Sawlambhi Yojna (Organic farming), etc.

This has also helped in stopping migration from villages to towns/cities as a Job Card entitles a person to get employed easily and the awareness for govt schemes has increased amongst people due to our efforts.

## REPUTATION OF THE INSTITUTION

### 11. Awards

- 1) Felicitation and award to Dr. Ashish and Dr. Kavita in platinum Jubilee of Govt. Medical College, Nagpur.
- 2) Saidham award at BKC Mumbai.

#### Board members/ Executive council members of MAHAN trust.

Sr. no.	Name	Qualification / professional degree	Number of years associated with organization	Designation in Executive counsel
1	Dr. Ashish Satav	M.B.B.S., M.D.	26	President
2	Dr. Abhijit Bharadwaj	M.B.B.S., D.Ch.	26	Secretary
3	Mrs. Manik Palaskar	B.E.	26	Treasurer
4	Dr. Avinash Saoji	M.B.B.S.	26	Board Member
5	Dr. Prakash Amte	M.B.B.S.	26	Board Member
6	Mr. Chandrakant Ragit	B.E., M.E., Ph. D.	26	Board Member
7	Dr. Kanna Madavi	M.B.B.S., M.D.	26	Board Member
8	Dr. Devendra Khandait	M.B.B.S., M.D.	26	Board Member
9	Mrs .Urmila Varangaonkar	B.A.	26	Board Member
10	Mr. Shriram Panherkar	10 <sup>th</sup>	17	Board Member
11	Mr. Avinash Nimbalkar	B.E., M.E.	13	Board Member

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