



BCKIC
Bhubaneswar City
Knowledge Innovation
Cluster Foundation



Office of the Principal Scientific Adviser
to the Government of India

SCIENCE & TECHNOLOGY CLUSTER

Rethinking **CSR** through the **Innovation Lens**

— THE S&T CLUSTER ECOSYSTEM —

ETHICS
SUSTAINABILITY
LONG TERM

RESPONSIBILITY
RESOURCES
MARKET
GOAL



BCKIC FOUNDATION

MAGAZINE

VOLUME II



Connecting Innovators, Transforming Society: BCKIC Foundation's Vision for Sustainable Social Impact

The Bhubaneswar City Knowledge Innovation Cluster (BCKIC) Foundation, established as a Section B company, is a flagship initiative led by the Office of the Principal Scientific Adviser to the Government of India, under the visionary guidance of the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC). Our mission is to establish seamless connections between research institutions, academia, Industry partners, startups, MSMEs, NGOs, philanthropic foundations, state governments, and international organizations within a Hub & Spoke Model.

At BCKIC Foundation, we believe in the transformative potential of Corporate Social Responsibility (CSR) to address societal challenges and create positive change in society. Our CSR initiatives focus on healthcare, education, sustainability, and empowerment, aiming to uplift underprivileged communities while fostering inclusive growth. By driving impactful projects, we address critical issues such as improving access to healthcare, promoting environmental conservation, and enhancing livelihoods. These efforts reflect our commitment to build a resilient and equitable society that thrives on innovation and collaboration.

Through the implementation of various CSR projects, the BCKIC Foundation has successfully driven tangible social impact across sectors. Our projects such as the BAYER MEDHA Fellowship Program, which inspires students, and Restore Promise of Water (RPOW), focused on revitalizing water resources for improved access to clean water, exemplify our commitment to addressing critical societal challenges. Additionally, we have initiated eco-friendly sanitation solutions through our Eco-friendly Sanitary Pads for Improved Women's Hygiene project, helping improve hygiene in rural Odisha. Key initiatives like the Women Technology Park (WTP), which supports women in technology and entrepreneurship, along with efforts in Rice Husk Conversion to Value-added Products and Hydrogeological Studies for Water Management, showcase our drive to foster innovation and collaboration.

Sustainability and inclusivity are integral to our CSR philosophy. We deliver scalable solutions to promote community development through strategic partnerships and the integration of advanced technologies. Whether empowering women, fostering rural entrepreneurship, or supporting sustainable livelihoods, our initiatives are crafted to leave a lasting positive impact. Our efforts are dedicated to aligning our efforts with a vision of a better future, where every initiative contributes to societal well-being and sustainable progress. With a vision for a brighter future, BCKIC Foundation redefines CSR by blending innovation, collaboration, and social commitment to societal well-being. Together, we are shaping a more sustainable and inclusive tomorrow.

PREFACE



Dr. Mrutyunjay Suar
Chairman, BCKIC Foundation

On behalf of the team of Bhubaneswar City Knowledge Innovation Cluster (BCKIC), I am happy to present the second issue of BCKIC magazine focused on CSR impact. BCKIC, supported by the Office of the Principal Scientific Adviser (O/o PSA) to the Government of India and initiated by the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC), is one of eight Science & Technology (S&T) Clusters established across India.

Over the past three years, BCKIC has been at the forefront of driving innovation and impact. Through impactful collaborations, we have made a positive contribution to education, healthcare, women empowerment, community development, and capacity building. We continue to encourage our associates to actively take part in volunteer programs, empowering them to make a difference in their own communities, and they continuously make us proud with their contributions. We strive to be an active and responsible corporate citizen, making a tangible and lasting difference in the lives of those who need it most.

This CSR magazine aims to echo the vision of various enablers in this vibrant ecosystem. While it is impossible to capture every contribution, we have made a sincere effort to showcase the essence of our collaborative journey and the strategic roadmap envisioned by India's thought leaders. This issue spotlights pioneered CSR leaders, specifically in Odisha, and celebrates the products, services, and enablers of industry, academia, policymakers, startups, NGOs, and philanthropic organizations that continue to shape India's S&T landscape.

Our strong conviction in our potential to create and deliver long-lasting value for all our stakeholders, including the communities around us, will lead us towards accomplishing even bigger goals and more remarkable celebrations. Fiscal discipline and its management, backed by investment in sustainability and CSR, will be the key priorities of our onward journey, synced with further improvement in reliability and availability. Together, these will empower us to effectively capitalize on the growth opportunities ahead, to create a better world for all.

As we accelerate towards a better and brighter tomorrow, we recognize the importance of continuous improvement and are committed to raising the bar even higher. We will listen to feedback, learn from our experiences, and embark on new initiatives that align with our core values and address emerging variables.

I want to extend my deepest gratitude to our enablers, startups, partners, and stakeholders who play a crucial role in our journey. Your passion, dedication, and support have been instrumental in our success.

NOTE FROM CEO



Dr. Namrata Misra

CEO, BCKIC Foundation

It is with immense pride that I present the second edition of the Bhubaneswar City Knowledge Innovation Cluster (BCKIC) Magazine: Rethinking CSR through the Innovation Lens. As part of an initiative supported by the Office of the Principal Scientific Adviser to the Government of India and guided by the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC), BCKIC has been committed to leveraging innovation and collaboration to address pressing societal challenges and drive sustainable development.

At BCKIC, CSR is not just a concept, but a driving force behind our efforts to promote inclusive growth and positive change. By connecting the expertise and resources of academia, industry, government, and civil society, we ensure that innovation is not confined to laboratories or boardrooms, but is channeled toward real-world applications that benefit communities. This magazine highlights the tangible difference our CSR initiatives, powered by science and technology, are making, not just in Odisha, but across the country.

In this edition, we have brought transformative stories of CSR-driven innovation across sectors such as healthcare, education, clean water, community development, sustainable livelihood, women empowerment, environmental conservation, skill development, and vocational training. These narratives underscore the power of partnerships and the role of CSR in addressing societal challenges while aligning with the Sustainable Development Goals.

This magazine is a celebration of the collective efforts of our stakeholders, partners, and contributors who have joined hands to create a positive impact. It reflects our belief that through shared responsibility and innovation, we can build a future that is not only sustainable but also equitable and inclusive.

Thank you to everyone who has contributed to this journey. We look forward to continuing our work together to unlock new possibilities and amplify the impact of CSR initiatives in the years to come.

Acknowledgement

We extend our heartfelt gratitude to the Office of the Principal Scientific Adviser (PSA) to the Government of India for their visionary leadership in advancing CSR as a cornerstone of sustainable development and innovation. We are deeply grateful to Prof. Ajay Sood, Principal Scientific Adviser, for his strategic foresight and unwavering support, which have been instrumental in integrating CSR into the broader framework of India's Science and Technology (S&T) clusters. Our sincere thanks also go to Dr. (Mrs.) Parvinder Maini, Scientific Secretary, for her invaluable guidance and encouragement, and to the dedicated team at the Office of the PSA for their collaboration and continued support.

We would also like to express our appreciation to our contributors from industry, NGOs, NPOs, and international organizations for sharing their insights. Your valuable contributions have enriched this magazine by demonstrating how CSR can be a powerful catalyst for innovation, social upliftment, and economic resilience.

A special note of thanks to the BCKIC Foundation team, Mr. Sudhir Jha, Mr. Arpan Ghosh, Dr. Aanchal Katoch, Mrs. Smrita Pathak, Dr. Smruti Ranjan Mohanty, Mr. Mahavir Ranjan Gourab, Ms. Jyotirmayee Dey, and Ms. Prasanti Bal, whose efforts have been pivotal in curating this issue, showcasing the role of CSR in transforming challenges into opportunities. Finally, to our readers, thank you for engaging with us on this journey. Together, we are building a future where CSR drives meaningful change and creates a lasting impact.

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Complex Science Simplified to Strengthen Rural Healthcare Settings in India

Harnessing Technology and Innovation for Social Impact: JSW Foundation's Solar-Powered Water Systems: through CSR

In the hills of Keonjhar and Sundergarh districts of Odisha, where the terrain and depleting groundwater levels have made access to clean water a daily struggle, JSW Foundation's solar-powered water systems have emerged as a beacon of hope.

JSW Foundation is the social development arm of the US\$ 24 billion JSW Group, one of India's leading business houses. It has a long track record and a rich legacy of empowering rural communities to enrich their lives since the last three decades. JSW Foundation's focus areas are Health and Nutrition; Education; Water, Environment and Sanitation; Waste Management; Agriculture; Skills and Livelihoods; Sports Promotion; and Art, Culture and Heritage. Through a strong field presence, JSW Foundation operates across 38 locations in 18 states with priority on communities around JSW's plant and port locations. JSW Foundation also reaches out to communities beyond these locations to contribute towards India's social development in a meaningful way.



Converging Technology and CSR

JSW Foundation has effectively leveraged technology and innovation to address critical social challenges, **providing a sustainable solution to drinking water scarcity for over**

75,000 people.

At the heart of JSW Foundation's initiatives lies an advanced water supply system that blends solar power with modern technology. Each system features a pump powered by a 2.5 kW solar panel, with a capacity of 1 to 2 horsepower depending on the depth of the borewell. These pumps draw water from deep underground sources, making water accessible year-round, even in regions where traditional sources have long since dried up.

The real innovation, however, goes beyond just solar power. Each system is equipped with a control unit that regulates water flow and includes smart sensors that automatically turn the system on and off, optimizing energy use and preventing water wastage.

Additionally, a SIM-based remote monitoring facility allows the entire system to be tracked and controlled remotely, ensuring that performance issues are detected early, and repairs can be made proactively. This ensures continuous operation, even in challenging environmental conditions like cloudy weather and high dust levels.



Using Innovation to Address Social Challenges through CSR

JSW Foundation's use of cutting-edge technology isn't just about improving access to water; it represents a deeper commitment to using innovation to solve complex social challenges. As part of the JSW Group's broader CSR strategy, the foundation recognizes that sustainable development requires more than just short-term fixes.

By investing in intelligent, renewable energy-powered systems, JSW Foundation is addressing not only the immediate needs of water-scarce communities but also creating long-term resilience in the face of climate change and depleting natural resources.

THESE SYSTEMS HAVE BEEN INSTALLED IN 56 VILLAGES, COVERING 15,000 FAMILIES ACROSS KEONJHAR AND SUNDERGARH, MAKING THEM A PERFECT EXAMPLE OF HOW INNOVATION IN CSR CAN BE BOTH SUSTAINABLE AND SCALABLE.

The combination of solar power, smart sensors, and remote monitoring makes the project adaptable for different terrains and communities across India. As more areas face similar water scarcity issues, JSW Foundation's model can be replicated to ensure water security on a larger scale.

The Social Impact: A Holistic Approach to Community Development

Beyond the technological aspect, the impact on the communities where these systems have been installed has been profound. Clean water, accessible through pipelines and strategically located standposts, is transforming the lives of thousands of people. With reliable water sources, the health of these communities has improved, reducing waterborne diseases and leading to a marked decrease in healthcare costs. Women and children, who traditionally spend hours fetching water, now have more time for education and income-generating activities, further lifting families out of poverty.

In addition to health and social benefits, the systems also contribute to economic empowerment. With water readily available, local agriculture has seen a boost, increasing productivity and providing a steady livelihood for many families. These impacts reflect JSW Foundation's holistic approach to community development, where solving one challenge—water scarcity—creates a ripple effect that improves quality of life across multiple dimensions.

A Blueprint for CSR-Driven Innovation

JSW Foundation's **solar-powered water systems** in Odisha set a powerful example of how CSR initiatives can transcend traditional philanthropic efforts and drive meaningful, lasting change through innovation. By addressing the core challenges of water scarcity with a blend of renewable energy and smart technology, JSW Foundation is not only improving access to a critical resource but also creating a scalable model for sustainable development.

Mr. Prasanta Biswal

Head CSR Odisha
JSW Foundation



The initiative underscores a critical shift in how businesses approach CSR. Rather than viewing it as an obligation, companies like JSW Group are leveraging CSR as a platform to create social impact through technological and innovative solutions. This approach shows how businesses can integrate their operations with community needs, building resilience and self-reliance while aligning with global goals like climate action and sustainability.

JSW Foundation's solar-powered water systems in Odisha highlight the powerful intersection of technology, innovation, and corporate social responsibility. By using smart, renewable energy-based solutions, JSW Foundation has created a scalable and sustainable model for addressing one of the most pressing challenges—water security—while contributing to the overall well-being of communities. Installed across 40 villages, this initiative reflects a forward-thinking approach to CSR, one that uses technology not just for corporate benefit, but to foster long-term social and environmental progress. Through such initiatives, JSW Foundation is setting new standards for how businesses can leverage innovation to create enduring social impact, making a meaningful difference in the lives of people across India.



Bayer

Driving Change Through Education and Community Engagement

As businesses confront the complexities of today's multifaceted world, the landscape of corporate social responsibility (CSR) is also evolving. Companies are moving away from traditional philanthropic models toward strategies that integrate social and environmental considerations into their core operations and impact communities positively. This transformation emphasizes transparency, stakeholder engagement, and the importance of community development. At Bayer, we are committed to creating scalable and cost-effective solutions utilizing digital and technological innovations that significantly impact underserved communities. This democratization of innovation ensures that essential resources are accessible to those who need them most.

Rachana Panda

VP & Country Group Head,
Communications, Public Affairs,
Sustainability & CSE - Bayer South Asia,
Director - Bayer Foundation India



Bayer's commitment to sustainability in India



Bayer, a global leader in healthcare and nutrition, exemplifies this collaborative spirit. With over 127 years of presence in India, we have been a steadfast partner in the country's growth story. Our mission, 'Health for All, Hunger for None', drives our commitment to sustainability and innovation. Through our Corporate Societal Engagement (CSE) initiatives, we focus on three key areas—Rural Development, Preventive Healthcare, and Education & Community Engagement. Over the past five years, we have positively impacted over 4 million lives in India, illustrating the power of targeted, collective action.

In our increasingly interconnected world, addressing pressing challenges like food security and health access requires a collaborative approach. No single organization can tackle these issues in isolation; partnerships and shared expertise are essential for creating effective, sustainable solutions. At the heart of this challenge lies a vital component—education. By empowering individuals and communities with knowledge, we can enable better access to food and healthcare, fostering resilience and improving quality of life.

The role of education in empowering communities

In parallel, our efforts to improve healthcare access, address disparities faced by underserved populations. By integrating education into these initiatives, we create pathways for communities to better access healthcare and nutritional resources.

Education is one of the most important tools for achieving our mission. By partnering with educational institutions and local organizations, we promote initiatives that enhance skills and knowledge within communities, fostering a culture of innovation and entrepreneurship.

For instance, we support

125 SCHOLARS

scholars through our scholarship program '**MEDHA**',



in collaboration with BCKIC, by providing financial support to MSc and Ph.D. scholars pursuing studies in the areas of health, agriculture, and nutrition. 60 percent of the awardees are women scholars.

In addition, to encourage a love for science and augment problem-solving skills with innovative thinking among school students, Bayer has adopted 50 all-girls schools across the country under the Atal Tinkering Labs (ATL) initiative, promoting scientific thinking and research among girl children.

Enhancing healthcare accessibility

Apart from education, our CSR strategy also revolves around enhancing health accessibility and creating livelihood opportunities. We set up 28 telemedicine centers across eight states, furthering the government's goal to provide affordable access to healthcare for rural areas and the underserved sections of society. These centers allow local communities to connect with some of the best healthcare practitioners, without the need to travel long distances, thereby improving healthcare infrastructure in these locations. Of the 28 centers, many have been handed over to the local stakeholders, and we will continue to support twelve of them.



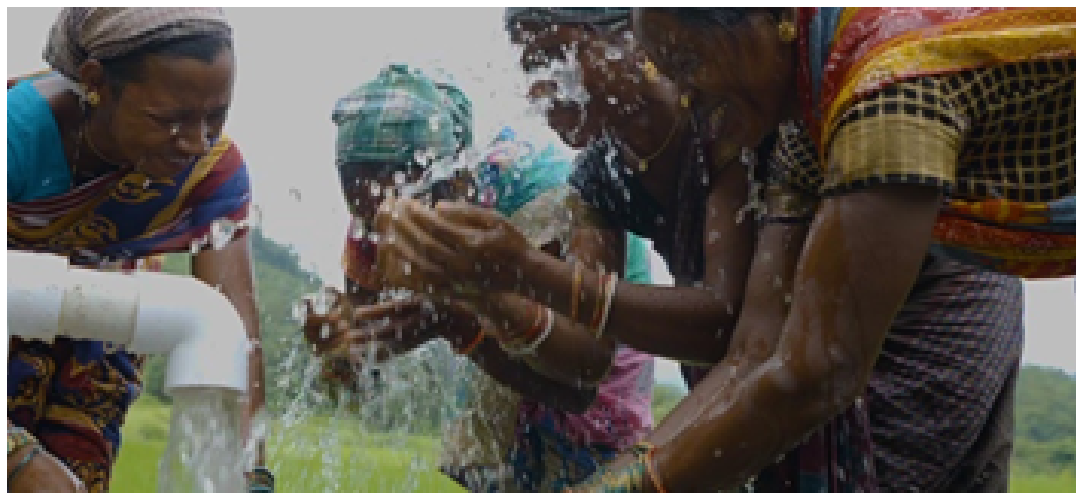
The five oxygen plants set up across the country, including one in the Sambalpur district of Odisha, have been handed over to district hospitals in their respective states, enhancing local healthcare capabilities.

Improving water efficiency and transforming agricultural practices

Water is also an integral part of Bayer's commitment to sustainable development. Agriculture uses nearly **70% OF THE WORLD'S FRESHWATER**, mainly for irrigation. As a leader in agricultural innovation, we view this as both an opportunity and a responsibility to collaborate with farmers and stakeholders, delivering solutions to enhance water efficiency and farm productivity.

Our water initiative in Rayagada, Odisha, has transformed agricultural practices in the state, significantly benefiting local communities. In Surjyaguda village, a 15-year-old canal was restored, revitalizing rice cultivation and renewing hopes for harvests. In Dalama, a 500-meter stone bund was built to combat soil erosion, safeguarding 30 acres of farmland.

Additionally, in K Lugurumundi's Tajapanga hamlet, two Diversion Based Irrigation (DBI) structures now enable spring water to irrigate 36 acres of paddy fields year-round. This access not only boosts rice production but also encourages vegetable farming, providing families with additional income and enhancing food security.



We also nurture **40 dormant Farmer Producer Organisations (FPOs)** nationwide by enhancing their institutional capacity and promoting modern agronomy practices. **Over 7,000 smallholder farmers associated with six FPOs in Rayagada** already have access to better business planning, market linkages, and knowledge transfer, enabling them to become profitable and self-reliant.

For us, our sustainability efforts go beyond CSR and are deeply ingrained in our businesses as well. In agriculture, we are moving toward sustainable ways of farming, which help farmers to produce more and restore more at the same time. We are also transitioning to 100% recycle-ready packaging in Consumer Health products.



Global Initiatives for Meaningful Impact

Globally, we are also committed to driving meaningful impact through our ambitious **100:100:100 targets**. Each year, we aim to **support 100 million smallholder farmers in low- and middle-income countries with products, services, and partnerships; assist 100 million people in underserved communities with self-care; and provide modern contraception to 100 million women in these regions.**

The Oncology Sustainability Initiative is another important initiative that helps us empower communities by enhancing cancer detection. Under this initiative, we have partnered with the National Cancer Institute of India-AIIMS to focus on early detection of prostate and head and neck cancers - an effort recognized by the White House Cancer Moonshot team. So far, we've screened nearly **2,000 patients and aim to reach 12,000 over the next three years.**

Additionally, our Bayer-Karkinos Community Wellness Program is expanding cancer screening in **Mumbai and Puducherry, aiming to reach 100,000 individuals over two years.** We've already conducted over **30,000 risk assessments, established six health facilities, and organized awareness campaigns, fostering a more informed community ready to combat cancer.**

The power of Cluster Ecosystems for Social Impact

The cluster ecosystem, as exemplified by initiatives like BCKIC, is crucial for enhancing social impact through collaboration. By uniting diverse stakeholders—businesses, **governments, academia, and civil society—clusters** create environments conducive to innovation. This collective framework allows for the pooling of resources, expertise, and ideas, leading to customized solutions for complex challenges.

Clusters serve as vital platforms for advancing societal engagement initiatives facilitating partnerships that harness the strengths of diverse stakeholders. By collaborating with **research, academic, and industry partners**, we can develop tailored solutions that drive innovation and enhance the entire ecosystem. Bayer's involvement in these clusters allows us to leverage our capabilities while contributing to shared objectives, supporting individuals in pursuing careers in science and gaining exposure to cutting-edge technologies.

The interconnectedness of **food, health, and education** underscores the importance of collaboration in addressing today's challenges. As we move forward, let us remember that a thriving society hinges on our collective ability to tackle these challenges, ensuring that no one is left behind.



TP CENTRAL ODISHA
DISTRIBUTION LIMITED

(A Joint Venture of Tata Power and Government of Odisha)

TP Central Odisha Distribution Limited

Transformative Approaches to Social Impact through CSR

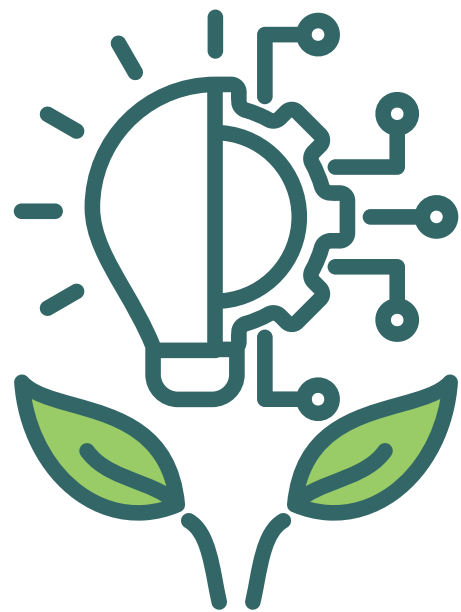
TPCODL

(TP Central Odisha Distribution Limited), a trusted name in power distribution in Odisha, has shown a deep commitment to societal welfare through its multifaceted CSR programs. A core belief at TPCODL is that sustainable development is integral to the corporate vision. This belief is embodied in initiatives that address critical areas such as vocational training, education, rural health, and green energy, making the organization a pillar in Odisha's community development landscape. Our initiatives demonstrate that effective corporate social responsibility goes beyond funding; it includes sustained engagement with communities and the development of skill sets that empower individuals and improve lives.

From Traditional CSR Activities to Deep-Tech Innovations

The CSR landscape is experiencing a transformative shift—from supporting conventional projects to embracing technology-driven, high-impact social innovations. At TPCODL, we have transitioned towards deep-tech initiatives that tackle critical challenges in rural healthcare, education, and sustainable livelihoods. Programs like the EV Technician Training and the Local Artisan Cluster are examples of how CSR can contribute to skill development in sectors poised for future growth. By integrating technology, we are not just addressing today's needs but are also preparing communities for future opportunities.

Our focus on deep-tech initiatives, such as training in electric vehicle technology, highlights the future-forward approach to CSR at TPCODL. In alignment with Odisha's vision for sustainable growth, these programs create a skilled workforce ready to support industries like renewable energy and electric transportation. With simulator-based training and real-life industrial exposure, participants gain hands-on experience and skill certifications, which enhance employability and contribute to economic resilience in Odisha.



Showcasing Successful CSR Initiatives: Empowering Rural Communities

TPCODL's CSR efforts are diverse, addressing the unique needs of various community groups across Odisha. Some of the most impactful initiatives include:

Here's a condensed and rephrased version of TPCODL's CSR initiatives, grouped by theme:

Empowering Communities through Education and Skill Development

Club Enerji Program

Supported by the District Education Department, UNICEF, and major corporations like Tata Steel and TCS, the events featured competitions on waste reduction and sustainable practices, engaging over 400 students from 70+ schools to deepen their understanding of sustainability.



From January to June 2024, TPCODL held Mega Urja Melas in Bhubaneswar, Angul, and Paradip to promote energy conservation and green energy.



Under the VIDYA initiative, TPCODL has set up 25 centers to provide functional, digital, and financial literacy to women in Odisha's rural and slum areas.

Women Literacy Center (VIDYA)

From January to March 2024, 1,000 women in urban slums gained essential skills, with an additional 500 enrolled in Q1 FY24-25. These courses empower women with knowledge to improve their quality of life and actively participate in their communities.



Vocational Training Center (ROSHNI)

TPCODL's ROSHNI centers offer NSDC-certified courses in stitching, tailoring, and computer skills, supporting economic independence among rural women. By March 2024, 300 trainees completed their training, with 100 youths gaining proficiency in Spoken English and 38 women securing jobs in the garment industry. The program has expanded to include jute product manufacturing, providing sustainable skills in collaboration with the Jute Board.



Skill Development & Entrepreneurship Center (DAKSH)

The DAKSH center in Angul provides facility management and security training, with NSDC certification enhancing job prospects. To date, 120 individuals have completed training, all securing employment. The center aims to double its reach in FY24-25, offering stable employment opportunities in facility management and related fields.



EV Technician Training Center (DAKSH)

TPCODL has introduced an EV Technician Training program to prepare Odisha's youth for jobs in the growing green economy. With NSDC-certified courses and hands-on training, 60 trainees have gained employment in green technology sectors. The program's success is documented in a compendium highlighting trainees' journeys, demonstrating the impact of sustainable skill development.



Empowering Communities through Education and Skill Development

Local Artisan Cluster (SAMRIDDHI)

The SAMRIDDHI cluster supports 240 women artisans in traditional crafts like palm leaf carving and Pattachitra, with guidance from award-winning trainers. An Art Cum Sale Gallery provides artisans with marketing skills, helping them achieve economic independence and promote cultural heritage at local and national fairs.



Integrated Farming Cluster (SAMRIDDHI)

TPCODL's Integrated Farming Cluster in Nayagarh works with 600 farmer households to introduce sustainable aquaculture practices. Farmers are organized into producer groups and provided access to Cluster Information Centers for expert guidance. The initiative includes resources like locally adapted Farm Record Books and manuals to help farmers optimize production across 300 hectares.



Dhokra Metal Craft Cluster (SAMRIDDHI)

In partnership with NABARD and local organizations, TPCODL has established a Dhokra Metal Craft Cluster to support 100 rural artisans in Dhenkanal. Specialized training aims to modernize designs while preserving Odisha's rich craft traditions, offering artisans a sustainable source of income and broadening market access.



Adhikaar Program

Adhikaar is TPCODL's flagship program to help rural communities access government entitlements and essential services. Launched in Daspala, Nayagarh, it facilitates the provision of schemes tailored to community eligibility, improving access to necessary resources for underserved populations.



Health and Welfare Initiatives

Mobile Health Dispensaries (AAROGYA)

TPCODL's mobile dispensaries serve over 130,000 people across 2,600+ villages, bringing healthcare directly to rural populations. With 360 health awareness campaigns on topics like malaria prevention and menstrual hygiene, TPCODL addresses critical health needs. A partnership with Tata Trusts extends these services to the weaver community in Maniabandh, enhancing healthcare access for marginalized groups.



Volunteering Activities

Through initiatives like Mission Jeevan and sustainability-focused events, TPCODL employees contribute to the community. Six blood donation drives across Odisha collected 307 units, while plogging, seed ball making, and plantation drives promote environmental stewardship. In a recent Mega Plogging Drive at Shikarchandi, 15 kg of plastic waste was recycled, underscoring TPCODL's commitment to cleaner communities.



Sustainability through Innovation and Responsibility

Sustainability is at the heart of our CSR programs at TPCODL. Our unique approach combines environmental responsibility with skill development. Programs like Club Enerji promote environmental awareness among youth, fostering a culture of sustainability from a young age. Additionally, our Mobile Health Dispensaries and health awareness campaigns emphasize preventive healthcare, ensuring long-term community well-being.

TPCODL also actively promotes sustainable livelihoods through initiatives in integrated farming and traditional craftsmanship. Training in aquaculture and artisanal skills not only provides income but also instills a sense of pride and purpose among participants, creating an ecosystem of sustainability that benefits entire communities.

Concluding Remark

This article highlights TPCODL's commitment to CSR, focusing on the innovative, tech-driven approach to social responsibility and sustainability, which distinguishes TPCODL as a leader in Odisha's corporate sector. Through its impactful programs, TPCODL continues to set a benchmark in creating social value and empowering communities.

Mr. Pradeep Kumar Ghosal

CSR HEAD, TPCODL



IIT-IIT

Restore Promise of Water: Reconnecting with Ancient India to create magic

7.5 billion people and Climate Change threatening, our world faces many challenges.

But one of the most immediate has to be scarcity of non-saline water– to drink, to clean, to irrigate, for life. This piece focuses on India. While it applies here, it could be valuable in other geographies too. South Asia has long been one of the most populous and most bio-diverse parts of the globe, largely because the climate and topography are so conducive– varying from the tropical rain forests of the Western Ghats (abutting the warm Arabian Sea) through the sandy deserts of what are now called Gujarat, Sindh and Rajasthan to the riverine Indo Gangetic plain that housed one of the world's earliest civilisations (Harappa), to the Alpine meadows of Kashmir and the wind and snow bound crags of the Himalayas, the tallest mountains of the earth. The average annual rainfall is a generous 120 cm. Yet, of the 748 administrative districts of India, half are now officially declared drought prone.

What was not perhaps obvious to the Europeans who brought their technologies to India over the last four centuries, is that the water cycle that underlies the lives of (now) 1.8 billion people is quite different from that of Western Europe. Mumbai, for example, averages over 240 cm of rain per year compared to London's 62 cm. But whereas London gets showers every month through the year, Mumbai's downpour is concentrated to a hundred days between June and September. Obviously, the two cities require completely different water demand and supply systems.



Since Harappan times, water demand was calibrated, as supply was erratic. Supply centred upon dense forests (vastly degraded in recent centuries) and innocuous “tank systems” open and interconnected waterbodies- that slowed and held the rain and ice melts washing to the seas. Both served to recharge the ground water aquifers that even today hold water captured millennia ago. Both also provided hummus as fertiliser to enrich the agriculture that flourished in clearings near them.

This article focuses on the tank or “waterbody” ecosystem. Interconnected waterbodies (ranging from less than 1 acre to up to a few hundred acres at the surface) were crucial to life. The surface and ground water were drunk by man and beast. Fish kept the surface water clean (including of mosquito larvae) and added valuable protein to diets. Periodically (depending on the build-up), before the rainy season, the community restored the capacity of their tanks by removing the composted hummus and sediment accumulated at their base. This alluvium (commonly called silt), rich in organic nutrient, was spread on fields, enriching their productivity.

Unfortunately, over the last century, this community connect to these ecosystems was lost, including their symbiotic maintenance via silt removal. Governments supplied water, often piped from rivers or large reservoirs distant from the community. Ground water was mined with modern pumps lowering dependency on surface water from the tanks. Fertilizers produced instantaneous results lowering perceived value of the silt. The tanks were no longer as essential as in the past. Neglect over decades resulted in drastically reduced water capture due to decadal accumulation of silt and loss of inter-connectivity between waterbodies.

The Indian Institutes of Technology were created, on the model of the Massachusetts Institute of Technology, after Independence in 1947. Their success may be gauged by the alumni who are now, or have been, in high places across India and the world, in academia, government, industry, finance and even the arts. For example, the current CEOs of Google, Microsoft and Twitter are IIT alumni. Kartik Kilachand and Joe Fernandes, graduates respectively of IIT Bombay and Kharagpur, established IIT-IIT (IITians for Influencing India’s Transformation) in the 2018 to engage IIT alumni to scale programmes addressing some of India’s most pressing challenges. Some 130 IITians from across India and the world signed on as Founding Members. Dozens of programmes were scanned for importance and scalability.

In water, IIT-IIT was inspired by Caring Friends (CF) and ATE Chandra Foundation (ATECF). Their Rejuvenation of Water Bodies (RWB) programme revived thousands of waterbodies across drought prone parts of Maharashtra, economically India’s largest state. The programme, led by farmer community demand, had by 2018 scaled across all of Maharashtra, adding close to 60 billion litres of water capacity, and attracting the moral, administrative and financial support of the state government.



IIT-IIT recognised the potential of RWB to become a foundational program to Restore Promise of Water or RPOW for India. In 2019, working in collaboration, CF, ATECF and IIT-IIT developed a plan to scale this across India.

The farmer centric program now has presence in 9 States & 73 Districts where it is delivered via community-based NGO partners. In 2022, the program has Union government (PSA) endorsement and backing to scale rapidly. It has also figured out means to integrate and collaborate with other water schemes (watershed, spring, river, piped water, potable water) given the value of tank-based water capture to these schemes. Delivering at scale has required the development/upgradation of technology systems. This includes 1) a visual understanding of the tank systems (above and below ground) and their current health and potential; 2) delivering a governance based operating model via decentralized NGOs; 3) compliance with government norms and mandates; 4) enabling seamless collaboration with other water security programs; 5) engaging at scale with a demand led farmer community model.



In parallel to scaling the program, collaborations are being pursued to develop these technologies (satellite, GIS, community, Corporate collaboration, etc.) and the results are very promising. IIT-IIT is now engaged with a large number of knowledge partners, and is able to involve them with mutual benefit, given the razor-sharp focus of the program and its relevance to other water security programs.

As the pieces come together and multiply, we're convinced of not just the ability to Restore Promise of Water, but also of a deeper understanding- of how to develop collaborative solutions that can harness a collective voice of aligned stakeholders to create magic.

Mr. Karthik Kilachand

Founding Member
IIT-IIT



Transforming Rural Lives.....

(Trijanga Rehabilitation Colony, Danagadi, Kalinganagar, Jajpur)

About Asmita: Improving Lives and Creating Opportunities

Asmita

began as a small group of 20 enthusiastic young women from Jajpur, Odisha in the year 2012-13 who came together to produce a range of designer home furnishing linen in IKAT print. These women started their journey as semi-skilled local seamstresses to skilled artisans who could deliver quality products from a small production center in the remote location of Jajpur. Strategies to improve the learning livelihood leadership, and level of income of poorest and marginalized communities have remained a crucial area of work under this initiative. The effort has continued to be on livelihood based on stitching activity. The attention of ASMITA's program has been focused on providing support to the poor and vulnerable section, especially women, to enable them to attain viable livelihoods, develop capabilities, and build resilience. ASMITA works towards enhancing skills and competencies, advancing financial standards by creating income generation opportunities, and creating an enabling environment and responsive system that supports the needs and aspirations of poor and marginalized women and girls dwelling in surrounding communities.

Mission

To provide ample scope and opportunity for underprivileged, vulnerable groups of women and girls by providing employment opportunities through professional stitching activities for financial upliftment and social development.

Vision

Empowering women through skill up-gradation, livelihood development and self-reliance.



Journey So Far

ASMITA is a ray of hope in women's empowerment, at JSL. It helps the women to generate income for their livelihood. Today in India, we have seen women taking the lead in many sectors. We at JSL Group peeping towards a corporate mandate, focusing on women's empowerment as a driving factor for tomorrow's better economy. It is a progressive and group entrepreneurship model through SHG mode. Members belong to the peripheral villages of JSL, Jajpur who used to depend upon agriculture and allied services. Before the inception of ASMITA, these women did not have any source of income nor have any entrepreneurship skills. Meanwhile, the ASMITA project organized the women, imparting skill development in stitching and tailoring. These SHG started producing stitching, especially in readymade garments, high-quality stitching and embroidery, and production of Industrial safety items and school uniforms, Ladies items, etc. This led them to march towards sustainability and to become financially independent.

ASMITA has done pioneer work in livelihood sustainability through its quality stitching center located at Danagadi, in Jajpur district. It is the first professional stitching center in Jajpur focusing on linkage establishment with government, private agencies, entrepreneurs, schools, colleges etc. Efforts have been made to involve more and more economically vulnerable women and girls in this mission thereby transforming their socioeconomically condition to a substantial extent.

ASMITA: Acknowledgment and Feedback

ASMITA deals with clients in a very practical and realistic approach and receives positive responses from the clients in every aspects. Client satisfaction is the core motto of ASMITA. A very innovative process has been initiated to win the heart of the client through getting feedback from them on Quality stitching, materials and services.

Advanced Training Programs {ATP}

ASMITA has initiated various advanced training programs to strengthen the capacity of members involved in this unit by addressing the process bottlenecks for quality improvement both in product and practices. Learning is the main strength that develops the confidence level of the participants. Through this process, the members along with the technical staff of ASMITA are being able to inculcate new skills and expertise that cater to the client's needs and profit to the individual as well as for the business growth.

Impact on enhanced livelihood

ASMITA is one of the best microenterprises initiated by the Jindal Stainless Foundation for the enhancement of the livelihood condition of underprivileged women and girls living in Dangadi and surrounding villages. It has a great impact in terms of providing sustainable livelihood to underprivileged girls and women through the scope and opportunity. The members geared up with ample motivation and spirit of entrepreneurship cater to their livelihood need and can generate a level of income thereby reducing financial dependency for credit on local money lenders. Now every member earns **Rs.9, 000/- to Rs.11, 000/- per month** which has become a great help for them to maintain their family.

Capacity building and women's participation

For the successful implementation management ASMITA is capacitated, strengthened and enrolled under "Udyog Adhar Scheme of MSME department, Govt. of Odisha to avail the government opportunity and schemes like PPIF under the folder of Odisha Livelihood Mission, Govt. of Odisha. ASMITA initiated the process to avail the opportunity for financial inclusion through banks and other government schemes. The process of implementation of the Project ASMITA really helps the women empowering them in social inclusion and also has a major impact on eradicating the gender biasness and a sense of gender equality.

Client ASMITA Meet {CAM}

The activity, Client ASMITA Meet (CAM) has been propagated to strengthen the relationship with the different parties by knowing the process bottlenecks and development of the quality product as well as the process, and successful running of the business. The team ASMITA use to visit and discuss with existing as well as new clients to know their needs and the quality of the products they need. This has helped team ASMITA to establish effective relation with the clients as well as to win their trust.

Soft skill Intervention and achievement motivation

Motivation has a major impact on the successful running of a group enterprise. It leads to developing the urge and appetite to work consistently and persistently. So for this, we develop and add motivational inputs and soft skill management related capsule program and discussion for the members of ASMITA to develop their Soft skill expertise.

Changes of leadership

Leadership is changed on mutual understanding of the women's working in ASMITA in every three years. Their president, and secretary is changed on mutual understanding.

Product development and Design

The innovative product line is vibrant with Modern demands. In the beginning, the production line was simple with only limited products such as school uniforms and domestic tailoring. But now with the adaptation to market standards and demand the production line has taken a leap from small domestic production to complex industrial production along with keeping the traditional domestic production in sleeves too.

Regular Monitoring

ASMITA is regularly monitored by the CSR department of JSL Foundation. The visit of the JSL team and the external visitors help energizes the team with ample of new ideas and inspiration.

Mr. Sukant Rath

AGM CSR, Jajpur Road Div.
Jindal Stainless

Product development & Design



Fostering Inclusive Agricultural Transformation: The Role of Samunnati Foundation

Since its establishment in **March 2020**, Samunnati Foundation has been committed to its mission of uplifting smallholder farmers in India, enhancing their livelihoods, and strengthening agricultural ecosystems.

The Foundation addresses critical needs in rural communities, with a focus on women's empowerment, youth skill-building, and sustainable farming practices.

By integrating advanced technology and innovative models into rural development, Samunnati Foundation is creating a lasting impact in India's agricultural landscape, particularly for underserved communities.



Recognizing that true transformation requires a collaborative approach, Samunnati Foundation emphasizes the power of partnerships, believing that no single organization can achieve these goals alone. An ecosystem approach is essential for long-term, sustainable impact, and Samunnati works closely with various stakeholders to maximize reach and effectiveness.

The Shift in CSR: From Conventional Projects to Deep-Tech Social Innovation

The corporate social responsibility (CSR) landscape has evolved significantly. Moving beyond traditional philanthropic initiatives, today's CSR efforts are shifting towards strategic, technology-driven programs that offer sustainable, scalable solutions to social challenges. Samunnati Foundation is at the forefront of this new direction, harnessing the power of deep-tech innovations to drive meaningful change in agricultural communities. Through programs that blend social impact with advanced technology, Samunnati is not only supporting rural farmers but also revolutionizing agricultural practices, creating a blueprint for modern CSR.



Exemplary CSR Initiatives by Samunnati Foundation

Samunnati Foundation's programs emphasize sustainable impact, aligning with the evolving expectations of CSR. Among its notable initiatives:

PROMOTION OF WOMEN-LED FARMER PRODUCER ORGANISATIONS (FPOS):

In states like Madhya Pradesh and Jharkhand, Samunnati Foundation supports women-led FPOs, creating opportunities for financial independence and collective growth. These FPOs empower women farmers by improving access to resources, training, and markets, enabling them to take charge of their economic futures.

DRONE TECHNOLOGY TRAINING FOR RURAL YOUTH:

Recognizing the importance of modern skills in agriculture, Samunnati Foundation offers specialized drone technology training to rural youth. This training equips them with skills needed for precision agriculture, allowing farmers to optimize crop yield and reduce resource wastage, thereby fostering both employability and innovation in agriculture.

DEVELOPMENT OF THE FPO ACADEMY PLATFORM:

A unique initiative, the FPO Academy provides training and capacity-building resources to FPOs across India. This platform ensures that rural farmers can access knowledge, skills, and tools essential for efficient farming practices, making it a cornerstone for Samunnati's vision of a digitally empowered rural India.

Embracing Innovation in Sustainability and Social Responsibility

Samunnati Foundation's commitment to sustainability is embedded in its approach to climate-smart agriculture. Through Project Vasundhara, a collaborative effort with the Madhya Bharat Consortium of Farmer Producer Companies, Samunnati promotes responsible soybean production in Bundelkhand.

OVER 5,200 FARMERS IN 90 VILLAGES ARE ADOPTING SUSTAINABLE PRACTICES FOR IMPROVED YIELDS AND MARKET ACCESS.

Project Vasundhara empowers farmers to conserve soil, manage water efficiently, and utilize ridge-and-furrow planting techniques, reinforcing the resilience of rural communities in the face of climate change.



Furthermore, the Foundation's emphasis on social responsibility extends beyond farming techniques. By prioritizing inclusive growth and focusing on vulnerable groups, including women & youth, Samunnati Foundation is creating pathways for holistic community development, bridging social and economic gaps in rural areas.



A Perspective on the Cluster Concept: Strength in Unity

Samunnati Foundation views the cluster concept as a powerful approach to rural empowerment. Clusters allow smallholder farmers to benefit from shared resources, knowledge exchange, and collective bargaining. One exemplary project is the promotion of 65 all-women FPOs across five states, supported by SFAC.

These FPOs provide women farmers with leadership and market access, strengthening agricultural operations and community bonds through capacity-building initiatives. This cluster concept not only boosts economic viability but also fosters unity among farmers. By forming clusters, farmers can access bulk discounts, share equipment, and negotiate better prices with buyers.



Mr. Karthik Kilachand

Founding Member
IIT-IIT

In conclusion, Samunnati Foundation's commitment to sustainable agricultural transformation reflects its vision of empowering smallholder farmers and fostering resilient rural communities. The Foundation's approach is rooted in the belief that, "Farmers and farming are central to inclusive growth in agriculture," echoing its mission to provide "adequate access to markets, finance, and advisory services" to those in need. By building "an ecosystem that reaches the last mile," Samunnati Foundation is setting a benchmark for impactful, technology-driven rural development that leaves no one behind, creating a pathway for holistic and enduring change in India's agricultural landscape.

Empowering Social Impact Through Deep-Tech Innovations and Cluster-Led Development for Viksit Bharat 2047

As India envisions its future as a developed nation by 2047—marked by robust economic growth, environmental sustainability, social progress, and strong governance—the role of science and technology (S&T) becomes critical. The ambitious goal of transforming India into a US\$ 30 trillion economy, or Viksit Bharat 2047, requires not only advances in industrial sectors but also an inclusive approach to social impact, driven by deep-tech innovation and collaborative efforts across regions and sectors. The Science and Technology (S&T) Clusters are central to this mission, creating synergies between institutions, research bodies, industry, and government entities to drive social progress through technology.

Viksit Bharat 2047: From Traditional Programs to Deep-Tech Social Impact

Historically, social impact programs in India have focused on addressing primary needs—such as healthcare, education, water management, and food security—through conventional methods. However, as India moves toward its goal of becoming a developed nation, deep-tech innovations have emerged as transformative tools to address these challenges at scale and depth. By leveraging advanced technologies, social initiatives can address complex issues across critical areas, including:

Healthcare

AI-driven diagnostics, IoT-enabled health monitoring, and telemedicine can overcome healthcare delivery barriers in rural and underserved regions, ensuring that citizens have access to quality medical care

Agriculture

Technologies like precision farming, big data, and satellite imagery enable farmers to maximize productivity, ensure efficient resource use, and withstand climate-related challenges, supporting India's vision of sustainable agricultural growth.

Education

Adaptive learning platforms using AI and cloud infrastructure bring quality education to remote areas, aligning with the National Education Policy's goal of equity and inclusion.

BY INTEGRATING SUCH TECHNOLOGIES INTO SOCIAL IMPACT PROGRAMS, INDIA CAN CREATE A PATHWAY TO VIKSIT BHARAT 2047, WHERE PROGRESS IS INCLUSIVE, SUSTAINABLE, AND FAR-REACHING.

The Role of S&T Clusters in Driving Viksit Bharat 2047

The S&T Clusters serve as the backbone of a new approach to development, supporting India's transformation through three primary objectives: creating shared ecosystems, serving as regional solution providers, and achieving national and global competitiveness. These clusters are designed to accelerate innovation, enable collaboration, and drive impact at a systemic level, all of which are essential to achieving the goals of Viksit Bharat 2047.

1. Creation of a Shared Ecosystem

At the foundation of each cluster is a shared ecosystem that enhances collaboration among institutions and stakeholders while allowing them to retain their autonomy. Through resource sharing and coordinated efforts, each cluster strengthens India's overall S&T capabilities:

- **Pooling of Resources:** High-end laboratories, equipment, and research tools can be shared across institutions through digital portals, ensuring that limited resources are efficiently utilized and accessible to a wide network.
- **Human Resource Development:** Collaborations within clusters create new opportunities for upskilling, aligning the workforce with the demands of an advanced economy. Training programs conducted in partnership with industry experts build the technical skills necessary for a technologically adept workforce.
- **Mobility and Knowledge Exchange:** The movement of researchers between academia, public R&D labs, and industry encourages a dynamic exchange of ideas, building a culture of continuous innovation. Cross-institutional credit-sharing, as endorsed by the National Education Policy, further strengthens this shared ecosystem.

2. Regional Solution Provider

Each cluster also plays a vital role as a regional solution provider, addressing challenges specific to its locale. Through collaborations with state governments, local industries, and academic institutions, clusters are well-positioned to bring deep-tech innovations to bear on local issues. This regional approach aligns closely with the vision of Viksit Bharat 2047 by ensuring that growth is not limited to urban centers but reaches all corners of India:

- **Localized Solutions for Real-World Problems:** S&T Clusters enable regions to tackle pressing issues such as water management, waste disposal, and sustainable agriculture through high-quality R&D. By focusing on region-specific solutions, clusters create direct social and economic benefits for local populations.
- **Collaboration with Local Incubators:** Partnerships with local incubators and innovation centres ensure that solutions are both relevant to the region's needs and scalable. These collaborations foster economic resilience, improve local living conditions, and enable regional industries to flourish.
- **Empowering State Governments:** Clusters can work closely with state Science & Technology councils, supporting state governments in their mission to drive development through science and innovation, creating a ripple effect of progress that aligns with the goals of Viksit Bharat 2047.

3. National and Global Competitiveness

To become a US\$ 30 trillion economy by 2047, India must position itself as a global leader in selected fields. Each S&T Cluster identifies key areas of expertise—such as renewable energy, biotechnology, or advanced manufacturing—and focuses on building capabilities that can contribute to national missions and international mega-science projects.

- **Building National Competitiveness:** By concentrating on a few domains of strength, each cluster contributes to India's national missions, supporting the government's objectives in critical areas like climate resilience, healthcare, and digital infrastructure. This national-level focus aligns with India's vision of becoming a technology-driven economy.
- **Engaging in Global Partnerships:** Through active participation in global research and development initiatives, clusters promote India's technological advancements on the international stage. India's contributions to global mega-science projects reflect its ambition to be a major player in international innovation, strengthening India's scientific and economic standing worldwide.

Recommendations for Scaling Social Impact with Deep-Tech

To realize the goals of Viksit Bharat 2047, social impact programs must be scalable, sustainable, and technologically empowered. The following strategies will help expand the reach and efficacy of these programs:



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- **Encourage Cross-Sector Collaboration:** Partnerships between public, private, and academic entities are essential for developing holistic solutions. The alignment of resources across sectors accelerates innovation and supports the scaling of deep-tech solutions for social impact.
 - **Improve Accessibility to Advanced Technologies:** Access to emerging technologies is critical for scale. Government grants, public-private collaborations, and investment incentives can facilitate the adoption of AI, IoT, and other technologies for social initiatives.
 - **Develop Human Capital and Technical Skills:** A workforce skilled in emerging technologies is fundamental to scale. High-quality training programs, designed in collaboration with industry and academia, can create a pipeline of professionals equipped to implement and scale deep-tech solutions.
 - **Leverage Digital Infrastructure:** The digital infrastructure supporting the shared ecosystem within clusters can significantly extend the reach of social programs. Digital platforms for resource sharing and project coordination enable programs to scale rapidly across regions.
 - **Flexible Funding Models:** To achieve long-term impact, funding models should support iterative, technology-driven projects. By combining government funding, venture capital, and grants, clusters can ensure financial support for high-impact deep-tech start-ups.
 - **Community-Centric Innovation:** Involving local communities in the ideation and implementation stages of social programs ensures solutions are responsive to on-the-ground realities, increasing adoption and sustainability.
 - **Promote Knowledge Sharing Across Regions:** S&T Clusters should actively facilitate exchanges of successful models and insights across regions, strengthening the overall ecosystem. National and global partnerships can further enhance these knowledge exchanges, accelerating India's progress toward Viksit Bharat 2047.

Enabling the Blue Economy as Part of Viksit Bharat 2047

An integral part of achieving the vision of Viksit Bharat 2047 is the development of India's blue economy—sustainable ocean resource management for economic growth, improved livelihoods, and ecosystem health. S&T Clusters play a key role in advancing the blue economy through targeted deep-tech innovation:

- **Ocean-Based Renewable Energy:** By investing in renewable energy solutions like tidal and wave energy, clusters support sustainable energy generation. Technological advancements in energy storage and offshore wind can further enhance the viability of ocean-based energy solutions.
- **Marine Biodiversity and Conservation:** Deep-tech tools like AI-driven species monitoring and remote sensing technologies can protect marine ecosystems, preserving biodiversity while supporting sustainable fishing and coastal community livelihoods.
- **Pollution Mitigation and Waste Management:** Technologies that monitor and address marine pollution, including plastic waste and oil spills, are essential to preserving ocean health. R&D in biodegradable materials and pollution management further supports ecosystem sustainability.

A Pathway to Viksit Bharat 2047

India's vision of Viksit Bharat 2047 requires a comprehensive approach where economic growth, social impact, and environmental sustainability go hand in hand. Through S&T Clusters and deep-tech social impact programs, India can foster inclusive growth, support its blue economy, and address complex societal challenges. By creating shared ecosystems, solving regional challenges, and driving national competitiveness, S&T Clusters enable a 360-degree approach to progress.

The pathway to Viksit Bharat 2047 lies in empowering every citizen, region, and sector with the tools of technology and innovation. The transformation of India into a developed nation rests on the foundation of inclusive, scalable, and sustainable growth—a vision that the S&T Clusters are uniquely positioned to realize.

Dr. Chandrasekhar Panda

Partner
McKinsey & Company



YES BANK

Creating Sustainable growth through 3Es

YES BANK strives to embed integrated thinking into its business practices, to ensure all aspects of the value creation process coalesce in addressing the bigger objective of achieving sustainable growth through its corporate social responsibility initiatives.

YES Foundation, the social development arm of YES BANK, actively engages with communities to understand their unique needs and collaborates on projects that create positive impact. The focus of the Bank's CSR programs center around **3Es: Employability, Entrepreneurship and Environment Sustainability**. As challenges such as climate change, environmental degradation, income and gender inequality redefine the paradigm of modern-day economy, the Bank firmly believes that true value creation must not be limited to financial capital, rather encompass the organization's aggregate footprint on **3P's - People, Planet and Profit**.

At YES Foundation, the impact of our CSR projects has reached to communities residing in remotest corners of the country. We are committed to reach to more such families and empower them to become part of India's remarkable growth story. We support our farmer community and walk every step with them to transform their fields through sustainable agricultural practices and access to water for irrigation. Entrepreneurship development projects focus on rural women and artisans, enabling them to set up nano enterprises, leading to income enhancement. Our initiative has brought intangible benefits like empowerment and breaking gender role stereotypes to the fore.

YES Foundation is making significant strides in addressing critical issues like climate change-induced desertification and relentless degradation of fertile land, leading to lack of livelihoods and increasing migration of rural population. The foundation's efforts have resulted in improving food security, transforming arid lands, and enhancing the socio-economic conditions of rural communities, paving the way for a more sustainable future. YES Foundation's initiatives aimed at enhancing employability for urban youth through various interventions like domain skilling and exposure to industry practices, have enabled their participation in the workforce.



Our employability initiative taps into the potential of India's rapidly growing youth population and provides them with employable skills to ensure their economic contribution towards India's economy. With more than 65% of the youth population falling in the age bracket of 25-35 years of age, this dynamic workforce can propel India's growth to higher levels. However, due to rapid advances in technology and the rise in demand for new-age skills, there is a skill gap that needs to be addressed. Skill trainings are augmented by introducing useful learning tools like LMS, LinkedIn learning etc., to ensure that youth stay updated with current job market trends. In addition to this, soft skills like communicative English, basic computers, mock interviews, resume writing, personality development and confidence building were also provided to the trainees. Sessions from industry experts played an important role in providing realistic insights and practical tips to benefit the trainees. Our employability initiatives have unlocked an economic potential of over INR 30 crores.

We have made steady headway towards realizing our commitment to catalyse employment and entrepreneurship opportunities for over **1,00,000 youth by 2026**, reaching out to **>35,000 farmers, women and artisans** enhancing their income. Agricultural development in India is uneven, with several states facing pronounced disparities. Rising cultivation costs, inadequate price support and limited market access have compounded farmers' challenges. Besides overuse of chemicals, environmental threats and neglect of soil health have further exacerbated food insecurity and livelihood concerns. Limited knowledge of innovative agricultural practices and challenges in accessing water for irrigation throughout the year has prompted a significant portion of the population to engage in seasonal migration. Women and artisans are also susceptible to cycle of economic vulnerability and need specific interventions encompassing skill enhancement and market linkages.



Rural entrepreneurship is a key growth driver for any economy. Over the past three years, YES Foundation has created **more than 10 crore litres of water harvesting potential** in villages across Rajasthan, Gujarat and Maharashtra, supporting small and marginalized farmers with sustainable livelihood. By building structures like 'pokhars' (earthen rainwater harvesting structure) and 'pagaras' (farm bunds to prevent soil erosion), we have transformed approximately 100 acres of land through multi-cropping, increasing soil moisture and enabling farming throughout the year.

To complement this, farmers have been introduced to climate-resilient agriculture techniques, micro-irrigation, crop rotation and organic formulations helping enhance the overall yield of the agricultural produce.

Additionally, we strive to strengthen rural economies by enhancing income generation opportunities through farming extensions, agricultural inputs and the promotion of handicrafts and handlooms. We have built partnerships to support and promote nano enterprises for rural women by providing them with capacity-building training and handholding support to over **5,000 rural women and artisans** to set up their nano enterprises, leading to a sustained income enhancement. Our entrepreneurship initiatives have unlocked an **economic potential of over 50 crores**.

As part of Environment Sustainability, the Foundation recognizes that climate change induced erratic rainfall and extreme weather events like cyclones, floods, drought and pest attacks are leading to declining agricultural yields.

Agrarian and tribal communities, already struggling with debt, land degradation and uncertain prices are expected to be the worst impacted by climate change, with their incomes expected to decline by up to 25%. Some of the areas grapple with a spectrum of socio-economic and environmental adversities, from erratic rainfall patterns and water scarcity to land degradation and diminishing agricultural productivity. To combat this, YES Foundation started an agroforestry project in 11 states across India.



This initiative will play a critical role in enhancing green cover, and addressing climate change while also supporting sustainable livelihoods of farmers. The project is designed to respond strategically to the challenges induced by climate change by introducing sustainable solutions and offering comprehensive support to farming communities. By incorporating native tree plantations and adopting innovative agricultural practices, the project aims to mitigate the adverse effects of climate change and bolster the resilience of farming communities. So far, we have planted **> 2 lakh trees** with an estimated **carbon sequestration potential of >1.7 lakh tonnes of CO₂** over the next **20 years** and target to plant 1 million trees in five years. In addition to this, we are also working with MSMEs making them more energy efficient, integrating sustainability into their operations, reducing their overall carbon footprint and enhancing their efficiency.

With collaboration at its core, YES Foundation has fostered stronger associations with communities, the government, non-profit organizations, peer corporations and civil society, which has enabled it to strengthen the ecosystem and amplify social impact. The Foundation's holistic approach to social development through Employability, Entrepreneurship, and Environment Sustainability will continue to make lasting difference in the lives of marginalized populations, foster innovation, and achieve long-term sustainable development.

Jindal Asha: Fostering Inclusive Education, Equality, and Opportunity for Differently abled Children

At

Jindal Asha, we are driven by a single, powerful belief: every child, regardless of ability, deserves the opportunity to succeed, thrive, and contribute to society. Since our inception, we have been on a mission to empower differently abled children, helping them achieve their full potential through inclusive education, specialized rehabilitation, and vocational training.

Our work goes beyond just providing services—it's about building futures. Through personalized care, we help children develop essential skills that will allow them to live independently, pursue their dreams, and make meaningful contributions to their communities. Whether it's through speech therapy, life skills training, or vocational programs, our children demonstrate the incredible power of determination and resilience every single day.

Smt. Shallu Jindal

Esteemed Chairperson of
Jindal Foundation



Prelude

Disability remains a global challenge, with millions of children facing barriers in accessing education, healthcare, and rehabilitation services. In many underserved regions, these challenges are compounded by a lack of accessible infrastructure and resources. Addressing these issues requires a community-driven approach that includes targeted rehabilitation services, education, and support systems. Jindal Asha plays a crucial role in tackling these challenges through its inclusive education, rehabilitation programs, and vocational training, allowing children with disabilities to thrive and lead fulfilling lives.

Since its establishment in August 2009, Jindal Asha has been committed to transforming the lives of differently abled children across regions such as Odisha, Chhattisgarh, and Jharkhand. Through a comprehensive range of services—including physiotherapy, occupational therapy, speech therapy, special education, and vocational training—Jindal Asha ensures that children and young adults with disabilities can live independently, contribute to society, and achieve their dreams.

Jindal Asha's mission to empower children with disabilities is reflected in its diverse programs that cater to the individual needs of each child. Every year, the center offers both center-based and community-based services, reaching over 500 children in day-care rehabilitation at Angul, (Odisha), Raigarh (Chhattisgarh) and Patratu (Jharkhand) and also extending support to over individuals through community outreach. More than 5000 children have benefited from Jindal Asha's holistic care, assistive devices, and adaptive technologies, enabling them to live more independently and confidently.



Inclusive Education and Vocational Training: Empowering Children for a Better Future

At Jindal Asha, inclusive education is not just a goal but a core value that drives its programs. The center is dedicated to ensuring that children with disabilities receive an education that addresses their unique learning needs while also promoting social inclusion and equal opportunities.

Jindal Asha's vision for inclusive education goes beyond simply integrating children with disabilities into regular classrooms—it's about fostering a system where diversity is celebrated, and every child's potential is nurtured. Teachers and therapists at Jindal Asha work closely with each child to create personalized education plans, combining academic goals with social skills development. This allows children to engage with the curriculum at their own pace and ultimately gain the necessary skills to either transition to mainstream schools or succeed within specialized settings.

A standout feature of Jindal Asha's inclusive education initiative is the mainstreaming program, which helps children with disabilities transition into regular schools. Through partnerships with O.P. Jindal schools, Jindal Asha ensures that children with disabilities have access to the same educational opportunities as their peers. This includes not only school admissions assistance but also learning aids, extra time during exams, and modified teaching methods that make learning accessible to everyone.

Alongside academic development, vocational training is another key pillar of Jindal Asha's mission. The center offers training in a range of fields—such as tailoring, painting, mehendi designing, cooking, dance, and sports—to empower children to become economically self-sufficient and contribute to their families and communities. Vocational training also plays a crucial role in building self-esteem and independence, providing children with the confidence to pursue their dreams and create opportunities for themselves.



Key Highlights Over the Years:

- More than 5,400 individuals have benefited from both institutional-based and community-based rehabilitation services provided by Jindal Asha.
- Over 3,000 cases have received support through special education, speech therapy and vocational training, empowering individuals with essential skills for independence.
- 50+ children have been successfully integrated into mainstream schools (including O.P. Jindal School and other government/private schools) with the support of Jindal Asha.
- Disability certificates, UDID, and railway concession assistance have been extended to 400+ individuals, ensuring their access to essential services.
- 1,200+ assistive devices, mobility aids & Hearing aids support to more than 800 individuals enhancing their ability to live independently.
- Special sports and para-sports training is being imparted to 50+ children across various locations, fostering skills and confidence in athletics.

Shining Examples of Empowerment: Transformative Case Studies

Jindal Asha's mission of inclusivity and empowerment is most powerfully embodied in the success stories of the children it serves. These transformative journeys highlight how the center's programs—combining specialized education, vocational training, rehabilitation, and sports—lead to lasting change in the lives of differently-abled children.

Case Study 1: Junaid Babu Ray – From Shyness to Sports Stardom

Junaid Babu Ray, an 18-year-old from Jharkhand, was referred to Jindal Asha due to speech and hearing impairments. Initially, Junaid had limited communication skills, relying on gestures and signs, and was emotionally withdrawn. Despite these challenges, he showed a cooperative attitude and a willingness to engage in therapy. Through a personalized treatment plan, Junaid received speech therapy to improve articulation and voice quality, along with special education to boost his academic and social skills.



However, it was his participation in sports that truly transformed his life. Under the guidance of Mr. Shashi PD Keshr, Junaid was introduced to daily fitness training, football, and cycling. While initially hesitant, Junaid developed a passion for football, which became a catalyst for his personal growth. Junaid represented Team India in Unified Football at Bangladesh, Dhaka. He has bagged 2 Gold medals in Cycling tournament at Panchkula, Haryana.

Junaid's journey from a shy, speech-impaired individual to a confident sports champion serves as a testament to the transformative power of rehabilitation and support. His story has inspired countless individuals with disabilities, proving that, with the right resources and opportunities, no obstacle is insurmountable.

Case Study 2: Ahilya Sao – A Journey from Isolation to Independence

Ahilya Sao, a 24-year-old woman with an intellectual disability, was admitted to Jindal Asha in October 2019. Struggling with communication, social interaction, and daily tasks, Ahilya had become increasingly withdrawn and isolated. Her parents, concerned about her future, sought help from Jindal Asha, hoping the center could help her build independence and life skills.

Upon her arrival, a team of specialists—Ms. Chanchala Patel (Special Education), Ms. Afsana Khatoon (Vocational Training), and Mr. Tulas Ram Urao (Vocational Skills)—developed a comprehensive plan tailored to Ahilya's needs. The program included academic support, life skills training, and vocational activities such as stitching, painting, and sports. Through this holistic approach, Ahilya began to gain self-confidence and independence. She excelled in stitching and painting, even winning a state-level Bocce ball competition and competing at the national level.

Ahilya's journey reflects the power of a supportive, inclusive environment. Today, she helps with household chores, manages tasks independently, and is well-regarded by her peers. Her family is immensely grateful to Jindal Asha for the life-changing transformation. Looking ahead, the center plans to further develop Ahilya's tailoring skills, with the goal of integrating her into the broader community and educational system.



Concluding Mark

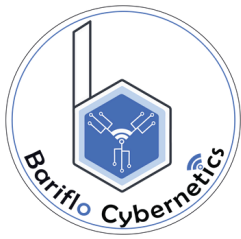
Jindal Asha's commitment to empowering children with disabilities is reflected in the transformative outcomes seen in the lives of countless individuals. By providing inclusive education, vocational training, and holistic rehabilitation, the center not only supports the immediate needs of children but also helps them build the skills and confidence required to live independent and fulfilling lives.



The stories of Junaid Babu Ray and Ahilya Sao are just two examples of the life-changing impact that Jindal Asha has on its beneficiaries. As the center continues to expand its reach, it remains dedicated to its vision of an inclusive society, where all individuals—regardless of ability—are given the opportunity to achieve their dreams, contribute to their communities, and live with dignity and independence.

Through its mission to promote equality, inclusion, and opportunity, Jindal Asha is not only transforming lives but also working toward creating a more inclusive, accessible world for all.

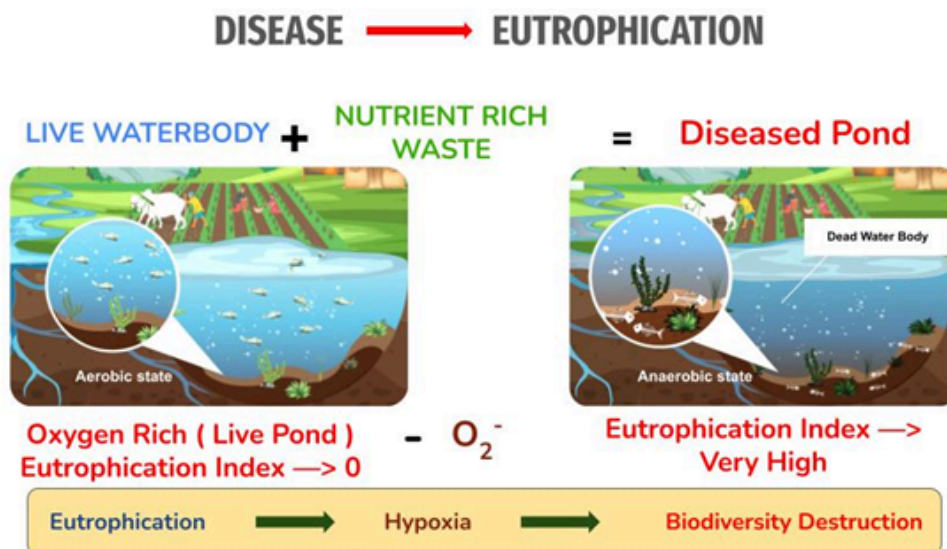




**Bariflo Cybernetics
Private Limited**

Integrated Water Body Management System

Eutrophication, marked by excessive nutrient enrichment, threatens aquatic ecosystems worldwide, including India. This issue results in rampant algal blooms, oxygen depletion, and biodiversity loss, primarily driven by anthropogenic activities such as agricultural runoff, industrial discharges, and urbanization. Despite existing international protocols for monitoring eutrophication, India lacks a comprehensive regulatory framework, with the Central Pollution Control Board (CPCB) not providing clear protocols for measurement and management, hindering water body rejuvenation.



Bariflo Cybernetics is at the forefront of the fight against eutrophication, leveraging advanced technology and eco-friendly practices to restore and monitor aquatic ecosystems. Central to effective eutrophication management is the Trophic State Index (TSI), which categorizes water bodies based on productivity levels. However, inconsistencies in TSI calculations and reporting complicate accurate assessment and mitigation strategies. To enhance monitoring efforts, Bariflo emphasizes the integration of satellite-derived chlorophyll-a (CHL) indicators, coupled with ground-truth sampling to ensure data reliability. Furthermore, the adoption of nature-based solutions, such as bioremediation, is essential for restoring ecological balance, guided by established protocols.

Bariflo's Integrated Waterbody Management System (IWMS) employs advanced technologies like Weed Harvesters and Skimmers for effective pollution management. Real-Time Dashboards enhance productivity and cost-efficiency for farmers with data visualization, while remote sensing technology enables comprehensive water quality monitoring. A notable feature is the use of Digital Twin Technology, which creates a virtual replica of aquatic systems for real-time monitoring and predictive maintenance. Through these innovative solutions, Bariflo Cybernetics aims not just to combat eutrophication but to promote sustainable development and foster resilient aquatic ecosystems, addressing the pressing challenges faced by India's waterways.

END TO END AUTOMATION SOFTWARE & HARDWARE AS SERVICE



CASE STUDY

NAME / PLACE OF DEPLOYMENT	TYPE OF SECTOR
Barbil, Odisha	Livelihood
DURATION	(Oct 2022 - Oct 2024) 24 Months
ENVIRONMENTAL IMPACT	SOCIAL IMPACT
• Reduction of carbon by 50% • Energy reduction by 50% • Maintains DO of constant 3.5 to 4.5 ppm	• Growth of carps by 20% • Increase in income by 25%
DEVICE	

NAME / PLACE OF DEPLOYMENT	TYPE OF SECTOR
PURI, Odisha	Livelihood
DURATION	(MAY 2023 - MAY 2024) 12 Months
ENVIRONMENTAL IMPACT	SOCIAL IMPACT
• Reduction of carbon by 50% • Energy reduction by 50% • Maintains DO of constant 3.5 to 4.5 ppm	• Growth of carps by 20% • Increase in income by 25%
DEVICE	



Mo Ambulance

Transforming Healthcare Access: The Role of Tech-Enabled Ambulances in CSR Initiatives

The CSR landscape in ambulance services has historically been characterized by several gaps that limited its effectiveness in addressing emergency healthcare needs. Ambulance services often received less attention compared to hospital infrastructure or disease-specific programs, despite their critical role in saving lives. Investments were largely one-time donations of basic ambulances, without plans for sustainability, maintenance, or operational support. These ambulances were frequently deployed in urban areas, leaving rural and remote regions underserved due to logistical challenges and poor infrastructure. Furthermore, most initiatives lacked the integration of advanced technology, such as GPS tracking, IoT-enabled devices, or telemedicine, which could improve response times and patient outcomes. Training and upskilling of ambulance staff, including drivers and paramedics, were rarely included, leading to suboptimal care during emergencies. The absence of data-driven decision-making further hindered the ability to identify gaps, monitor performance, or scale successful programs. Additionally, donated ambulances were often older models, contributing to environmental concerns due to higher emissions and fuel inefficiency. Regulatory challenges and the lack of alignment with existing emergency healthcare systems, such as national frameworks, also limited the impact of these initiatives. Addressing these gaps requires a more holistic, sustainable, and technology-driven approach to CSR in ambulance services.

Innovative CSR initiatives by your startup, particularly in healthcare, sustainability, or community development.

Our startup has leveraged cutting-edge technology and a mission-driven approach to create impactful CSR initiatives, focusing on healthcare, sustainability, and community development. Below are some highlights of our innovative programs:

1. Tech-Enabled Rural Ambulance Outreach

Our **Tech-Enabled Rural Ambulance Outreach** initiative aims to bridge healthcare access gaps in underserved rural areas by leveraging advanced technology. We deploy GPS-enabled ambulances equipped with IoT-powered patient monitoring systems that transmit real-time data to hospitals.

This innovation ensures that medical teams are better prepared to handle emergencies even before the patient arrives, significantly improving the quality of care. By focusing on regions with limited healthcare infrastructure, this initiative has enhanced response times, reduced mortality rates, and ensured timely medical intervention in remote communities, positively impacting thousands of lives annually.

2. Community Health Training and Awareness

Our **Community Health Training and Awareness** initiative focuses on empowering communities to act as first responders during emergencies. Through innovative workshops utilizing ambulance simulators, we provide hands-on training to local volunteers, school teachers, and youth in basic life support (BLS) and first-aid skills.

3. Data-Driven Healthcare Support Systems

Our **Data-Driven Healthcare Support Systems** initiative aims to enhance emergency preparedness in underserved regions by leveraging advanced technology. We provide a cloud-based Ambulance Quality Monitoring System to local governments and NGOs, enabling real-time tracking of ambulance operations. This system helps optimize fleet management, monitor service quality, and address operational inefficiencies. By streamlining emergency services, this innovation has significantly reduced delays in patient transportation, ensuring timely medical intervention and improving healthcare outcomes in regions where resources are limited.



Success stories or case studies showcasing the tangible impact of your CSR efforts

The Success stories covers the life saving of more than 20000 people through transportation and out of which more than 10000 Patient transported in the rural community to the respective hospital and save the life through reducing the response time. In Odisha, our Tech-Enabled Rural Ambulance Outreach initiative reduced response times by 40%, serving over 10,000 people with timely emergency care through GPS-enabled ambulances and real-time ambulance quality monitoring. patient monitoring. Our Data-Driven Healthcare Support System in Bihar improved ambulance fleet management, reducing delays by 25% .



Your perspective on how cluster ecosystems like BCKIC can amplify the impact of CSR initiatives

Cluster ecosystems like **BCKIC (Bhubaneswar City Knowledge Innovation Cluster)** can offer a collaborative framework that significantly amplifies the impact of CSR initiatives. These ecosystems can bring together diverse stakeholders, including industries, academic institutions, government bodies, startups, and NGOs, fostering innovation and shared resources to address social challenges effectively.

BCKIC can facilitates partnerships between corporations and expert organizations, enabling more efficient utilization of CSR funds. For example, healthcare-focused CSR initiatives can leverage cutting-edge research and technology from academic institutions and startups within the cluster. BCKIC being a hub for innovation, can integrate advanced technologies like AI, IoT, and data analytics into CSR initiatives. In essence, cluster ecosystems BCKIC can serve as accelerators for CSR initiatives, transforming isolated efforts into collaborative, innovative, and sustainable programs that create measurable, long-term impacts on society.





MedTel Healthcare

Empowering Lives with Technology: Innovative Approach to CSR for Healthcare Transformation

Overview of the Current CSR Landscape and Emerging Challenges

Corporate Social Responsibility (CSR) has evolved into a vital tool for addressing pressing societal issues, from healthcare and education to environmental sustainability. In India, CSR contributions are primarily driven by mandates like the Companies Act, 2013, which obligates companies to allocate a portion of their profits toward social initiatives. Despite significant strides, challenges persist, including the need for:

- Improved alignment with community needs.
- Scalable models for easier replication and uptake.
- Long term sustainability of projects.
- Effective measurement of outcomes, impact and accountability.
- Innovative collaborations to overcome resource limitations.

The dynamic landscape demands innovative approaches, stakeholder partnerships, and technology integration to maximize CSR's societal impact.

Innovative CSR initiatives supported by MedTel:

MedTel Healthcare offers customized **Connected Care Solutions** that improve healthcare provider efficiency and patient experiences by enhancing the interoperability of medical technology and using data to increase patient engagement, insights, and predictions.



OUR IMPACT AS A COMPANY HAS BENEFITTED OVER **300,000 INDIVIDUALS**, SERVING **50+ CLIENTS**, TESTING OVER **1 MILLION** HEALTH PARAMETERS, COVERING **10+ STATES** IN INDIA, IDENTIFYING **36,000+ HIGH-RISK CASES**, AND DIGITIZING **500+ GOVERNMENT** HEALTH SUB-CENTERS.

At the heart of our CSR vision lies a commitment to transformative healthcare, sustainable practices, and community upliftment. Our notable initiatives include:

➤ JSP Foundation: Project SPARSA - Enhancing Maternal & Infant Health

At the heart of our CSR vision lies a commitment to transformative healthcare, sustainable practices, and community upliftment. Our notable initiatives include:

MedTel partnered with the JSP Foundation on Project SPARSA to improve maternal and infant health in Angul, Odisha. The project tackled maternal and child health issues by focusing on early detection of high-risk pregnancies and empowering healthcare providers with real-time data. It also strengthened postpartum care and streamlined data collection for better accuracy and efficiency.

MedTel iLab pregnancy kits were provided to ANMs to monitor vital health parameters of pregnant women, such as blood pressure, blood sugar, weight, hemoglobin, urine parameters, oxygen saturation, and fetal heart rate. High risk pregnancies were identified using 20 health parameters. MedTel's solution enabled ANMs to record medical histories and easily refer high-risk cases to nearby PHCs/CHCs.

DPMs and BPMs were provided with real-time dashboards to monitor health data, allowing for prompt action for high-risk cases. Comprehensive analytics on pregnancies, high-risk parameters, testing, and ANM activities were displayed on the dashboard.



**REACHED 23,000+
BENEFICIARIES,
IDENTIFYING 4,000+
HIGH-RISK
MOTHERS.**

**IMPROVED DATA
ACCURACY AND
OPERATIONAL
MONITORING.**

IMPACT

**AWARD:
AWARDED THE
"BEST
HEALTHCARE
CSR PROJECT"
AT THIT 2024.**

**IMPROVED
ANTENATAL CARE
COVERAGE, TIMELY
REFERRAL, AND
REDUCED ADVERSE
MATERNAL
OUTCOMES.**



➤ JSW Foundation: Empowering Rural Healthcare

MedTel's solution for JSW Foundation involved the implementation of iLab and satellite clinics, which revolutionized the way healthcare services were delivered in the dispensaries and primary health centers. By digitizing these facilities, MedTel enabled instant Point of Care testing and diagnosis, ensuring timely and accurate medical interventions. Additionally, the integration of telehealth solutions allowed patients to access consultations with specialists and super-specialist doctors from major cities, bridging the gap between rural areas and advanced healthcare resources. This digital transformation facilitated the seamless management of patient data, enabling comprehensive analysis of health records to derive valuable insights for improved healthcare outcomes.



Impact

1

Conducted 2,000+ screenings, positively impacting 1,600+ lives.

Significantly improved healthcare accessibility and operational efficiency in rural regions.

2

3

Improved availability of diagnostic facilities in remote dispensaries.

Perspective on Cluster Ecosystems like BCKIC

Collaborative ecosystems like the Bhubaneswar City Knowledge Innovation Cluster (BCKIC) amplify CSR impact by:

- Facilitating partnerships between corporates, academia, and government for scalable projects.
- Providing a platform to replicate successful models like SPARSA across regions.
- Enhancing resource mobilization and collective expertise to tackle systemic challenges.

Such ecosystems accelerate progress toward shared societal goals by fostering innovation and collaboration.



ETA Purification

Complex Science Simplified to Strengthen Rural Healthcare Settings in India

Corporate Social Responsibility (CSR) in healthcare in India plays a vital role in addressing healthcare challenges, including improving access, affordability, and quality of medical services. Many corporations, in collaboration with government and non-government organizations (NGOs), are implementing initiatives to strengthen the healthcare system. Focus areas of healthcare CSR in India include, but not limited to:

- Establishing clinics, mobile healthcare units, and wellness centers in underserved rural & urban areas.
- Programs focusing on reducing maternal and infant mortality rates, promoting immunization, and improving nutrition.
- Initiatives to prevent and treat diseases like tuberculosis, malaria, and HIV/AIDS.
- Promoting clean drinking water, sanitation infrastructure, and hygiene education, which indirectly improves healthcare outcomes.
- Donations of medical equipment to hospitals and support for building healthcare facilities.

However, even as initiatives from the government, NGOs, and CSR programs attempt to bridge the gap the challenges in rural healthcare in India are persistent and multifaceted. This includes a mix of infrastructural deficiencies, workforce shortages, accessibility issues, etc. For instance, many Primary Health Centres (PHCs) and Sub-centres are under-equipped, lack modern facilities, or are not adequately maintained. This often results in higher incidence of healthcare-associated infections (HAI), which pose a significant challenge in rural healthcare settings in India. Particularly, poor sanitation in rural healthcare facilities, including inadequate water supply, improper waste disposal, and suboptimal cleanliness increase the risk of HAI and cross-contamination.

The major reason often cited by frontline healthcare personnel is insufficient access to disinfection/sterilization equipment and antiseptics in rural healthcare facilities. In addition to lack of advanced equipment, rural health centers often face a shortage of skilled nurses, infection control officers, and trained cleaning staff, which makes systematic HAI surveillance mechanisms impossible.



As a consequence, HAIs worsen patient outcomes, particularly for vulnerable populations like neonates, elderly, and immunocompromised individuals. Patients with HAIs require longer treatment durations, straining the limited healthcare resources in rural areas. Additional treatments and prolonged care increase the financial burden on already economically disadvantaged patients. This also results in development and spread of drug-resistant infections, creating broader public health challenges. Thus, HAIs in rural healthcare settings in India represent a critical challenge that requires immediate and sustained attention. Addressing these infections involves a multi-pronged approach, including improved infrastructure, robust infection control practices, better training for healthcare workers, and community engagement. By prioritizing HAI management, rural healthcare can be made safer, reducing morbidity and mortality while enhancing overall healthcare outcomes.

To address these challenges and to reduce the incidence of HAI in rural healthcare, we embarked on a mission to develop and deploy an advanced sustainable technological solution. In addition to that, we set up an AI driven monitoring and reporting systems to monitor infection rates and patterns in rural healthcare facilities.

Our Infection Control Solution for Rural Healthcare

Eta Purification's advanced micro-cavity plasma disinfection system, an outcome of 15+ years of intercontinental R&D efforts ensures proper terminal disinfection in healthcare facilities and help dilute and remove infectious aerosols from the air, thereby reducing the risk of transmission. Our portable COSMO Hyox disinfection systems rapidly disinfect indoor air, aerosol & surfaces after patient discharge in recovery rooms, procedure rooms, isolation areas and operation theatres. Unlike traditional disinfection practices, COSMO systems require no harsh chemicals or consumables and can function without any human intervention. It is truly a complex scientific innovation converted to simplified equipment to safeguard lives.

AI & IoT Driven Solution for Rural Healthcare

The seamless integration of Internet of Things (IoT) and Artificial Intelligence (AI) sets COSMO Hyox apart, making it a game-changer in primary healthcare settings. The IoT capabilities of COSMO Hyox enable real-time monitoring and control of the disinfection process. Sensors embedded within the system continuously collect data on disinfection status, and environmental conditions. This data is transmitted to a centralized platform, allowing healthcare administrators to monitor multiple units remotely, ensuring optimal performance and timely maintenance.

This predictive maintenance reduces downtime and ensures a consistently high level of pathogen elimination, crucial for maintaining a safe and healthy environment in primary healthcare facilities. The combination of IoT and AI in COSMO Hyox not only improves the reliability and performance of the disinfection system but also contributes to better resource management and cost savings. Eta Purification's innovative approach exemplifies how cutting-edge technology can be harnessed to address critical healthcare challenges, ultimately leading to safer and healthier communities.

Our Success Story: Tangible impact of our Innovation for rural Healthcare

Facility Type & Location: Upgraded Primary Health Centre, Tirupur (District) Tamil Nadu

Certifying Authority: Chief Medical Officer

"This is to certify that we are a beneficiary of COSMO Hyox advanced disinfection system to control and mitigate indoor infections in our UGPHC. The machine was supplied to our healthcare facility in the year 2021 to strengthen and rejuvenate our infection control practices. The machine has ensured adherence to the best infection control practices in our operation theatre and labor ward and also provide our patients and visitors with positive experience. In recognition of our continuous efforts to quality assurance at Government healthcare facilities our UGPHC was NQAS (National Quality Assurance Standards) certified in the year 2022 after independent assessment by the Central Quality Supervisor Committee, Ministry of Health & Family Welfare, Government of India".

This is a success story of one PHC in a remote part of India and we have created similar impacts in other pockets of rural India through our innovation and technology. To create a larger and more sustainable social impact across India, it is essential for us to become an integral part of ecosystems like Bhubaneswar City Knowledge Innovation Cluster (BCKIC). Such platforms can significantly amplify the effectiveness of CSR initiatives by fostering collaboration, driving innovation, and optimizing resources, enabling us to scale our efforts and create lasting change. Knowledge clusters like BCKIC bring together a diverse range of stakeholders—corporations, academic institutions, NGOs, government agencies, and communities—to pool expertise, resources, and networks for a common goal. These collaborative environments enable the design of CSR programs that are both relevant and sustainable, addressing real-world challenges. By working together, organizations can share costs, maximize returns on investment, and increase the overall impact. Furthermore, successful initiatives within a cluster can serve as models for replication across different regions or industries.





BCKIC

Bhubaneswar City
Knowledge Innovation
Cluster Foundation

Bhubaneswar City Knowledge Innovation Cluster (BCKIC) Foundation

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