

IMPACT ASSESSMENT STUDY OF BHARAT DYNAMICS LIMITED'S CSR PROJECTS

FOR THE FY 2021-22



Submitted to



Submitted by



Shameerpet, Hyderabad



Acknowledgement

We are thankful to the executives of Bharat Dynamics Limited for their valuable inputs and coordination in conducting the Impact Assessment Study of 03 CSR projects of Bharat Dynamics Limited for FY 2021-22. On behalf of the IPE CSR Team, we extend our gratefulness to Commode A Madhavarao (Retd.), Chairman and Managing Director, BDL for providing us the opportunity to conduct the study.

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EXECUTIVE SUMMARY

BDL is conscious about its responsibilities towards society and as per the provisions of the Companies Act, 2013, BDL is spending 2% of the average net profits of the immediate three preceding financial years towards CSR activities. The core areas of focus under CSR are Healthcare, Nutrition, Education & Literacy, Skill Development and Sanitation etc. BDL as per DPE Guidelines, has also ventured into Aspirational Districts / underdeveloped areas in Telangana and Andhra Pradesh to undertake Corporate Social Responsibility (CSR) activities. The CSR budget for the fiscal year 2021-22 is set at ₹ 1812.61 lakh.

IPE was tasked with performing impact assessments for seven Corporate Social Responsibility (CSR) projects initiated by BDL during the fiscal year 2021-22, each with a budget of one crore or more. These projects have been in operation for at least one year, allowing for a comprehensive evaluation of their effectiveness in meeting the developmental needs of the communities served by BDL. To conduct this analysis, IPE employed the OECD DAC framework, a robust evaluation methodology that examines each project's relevance, coherence, efficiency, effectiveness, impact, and sustainability. This method ensured optimal execution, effective resource utilization, and alignment with strategic goals. IPE focused significantly on outcome measurements, highlighting the positive changes experienced by target communities, such as lives saved due to BDL's various healthcare initiatives during the COVID-19 pandemic, as well as socio-economic advancements and improved livelihood opportunities with other community projects.

Framework: OECD DAC framework has been used for evaluating the impact of BDL CSR projects. The scores of all the projects under study are based on their relevance, efficiency, effectiveness, and impact and sustainability parameters.

Weightage marks are assigned to each OECD DAC parameter, and each parameter's scores are computed according to their performances. Based on the sum of all parameters' weightage scores, the IPE team develops a 5-point rating scale and details are given below.

- Excellent (81 to 100)
- Above Average (61 to 80)
- Average (41 to 60)
- Below Average (21 to 40)
- Very Poor (1 to 20)

Overall Project Scores: The project efficiently utilized the inputs (funds, expertise etc.) and achieved the required outcomes and achievements that were desired from the projects. Overall project scores ranged between 77 to 90. The average score of 07 projects is around 83.75 out of 100 points.

Project wise performance of various parameters details is given below.

S. No.	Name of the Project	OECD DAC framework Evaluation Parameters					Total obtained score
		Relevance (20 Marks)	Efficiency (20 Marks)	Effectiveness (20 Marks)	Impact (20 Marks)	Sustainability (20 Marks)	
1	Smart Classrooms in Government Schools at Vizianagaram	18	17	17	17	17	86 (Excellent)
2	Construction of Girls Toilets in Govt. Schools of Rajanna Sircilla	17	15	15	15	15	77 (Above Average)
3	Procurement of Covid related equipment at Naval Hospitals, Delhi	19	17	17	18	17	88 (Excellent)
4	Construction of ZP High School at Bhanur Village	16	15	15	15	15	76 (Above Average)
5	Contribution to Covid Hospital at Lucknow	19	18	18	18	17	90 (Excellent)
6	Commissioning Oxygen Generation Plants at Military Hospital, Secundrabad and ESIC Hospital, Sanathnagar, Hyderabad	16	16	16	16	16	80 (Very Good) Military Hospital
		17	18	17	17	18	87 (Excellent) ESIC Hospital
7	Setting up of Covid Separation facilities at ESIC, Sanathnagar, Hyderabad	18	17	17	17	17	86 (Excellent)

The Project wise impact is given below

Project 1: Smart Classrooms in Government Schools at Vizianagaram

With the aim of enhancing the modern teaching and learning environment at government schools in Vizianagaram district, various stakeholders including public representatives, the district collector, and district education officer joined forces with Bharat Dynamics Limited to secure CSR funds for the implementation of smart classroom systems. As a result, During FY 2021-22, BDL extended CSR financial support of Rs. 100 lakhs to establish 40 smart classroom systems across 34 primary and 6 upper primary schools in Vizianagaram district.

Outcome / Effectiveness: BDL achieved the project objective by installing 40 KYAN smart classroom systems in selected 40 government schools across the Vizianagaram district. A total of 2500 primary and upper primary school students benefited from this project, engaging with diverse subject materials and attending smart classroom sessions daily. Consequently, schools conducted 3-4 smart classroom sessions per day, providing students with enriched educational experiences and resulting in enhancements in their fundamental numeracy skills, understanding of environmental science concepts, as well as proficiency in English and Telugu languages.

Impact: This project has transformed classroom teaching and learning environments in government schools of Vizianagaram district, Andhra Pradesh, leading to improved educational standards, increased school enrollment, reduced absenteeism, and enhanced overall education quality in government schools.

Project 2: Construction of Girls Toilets in Govt. Schools of Rajanna Sircilla

Recognizing the importance of girls' toilet facilities in government schools, the District Magistrate and the Education Department in Rajanna-Sircilla district actively sought CSR funding support from Bharat Dynamics Limited (BDL), a defense public sector organization. Their efforts were fruitful as they obtained Rs. 200 lakhs in funding, which was utilized to construct girls' toilets in 39 selected Government Schools. The construction of these toilets was made possible only because of the generous financial assistance from BDL. The project commenced in the financial year 2020-21 and was completed by 2021-22.

Outcome / Effectiveness: The aim of this project has been successfully achieved as it has ensured the provision of toilet facilities specifically for schoolchildren in 39 government schools located in the Rajanna-Sircilla district. Consequently, there has been a significant improvement in the quality of toilet facilities available in government schools. Presently, A total of 3000 schoolchildren for both boys and girls access the toilet facilities daily.

Impact: The construction of distinct toilets for boys and girls at government schools in the Rajanna-Sircilla district has yielded significant results, including a rise in enrolment of schoolchildren, improved attendance rates, and decreased dropout rates. This beneficial impact is credited to the availability of conveniently located separate restrooms for schoolchildren, which fosters a sense of dignity and privacy among them. As a result, there has been a noticeable improvement in the overall health and academic performance of schoolchildren. Additionally, this project has enhanced menstrual hygiene facilities for young girl students.

Project 3: Procurement of COVID Related Equipment at Naval Hospitals, Delhi

BDL extended financial support to multiple Indian Navy Hospitals throughout the nation during the fiscal year 2021-22, aimed at addressing the urgent need for emergency medical treatments amid the COVID-19 pandemic. The specifics of the medical equipment acquired for each Navy hospital through BDL's CSR funding, amounting to Rs. 300 lakhs. Indian Naval Benevolent procured various medical equipment

Outcome / Effectiveness: BDL has successfully met the objectives of this project by providing a range of medical equipment, devices, and facilities aimed at bolstering the medical infrastructure of five INHS hospitals, one INS hospital, and one Diving School Hospital. As a result, this initiative has significantly improved the treatment protocols for COVID-19, ultimately saving the lives of Indian Navy personnel and their dependents who were infected. Additionally, the project has enhanced the capacity for outpatient, inpatient, emergency, and surgical treatments through the upgraded equipment and facilities in these hospitals.

Impact: The COVID-19 pandemic has created a pivotal opportunity to accelerate the development of treatment facilities in Indian Navy hospitals. This project has reinforced the medical infrastructure, ensuring that these hospitals are well-prepared to address any health

emergencies that may occur in the future. The increased availability of critical medical equipment, advanced devices, and enhanced facilities has resulted in a significant decrease in time needed for emergency treatments. As a result, the upgraded facilities have not only improved the overall effectiveness of hospital services but have also played a vital role in safeguarding the lives of many individuals associated with the Indian Army and their dependents. The advancements made during this challenging time have set a new standard for healthcare delivery within the military framework, ensuring better preparedness for any future health crises.

Project 4: Construction of ZP High School at Bhanur Village

Zilla Parishad High School (ZPHS), Bhanur, was established in 1989 as a co-education school. This educational institution has played a significant role in transforming the public education system in Bhanur village, a rural area located in the Sangareddy district of Telangana state. Currently, the school has a total enrollment of 145 students, comprising 75 boys and 70 girls. The teaching staff consists of 9 members, while there are 3 non-teaching staff members. Over the years, the school has achieved remarkable academic success. However, it faced numerous challenges in terms of classroom infrastructure and basic amenities. To address these challenges, BDL constructed a school building and provided essential facilities with a cost of Rs. 324 lakhs. This project was initiated during February 2020 and completed by March 2022.

Outcome / Effectiveness: The project has accomplished its objective with great effectiveness by creating an environment that promotes learning for 145 students in classes VI to X. Following the construction of the school building, improvements were observed in classroom instruction, extracurricular activities, sports provisions, student amenities during lunchtime, access to clean drinking water, and restroom facilities. These provisions have significantly enhanced the quality of educational standards and student facilities.

Impact: BDL's initiation of the construction of school building at ZP High School, Bhanur has led to significant changes, such as an increase in school enrollment, a decrease in students' absenteeism, and an enhancement in academic achievements among students. Additionally, this endeavor has positively impacted the health of children by offering adequate facilities for clean drinking water, sanitation, nutritious midday meals, and sports activities. Moreover, the project executed in Bhanur village has not only brought about favorable transformations in education and socio-economic conditions but has also instilled a sense of hope and optimism for the future among the residents. It serves as an outstanding illustration of how education and community-driven initiatives can uplift and empower marginalized communities.

Project 5: Contribution to Covid Hospital at Lucknow

In 2021, amidst the devastating impact of the Corona pandemic, the Indian government took proactive measures to establish a fully equipped Makeshift Covid Centre in Lucknow, Uttar Pradesh. This initiative, named the Atal Bihari Vajpayee makeshift COVID Care Centre, was a response to the urgent need to address the severe impact of the second wave of the pandemic. The site for the center was allocated at Awadh Shilpgram in Lucknow by the Uttar Pradesh government, and the overall responsibility for construction was undertaken by DRDO, with the Chief Construction Engineer (CCE), North successfully completing the establishment within a fortnight. The center was equipped with 500 beds, a 40 KLD cryogenic oxygen gas supply system, intensive care units, ventilators, a lab, a dispensary, and other essential

healthcare facilities. DRDO also facilitated the operations and provided medical staff for the entire duration of the center's operation (May 5, 2021, to March 31, 2022). The funding for this initiative, totaling nearly twenty-five crores, was mobilized with 60% from PM CARES and 40% from CSR, with contributions from organizations such as the Bharat Dynamics Limited, Hyderabad and Other PSUs. Following the PMO's directive, DRDO sought financial assistance from Bharat Dynamics Limited (BDL). In response to the appeal, BDL approved a sum of Rs. 2 crore and disbursed it to DRDO during FY 2021-22. This ambitious venture provided timely medical care and life-saving treatment to thousands of critically ill patients.

Outcome / Effectiveness: The objective was achieved with the creation of the temporary COVID-19 Hospital in Lucknow. Through efficient collaboration with the DRDO, a significant number of COVID patients received successful treatment at this facility, thereby preserving many lives. After the setup of this makeshift center, thousands of critically ill individuals were provided with medical care and life-saving interventions at this temporary hospital from 5th May 2021 to 31st March 2022.

Impact: The creation of a 500-bed Atal Bihari Vajpayee makeshift COVID Care Centre in Lucknow offered treatment to numerous COVID-19 patients from 5th May 2021 until the conclusion of the Second wave, easing the strain on the public healthcare system. This center was established in preparation for the third wave to address potential emergencies. Following this, the medical equipment and facilities were transferred to other healthcare systems for alternative treatments after completely reducing the burden of COVID-19.

Project 6: Commissioning Oxygen Generation Plants at Military Hospital, Secunderabad and ESIC Hospital, Sanathnagar, Hyderabad

The oxygen supply crisis that impacted India in April and July 2021 during the peak of the second wave of the coronavirus pandemic had severe repercussions. Hospitals nationwide struggled to meet the rising demand for oxygen, leading to a significant increase in COVID-19 related deaths. The overwhelming number of infected patients strained healthcare facilities, resulting in shortages of beds, oxygen, and other vital resources. Telangana state faced a significant challenge during the second wave, experiencing high rates of infection and mortality. To address the acute oxygen shortages at military hospital in Secunderabad, and the ESIC Medical College and Hospital in Hyderabad, BDL took the initiative to install oxygen plants, each with a capacity of 960 liters to ensure a consistent oxygen supply for COVID-19 treatment, following the directives of the Concerned Defence Ministry, Government of India. These installations occurred towards the end of the second wave of COVID-19, from June 2021 to September 2021, in preparation for the anticipated third wave of the pandemic and other potential health crises. BDL incurred an expenditure of Rs. 188.80 lakhs for installing these two oxygen plants in both hospitals.

Outcome / Effectiveness: The project was successful in delivering desired outcomes of optimum level oxygen supplies to ESIC medical college & hospital and Military Hospital - Secunderabad treating critical care patients. This project strengthened medical infrastructure facilities at military hospital and ESIC medical college & hospital in Telangana state. Furthermore, this project enabled the availability of medical oxygen, which can help these hospitals face any catastrophic health emergencies.

Impact: The COVID-19 pandemic has presented an opportunity to enhance our health system and its delivery protocols. The installation of Oxygen-generation plants and provision of medical infrastructure facilities like oxygen pipeline systems augmented the supply of oxygen to military hospital and ESIC medical college and hospital in Telangana in treating various patients of armed forces personnel, ESI-insured persons and their family members on time to save their lives. The tremendous burden of oxygen scarcity in hospitals was lessened by oxygen plants, which allowed hospitals to manage and save a significant proportion of critically sick patients who needed oxygen at a rate of five to fifteen LPM to maintain saturation oxygen levels of 92-96%.

Project 7: Setting up of COVID Separation facilities at ESIC, Sanathnagar, Hyderabad

ESIC Medical College and Hospital (ESIC MC & H), Sanathnagar, Hyderabad, is an 800-bed hospital catering to more than 14 lakh insured persons covered under the ESI Scheme in Telangana. During COVID-19 this hospital has rendered both COVID and Non-COVID Services. This hospital has a footfall of more than 2400 patients each day. To reduce non-COVID patients entering areas where COVID-19 patients were being treated, ESIC MC & H decided to install flap barriers at various eight strategic locations on the campus. Furthermore, they approached BDL for CSR funding under the COVID-19 disaster management program, and as a result, eight flap barriers were successfully installed. The flap barriers aided in cutting down the flow of patients and patients' attendants into COVID and non-COVID treatment areas while granting access only to those allowed to enter those areas. The total cost of the project was Rs. 170 lakhs

Outcome / Effectiveness: ESIC MC & H successfully achieved its project objectives of controlling access for unauthorized individuals or excessive attendants of ESIC-insured patients and monitoring of employee attendances by implementing 8 flap barriers at strategic locations. These flap barriers are linked to controllers that continuously monitor their connectivity and transmit data from RFID cards used for access. The controllers are connected to two servers in the IT server room, storing access details for analysis as needed. Additionally, the application serves as a backup for the attendance management system, utilizing facial recognition technology for employee attendance based on data captured by the same application used for the flap barriers.

Impact: The program resulted in significant modifications, such as the improvement of monitoring systems at ESIC MC & H for ESIC-insured individuals and their companions' access, the prevention of unauthorized entry, and the promotion of employee punctuality. These enhancements have led to better management of ESIC-insured patients' data, employee efficiency, and reduced operational costs by optimizing the deployment of security personnel. The initiative was particularly beneficial during the COVID-19 pandemic, as it effectively managed the flow of both COVID-19 and non-COVID-19 patients by allowing treatment exclusively for eligible general & ESIC-insured individuals through a card access system, resulting in a decrease in virus transmission among individuals on the campus.

Chapter I

CORPORATE SOCIAL RESPONSIBILITY: AN OVERVIEW

Companies do not only focus on their profitability and growth but also consider welfare and environmental activities for the wellbeing of societies and environment through concept of Corporate Social Responsibility. CSR is envisioned as a comprehensive collection of social policies, practices, and initiatives that are integrated into business operations to meet the expectations of society and their business goals.

Corporate social responsibility (CSR) is a self-regulating framework that enables a company to maintain accountability towards itself, its stakeholders, and the broader community. By engaging in corporate social responsibility, often referred to as corporate citizenship, organizations can be mindful of their influence on various societal dimensions, including economic, social, and environmental factors. CSR entails making meaningful contributions to society and fostering balanced development by providing adequate services to stakeholders such as employees, customers, shareholders, suppliers, and the general public. Essentially, corporate social responsibility encompasses the strategies companies employ to ensure their business operations yield a positive impact on society, addressing sustainability, social influence, and ethical practices in their operations.

Giving back to society is a core component of Indian culture and ethics, and traditional Indian enterprises have adopted this attitude from the beginning. Our sacred texts emphasize the value of contributing to society. The ancient wisdom of India, which is still valid today, motivates individuals to work toward the more important goal of ensuring the welfare of all stakeholders. Indian industry has a history of being socially conscious, and some of the major companies have made commendable efforts in this area.

For many years, the legislature has passed various social, labor, and environmental legislation to help businesses understand their obligations to their employees, neighbors, and environment. The inclusion of CSR measures in the Act is a ground-breaking legislative initiative to include corporations as stakeholders in the nation's social development process and to strengthen corporate social responsibility.

The Companies Act of 2013 is an act of legislation that launched one of the world's highest experiments in making CSR a requirement. CSR is a crucial and forward-thinking idea for socioeconomic growth. The government tries to involve businesses in the agenda for national development by including CSR. With the inclusion of CSR provisions in the Act, corporations now have a legal obligation to take actions to fulfill their social, environmental, and financial commitments. The Act's Section 135 and the CSR Rules created by it serve as the legal foundation for CSR in India.



The Companies Act 2013 mandated CSR in 2014. Since then, many amendments and revisions were introduced to strengthen the implementation of CSR in India. The main agenda for CSR initiatives is to accomplish sustainable development goals and reshape India through public-private partnerships. Though practiced by many corporate and industrial organizations from early historical periods, CSR has become mandatory for companies falling in the criteria and the companies are expected to align to take up activities detailed in the Schedule VII of the Companies Act, 2013.

Chapter II

ABOUT BHARAT DYNAMICS LIMITED AND ITS CORPORATE SOCIAL RESPONSIBILITY

About Bharat Dynamics Limited

Headquartered in Hyderabad, **Bharat Dynamics Limited** (BDL), was incorporated on 16 July, 1970 as a Public Sector Undertaking under the Ministry of Defence, Government of India to be the manufacturing base for guided missile systems and allied equipment for the Indian Armed Forces. Since its inception, BDL has been working in collaboration with DRDO & foreign Original Equipment Manufacturers (OEMs) for manufacture and supply of various missiles and allied equipment to Indian Armed Forces. The lead taken by the Nation to develop indigenous, sophisticated and contemporary missiles through the Integrated Guided Missile Development Programme (IGMDP), gave BDL an opportunity to be closely involved in the programme, wherein it was identified as the Prime Production Agency. This opened up a plethora of opportunities to assimilate advanced manufacturing and programme management technologies and skills. Today, BDL has evolved as one among the few industries in the world having state-of-the-art facilities for manufacture and supply of Guided Missiles, Underwater Weapons, Air- borne products and allied defence equipment for the Indian Armed Forces. The Company also offers Product Life Cycle Support and Refurbishment / Life Extension of vintage Missiles.

CSR at Bharat Dynamics Limited

Bharat Dynamics Limited focuses on addressing social, economic, and environmental concerns of society. BDL CSR initiatives are aligned with the national priorities and enhance the engagement of the corporate sector towards achieving Sustainable Development Goals (SDGs). The company gives preference to local areas, while maintaining balance between local areas with national priorities.

Areas of CSR activities

Activities which may be included by companies in their Corporate Social Responsibility Policies Activities relating to:

- (i) Eradicating hunger, poverty, and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.
- (ii) Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly, and the differently abled and livelihood enhancement projects.



- (iii) Promoting gender equality, empowering women, setting up homes and hostels for women and orphans; setting up old age homes, day care centres and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups.
- (iv) Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining quality of soil, air and water including contribution to the Clean Ganga Fund set-up by the Central Government for rejuvenation of river Ganga.
- (v) Protection of national heritage, art and culture including restoration of buildings and sites of historical importance and works of art; setting up public libraries; promotion and development of traditional art and handicrafts.
- (vi) Measures for the benefit of armed forces veterans, war widows and their dependents, Central Armed Police Forces (CAPF) and Central Para Military Forces (CPMF) veterans, and their dependents including widow.
- (vii) Training to promote rural sports, nationally recognized sports, paralympic sports and Olympic sports.
- (viii) Contribution to the prime minister's national relief fund 8[or Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund)] or any other fund set up by the central govt. for socio economic development and relief and welfare of the schedule caste, tribes, other backward classes, minorities, and women.
- (ix) A. Contribution to incubators or research and development projects in the field of science, technology, engineering, and medicine.
- B. Contributions to public funded Universities; Indian Institute of Technology (IITs); National Laboratories and autonomous bodies.
 - Rural development projects.
 - Slum area development.
 - Disaster management, including relief, rehabilitation, and reconstruction activities.

BDL has constituted Below Board Level - CSR & SD Committee, Board Level - CSR & SD Committee for planning, implementation and monitoring of its CSR activities.

Budget spent on various CSR activities from FY 2018-19 to 2021-22

S. No.	Year	Budget Spent (Rupees in Crore)
1	2018-19	18.39
2	2019-20	15.56
3	2020-21	15.41
4	2021-22	18.13

The CSR projects listed below, which were executed during the fiscal year 2021-22 with an expenditure of one crore or more and were completed on or before March 31, 2022, are to be included in the Impact Assessment study in accordance with the Companies (CSR Policy) Rules 2014 and their subsequent amendments.

S. No.	CSR Project Name	Expenditure (Rs. in Lakhs)
1	Smart Classrooms in Government Schools at Vizianagaram	100.00
2	Construction of Girls Toilets in Govt. Schools of Rajanna Sircilla	200.00
3	Procurement of Covid related equipment at Naval Hospitals, Delhi	300.00
4	Construction of ZP High School at Bhanur Village	324.00
5	Contribution to Covid Hospital at Lucknow	200.00
6	Commissioning Oxygen Generation Plants at Military Hospital, Secundrabad and ESIC Hospital, Sanathnagar, Hyderabad	188.80
7	Setting up of Covid Separation facilities at ESIC, Sanathnagar, Hyderabad	170.00

Chapter III

RESEARCH METHODOLOGY AND APPROACH

The objective of the impact assessment study is to determine the outcomes and Impact of the projects. The IPE adopts the OECD DAC Network on Development Evaluation framework for studying the impact of the 07 CSR projects carried out by Bharat Dynamics Limited during the FY 2021-22 and each CSR project budget outlay was one crore or above. The criteria for impact are to study the relevance, efficiency, effectiveness, impact, sustainability and coherence of the selected project. These criteria provide a normative framework used to determine the merit or worth of an intervention (policy, strategy, programmes, etc).



Source: OECD DAC Framework

The study uses the OECD DAC framework for finding the impact of the CSR project

S. No.	Evaluation Criteria	Discussion for Impact Assessment Study
1	Relevance (Is the intervention doing the right things?)	Most important element for analysing relevance is the assessment of the extent to which an intervention addresses beneficiaries' needs and priorities. This analysis provides insight into which issues an intervention address and why.
2	Efficiency (How well are resources are being used?)	The extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. Evaluating efficiency involves looking at the key areas of economic efficiency, operational efficiency, and timeliness.
3	Effectiveness (Is the intervention achieving its objectives?)	Effectiveness helps in understanding the extent to which an intervention is achieving or has achieved its objectives. It can provide insight into whether an intervention has attained its planned results, the process by which this was done, which factors were decisive in this process and whether there were any unintended effects.

S. No.	Evaluation Criteria	Discussion for Impact Assessment Study
4	Impact (What difference does the intervention make?)	The extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects.
5	Sustainability (Will the benefits last?)	The extent to which the net benefits of the intervention continue or are likely to continue.
6	Coherence (How well does the intervention fit?)	The compatibility of the intervention with other interventions in a country, sector or institution.

Source: OECD DAC Framework

The study would find answers for the following questions by using the related methodology.

- What are the intended / planned outcomes of the CSR project?
- Which groups have been affected (or unaffected) by the changes?
- What is the method of implementing the project and what are the challenges faced by the implementing agency, if any?
- How significant is the project in meeting the stakeholder's demands / expectations?
- Whether the project has sustainability or not?

Scope of the Study: The scope of the study includes the following:

- Reviewing of existing project documents such as project agreement documents, baseline study reports, if any, project progress reports, completion reports.
- Selecting the sample from the list of projects and conducting the stakeholder satisfaction level surveys.
- Analysing and summarizing project results concerned with impact produced.
- Identifying gaps and preparing recommendations.

Detailed Research Methodology

The impact study adopts a four-phase structured for conducting the impact assessment. To accurately assessing the effects of the programs, the adopted methodology ensures that the OECD DAC evaluation standards are followed.

Phase I: Project initiation and Review of Project Documents

During the project initiation phase, IPE engaged with the BDL CSR department to gather information regarding the projects and to examine the relevant project documentation. The project documents encompassed the Memorandum of Understanding with BDL pertaining to the programs, progress reports, baseline study reports, project progress reports, completion reports, and audited Utilized Certificates, among others, depending on the availability of the documents.

Phase II: Research Design:

- Study methodology: Study is descriptive in nature, both primary and secondary data are used for analysis.

- Observational Method
 - Case Study Method
 - Survey Research
- ii) Study tools: Structured questionnaires, individual & focused group discussions are used to collect the data to find out outcomes, impact created by projects.
- iii) Sampling Technique: Purposive Sampling
- iv) Weightage to Assessment parameters of OECD DAC framework (Impact Analysis Matrix):

DAC framework Parameters	Check list Components	Weightage Score
Relevance	Alignment to CSR Policy of BDL, Alignment to SDGs	20
Efficiency	Project timelines and budget	20
Effectiveness	Achievements (Target Vs. Actual)	20
Impact	Availability of baseline assessment and indicators, availability of midterm and completion reports, clearly defined impact indicators	20
Sustainability	Initiatives of project Sustainability Mechanism	20
Total Score		100

Weightage marks are assigned to each OECD DAC parameter, and each parameter's scores are computed according to their performances. Based on the sum of all parameters' weightage scores, the IPE team develops a 5-point rating scale and details are given below.

- Excellent (Scores: 81 to 100)
- Above Average (61 to 80)
- Average (41 to 60)
- Below Average (21 to 40)
- Very Poor (1 to 20)

Phase III: Data collection

The IPE team would conduct stakeholder interaction and collect primary data using a questionnaire with implementing agencies and various stakeholders to further understand the projects, their objectives and impact.

Phase IV: Data Analysis and Report Writing

The analysis involved a review of data and observations derived from document examination and pertinent stakeholder interactions. Additionally, the study assessed the project's adherence to the Memorandum of Understanding, as well as its completion within the designated budget and timeline. The final step in this process was the preparation of the report.

Chapter IV

PROJECT WISE ANALYSIS

Project 1: Smart Classrooms in Government Schools at Vizianagaram

Name of the Project	Smart Classrooms in Government Schools at Vizianagaram
Project Cost	100 lakhs
Execution Period	2021-22
CSR Thematic Area	Promoting Education (Schedule VII, Section 135, item number 2)
SDG Goal	
Project Objective	The objective of the project is to empower government schools digitally by providing smart classroom systems in selected government schools of the Vizianagaram district.
Total Beneficiaries	2500 schoolchildren

Background of the Project

Traditional classrooms typically involve one-way communication, where teachers deliver lectures and students take notes. On the other hand, smart classrooms are equipped with multimedia platforms, interactive whiteboards, and educational apps to enhance comprehension. The inclusion of visual and interactive elements in smart classrooms not only boosts engagement but also enhances academic performance. According to a study conducted by IIT Bombay, students in smart classrooms demonstrated a 20% better retention of concepts compared to those in traditional classrooms. Additionally, smart classrooms offer access to digital libraries, e-books, and online research materials, thereby enriching students' knowledge.

With the aim of enhancing the modern teaching and learning environment at government schools in Vizianagaram district, various stakeholders including public representatives, the district collector, and district education officer joined forces with Bharat Dynamics Limited to secure CSR funds for the implementation of smart classroom systems. As a result, During FY 2021-22, BDL extended CSR financial support of Rs. 100 lakhs to establish 40 smart classroom systems across 34 primary and 6 upper primary schools in Vizianagaram district.

Project Initiatives

During FY 2021-22, BDL successfully set up 40 KYAN smart classrooms in selected government schools of Vizianagaram District, with RES technologies serving as the implementing agency. The total cost of the project amounted to Rupees 100 lakhs, benefiting a total of 2500 students. Schoolnet India Limited played a crucial role as the technical partner in this initiative.



Mandal-wise total number of primary and upper primary schools for smart classroom systems

S. No.	Name of the Mandal	Mandal wise Primary and Upper Primary Schools' Numbers for Smart Classroom System Installation		
		Primary Schools	Upper Primary Schools	Total
1	Denkada	02	01	03
2	Pusapatirega	04	02	06
3	Bhogapuram	04	00	04
4	Vizianagaram	04	02	06
5	Meraka Mudidam	02	00	02
6	Chipurpalli	04	00	04
7	Garividi	02	00	02
8	Gurla	05	00	05
9	Nellimarla	06	00	06
10	Gantyada	01	01	02
	Total	34	06	40

About KYAN Smart Classroom System



KYAN Smart Classroom – Various Components

KYAN represents an integrated software and hardware solution that facilitates content presentation, supports annotation functions, and encourages collaboration in an enjoyable and interactive manner. The all-in-one device combines various technologies into a single unit, as illustrated in the above diagram. The KYAN smart classroom system is made with Intel i3 Processor, 4 GB RAM, an advanced projection system, in-built interactive board & audio system, and a DVD player. K-Yan combines the functionality of a computer, a projector, high luminosity projector, in-built speakers, a 500 GB HDD, Internet, video conferencing, a wireless keyboard, a mouse and more into a single interactive device.



BDL installed Kyan smart classroom systems at Government Schools in Vizianagaram district

Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance: The implementation of smart classroom instruction in government schools of Vizianagaram district is a significant project that resonates with the Government of Andhra Pradesh's efforts for digital transformation in classroom teaching and the Government of India's Samagra Shiksha project. These initiatives are geared towards enhancing modern teaching and learning facilities in government schools. This project also supports the New Education Policy 2020.

Efficiency: This initiative has been carried out in a systematic, phased manner, adhering to the designated timeframe and with appropriate allocation of funds. The smart classroom systems are being optimally utilized by both teachers and students, with teachers utilizing a diverse range of digital content such as preloaded subject material, e-books, video lectures, interactive learning resources, and downloaded lessons from YouTube to enhance students' understanding of various subjects. Additionally, students have access to a wide array of digital resources and online learning platforms. Internet connectivity enables students to delve into information beyond traditional textbooks, improving their grasp of various subjects. Consequently, students can grasp subject matter more readily and excel in their academic assessments.

Effectiveness: BDL achieved the project objective by installing 40 Kyan smart classroom systems in selected 40 government schools across the Vizianagaram district. A total of 2500 primary and upper primary school students benefited from this project, engaging with diverse subject materials and attending smart classroom sessions daily. Consequently,

schools conducted 3-4 smart classroom sessions per day, providing students with enriched educational experiences and resulting in enhancements in their fundamental numeracy skills, understanding of environmental science concepts, as well as proficiency in English and Telugu languages.

Outcomes

- Improved LSRW skills among schoolchildren in Telugu & English languages
- Improved the basic numeracy skills and basic mathematic topics among schoolchildren.
- Improved the understanding of various environmental concepts like nature, environment, parts of the body, good food habits, modes of transportation, family, and others among schoolchildren.
- Enhanced observation skills among schoolchildren.
- Increase in interest among children towards education.

Impact: Most students are from families engaged in agriculture, labor-intensive work, caste-related occupations, small businesses, or the private sector. In the past, the lack of educational standards in government schools hindered their ability to acquire basic reading and writing skills in Telugu and English languages, as well as fundamental knowledge of numbering systems, tables, simple mathematics calculations, and basic environmental concepts. Furthermore, higher secondary school students faced challenges in subjects like Mathematics, English, Science, social studies, and languages before the implementation of smart classroom systems. Traditional classroom teaching with one-way communication often led to student boredom and lack of interest in classroom participation without various live experience audio-video visuals. However, this project has transformed classroom teaching and learning environments, leading to improved educational standards, increased school enrollment, reduced absenteeism, and enhanced overall education quality in government schools.

Coherence: This project is in accordance with the various policies on school education implemented by the Government of Telangana and the Government of India.

Sustainability: The project outcomes have a lasting impact, as recipient schools are provided with technical assistance from the project implementing agency, as well as financial support from the education department, school development & management committee, and relevant local body, all of whom are committed to ensuring the sustained success of the project.

Performance of the Project

OECD DAC Framework Weightage score

DAC framework Parameters	Performance Indicator	Weightage Score
Relevance	Excellent	18
Efficiency	Excellent	17
Effectiveness	Excellent	17
Impact	Excellent	17
Sustainability	Excellent	17
Total Score	Excellent	86

Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

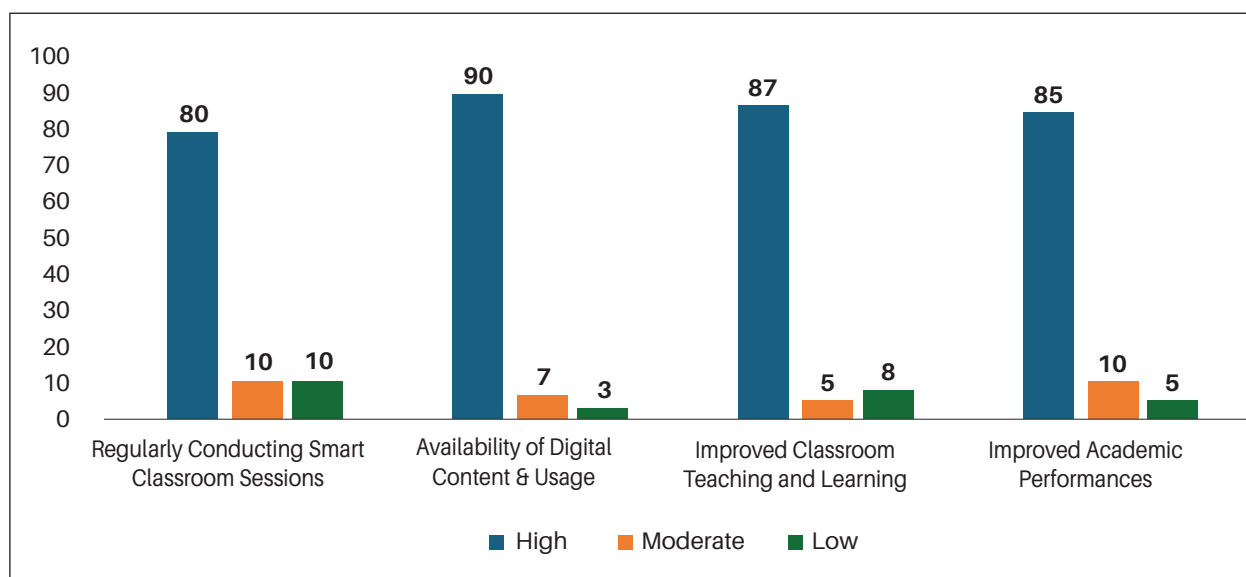
Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

Satisfaction Level Survey

Stakeholder Survey Details

S. No.	IPE Team Visited School Name	Total Strength	Selection Classes for Filling out the Questionnaire	Total Number of Questionnaires
1	MPPS Duppada (I to V)	79 (Boys: 39 and Girls: 40)	IV and V	30 (Boys: 15 and Girls: 15)
2	MPUPS Singavaram (I to VIII)	72 (Boys: 45 and Girls: 27)	IV and V	30 (Boys: 15 and Girls: 15)
3	MPPS Ramavaram	29 (Boys: 14 & Girls: 15)	-	-
4	MPPS Pusapatirega	23 (Boys: 10 and Girls: 13)	-	-

a) Students: The IPE team distributed a satisfaction level survey questionnaire to 60 students, with an equal division of 30 boys and 30 girls from IV and V classes in MPPS-Duppada and MPUPS-Singavaram to obtain feedback on the project. 80% of students expressed high satisfaction with the regular smart classroom sessions conducted in their classrooms. Most students stated that both schools hold 4 smart classroom sessions daily for various classes, focusing mainly on environmental science concepts, basic mathematics concepts, basic Telugu LSRW skills, and moral stories. 90% of respondents indicated their high satisfaction with the availability and use of digital content in classroom teaching and student learning. Students have access to various downloaded subject content, lectures, e-books, and preloaded subject content in their learning environment.



They requested that the school authorities update the subject content periodically to align with changes in the regular curriculum. 87% of students reported high satisfaction with the improved classroom teaching and learning environment due to the smart classroom instruction provided by teachers. Students emphasized that teachers utilize various resources such as audio-visual aids, graphics, word documents, PDFs, PowerPoint presentations, downloaded material, and integrate them with subject topics, resulting in an enhanced classroom teaching and learning environment. 85% of respondents expressed high satisfaction with the improvement in their academic performance due to the changing pattern in classroom teaching and learning with the smart classroom systems.

b) Teachers: The IPE team interacted with 08 teachers from four government schools, all of whom expressed their high satisfaction with the improved modern classroom teaching and learning environment facilitated by smart classrooms. The teachers appreciated the opportunity to enhance their modern teaching skills using smart projectors, enabling them to better guide students and create effective lesson plans. This project not only improved their ability to assess student progress but also motivated them to make lessons more engaging. The teachers felt professionally trained and ready to conduct smart classes, showing interest in exploring hybrid teaching methods.

c) Parents: The IPE team engaged with twelve parents from four schools, all of whom conveyed their high satisfaction with the implementation of modern teaching facilities in government schools after the installation of smart classrooms by BDL. They commended BDL for supplying these smart classrooms to their schools and recognized the enhancements in classroom instruction and learning environment, leading to elevated education standards in government schools.

Overall Observations

- All educational institutions have reported successful installation of smart classrooms and timely resolution of the smart classroom systems issues encountered during the warranty period. However, a small percentage of schools faced hardware or system problems after the warranty period had ended.
- The digital learning initiative has garnered significant participation from both Teachers and students. Mathematics and Science have shown usage rates exceeding 70%, indicating their popularity.
- Schools typically conduct 20-24 smart classroom sessions weekly.
- The benefits of the digital learning program include simplified explanation of new concepts, increased student engagement, modernized teaching methods, and efficient management with fewer instructors.
- The preloaded content for various subjects aligns with the syllabus set by the Andhra Pradesh state government.
- Some schools utilize Smart classrooms for remedial classes to improve student performance.

Case Studies

Case Study 1

"Before the smart classroom system was implemented in our school, I struggled with mathematics, particularly in areas such as the numbering system, basic arithmetic operations, and fractions. However, the introduction of this technology revolutionized my learning experience. Through interactive teaching methods, visual aids, and step-by-step problem-solving videos, I was able to grasp basic mathematical concepts more effectively. This not only helped me improve my analytical and reasoning skills but also led to a significant increase in my mathematics subject performance, from 40% to 90% in the final exams of IV class. I am grateful to Bharat Dynamics Limited for providing us with this invaluable resource".

P. Dhanush

V standard, MPPS - Duppada

Case Study 2

"The KYAN smart classroom system is a comprehensive device that transforms the teaching and learning experience through the seamless integration of computer, projector, Interactive board, and additional features like audio system, video conferencing, and more. The incorporation of engaging audio-visual content, including animated pictures, graphics, and videos, not only captures students' attention but also enhances their comprehension of various subjects. The interactive nature of smart class sessions motivates children to actively participate and grasp complex topics such as mathematical concepts and environmental studies. Furthermore, the utilization of multimedia tools in classroom instruction has sparked a keen interest in school children towards academics, leading to a significant decrease in absenteeism and dropouts, while also enhancing students' technological skills and overall comfort with digital learning."

Mr Israel Raju

Headmaster, MPUPS - Singavaram



Project 2: Construction of Girls Toilets in Govt. Schools of Rajanna Sircilla

Name of the Project	Construction of Girls Toilets in Government Schools of Rajanna-Sircilla
Project Cost	200 lakhs
Execution Period	2020-21 and 2021-22
CSR Thematic Area	Promoting Healthcare including sanitation (Schedule VII, Section 135, item number 1) Promoting Education (Schedule VII, Section 135, item number 2)
SDG Goal	
Project Objective	The project objective is to construct toilets for girls to eliminate open defecation at selected government schools in the Rajanna-Sircilla district as part of the Swachh Vidyalaya Mission.
Total beneficiaries	1400 schoolchildren - primary schoolchildren: I to V classes 200 schoolchildren - upper primary schoolchildren: I to VII 1400 schoolchildren - high schoolchildren: VI to X

Background of the Project

Insufficient, unsafe girls' toilets were the main causes contributing to the decline in girls' attendance and increase in dropouts at government schools in the Rajanna-Sircilla district. It is crucial to establish appropriate, gender-segregated facilities in schools to eliminate this significant barrier to girls' attendance levels and dropout rates. Gender norms and physiological differences highlight the importance of privacy for girls, especially considering the biological realities of menstruation. Hence, it is imperative to provide adequate restroom facilities that cater to their specific needs. Recognizing the importance of girls' toilet facilities in government schools, the District Magistrate and the Education Department in Rajanna-Sircilla district actively sought CSR funding support from Bharat Dynamics Limited (BDL), a defense public sector organization. Their efforts were fruitful as they obtained Rs. 200 lakhs in funding, which was utilized to construct girls' toilets in 39 selected Government Schools. The construction of these toilets was made possible only because of the generous financial assistance from BDL. The project commenced in the financial year 2020-21 and was completed by 2021-22.

Project Initiatives

Phase-wise project details are as follows:

Project details

Particulars	First Phase	Second Phase
Number of schools	18	21
Number of toilet blocks	32	32
Cost of each toilet block	Rs 3.10 Lakhs	Rs 3.10 lakhs
Cost of toilet blocks	Rs 99.20 Lakhs	Rs 99.20 Lakhs
Other expenditure	Rs 0.80 Lakhs	Rs 0.80 Lakhs

Particulars	First Phase	Second Phase
Total number of schools covered for toilets construction	Primary schools: 07 ZPHS high schools: 11	Primary schools: 15; Middle schools: 03; ZPHS high schools: 03
Beneficiaries	1400 (appx)	1600 (appx)

Mandal-wise - total number of toilets constructed in Government Schools of Rajanna-Sircilla district

S. No.	Name Mandaldal	Primary Schools		Middle Schools (UPS)		High Schools (ZPHS)	
		Total Schools	Units	Total schools	Units	Total Schools	Units
	Phase I						
1	Gambhiraopet	01	02	-	-	04	07
2	Mustabad	-	-	-	-	02	06
3	Sircilla	01	01	-	-	03	06
4	Thangalapalli	02	03	-	-	-	-
5	Veeranapalli	03	03	-	-	-	-
6	Yellareddypet	-	-	-	-	02	04
	Sub-Total I	07	09	-	-	11	23
	Phase II						
1	Gambhiraopet	03	05	-	-	01	02
2	Mustabad	02	02	-	-	01	02
3	Sircilla	04	05	01	02	-	-
4	Thangalapalli	01	02	-	-	01	02
5	Veeranapalli	03	04	-	-	-	-
6	Yellareddypet	02	04	02	02	-	-
	Sub-Total II	15	22	03	04	03	06
	Grand Total (Sub-Total I + Sub-Total II)	22	31	03	04	14	29



Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance: The importance of this endeavor resides in its conformity with the National Education Policy 2020, which highlights the necessity of operational toilet facilities in government schools. Moreover, it is in line with the Samagra Shiksha, Swachh Vidyalaya Abhiyan, and RTE Act 2009, all of which stress the importance of providing separate toilet amenities for schoolchildren in Government schools. This initiative is crucial as it has provided separate toilet facilities for female students in 39 government schools in the Rajanna-Sircilla district.

Efficiency: The successful completion of the project within the set timeframe and budget constraints underscored the meticulous attention given to toilet design, construction standards, water provision, and essential amenities. The toilets constructed by BDL at selected government schools in Rajanna-Sircilla district are in good working condition and there is also a high rate of usage by schoolchildren.

Effectiveness: The aim of this project has been successfully achieved as it has ensured the provision of toilet facilities specifically for schoolchildren in 39 government schools located in the Rajanna-Sircilla district. Consequently, there has been a significant improvement in the quality of toilet facilities available in government schools. Presently, A total of 3000 schoolchildren for both boys and girls access the toilet facilities daily.



Impact

The construction of distinct toilets for boys and girls at government schools in the Rajanna-Sircilla district has yielded significant results, including a rise in enrolment of schoolchildren, improved attendance rates, and decreased dropout rates. This beneficial impact is credited to the availability of conveniently located separate restrooms for schoolchildren, which fosters a sense of dignity and privacy among them. As a result, there has been a noticeable improvement in the overall health and academic performance of schoolchildren. Additionally, this project has enhanced menstrual hygiene facilities for young girl students.

Coherence: This project is in accordance with the various policies on school education implemented by the Government of Telangana and the Government of India.

Outcomes: As a result of this effort, 64 toilet blocks have been established across 39 government schools in the Rajanna-Sircilla district. Each toilet block has five squatting-type urinals and two IWC toilets, including hand washing basins, taps, running water provision, etc. All these facilities have greatly improved toilet amenities in government schools, creating a safe and hygienic environment for girl students and protecting them from diseases and social exclusion.

Sustainability: The project has yielded long-lasting results, as evidenced by the employment of cleaning personnel in many schools and the assistance provided by their gram panchayats in maintaining restroom facilities. Currently, schools are allocating adequate funds for the upkeep of these facilities.

Performance of the Project

OECD DAC Framework Weightage score

DAC framework Parameters	Performance Indicator	Weightage Score
Relevance	Above Average	17
Efficiency	Above Average	15
Effectiveness	Above Average	15
Impact	Above Average	15
Sustainability	Above Average	15
Total Score	Above Average	77



Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

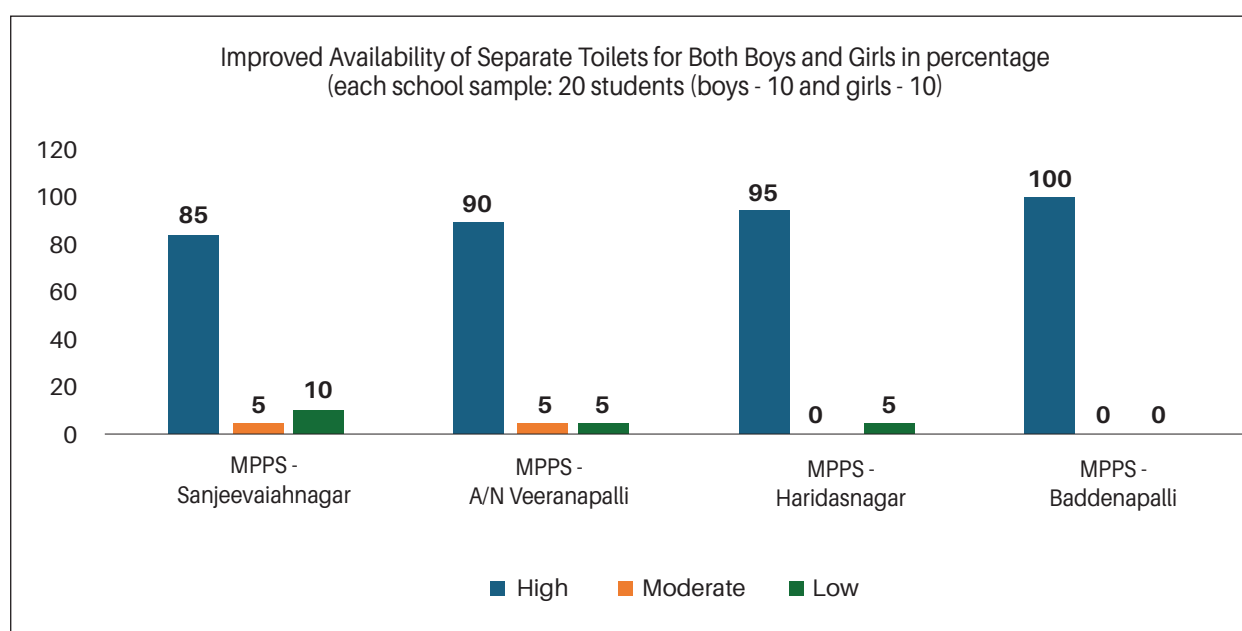
Student Satisfaction Level Survey

The IPE team conducted visits to 4 government schools in the Rajanna - Sircilla district to assess the satisfaction levels of stakeholders such as students, parents, and teachers regarding the quality of school toilets, functionality of school toilets, increased availability of school toilets, availability of running water in toilets, regular maintenance of school toilets, regular conduction of awareness programs on good sanitation practices in government schools, and overall improvement in schoolchildren's health post-project. The team engaged 20 students from each school, ensuring equal representation of both girls and boys. Information on project outcomes and satisfaction levels regarding the use of these toilets was gathered from these students. Details of the sample per school are provided below.

S. No.	Name of the School	Total Strength	Number of Units Constructed by BDL	Total Sample Size and (sample composition)
1	MPPS Sanjeevaiahnagar	39 (boys: 24 & girls: 15)	02 units (1 boy & 1 girl)	20 (10 boys and 10 girls)
2	MPPS-A/N Veeranapalli	28 (boys: 12 & girls: 16)	02 (1 boy & 1 girl)	20 (10 boys and 10 girls)
3	MPPS-Haridasnagar	57 (boys: 27 & girls: 30)	02 (1 boy & 1 girl)	20 (10 boys and 10 girls)
4	MPPS-Baddenapalli	92 (boys: 50 & girls: 42)	02 (1 boy & 1 girl)	20 (10 boys and 10 girls)

Student Satisfaction Levels

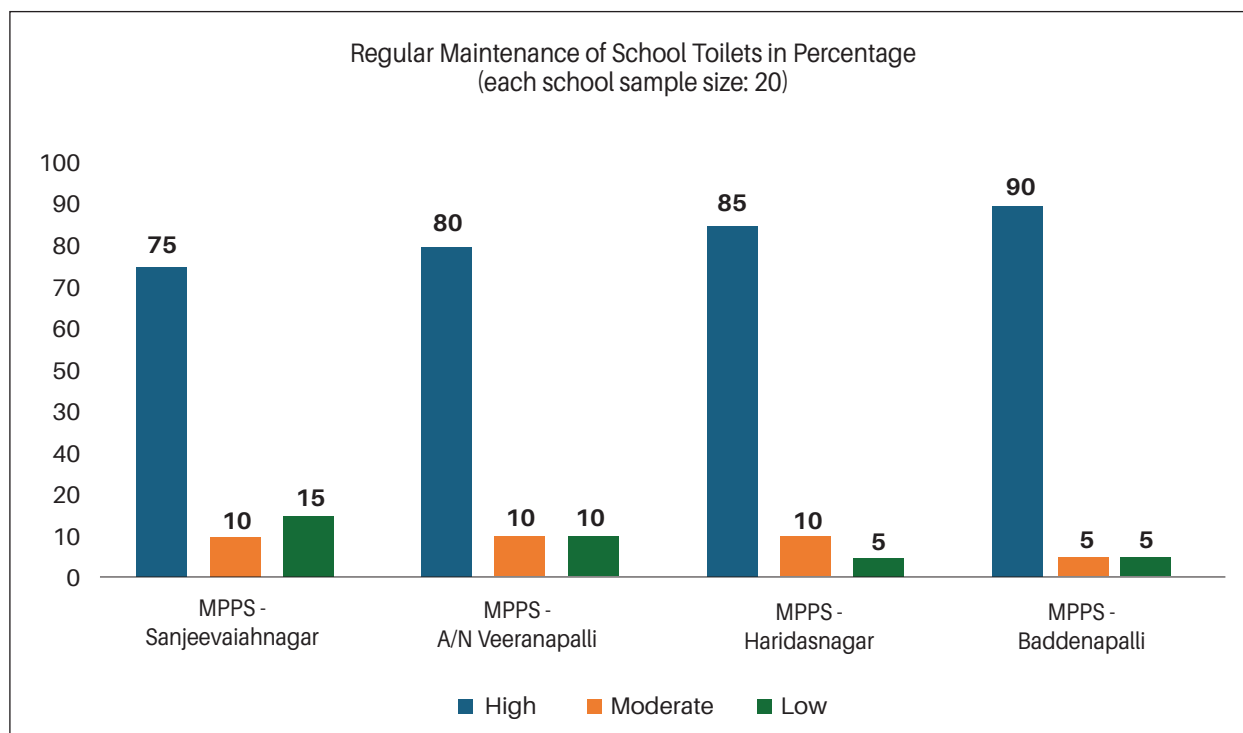
1) Improved availability of toilets in government schools



- All students from MPPS-Baddenapalli have expressed their high satisfaction with the improved availability of separate toilets for both boys and girls through the BDL project.
- The satisfaction levels of students from the remaining 3 schools ranged from 85% to 95%, indicating an overall positive response to the improved availability of school toilets.
- Students from all four surveyed schools disclosed that previously, they had to resort to defecating outside the school premises due to inadequate government-provided toilets and dysfunctional existing toilets. However, this project has led to the construction of school toilets, thereby improving the toilet facilities and reducing open defecation in government schools.

2) Regular Maintenance of School Toilets

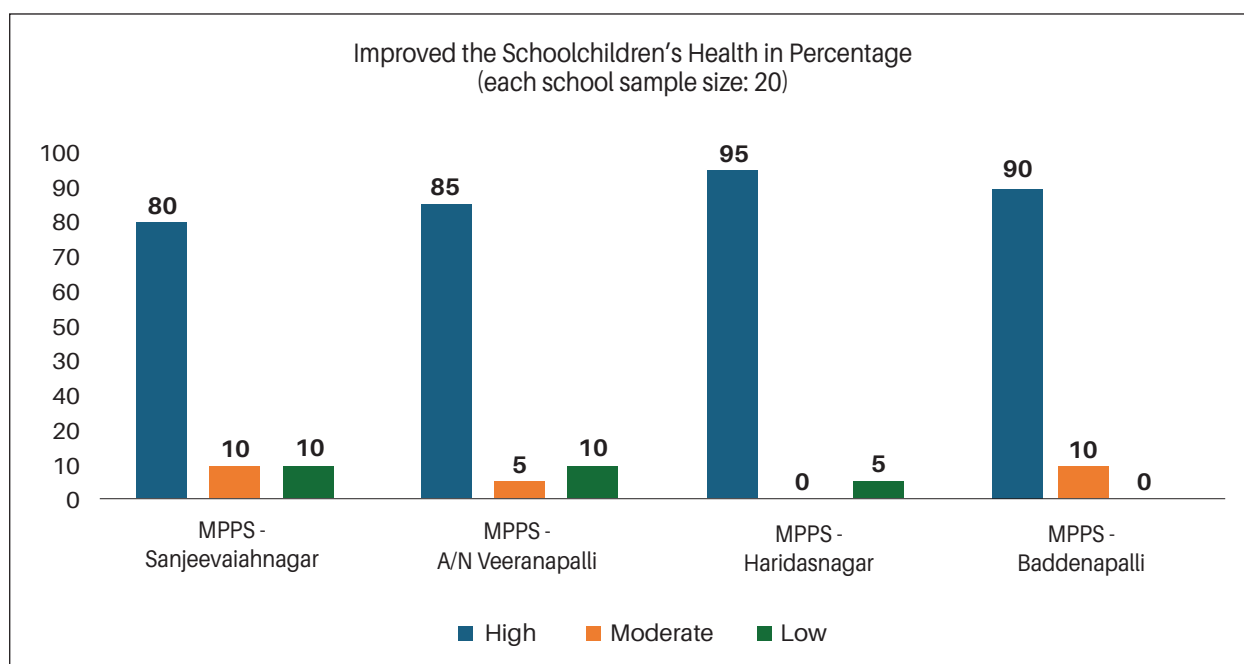
- 90% of students from MPPS-Baddenapalli expressed their satisfaction with the school's regular maintenance of toilets, which was the highest percentages among all four schools, highlighting the deployment of temporary cleaning staff and adequate budget allocation with the support of Grampanchayat.
- Furthermore, students from the other three schools reported satisfaction levels between 75% to 85%.
- Moreover, 15% of students from MPPS-Sanjeevaiahnagar indicated a need for improvement in the regular maintenance of school toilets, emphasizing the necessity for daily cleaning instead of once every two days.



3) Improved the schoolchildren's health

- A survey conducted at MPPS-Haridasnagar showed that 95% of students expressed their satisfaction with the improved health of schoolchildren after the installation of school toilets by BDL.

- The remaining three schools' schoolchildren revealed their high satisfaction levels ranging between 80% to 90%.
- Most students reported from all four surveyed schools that a decrease in waterborne diseases and other health issues due to the cleanliness of the toilets provided by the project. Additionally, the students mentioned that they were now more aware of proper toilet usage, hand washing practices, and maintaining the toilets in good condition. These factors contributed to a significant reduction in health problems, ultimately leading to enhanced health among the schoolchildren.



Teacher Satisfaction Levels: The IPE team engaged with eight teachers from four primary schools, all of whom conveyed their utmost satisfaction with the BDL's project. The teachers highlighted that BDL not only offered separate toilets and urinals for boys and girls, but also ensured the availability of proper handwashing facilities, running water, and an overhead water tank. These amenities improved the students' well-being significantly.

Parent Satisfaction Levels: The IPE team interacted with sixteen parents from four primary schools, each parent expressed their high level of satisfaction regarding the availability of separate toilet facilities for their children. The efforts made by BDL in offering toilets and urinals with proper running water, hand washing amenities, and signage were greatly appreciated by all.

Overall Observations

- The construction of toilet blocks for girls and boys at selected government schools in Rajanna Sircilla district was carried out by the Executive Engineer, Telangana State Educational Welfare Infrastructure Development Corporation (EE-TSEWIDC), under the guidance of the District Collector in two phases of FYs 2020-21 & 2021-22. The overall cost of the project was Rs. 200 lakhs.

- The IPE team determined that the BDL-constructed school toilets in four schools in the Sircilla district had satisfactory levels of running water during their visit.
- The IPE team observed that most schools organize awareness sessions regularly on proper sanitation and improved health practices, as well as the use of school restrooms. These positive habits are instilled in the students, ensuring that they continue to practice them in their own homes.
- The project was originally intended for the construction of toilet blocks for girls, but it was later expanded to include the construction of toilet blocks for boys as well.
- Under the MoU, the implementing agency accomplished the construction of 64 toilet blocks in the Rajanna-Sircilla district. These toilet blocks were strategically built across 22 primary schools, 03 middle schools, and 14 ZPHS high schools within the six mandals. The cost per toilet block amounted to Rs 3.1 lakh.
- The initiative raised awareness among 3000 students in 39 government schools of Rajanna-Sircilla district regarding proper toilet usage, good sanitation practices, and menstrual hygiene as part of the project.
- The IPE team noted a high usage rate of the school toilet blocks built by BDL in the four schools they inspected.

Physical Observation

Name of the Parameters	Investigator Observation
Toilet Cleaning	Daily
Toilets' cleaning personnel	Schools deployed cleaning personnel at toilet locations
Hand washing habits	Schoolchildren follow the hand washing habits
Schools declared as open defecation-free places.	Yes
Separate urinals and toilets	Yes
Easy Access	Yes
Adequate light and ventilation	Yes
Availability of water	Yes
Running water provision	Available in all schools
Soap, sanitary materials, and brooms	Available
Signage	Available

Case Studies

Case Study 1

"The absence of toilet facilities for girls in our school led to schoolchildren defecating in open spaces around the school, causing the surrounding areas to become dirty and unsanitary, which in turn spread various health diseases among the students. This situation persisted until 2021-22 when BDL provided school toilets. Now, all students have access to toilet facilities with an adequate water supply. Teachers also educate the students on proper toilet usage, good hygiene practices, and hand washing, leading to improved academic and health outcomes in the school."

Ch Tirupathi

Headmaster, MPPS-Baddenapalli, Tangalapalli Mandal

Case Study 2

"The toilets established by BDL are well-kept, featuring running water and cleanliness. Moreover, teachers educate us on appropriate toilet usage, handwashing, and hygiene practices, which have led to enhanced health and educational achievements within our community. We are deeply thankful to BDL for providing us with these essential toilet facilities."

V class students

MPPS-Haridasnagar, Yellareddypet Mandal, Sircilla district

Project 3: Procurement of COVID related equipment at Naval Hospitals, Delhi

Name of the Project	Procurement of COVID related equipment at Naval Hospitals, Delhi (Project execution: Indian Naval Benevolent Hospital)
Project Cost	300 lakhs
Execution Period	2021-22
CSR Thematic Area	Disaster Management, including relief, rehabilitation, and reconstruction activities. (Schedule VII, Section 135, item number xii). Eradicating hunger, poverty, and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water. (Schedule VII, Section 135, item number (i).
SDG Goal	 3 GOOD HEALTH AND WELL-BEING
Project Objective	To procure COVID-related equipment at Indian Naval Hospitals across the country to strengthen the emergency treatment facilities during the COVID-19 pandemic to benefit Indian Naval personnel and their dependents
Total Beneficiaries	Indian Navy Personnel and their dependents

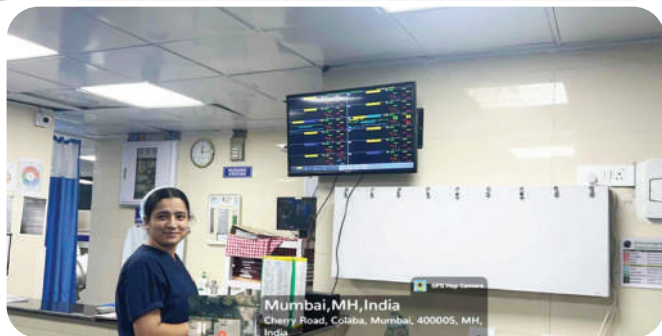
Background of the Project

The oxygen supply crisis that affected India in April and July 2021 during the height of the second wave of the coronavirus pandemic had profound consequences. Hospitals across the nation faced immense challenges in addressing the surging demand for oxygen, which resulted in a notable rise in COVID-19 related fatalities. The sheer volume of infected individuals placed significant pressure on healthcare systems, leading to shortages of beds, oxygen, and other essential resources. India encountered a formidable obstacle during this second wave, marked by elevated rates of infection and mortality stemming from deficiencies in medical equipment and emergency care facilities. Indian Navy hospitals situated throughout the country also experienced a lack of emergency treatment resources and medical supplies necessary for the care of Navy personnel and their dependents. In response to this pressing need, Bharat Dynamics Limited (BDL), as a responsible public sector entity, provided financial support amounting to Rs. 300 lakhs to various Indian Navy hospitals for the procurement of medical equipment aimed at addressing COVID-19 and other medical emergencies, as requested by the Directorate General Medical Services, Indian Navy, Ministry of Defence, Government of India. BDL received these Naval hospitals' requests for various medical equipment and others from HQWNC and HQSNC.

Project Initiatives

BDL extended financial support to multiple Indian Navy Hospitals throughout the nation during the fiscal year 2021-22, aimed at addressing the urgent need for emergency medical treatments amid the COVID-19 pandemic. The specifics of the medical equipment acquired for each Navy hospital through BDL's CSR funding, amounting to Rs. 300 lakhs are outlined below. Indian Naval Benevolent procured various medical equipment.

Name of the Hospital	Items	Total Cost
Diving School, Kochi	Multiple Parameter (02 units), IR Thermometer (2 units)	164800.00
INHS, Kasturi	Semiautomated Coagulation Analyser (1 unit), OT table (1 unit), Ceiling OT light (1 unit), Suction apparatus (1 unit), Automated Electric Defibrillator (2 units), Fully / Automatic electric hospital bed (10 units), Crash Cart Trolley (03 units), Digital BP Apparatus (01 unit)	1769002.00
INS, Mondovi	Transport Ventilator (1 unit), Automatic CPR Device (1 unit), Multi Parameter Monitor (1 unit)	1336194.00
INHS, Nivarini	Triage Meter Pro System (1 unit), Portable Ultrasound Machine (1 unit), Ambulatory BP Machine (1 unit), Fumigation Machine (2 units), Slim LED X-ray view box 25 mm with sensor (1 unit), Anti-decubitus air bubbles mattress (bed sore cure system) - (4 units)	1299997.00
INHS, Sanjivani	ECG Machine (2 units), Infusion Pump (7 units), Pressure Monitor (3 units), Ampule Cutter (2 units), Mechanical ventilator capable of paediatric ventilation with humidifier and blender (1 unit), Multipara monitor (3 units), Cardiac Defibrillator (1 unit), Portable AED (2 units)	2958679.00
INHS, Navjivani	Noiseless Suction Apparatus (1 unit), Infusion Pump (4 units)	510000.00
INHS, Asvini	Central Monitoring Station with O2 Man display station 24 monitors, Patient Warmer System (2 units), Intermittent Pneumatic Compression Device (5 units), Holter Monitor (4 units), Noiseless Suction Machine (5 units), Syringe Infusion Pump (20 units), Echo Probe (for Trans esophageal Echocardiography (1 unit), Defibrillator with AED (4 units), AED (2 units), Tissue Morcellation System Kit (1 unit), Drill and Saw System (1 unit), Harmonic Scalpel (1 unit), 12 Channel ECG machine (2 units), Humby's Knife (1 unit), 5 mm 30 degree Telescope (1 unit), Horizontal Autoclave with Pneumatic Sliding Door (1 unit), Portable Ultrasound with Tablet Display (2 units)	16655957.00
INHS Patanjali	Ethylene Oxide Sterilizer (1 unit), Automated Electrolyte Analyser (1 unit), Portable OT Light (2 units), Digital Thermometer (2 units)	725500.00
INHS, Jeevanti	Phaco Emulsification (1 unit), Foetal Monitor (1 unit), Transport Incubator (1 unit), Binocular Microscope with USB Camera attachment (1 unit), Bull nose fitting with complete set (2 units)	4486291.00
	Grand Total	29906420.00



COVID-19 medical equipment purchased during the COVID-19 pandemic for INHS-Asvini, Colaba, Mumbai, Maharashtra (Command Hospital):



The IPE team member interacted with officials of Indian Naval Hospital Ship (INHS) Asvini, Colaba, Mumbai, Maharashtra (Command Hospital)

Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance: This project is of great importance as it enhances the Covid-19 treatment capabilities across several INHS hospitals located in Pune, Chilka-Odisha, Kochi, INA Ezhimala-Kerala, Colaba-Mumbai, the INS hospital in North Goa, and the Diving School Hospital in Kochi. During the pandemic, these hospitals were supplied with a diverse array of medical equipment, including multipara monitors, infrared thermometers, semi-automated coagulation analyzers, suction devices, digital blood pressure monitors, transport ventilators, phacoemulsification machines and many more, which were essential for safeguarding the lives of our esteemed Indian Naval personnel and their families. Moreover, these Navy hospitals are committed to delivering exceptional treatment services by effectively utilizing the medical equipment and facilities available to them afterwards of Covid-19.

Efficiency: BDL provided a range of medical equipment, devices, and facilities to five INHS hospitals, one Diving School Hospital, and one INS hospital throughout the country. This was accomplished through the project implementing agency, the Indian Naval Benevolent, within the designated timeframe and with a budget allocation of 300 lakhs for the fiscal year 2021-22. The supplied medical equipment, devices, and facilities have been instrumental in treating Indian Navy personnel and their dependents during the Covid-19 pandemic and continue to support emergency, surgical, pediatric, and inpatient treatment services for those admitted to these hospitals.

Effectiveness: BDL has successfully met the objectives of this project by providing a range of medical equipment, devices, and facilities aimed at bolstering the medical infrastructure of

five INHS hospitals, one INS hospital, and one Diving School Hospital. As a result, this initiative has significantly improved the treatment protocols for Covid-19, ultimately saving the lives of Indian Navy personnel and their dependents who were infected. Additionally, the project has enhanced the capacity for outpatient, inpatient, emergency, and surgical treatments through the upgraded equipment and facilities in these hospitals.

Impact: The COVID-19 pandemic has created a pivotal opportunity to accelerate the development of treatment facilities in Indian Navy hospitals. This project has reinforced the medical infrastructure, ensuring that these hospitals are well-prepared to address any health emergencies that may occur in the future. The increased availability of critical medical equipment, advanced devices, and enhanced facilities has resulted in a significant decrease in the time needed for emergency treatments. As a result, the upgraded facilities have not only improved the overall effectiveness of hospital services but have also played a vital role in safeguarding the lives of many individuals associated with the Indian Army and their dependents. The advancements made during this challenging time have set a new standard for healthcare delivery within the military framework, ensuring better preparedness for any future health crises

Coherence: BDL embarked on this project to strengthen the medical infrastructure of Indian Naval Hospitals, addressing the urgent treatment needs arising from the Covid-19 pandemic for Indian Navy personnel and their dependents, in alignment with the directives from the Ministry of Defence, Government of India. This effort was pivotal in bolstering the Government of India's Covid-19 relief strategies by upgrading the capabilities of Indian Navy Hospitals.

Outcomes

- Strengthened medical infrastructure facilities at Indian Navy Hospitals located across the country.
- This project saved many lives of Indian Navy and their dependents

Sustainability: The results of the project have a sustained influence owing to the consistent upkeep and functioning of medical equipment, devices, and various facilities. Because of regular maintenance, these medical resources are now utilized properly in both routine and emergency treatments for individuals of all ages within the Navy and their dependents.

Performance of the Project

OECD DAC Framework Weightage score

DAC framework Parameters	Performance Indicator	Weightage Score
Relevance	Excellent	19
Efficiency	Excellent	17
Effectiveness	Excellent	17
Impact	Excellent	18
Sustainability	Excellent	17
Total Score	Excellent	88

Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

Overall Observations

- The equipment is in full utility in various departments in all the hospitals
- The project has extended support to enhance the value of the medical infrastructure facilities at Indian Navy Hospitals across the county
- The impact of the project is very high.

Project 4: Construction of ZP High School at Bhanur Village

Name of the Project	Construction of ZP High School at Bhanur Village
Project Cost	324 lakhs
Execution Period	20.02.2020 and 17.03.2022
CSR Thematic Area	Promoting Education (Schedule VII, Section 135, item number 2)
SDG Goal	
Project Objective	To strengthen classroom teaching and learning facilities by constructing a spacious school building at ZP High School in Bhanur village.
Total beneficiaries	145 schoolchildren (75 boys + 70 girls) – studying VI to X classes

Background of the Project

Zilla Parishad High School (ZPHS), Bhanur, was established in 1989 as a co-education school. This educational institution has played a significant role in transforming the public education system in Bhanur village, a rural area located in the Sangareddy district of Telangana state. Currently, the school has a total enrollment of 145 students, comprising 75 boys and 70 girls. The teaching staff consists of 9 members, while there are 3 non-teaching staff members. Over the years, the school has achieved remarkable academic success. However, it faced numerous challenges in terms of classroom infrastructure and basic amenities. The limited number of classrooms were in a dilapidated state, with issues like leakages, termite damage, and visible cracks. Additionally, the school lacked proper toilet facilities, drinking water, sports amenities, and other necessities, resulting in a decline in student enrollment. Each year, the school struggled to secure funds from the government for repairs, maintenance, and essential services. To address these challenges, the school actively engaged the School Management Committee (SMC) members and influential individuals to secure support from BDL's CSR funds. BDL was greatly impressed by the school's unwavering dedication to enhancing the quality of education, leading to the endorsement of a project for constructing a school building and providing the essential facilities. The construction of the school building commenced on February 20, 2020, and was completed by March 17, 2022. The total cost incurred for this project was Rs. 324 lakhs.

Project Initiatives

Project initiated: 10th December 2019.

Date of commencement of work: 20th February 2020

Date of completion of work: 17.03.2022.

Work order value: Rs. 27819290.01; Actual work execution value: Rs. 32379177.97 (Approx. 324 lakhs)

Construction details of School Building

Total plot area	1 acre
The total built-up area including the ground floor, first floor & mumty	1680 sq.m
Carpet area	1092.00 sq.m
Number of classrooms on the ground and first floor	22
Classroom facilities	Dais, Blackboard, and seating arrangements were made in each classroom
Electrical fixtures in each classroom	Sufficient fans, tube lights, and electrical facilities were available in each classroom as per room size.
Toilets	Separate toilet blocks for boys, girls and teachers
Drinking water and sports facilities	Available

Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance: The project holds significance as it aligns with the National Education Policy 2020 and RTE act 2009, both of which highlight the significance of creating an ideal learning environment comprising of well-equipped classrooms, libraries, laboratories, technology, sports/recreation areas, student discussion spaces, and dining areas in government schools. In accordance with these policies, this project successfully catered to the needs of ZP High school in Bhanur village by constructing sufficient classrooms, a kitchen hall, a library, laboratories, staff rooms, toilets, storage rooms, a boundary wall, and developing a playground, among other essential facilities.

Efficiency: Within the assigned timeframe and budget, the project was successfully concluded. This led to the establishment of numerous facilities including spacious classrooms, laboratory facilities, a library, seminar halls, kitchen and dining areas, staff rooms, spaces for extracurricular activities, sports areas, a school boundary wall, as well as toilet and drinking water facilities. The school management is making optimal use of these resources to foster a favorable learning environment, thereby playing a significant role in the academic advancement and holistic development of the students.

Effectiveness: The project has accomplished its objective with great effectiveness by creating an environment that promotes learning for 145 students in classes VI to X. Following the construction of the school building, improvements were observed in classroom instruction, extracurricular activities, sports provisions, student amenities during lunchtime, access to clean drinking water, and restroom facilities. These provisions have significantly enhanced the quality of educational standards.

Impact: The project has led to significant changes, such as an increase in school enrollment, a decrease in students' absenteeism, and an enhancement in academic achievements among students. Additionally, this endeavor has positively impacted the health of children by offering

adequate facilities for clean drinking water, sanitation, nutritious midday meals, and sports activities. Moreover, the project executed in Bhanur village has not only brought about favorable transformations in education and socio-economic conditions but has also instilled a sense of hope and optimism for the future among the residents. It serves as an outstanding illustration of how education and community-driven initiatives can uplift and empower marginalized communities.

Coherence: This project is in accordance with the various policies on school education implemented by the Government of Telangana and the Government of India.

Outcomes

- Enhancements have been made in classroom teaching and learning environment.
- Improved the drinking water and sanitation facilities.
- Enhanced sports facilities.
- Improved the safety and security of the schoolchildren.

Sustainability: The lasting influence of the project's achievements is a direct result of the high-quality construction of the school building by Bharat Dynamics Limited. Furthermore, the project also established permanent provisions for drinking water, sanitation, sports, and extracurricular activities, besides offering classroom facilities. The school's ability to sustain these enduring project outcomes is ensured through continuous financial support from government school funds and assistance from the gram panchayat.



Before BDL Project: Dilapidated School Building Condition at ZP High School in Bhanur Village



After BDL Project: Spacious classrooms with all facilities at ZP High School in Bhanur Village

Performance of the Project

OECD DAC Framework Weightage score

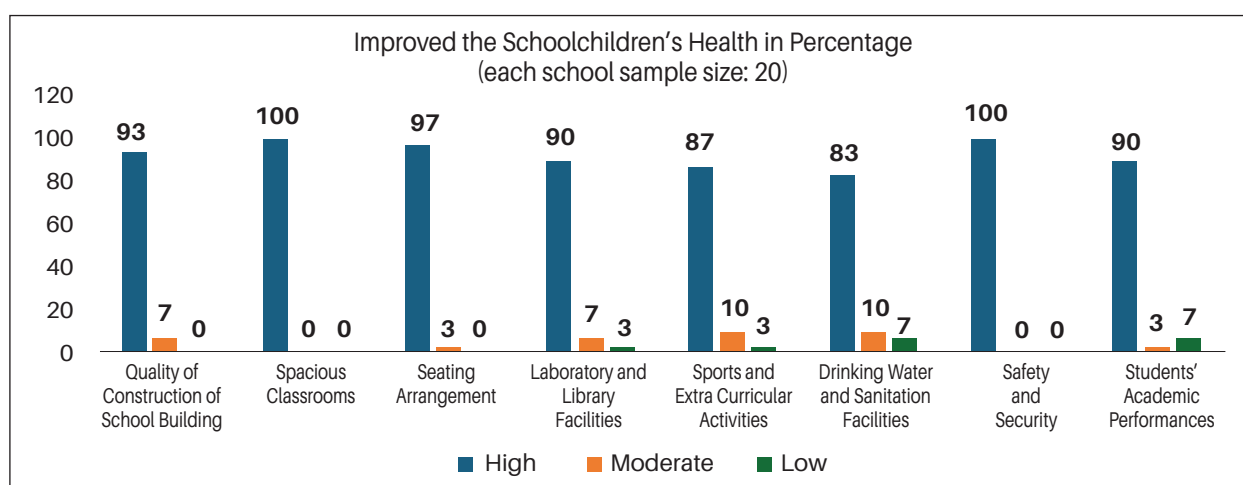
DAC Framework Parameters	Performance Indicator	Weightage Score
Relevance	Above Average	16
Efficiency	Above Average	15
Effectiveness	Above Average	15
Impact	Above Average	15
Sustainability	Above Average	15
Total Score	Above Average	76

Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

Satisfaction Level Survey

a) Students: The IPE team distributed a survey questionnaire to 30 students pursuing grades IX and X, with an equal split of 15 male and 15 female students. The feedback received from the students regarding the quality of the construction of the building for the BDL project has been overwhelmingly positive. Most students expressed their satisfaction with the spacious classrooms and seating arrangements, which contribute to a conducive learning environment. They highlighted that the new school building not only ensures safety but also promotes academic focus. The school's environment plays a vital role in supporting students in achieving their educational objectives. Consequently, students are eagerly anticipating attending school and benefiting from these facilities. Additionally, students value the well-maintained restrooms and washing areas provided by BDL, which help uphold hygiene standards during school hours. In general, students are highly content with the exclusive sports arena, laboratories, library facilities, and storage rooms introduced through this initiative.



b) Teachers: The IPE team had fruitful interactions with ten teachers from ZP High School - Bhanur, all of whom conveyed their high level of satisfaction with the progress made in classroom teaching, learning environment, library facilities, laboratory resources, extracurricular activities, and student amenities such as drinking water, sanitation, safety & security, and other provisions because of this project. Additionally, they emphasized that these enhancements have greatly enhanced the quality of education and student facilities, as demonstrated by the students' performance in the X class examinations after the successful completion of this initiative.

c) Parents: Throughout their interactions, the IPE team was met with favorable responses from ten parents, all of whom conveyed their high satisfaction with the spacious classrooms, library, and laboratory. Additionally, they expressed their admiration for the students' academic achievements and the accessibility of student amenities such as drinking water, restroom facilities, extracurricular activities, and sports, all made possible by this project.

Overall Observations

- BDL has built 11 classrooms each on both the ground and first floors, totaling 22 rooms. Out of these, 10 classrooms are dedicated to teaching, two rooms are designated as laboratories, three rooms are allocated for library and students' extracurricular activities, two rooms are

assigned for the headmistress and staff, two rooms are utilized for storage, and three rooms are reserved for future expansion of additional sections across different classes.

- BDL has constructed separate toilet facilities for male and female students. The boys' restroom consists of 4 urinals and 5 IWC toilets, while the girls' restroom has 4 IWC toilets. Additionally, BDL has also built separate toilet blocks for male and female teachers, along with a toilet cum bathroom for the headmistress. The male restrooms are equipped with two urinals and one WC toilet, whereas the female restrooms have a WC toilet and hand washing stations.
- This project has overall improved the educational experience through the creation of a suitable classroom setting, provision of clean drinking water and sanitation facilities, enhancement of facilities for mid-day meals, and the promotion of sports and extracurricular activities. These efforts have greatly bolstered the quality of education as a whole.

Case Studies

Case Study 1

"The construction of the school building at ZP High School in Bhanur by BDL showcases an impressive architectural achievement. It offers a wide range of classrooms, each meticulously designed to create an ideal learning environment. These classrooms are well-ventilated, equipped with suitable seating arrangements, podiums, and blackboards. Furthermore, the project includes dedicated spaces for a library, laboratory, sports facilities, and various extracurricular activities. Additionally, separate toilet facilities are provided for both boys and girls. This comprehensive approach has significantly enhanced the classroom teaching and learning methods, fostering students' academic journey and overall development, with a strong focus on their educational progress and well-being."

Smt Dakshayini

Headmistress, ZP High School, Bhanur

"Prior to the implementation of BDL's project, when I was in the sixth grade, my classes were held in unsafe and dilapidated classrooms, hindering our learning experience. However, BDL, a socially conscious organization, addressed this issue by constructing a new, spacious building for ZP High School in Bhanur. This initiative has created a conducive learning environment with all necessary facilities, leading to improved academic performance and holistic development of the students."

Sai Karthik

IX class, ZP High School, Bhanur

Project 5: Contribution to COVID Hospital at Lucknow (2021-22)

Name of the Project	Contribution to Covid Hospital at Lucknow (2021-22)
Project Cost	200 lakhs
Execution Period	2021-22
CSR Thematic Area	Disaster Management, including relief, rehabilitation, and reconstruction activities. (Schedule VII, Section 135, item number xii). Eradicating hunger, poverty, and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water. (Schedule VII, Section 135, item number (i).
SDG Goal	
Project Objective	To extend the financial assistance to DRDO to set up a COVID-19 hospital in Lucknow.
Total beneficiaries	COVID-19 infected patients

Background of the Project

In 2021, amidst the devastating impact of the Corona pandemic, the Indian government took proactive measures to establish a fully equipped Makeshift Covid Centre in Lucknow, Uttar Pradesh. This initiative, named the Atal Bihari Vajpayee makeshift COVID Care Centre, was a response to the urgent need to address the severe impact of the second wave of the pandemic. The site for the center was allocated at Awadh Shilpgram in Lucknow by the Uttar Pradesh government, and the overall responsibility for construction was undertaken by DRDO, with the Chief Construction Engineer (CCE), North successfully completing the establishment within a fortnight. The center was equipped with 500 beds, a 40 KLD cryogenic oxygen gas supply system, intensive care units, ventilators, a lab, a dispensary, and other essential healthcare facilities. DRDO also facilitated the operations and provided medical staff for the entire duration of the center's operation (May 5, 2021, to March 31, 2022). The funding for this initiative, totaling nearly twenty-five crores, was mobilized with 60% from PM CARES and 40% from CSR, with contributions from organizations such as the Bharat Dynamics Limited, Hyderabad. This ambitious venture provided timely medical care and life-saving treatment to thousands of critically ill patients.

Project Initiatives

As per instructions from the Prime Minister's Office (PMO), the Chairman of DRDO requested the CCE to set up a temporary COVID care facility at Awadh Shilpgram in Lucknow, Uttar Pradesh. This directive was relayed from the PMO to DRDO during the surge of COVID cases in April 2021. Following the PMO's directive, DRDO sought financial assistance from Bharat

Dynamics Limited (BDL). In response to the appeal, BDL approved a sum of Rs. 2 crore and disbursed it to DRDO during FY 2021-22.

DRDO launched project activities on April 26, 2021, with the support of CCE after completing planning and funding. Tenders were issued, attracting multiple agencies. Contracts were awarded within a week, following government regulations. The COVID-19 facility began operations on May 05, 2021, with 500 beds set up in a hospital, 200 in a temporary structure, and 300 in an existing building. Rigorous training and quality checks were conducted before the hospital's opening. The facility had a cryogenic oxygen supply system for all beds. 150 ICU beds with ventilators and 350 beds with oxygen supply were available. Patients received free treatment from Army doctors. Medical personnel from across the country managed the hospital. Admission was coordinated by a city-wide control center.



DRDO Setup Atal Bihari Vajpayee makeshift COVID Care Centre in Lucknow

Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance: Uttar Pradesh, the most populous state in India with approximately 24 crore residents, has been significantly impacted by COVID-19. The state has reported 21,45,490 cases, with 21,21,718 recoveries and 23,713 fatalities during the second wave of COVID-19 in April 2021. In Lucknow alone, there have been 2,38,664 confirmed cases. Despite having a substantial public and private healthcare infrastructure, it has been unable to adequately meet the demand for health services, particularly during the pandemic. In response to this, the DRDO, under the direction of the PMO, established a temporary COVID care center at Awadh Shilpgram in Lucknow to cater to the needs of the local population and surrounding areas, in which BDL extended its CSR financial assistance to DRDO for establishing this hospital.

Efficiency: The DRDO efficiently established the center within the specified timeframe, adhering strictly to all guidelines. Despite the urgency, the CCE meticulously followed all procurement rules and regulations when acquiring equipment and carrying out the necessary tasks. All these facilities were maximum utilized for COVID-19 patients' treatment.

Effectiveness: The objective was achieved following the establishment of the temporary Covid-19 Hospital in Lucknow. Critical patients were provided with essential medical services

and the best available treatment. This endeavor posed a challenge for the PMO, but with effective coordination from the DRDO, many COVID patients were treated successfully, ultimately saving numerous lives.

Outcome: Following the establishment of the makeshift center, thousands of critically ill patients received medical attention and life-saving treatment at this hospital in Lucknow during the period from 5th May 2021 to 31st March 2022.

Impact: The creation of a 500-bed Atal Bihari Vajpayee makeshift COVID Care Centre in Lucknow offered treatment to numerous COVID-19 patients from 5th May 2021 until the conclusion of the Second wave, easing the strain on the public healthcare system. This center was established in preparation for the third wave to address potential emergencies. Following this, the medical equipment and facilities were transferred to other healthcare systems for alternative treatments after completely reducing the burden of COVID-19.

Coherence: BDL, along with various organizations, aided DRDO in setting up a 500-bed temporary COVID-19 hospital in Lucknow to provide extensive healthcare services to patients infected with COVID-19. In accordance with DRDO's guidelines and the Ministry of Defence, Government of India, BDL contributed financial support of Rs. 2 crores, in line with the Government of India's COVID-19 disaster relief efforts.

Sustainability: The outcomes of this project have proven to be enduring, even after the closure of the COVID-19 hostel in Lucknow on March 31, 2022, because of decreasing cases. This led to the relocation of hospital resources and medical equipment to the Uttar Pradesh government. Subsequently, the equipment was allocated to various government hospitals in the state, thereby enhancing the public healthcare system.

Performance of the Project

OECD DAC Framework Weightage score

DAC framework Parameters	Performance Indicator	Weightage score
Relevance	Excellent	19
Efficiency	Excellent	18
Effectiveness	Excellent	18
Impact	Excellent	18
Sustainability	Excellent	17
Total Score	Excellent	90

Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

Satisfaction Level Survey

The temporary facility was set up in response to the second wave of the COVID-19 pandemic, and once the situation improved, all the equipment was allocated to different hospitals in Uttar Pradesh. There was little to observe on the ground during the assessment because the

temporary center had been closed after serving its purpose as an emergency treatment facility during the pandemic. Consequently, the project team had to limit the scope of the study to Key Informant Interviews with the public to gather data on the project's perspectives, experiences, and lessons learned, as well as its usefulness and impact on the community. The IPE team had interactions with 10 individuals from the public, all of whom expressed their high level of satisfaction with the comprehensive treatments offered to COVID-19-infected patients at this COVID hospital. Their positive comments are a testament to the dedication and expertise of healthcare professionals in managing and treating the virus.

Overall Observations

- The project's implementation received financial assistance from both PMCARES and CSR funds. The most funding came from PMCARES, with the remaining amount sourced from CSR funds. Nine agencies, including BDL, were recipients of CSR funds.
- A total of approximately Rs 25 crores were mobilized, with PMCARES contributing 60% and CSR funds contributing the remaining 40%. In April 2021, funds were mobilized from various agencies. BDL sanctioned Rs 2 crore and transferred it to DRDO during the same period.
- A team from the Armed Forces, including doctors with various specialties, nurses, and paramedics, operated this hospital. Upon the establishment of the temporary facility, critical patients were given appropriate medical attention and the best possible treatment
- The CCE and DRDO successfully executed a commendable initiative in accordance with the PMO's specifications. Moving forward, the Government has the opportunity to disclose the comprehensive project implementation methodologies employed by the CCE and DRDO, along with their accomplishments. This transparency will enable policymakers, investors, and social workers to understand how to reproduce similar results in the event of a pandemic like COVID, Plague, Dengue, H5N1, and others.



Main Entrance of Atal Bihari Vajpayee COVID Care Hospital, Lucknow, Uttar Pradesh



*OXYGEN plant (40 KLD) installed at Atal Bihari Vajpayee COVID Care Hospital,
Lucknow, Uttarpradesh*



ICU beds with Ventilator facility



General beds with Oxygen supply



Inside the view of general ward entrance



Medical and support staff in PPE kit



Tents installed for staying COVID-19 patient family members

Project 6: Commissioning Oxygen Generation Plants at Military Hospital, Secunderabad and ESIC Hospital, Sanathnagar, Hyderabad

Name of the Project	Commissioning Oxygen Generation Plants at Military Hospital, Secunderabad and ESIC Hospital, Sanathnagar, Hyderabad
Project Cost	188.80 lakhs
Execution Period	June 2021 to September 2021
CSR Thematic Area	Disaster Management, including relief, rehabilitation, and reconstruction activities. (Schedule VII, Section 135, item number xii). Eradicating hunger, poverty, and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water. (Schedule VII, Section 135, item number (i).
SDG Goal	
Project Objective	To enhance the oxygen supply at the Military Hospital, Secunderabad and the ESIC Hospital, Sanath Nagar, Hyderabad by erecting two 960 LPM oxygen-producing plants.
Total beneficiaries	i) Armed forces personnel & their families from Telangana and Andhra Pradesh states ii) ESIC-insured persons & their dependents

Background of the Project

The oxygen supply crisis that impacted India in April and July 2021 during the peak of the second wave of the coronavirus pandemic had severe repercussions. Hospitals nationwide struggled to meet the rising demand for oxygen, leading to a significant increase in COVID-19 related deaths. The overwhelming number of infected patients strained healthcare facilities, resulting in shortages of beds, oxygen, and other vital resources. Telangana state faced a significant challenge during the second wave, experiencing high rates of infection and mortality. To address the acute oxygen shortages at military hospital in Secunderabad, and the ESIC Medical College and Hospital in Hyderabad, BDL took the initiative to install oxygen plants, each with a capacity of 960 liters to ensure a consistent oxygen supply for COVID-19 treatment, following the directives of the Concerned Defence Ministry, Government of India. These installations occurred towards the end of the second wave of COVID-19, from June 2021 to September 2021, in preparation for the anticipated third wave of the pandemic and other potential health crises.

Project Initiatives

BDL established two oxygen plants at the Military Hospital in Secunderabad and the ESIC

Medical College and Hospital during FY 2021-22, with each plant costing Rs. 94.40 lakhs. The overall expenditure for the project amounted to Rs. 188.80 lakhs.

S. No.	Project Location	Oxygen Plant Capacity in LPM	Cost of the Plant	Total Hospital Capacity	Total Number of Beds Connected to Each Oxygen Plant
1	Military Hospital, Secunderabad	960	94.4 lakhs	800 bedded	330 beds
2	ESIC Hospital, Sanathnagar	960	94.4 lakhs	490 bedded	200 beds



BDL installed oxygen generation plant at ESI medical college and hospital at Sanathnagar in Hyderabad

Technical Specification of Oxygen Plant

Purified (Moisture and oil-free) air from the compressed air system, passes through one of the towers filled with Molecular Sieves (Zeolite type). The sieves selectively absorb nitrogen, allowing oxygen to pass through at the desired purity level.

Oxygen Purity: 93±3%; Oxygen Pressure: 4 - 5 bar a; Air pressure: 7 bar g

Air Inlet Temperature: 45 deg C max; Ambient Temperature: 45 deg C max

Air quality: ISO 8573 - 2010 class 1-4-1

Capacity		Equivalent		Air requirements (Comp. Power)			Overall Dimensions L x B x H (Feet) (approx.)
LPM	Cu.m/hr	Liquid Oxygen liters /day	Number of cylinders per day	cfm	Pressure in Kg/Cm ²	Power in KW	
960	57.6	1728	170-220	525	7	75	7 x 9 x 7

Hospitals Brief Profiles

Military Hospital - Secunderabad

Nestled in the heart of Secunderabad, the 490-bedded hospital stands tall as a bastion of healthcare excellence, dedicated to serving the valiant armed forces personnel and their families from Telangana and Andhra Pradesh. With a legacy steeped in service and a commitment to compassionate care, this institution represents more than just a medical facility – it embodies a tradition of unwavering support for those who serve our nation. The hospital is equipped with state-of-the-art facilities designed to meet the unique healthcare needs of armed forces personnel. Each day, an average of 900 patients utilizes OPD services, while 250 patients make use of IP services.

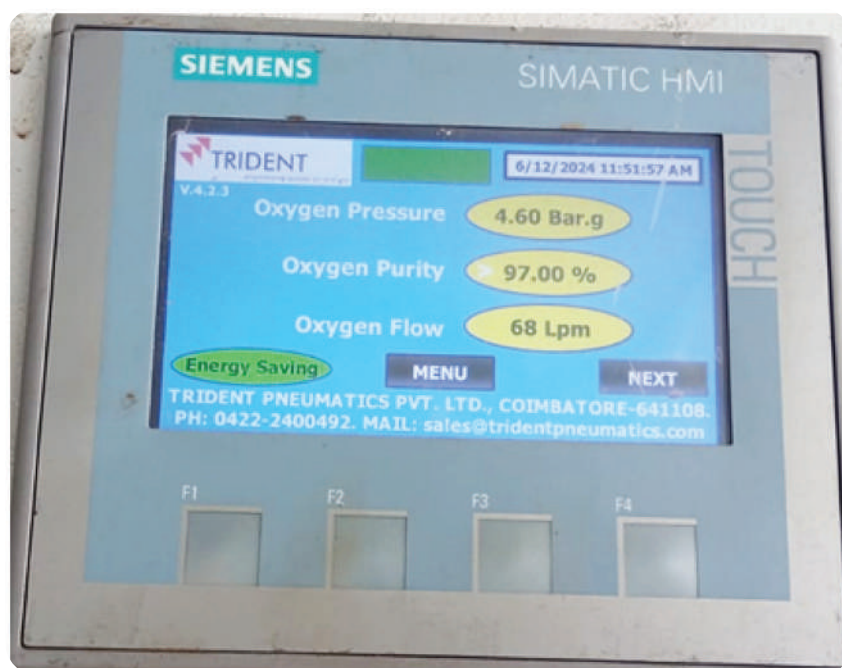
ESIC Hospital Profile

ESIC Medical College and Hospital, Sanathnagar, Hyderabad is an 800 bedded hospital catering to more than 14 Lakh Insured Persons covered under ESI Scheme in Telangana. During COVID this hospital has rendered both COVID and Non-COVID Services. This hospital has a footfall of more than 2400 Patients each day. Each day, 90% of the hospital's beds are taken up by patients receiving inpatient services.

Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance: With the increasing number of COVID-19 cases in Telangana and other parts of the country, the demand for oxygen has reached new heights. In response to this critical situation, BDL, a socially conscious organization, has taken immediate action by initiating the installation of oxygen plants in renowned hospitals. One such hospital is the Military hospital located in Secunderabad, which serves armed forces personnel and their families from Telangana and Andhra Pradesh states. Additionally, the ESIC medical college and hospital, known for its comprehensive health services to ESIC-insured individuals and their families in Telangana state, has also been equipped with an oxygen generation plant. This project holds immense significance as it has successfully installed two oxygen generation plants, each with a capacity of 960 LPM, in these prestigious hospitals. As a result, the availability of oxygen supplies for various treatments has been significantly enhanced.

Efficiency: BDL has successfully installed two oxygen plants in Telangana state, fulfilling the project's objectives within the allocated timeframe and budget. The total capital expenditure for these plants is approximately Rs. 188.80 lakhs. One of the oxygen plants established by BDL in the military hospital operates five days a week, delivering oxygen to emergency patients daily across various wards. Likewise, the ESIC medical college and hospital operates its BDL-installed oxygen plant continuously, providing oxygen to patients in medical, surgical, and pulmonology wards. Patients receive oxygen ranging from 5 to 15 LPM depending on their treatment requirements. The flow from oxygen plant in ESIC medical college and hospital is 60-70 LPM.



Oxygen pressure, Oxygen purity and Oxygen flow values at BDL-installed oxygen plant in ESI medical college and hospital

Oxygen plants met the following four criteria:

- Ensures a steady supply of oxygen.
- Cost-effective in the long run
- Provides independence from external sources
- Customizable to suit specific needs

Effectiveness: The project was successful in delivering desired outcomes of optimum level of oxygen supplies to both hospitals for treating critical care patients. Hospital-wise beneficiary details are given below.



Oxygen supply provision is given to one of the emergency wards at Military hospital in Secundrabad

Parameter	Military Hospital	ESI medical college and hospital
Beneficiary hospital wards	ICU, Respiratory ICU, Operation theatre, High Dependency Unit (HDU), Medical ward, General Medicine ward, Family ward	OPD block - Using for Medical, Surgical and Pulmonology wards
Total number of beds connected to each oxygen plant	330 beds	200 beds
Plant working details	5 days (24 X7)	24 X 7
Beneficiary patients	40 critical care / surgery patients per day	40 critical care / surgery patients per day
Oxygen therapy usage for various treatments	1) COPD (Chronic Obstructive Pulmonary Disease) 2) Emergency treatment - Accidents and emergency services including poisoning and Trauma Care 3) Operation theatre (Medical and surgical emergencies) 4) Obstetrics and Gynecology 5) Newborn Care 6) Cardiac and Kidney patients 7) Asthma, Lower Respiratory Tract Infections (LRTI) 8) Post-Operative Surgical Patients	1) Lower respiratory infections (LRIs) 2) Wheeze Associated Lower Respiratory Infection (WALRI) 3) Chronic obstructive pulmonary disease (COPD) 4) Respiratory distress syndrome 5) pneumonia and bronchitis

Impact: The COVID-19 pandemic has presented an opportunity to enhance our health system and its delivery protocols. The installation of Oxygen-generation plants and provision of medical infrastructure facilities like oxygen pipeline systems augmented the supply of oxygen to military hospital and ESI medical college and hospital in Telangana in treating various patients of armed forces personnel, ESI-insured persons and their family members on time to save their lives. The tremendous burden of oxygen scarcity in hospitals was lessened by oxygen plants, which allowed hospitals to manage and save a significant proportion of critically sick patients who needed oxygen at a rate of five to fifteen LPM to maintain saturation oxygen levels of 92-96%.

The major impacts of the project are

- The installation of PSA oxygen plants in the military hospital and ESI medical college and hospital in Telangana state, funded by BDL, has significantly bolstered the facilities for handling catastrophes and emergencies.
- These oxygen plants were operationalized after the second wave of COVID-19 subsided and have proven instrumental in meeting the increased oxygen requirements.

Coherence: BDL and several PSUs collaborated to enhance public healthcare systems by setting up oxygen plants and implementing various COVID-19 relief measures. Following the directives of the Ministry of Defence, Government of India, BDL successfully installed oxygen plants in Telangana and other locations to ensure sufficient oxygen supply and save the lives of COVID patients.

Outcomes

- Strengthened medical infrastructure facilities at military hospital and ESI medical college & hospital in Telangana state
- After establishing Oxygen plants in ESI hospital & Military hospital, both hospital's reliance on buying oxygen from outside was abated because of BDL-supplied oxygen plants.
- This project enabled the availability of medical oxygen, which can help hospitals face any catastrophic health emergencies.

Sustainability: The project's outcomes have a lasting impact due to the oxygen plants' ability to deliver the highest possible oxygen levels to patients in critical wards. Both hospitals dedicate technical personnel to oversee the daily upkeep and operation of the oxygen plants. Furthermore, both hospitals provide AMC services to ensure the complete maintenance of the oxygen plants, thereby enhancing their performance and prolonging their lifespan.

Performance of the Project

OECD DAC Framework Weightage score

Military Hospital			ESI Medical College & Hospital		
DAC Framework Parameters	Performance Indicator	Weightage Score	DAC framework Parameters	Performance Indicator	Weightage Score
Relevance	Above Average	16	Relevance	Excellent	17
Efficiency	Above Average	16	Efficiency	Excellent	18
Effectiveness	Above Average	16	Effectiveness	Excellent	17
Impact	Above Average	16	Impact	Excellent	17
Sustainability	Above Average	16	Sustainability	Excellent	18
Total Score	Above Average	80	Total Score	Excellent	87

Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

Satisfaction Level Survey

The IPE team had discussions with five healthcare officials from Military hospital and an equal number of five healthcare officials from ESIC medical college & hospital, all of whom expressed their high level of contentment with the increased levels of oxygen available for various medical treatments. This enhancement has allowed both hospitals to admit more patients and offer improved healthcare services. They also emphasized that this type of health infrastructure enables both hospitals to effectively manage any health emergency by having an adequate supply of oxygen. Moreover, they highlighted that due to this project, both hospitals have lessened their need to purchase oxygen cylinders from external sources.

Overall Observations

- BDL has established permanent shed facilities for the oxygen plants situated at ESIC Medical College & Hospital and Military Hospital.
- Both hospitals have entered into an annual maintenance contract to ensure the proper upkeep and operation of the plants, maintaining optimal levels of oxygen generation for extended periods.
- The technical staff at both hospitals have undergone training to operate and maintain the PSA plants regularly, carrying out routine tasks such as monitoring the plant's mode and inspecting the oxygen's purity.
- These oxygen plants are fully operational, catering to the oxygen requirements of critical care patients throughout their treatment duration. ESIC Medical College & Hospital's oxygen plant operates round the clock, while the Military Hospital's plant functions five days a week to provide adequate oxygen levels for patients undergoing oxygen therapy.

Case Studies

Case Study 1

Mr Sirinivas (name changed), ESIC-insured person, a 48-year-old individual, sought treatment at ESIC hospital for chronic obstructive pulmonary disease (COPD). This condition caused airflow obstruction in the lungs, leading to breathing difficulties, coughing, sputum production, and wheezing over an extended period. Following a comprehensive diagnosis, the doctor conducted various tests, prescribed appropriate medications, and initiated oxygen therapy using the oxygen supply from the BDL-installed oxygen plant with a capacity of 15 LPM for a five-day period at ESIC hospital. Through these collaborative efforts, Sirinivas experienced improved blood oxygen levels, reduced infections, and successful recovery from COPD within ten days.



Project 7: Setting up of Covid Separation facilities at ESIC, Sanathnagar, Hyderabad

Name of the Project	Setting up of Covid Separation facilities at ESIC, Sanathnagar, Hyderabad
Project Cost	170 lakhs
Execution Period	2021-22
CSR Thematic Area	Schedule VII, Section 135 Item number (i): Promoting Healthcare Item number (xii): Disaster Management - Covid 19 relief measures
SDG Goal	
Project Objective	The project's main objective is to build flap barriers at eight key strategic locations within ESIC Hospital in Sanathnagar to restrict unauthorized persons and allow eligible general & ESIC-Insured patients through authorized card access to avail of COVID-19 or non-COVID treatments.
Total beneficiaries	Beneficiary patients of ESIC hospital scheme.

Background of the Project

ESIC Medical College and Hospital (ESIC MC & H), Sanathnagar, Hyderabad, is an 800-bed hospital catering to more than 14 lakh insured persons covered under the ESI Scheme in Telangana. During COVID this hospital has rendered both COVID and Non-COVID Services. This hospital has a footfall of more than 2400 patients each day. To reduce non-COVID patients entering areas where COVID-19 patients were being treated, ESIC MC & H decided to install flap barriers at various eight strategic locations on the campus. Furthermore, they approached BDL for CSR funding under the COVID-19 disaster management program, and as a result, eight flap barriers were successfully installed. The flap barriers aided in cutting down the flow of patients and patients' attendants into COVID and non-COVID treatment areas while granting access only to those allowed to enter those areas.

All employees are given RFID Cards / Access Cards which allow unrestricted entry to Employees. Currently, these flap Barriers are being used to restrict the entry of a greater number of unauthorized personnel and extra patient attendants onto the campus, reducing the rate of infections among patients being treated on the campus.

Project Initiatives

The total cost of the project was Rs. 170 lakhs

The flap barriers are installed in the following locations:

- Main Gate Entry - Left Side - 02 flap Barriers

- Main Gate Entry - Right Side - 02 flap Barriers
- Super Specialty Main Gate Entry - 02 flap Barriers
- Colony Gate - 01 flap Barrier
- Super Specialty Exit Gate - 01 flap Barrier

The security personnel verify a valid Insured person and his/her attendant(s) before granting access through flap Barriers to enter the campus or inside the hospital in case of ESIC Super Specialty Hospital.



ESIC MC & H - Sanathnagar set up a flap barrier at its campus through BDL CSR funds

Impact Analysis Framework: The IPE team employed the OECD DAC Framework of various parameters to analyze the impact of CSR project, and the findings are outlined below.

Relevance

The inclusion of flap barriers in this project has proven to be essential in deterring unauthorized entry and controlling the movement of general & ESIC-insured individuals, encompassing both Covid and non-COVID patients. By authorizing card access, eligible ESIC-insured patients were granted entry to specific areas for receiving Covid and non-COVID treatments during the COVID-19 pandemic. Presently, this project significantly contributes to limiting the mobility of employees, ESIC-insured patients, and their companions within the campus, thereby reducing the transmission of infections within the premises.

Efficiency

The ESIC MC & H successfully completed the project within the designated budget and timeframe using BDL CSR funds. Each flap barrier service life is more than 6 million times, allowing for a throughput of 35 to 40 people per minute in normal open mode and 30 to 35 people per minute in normal closed mode. This provides an advanced operation to control access smoothly and effectively by basic operation and prevent illegal in and out. The flap barrier is well designed, rustproof, and durable. The flap barriers are currently being fully utilized to control the movement of ESIC-insured patients and staff members through authorized card access and facial recognition technology. The flap barrier turnstile serves as an efficient tool for overseeing the entry and exit of ESIC-insured patients and employees on a regular basis.

Effectiveness

ESIC MC & H successfully achieved its project objectives of controlling access for unauthorized individuals or excessive attendants of ESIC-insured patients and monitoring of employee attendances by implementing 8 flap barriers at strategic locations. These flap barriers are linked to controllers that continuously monitor their connectivity and transmit data from RFID cards used for access. The controllers are connected to two servers in the IT server room, storing access details for analysis as needed. Additionally, the application serves as a backup for the attendance management system, utilizing facial recognition technology for employee attendance based on data captured by the same application used for the flap barriers.

Impact

The program resulted in significant modifications, such as the improvement of monitoring systems at ESIC MC & H for ESIC-insured individuals and their companions' access, the prevention of unauthorized entry, and the promotion of employee punctuality. These enhancements have led to the better management of ESIC-insured patients' data, employee efficiency, and reduced operational costs by optimizing the deployment of security personnel. The initiative was particularly beneficial during the COVID-19 pandemic, as it effectively managed the flow of both COVID-19 and non-COVID-19 patients by allowing treatment exclusively for eligible general & ESIC-insured individuals through a card access system, resulting in a decrease in virus transmission among individuals on the campus.

Coherence

The project's implementation adhered to the health policies and COVID-19 guidelines set forth by the state and central government, focusing on improving hospital monitoring systems during and post-COVID-19.

Outcomes

- Advanced monitoring systems have come into existence to ensure better oversight of ESIC-insured patients and ESIC MC & H employees in Sanathnagar.

Sustainability

The project's outcomes are sustainable because ESIC MC & H has security personnel in place to handle routine operation and maintenance tasks. These tasks involve maintaining the cleanliness of swing/flap barrier gates to ensure long-term stability and prolong the equipment's lifespan.

The security personnel also pay attention to cleaning the turnstile housing and card reader panels of turnstile gates. Furthermore, they lubricate the internal movement structure, inspect and clean the dust on the driver board, and check the connectors and wiring points for reliability. These essential actions help improve the device's performance, ultimately contributing to the long-term success of the project.

Performance of the Project

OECD DAC Framework Weightage score

DAC Framework Parameters	Performance Indicator	Weightage Score
Relevance	Excellent	18
Efficiency	Excellent	17
Effectiveness	Excellent	17
Impact	Excellent	17
Sustainability	Excellent	17
Total Score	Excellent	86

Individual score: Excellent: 17-20; Above Average: 13-16; Average 9-12; Below Average: 5 to 8 and Very Poor: 1 to 4

Total Score: Excellent (Scores: 81 to 100); Above Average (61 to 80); Average (41 to 60); Below Average (21 to 40) and Very Poor (1 to 20)

Satisfaction Level Survey

Key Executives and Security Personnel: The IPE team had the opportunity to engage with four key executives and 10 security personnel, all of whom expressed their high satisfaction with the implementation of measures to restrict unauthorized individuals and control the influx of patients' attendants during the COVID-19 pandemic. These individuals emphasized the effectiveness of the flap barriers as monitoring mechanisms during this challenging time, as they successfully regulated the access of both general and ESIC-insured patients through the utilization of an RFID card access system at eight entry points. The ESIC MC & H placed significant importance on COVID-19 testing and treatment procedures, allowing authorized access to eligible patients, including both general and ESIC-insured individuals, through the flap barriers. Additionally, the team highlighted that the attendance of employees was closely monitored through the utilization of face recognition technology integrated within these flap barriers.

Overall Observations

- Security personnel are allowing ESIC-insured patients access by utilizing RFID access cards, which are issued after verifying the patients' ESIC insurance card and Aadhar card. This process effectively prevents unauthorized individuals from entering the premises. At present, the number of ESIC-insured patients coming in is within normal range.

- The flap barriers will be particularly more beneficial in the case of any future medical emergencies, as they help control patient flow and only admit eligible patients.
- This system is set to enhance safety and security measures throughout the entire campus of ESIC MC and H.

Case Studies

Case Study 1

"The implementation of BDL's project has had a significant impact on managing the influx of general and ESIC-insured patients during the second waves of COVID-19. Prior to the project, the number of patients seeking medical attention was overwhelming, leading to the need for additional security personnel to maintain order and ensure the safety of both patients and staff. Despite the efforts of the security personnel, the situation continued to spiral out of control, with long queues and confusion among patients. However, with the installation of flap barriers at eight key locations within the medical facility, access for COVID-19 patients among general and ESIC-insured patients has been streamlined. The flap barriers allow for authorized card access, ensuring that only those who require treatment for COVID-19 & non-COVID are granted entry. This has greatly reduced the congestion and chaos that was previously experienced, as patients can now easily identify the designated areas for COVID-19 treatments.

The ESIC MC & H is currently overseeing the monitoring process of the flap barriers. Their involvement has been crucial in ensuring the smooth functioning of the system, and they have been able to successfully manage the flow of patients with the help of this technology.

Overall, the installation of flap barriers has been a game-changer in managing the influx of patients during the COVID-19 pandemic. It has not only improved the efficiency of the medical facility but also enhanced the safety and well-being of both patients and staff. The success of this project highlights the importance of implementing innovative solutions to address the challenges posed by the pandemic."

Dr M Radhika

Medical superintendent, ESIC MC & H

About the Centre for Corporate Social Responsibility (CCSR), IPE

The Centre for Corporate Social Responsibility (CCSR) was set up during 2011 to promote training, research, consultancy assignments and document case studies in thrust areas of CSR. The Centre works on the existing body of knowledge, systems, structures, models, and mechanisms associated with different CSR initiatives; it also provides a platform for discussing CSR guidelines and the latest developments in the field. The Institute of Public Enterprise (IPE) has been part of the Department of Public Enterprises (DPE), Government of India initiative on introducing Corporate Social Responsibility (CSR) as an element of the performance matrix in Central Public Sector Enterprises (CPSEs). IPE was invited to attend the meetings of the Working Group on CSR in 2007-08 and 2009-10 and was nominated by DPE as a Member of the Executive Committee on CSR in 2011 to develop, design and implement courses for CPSEs. Recognizing the importance of the subject and the realization that there is a dearth of experts in this emerging field, it was decided that IPE could play a major role in research, development, and advocacy of CSR. This idea led to the establishment of the Center for Corporate Social Responsibility in 2011 at IPE. The main objectives of the center are:

- To conduct interdisciplinary and collaborative research and document case studies in thrust areas of CSR dealing with contemporary issues and challenges.
- To integrate the existing body of knowledge, systems, structures, models, and mechanisms associated with different CSR initiatives by interfacing with industry and academia.
- To disseminate information about the latest happenings in the CSR field to the people engaged in policy making, policy analysis, policy research, practitioners, and other stakeholders.

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About Institute of Public Enterprise (IPE)

The Institute of Public Enterprise (IPE) was established in 1964 as an autonomous non-profit society. IPE is a premier AICTE approved management Institute focusing on transforming students into leaders of tomorrow in organizations and society. IPE's key objectives



include management education, research, consultancy, and training. In 1995, the Institute launched its first two year full-time Post Graduate Diploma in Management (PGDM) program to provide skilled human resources to meet the requirements of industry.

Keeping in view the market demand, the Institute also launched sector specific PGDM programs in the areas of Marketing, Banking Insurance and Financial Services, International Business and Human

Resource Management. IPE's engagement with long-term management education has received wide appreciation from the industry, government, and social sector enterprises. The Institute continuously endeavours to update the content and teaching methodology of its courses based on feedback from the end-users, ensuring the quality, relevance, and utility of all its programs and courses.

IPE is consistently ranked among the leading B-Schools in India in most well-known ranking surveys. IPE has also been awarded a premium accreditation label of the SAARC region, 'The South Asian Quality Assurance System' (SAQS). Over the years IPE has won several awards and honours for its academic & research excellence.

IPE has a very successful track record of running MDPs over a long period of time. IPE also has a strong Research and Consultancy division, which provide consulting services and undertakes research projects for various national organizations. The Institute has been recognized as a 'Center of Excellence' by the Indian Council of Social Science Research (ICSSR), Ministry of Education, and Government of India.

The Governance of the Institute is overseen through a Board of Governors composed of eminent policy makers, academicians, and CEOs of public and private sector enterprises.



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