



**DRAFT REPORT
IMPACT ASSESSMENT
CSR PROGRAM 2019-22**

**EPSILON CARBON
Torangallu, Bellary**

Study Conducted By





IMPACT ASSESSMENT

CSR PROGRAM

EPSILON CARBON

2019-22



Middle school, D. Antapur village

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Table of Content

	Page
Acknowledgements	i
Executive Summary	iii-vi
Introduction	1
Methodology	3
1 Modernization of Library	7
2 Avenue Plantation	13
3 Upgradation of Dept. of Anesthesia at VIMS Ballari	17
4 Supply of Reagents to Central Laboratory at VIMS Bellary	21
5 Donation of Medical Equipment to 06 General hospitals of Ballari District	25
6 Civil Works at Sultanpur Village	29
7 LED Street Light, Kudithini	33
8 Supply of Drinking Water to DIZ villages	37
9 Support to Inspire Institute of Sports	43
10 Sponsorship for District Level Pro-Kabbaddi Tournament	49
11 Support of Guest Teachers to Government Schools	53
12 Smart Class in Government Schools	59
13 Civil Works In Government Schools	63
14 WATSAN Infrastructure at School	67
15 Upgradation of Nalli Kalli Classrooms	71
16 Supply of School Desk to Government School	75
17 Upgradation of Anganwadi in DIZ	83
18 Donated Food Kits	85
19 Sensitization & Hygiene Entrepreneurs (SHE)	89
20 Distributed Face Mask Hand Sanitizers To Diz Villagers & For Frontline Workers	93
21	99
22	105
23	109
24	112
25	113
26	115
27	137
28	141
29	145
30	149
31	163
32	164

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The help and assistance provided by THDCIL has been outstanding. All information was neatly collated, request for additional data was promptly attended and logistics bottlenecks deftly smoothed. The discussion with the CSR team was candid and enriching. On every field visit the CSR team member(s) were present and facilitated the interaction. The help extended by Mr Ajay Lal, General Manager (HR) and Mr Ganesh P Walvekar, Assistant Manager(CSR) during field work deserve special mention.

We acknowledge confidence reposed in us by Shri Vikram Handa, MD, ECPL and associating us in conducting this assignment. We are thankful to him and his colleague Shri Prashant Sawant, Human Resources, who provided valuable inputs.

Impact Assessment at best can ascertain 'what is', the answer to 'what should be' is the domain of the CSR managers, stake holders and the community they serve. Hope this report helps make an excellent CSR Program even better.

Dr. K. K. Upadhyay
Director and Professor
Birla Institute of Management Technology (BIMTECH)

ಸರಕಾರಿ ಹಿರಿಯ ಪ್ರಾಥಮಿಕ ಶಾಲೆ
ಚಿಕ್ಕ ಅಂತಾಪುರ.

2019-20 ನೇ ಸಾಲಿನ EPSILON CARBON PRIVATE LIMITED
ಸಂಸ್ಥೆಯು CSR ಅಡಿಯಲ್ಲಿ ಹಮ್ಮಿಕೊಳ್ಳಲಾದ ಯೋಜನಾ ವಿವರ :

ಇ-ಪಾಠಶಾಲಾ ಉಪಕರಣಗಳ ವ್ಯವಸ್ಥೆ
(SMART CLASS EQUIPMENTS)

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EPSILON CARBON

CSR PREMISE

Epsilon Carbon Private Limited (ECPL); is engaged in producing derivatives of coal at its distillation plant in Toranagallu in Bellary district of Karnataka. The plant started operations in 2018. The CSR catchment area of the plant comprises 7 rural habitations and 1 town. In addition to the CSR work in its immediate vicinity, Epsilon Carbon through its CSR program has reached out to communities in several locations across the country.

The CSR Program derives its mandate from the Epsilon Carbon's credo of being a socially responsible corporate which continually enhances value creation in society and community and promotes sustainable development.

Some of the objectives which the Epsilon Carbon CSR program actively follows include

- To directly or indirectly take up CSR programs that benefit the communities in and around its work centers and over a time result in enhancing the quality of life and economic well being of the local populace.
- To promote inclusive growth and address the basic needs of the deprived, underprivileged, neglected and weaker sections of the society.
- To generate through CSR initiatives, goodwill and pride for Epsilon Carbon among stakeholders and help reinforce a positive and socially responsible image.

Executive Summary



Inauguration of renovated Anganwadi

Object of the Impact Assessment Study

- To measure through an independent evaluation the impact that can be attributed to the program/work
- To assess sustainability and learning
- To gather data about the effectiveness and impacts of the program to make sure that the intervention was on track and reached its objectives
- To provide with inputs to prepare for further interventions

Assessment Framework

The widely OECD criteria for project assessment was adapted for this study. Each project was seen through the lens of the following six criterion.

- **Coherence:** The compatibility of the intervention with other interventions in a country, sector or institution. This was further checked for (i) Internal Coherence: addresses the synergies of the intervention with the THDC CSR Policy and the priority sub sectors. (ii) External Coherence: considers the consistency of the intervention with similar program by the state or central government.
- **Relevance:** Does the intervention respond to the felt needs/priorities of the CSR catchment. The relevance is context specific to the geography / culture in which the intervention is being implemented.
- **Effectiveness** The extent to which an intervention is achieving or has achieved its objectives. This includes whether an intervention has

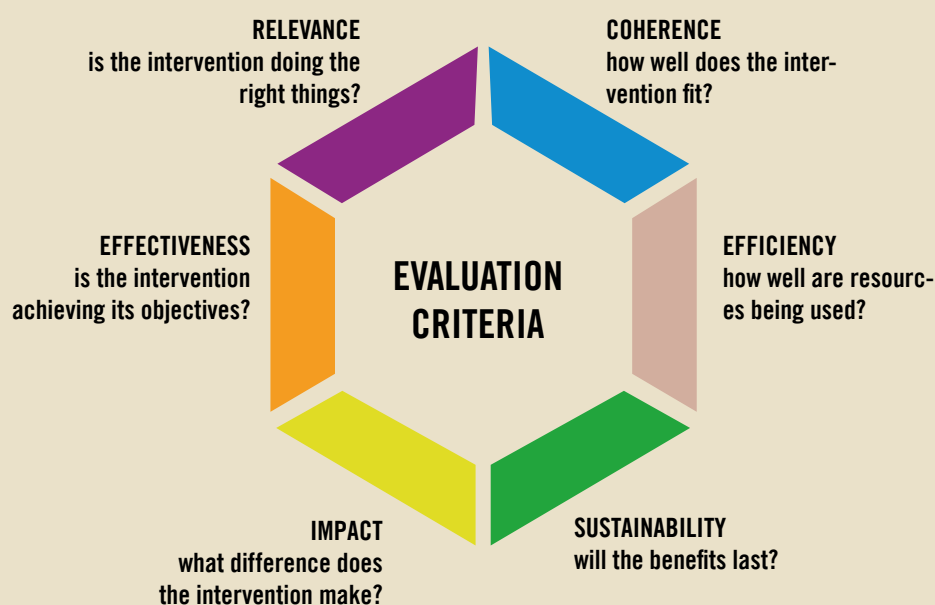
attained its planned results, the process by which this was done, which factors were decisive in this process and whether there were any unintended effects.

- **Impact:** This criterion captures the “so what?” question of an evaluation. It examines the significance of the intervention and its higher-level results, meaning how much it mattered to those involved.
- **Efficiency:** The assessment focused on economic efficiency in terms of leverage and unit costs of outputs.
- **Sustainability:** Does the initiative have financial, economic, social, environmental and institutional capacities needed for the likelihood of net benefits continuing over the medium and long term.

Methodology

The assessment team used a bouquet of techniques to elicit information and evidence to enable it to make a judgment on how an individual initiative has performed, which include (i) Semi Structured Interviews, (ii) Case Studies, (iii) Observation, (iv) Focus Group Discussion and (v) Secondary Data (where available). Based on the evidence and information, the team rated each project as high/medium/low for each element in the framework (coherence, relevance, effectiveness, efficiency, impact and sustainability. To keep the biases at bay, the field team assessment was reviewed by a senior team member and the impressions triangulated.

Fig 1.1: The Impact Assessment Framework



Introduction



MOU signing Ceremony: Upgradation Of Anaesthesia Department In Vijaynagar Institute Of Medical Science (VIMS)

Contours of the CSR Program

The CSR program covers 6 sub sector, these include:



Health - Upgradation of ICDS centers, Mobile Healthcare Unit, COVID-19 response, supply of medical equipments



Education – School infrastructure up-gradation and improvement in learning outcomes



Community Infrastructure - Upgradation of libraries, providing street lights



Promotion of sports- Support sporting talent



Environment - Roadside plantation

CSR Focus Areas

Over the years, there has been an expansion in the CSR portfolio of Epsilon Carbon.

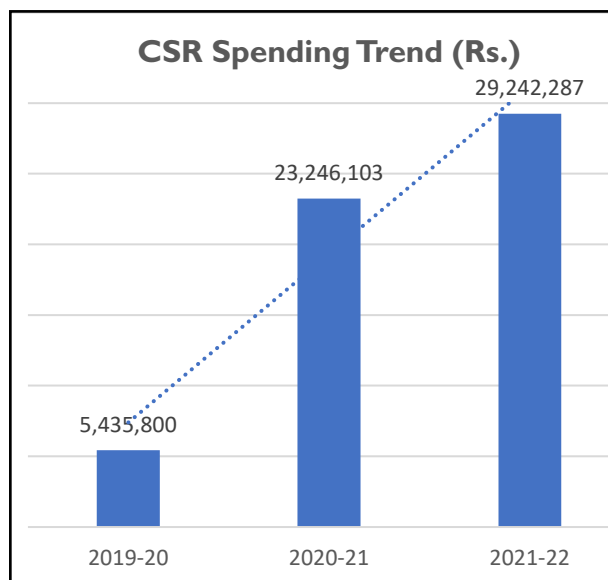
Sectoral CSR Spends (% of total)

	2019-20	2020-21	2021-22
Education	54%	13%	35%
Promotion of Sports		11%	12%
Water Supply	46%	1%	
Healthcare		21%	27%
Covid-19		37%	11%
Environment		15%	3%
Animal Welfare			3%
Village Infra			6%
Women Empow-erment			3%
Oth		1%	

Education, sports (through JSW Inspire Institute of Sports), and healthcare have contributed about 75% of the total spending in 2021-22. In 20-21 the biggest proportion of CSR expenditure was on Covid-19 response.

CSR Expenditure

Epsilon Carbon has shown a significant increase in CSR spending over the last three years. This increased availability of resources translates to being well positioned to take up projects at scale and with increased complexity and involvement for lasting impact.



Selection of Location and Beneficiaries

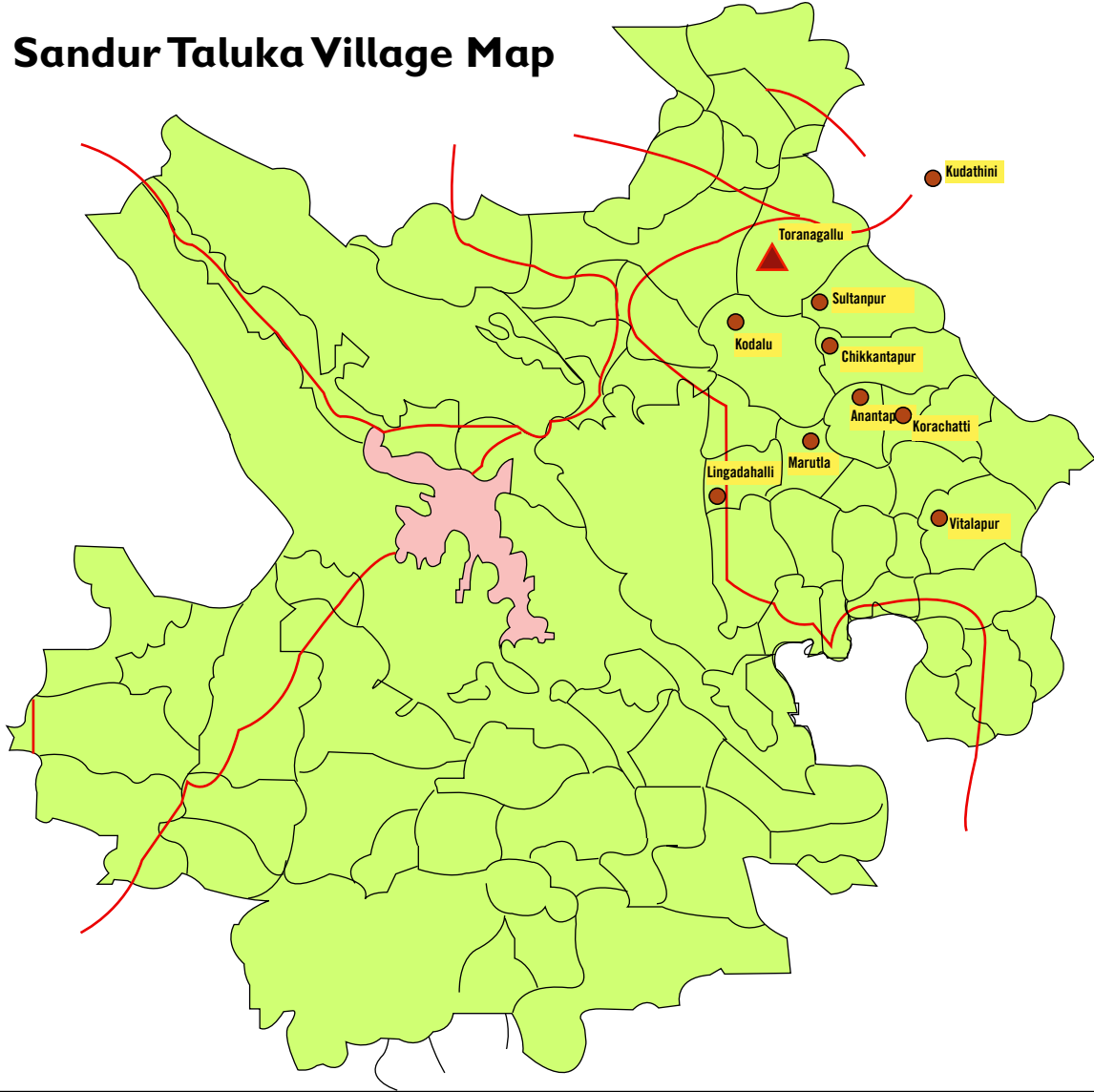
Epsilon CSR spends have been distributed across both the DIZ villages located on the periphery of its plant at Torangallu, Bellary district as well as in various location in the country. Of the total CSR expenditure, 80% was spent in and around the CSR catchment in 2020–21, while it was 52% in 2021–22. The CSR area has over the years has got modified. While Torangalu village has been dropped due to a high concentration of CSR activities by various companies in the area, four new settlements namely Lingdahalli, Marutla, Korachatti and Vitlapura have got added. For the year 2019-2022 (Impact assessment period), of the newly added villages only Vithlapura had a CSR project.

Population of CSR villages

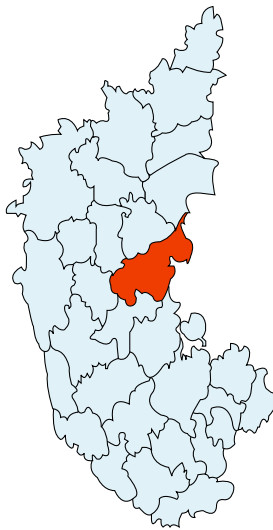
Settlements	Taluk	GP	HH
Kodalu	Sandur	Dodda Anthapur	540
D.Antapur	Sandur		980
Korachatti	Sandur		75
Chikkantapur	Sandur		440
Lingadahalli	Sandur		320
Marutia	Sandur		45
Sultanpur	Sandur		Toranagallu
Vitalapur	Sandur	Vitalpur	900
Kudathini (T)	Bellary		4250
Current CSR area households			7710
Toranagallu	Sandur	Toranagallu	
(*) not included 140 migrant labour hh			
Source: Focus Group Discussion			

Location of CSR villages

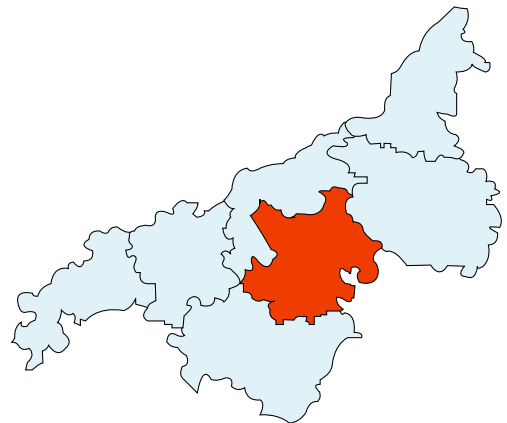
Sandur Taluka Village Map



**Location Map:
Karnataka**



**Location Map:
Bellary District**



**Location Map:
Sandur Taluka**

Methodology



Trial frame provided to ophthalmic departments of taluka hospitals, Bellary district

Object of the Impact Assessment Study

- To measure through an independent evaluation the impact that can be attributed to the program/work
- To assess sustainability and learning
- To gather data about the effectiveness and impacts of the program to make sure that the intervention was on track and reached its objectives
- To provide Epsilon Carbon with inputs to prepare for further interventions

Scope of Work

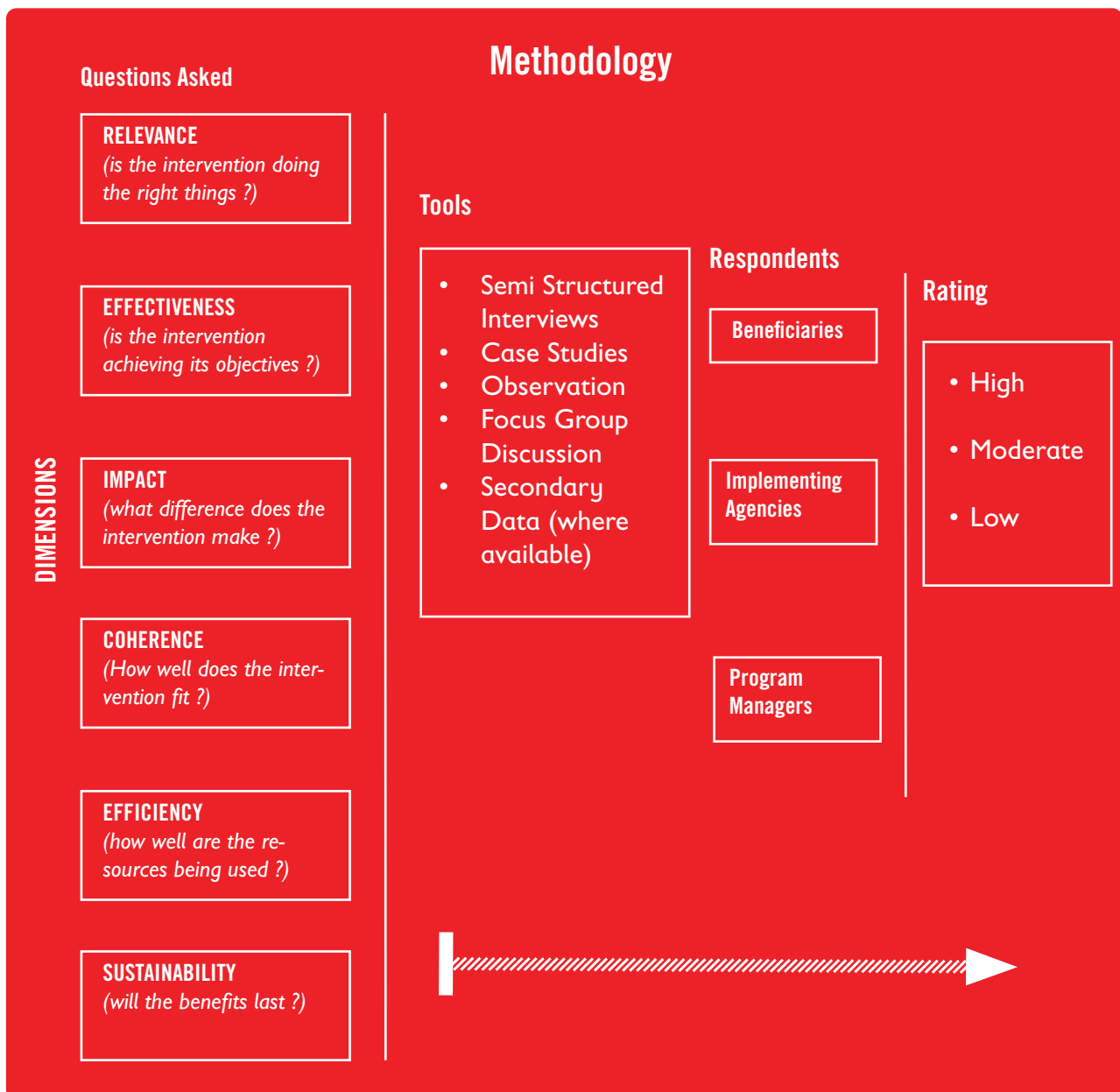
- Identifying any changes resulting from programme intervention, establish causal connections between the changes and the programme inputs and measure the magnitude of change
- Determine how effectively and efficiently

the programme have been implemented and extent to which the net benefits have been achieved

- Examine to what extent has the intervention achieved its objectives (outputs and outcomes) or will do so in the future
- Suggestions (if any) to make the programs more effective and sustainable
- Quantifying (wherever possible) the intended and unintended, direct and indirect impacts of the programme/intervention on the people and the community
- Defining how has the intervention affected the overall situation of the target beneficiaries and stakeholders

Methodology

The schematic of the methodology adopted is given below:



List and location of projects implemented over 2019-22 and the sites visited by the assessment team

S.No.	Project Implemented in 2019-20	Location	Location visited by Assessment Team
Education			
1	Smartclass in Govt. school	Chikkanthapur,	Yes
2		Kodalu	Yes
3		Dodda Anthapur	Yes
4	Nali Kali wall art in Govt. School	Toranagallu	Yes
5	Support of Guest teachers to Govt. school	Chikkanthapur	Yes
6		, Kodalu	Yes
7	Constructed podium in Govt. School	Chikkanthapur	Yes
8	Constructed compound wall in Govt. school	Chikkanthapur	Yes
9	Constructed wash basin and fixed overhead and underground water tank in Govt. School	Kodalu	Yes
10	Constructed toilet for boys and girls in GHPS	Kodalu	Yes
11	Kota stone flooring in 03 classrooms at GHPS	Kodalu	Yes
12	Constructed urinal toilet at Govt. Model School	Kudathini	Yes
Sports			
13	Conducted sports event & distributed prizes	Kodalu	No
14	Inspired institute of sports	JSW Foundation, Toranagallu	Yes
Water Supply			
15	Supplied drinking water during summer months by tanker	Chikkanthapur,	Yes (respondent available)
16		Kodalu	Yes
17		Dodda Anthapur	Yes
S.No.	Project Implemented in 2020-21	Location	Location visited by Assessment Team
Health			
18	Donation of medical equipment to 06 General hospitals of Ballari District	Dist. Hospital, Ballari	Yes
19		General Hospital, Hospet	Yes
20		General Hospital, Siruguppa	Yes
21		General Hospital, Harappanahalli	Yes
22		General Hospital, Sandur	Yes
23		General Hospital, H B Halli.	Yes

24	Strengthening central laboratory at VIMS Bellary through supply of reagents to conduct COVI-19 & NON COVID-19 investigations	VIMS Bellary	Yes
Environment Protection			
25	Avenue plantation	PCL - Sulthanpur road to Dodda Anthapur & Chikkanthapur cross to via Chikkanthapur-Kodalu to Dodda Anthapur	Sample stretches tree count
Sports Promotion			
26	Inspired institute of sports	JSW Foundation, Toranagallu	Yes
27	Sponsorship for Dist. Level Pro-Kabbaddi tournament	Ballari	Yes
Education			
28	Support of Guest teachers to Govt. school	Chikkanthapur	Yes
29		Kodalu	Yes
30	Supply of school desk to Govt. School	Govt. High School Dodda Anthapur	Yes
Covid-19 Response			
31	Donation of face mask, gloves & PPE kits	Ballari	No
32	Sensitization & Hygiene Entrepreneurs (SHE)	Ballari	No
33	Donated food kits	Kudathini	Yes
34	Distributed face mask hand sanitizers to Diz villagers & for frontline workers	Sulthanpur,	Yes
35		Kodalu	Yes
36		Chikkanthapur	
37	Health check-up camp for labourers for investigation of COVID-19	Govt. School Toranagallu	Yes
Water Supply			
38	Supply of drinking water to DIZ villages	Chikkanthapur,	Yes (respondent available)
39		Kodalu	Yes
40		Dodda Anthapur	Yes

S.No.	Project Implemented in 2021-22	Location	Location visited by Assessment Team
Sports Promotion			
41	Inspired institute of sports	Toranagallu	Yes
Education			
42	Support of guest teacher to Govt. schools of DIZ.	Sulthanpur	Yes
43		Chikkanthapur,	Yes
44		Kodalu	Yes
45	School renovations & education upgrades	Sulthanpur	Yes
46		Chikkanthapur,	Yes
47		Kodalu	Yes
48		Dodda Anthapur	Yes
Community Infrastructure			
49	Modernization of Library	Vitalapur	Yes
50		Dodda Anthapur	Yes
51	Donated 30 watt LED street-lights bulbs to Kudathini	Kudathini	Yes
52	Construction of CC road, drainage	Sultanpur	Yes
Health & Nutrition			
53	Upgradation of Dept. of Anesthesia at VIMS Ballari.	VIMS Ballari	Yes
54	Strengthening central laboratory at VIMS Bellary through supply of reagents to conduct COVI-19 & NON COVID-19 investigations	VIMS Ballari	Yes
55	Upgradation of Anganwadi in DIZ	Chikkanthapur (2)	Yes
56		Dodda Anthapur	Yes




Project 1

Modernization of Library

Village	Year	Expenditure
Vitlapura	2021-22	25,81,924
Dodda Anthapur		



Upgraded library at Vithlapura

Project : Modernization of Library	
Project background: ECPL in association with the Zilla Panchayath of Ballari refurbished the existing public libraries with improved facilities for the users. The works undertaken included expansion and renovation of the library building, Kadapa stone flooring, painting of the walls with relevant motifs (interior & exterior), aluminum partition, reading table & chair, double-faced & single-faced book stacks, drinking water filter, almirah, newspaper stand, steel shelves, computer with UPS back-up, computer table, cushion chair for the librarian, electrical wiring, LED bulbs, and fans.	
Location: Dodda Anthapur and Vitalapur	
Project cost : Rs. 25,81,924/-	
Project Objective: Provide a conducive atmosphere and facilities to make public libraries a favored place in the village for education, information, and personal development.	
Assessment	
Coherence (How well does the intervention fit with the national, state and local imperatives?)	Score: High
External Coherence revitalisation of rural public libraries is a flagship programme of the Department of Rural Development & Panchayat Raj (RDPR). The Karnataka Public Libraries Act, 1965 came into force in 1966 and, subsequently, the Department of Public Libraries established a public library network at the state, district, city, and Gram Panchayat levels. In 2019, 5623 of these rural libraries were transferred to the RDPR department for their overall management. This transfer enabled local oversight of the rural public libraries at the gram panchayat level. The department is in the process of reviving the rural libraries by improving their infrastructure which includes electrical connections, book racks, furniture, reading rooms or balconies, study desks for students, armchairs, and garden benches for seniors. The modernization of libraries under the Epsilon Carbon CSR program is in sync with the effort of the state government in making rural libraries a knowledge resource for the community.	Consonance with SDG 
Relevance (extent to which the intervention respond to beneficiaries priorities)	Score: High
<p>These rural public libraries can serve as an important force for local community empowerment and can play a significant role in the economic and social development of rural communities. In the context of the villages where the libraries have been upgraded, the following concerns are a pointer to the need for the intervention:</p> <ul style="list-style-type: none"> • Children in rural schools do not have access to reading material which impacts their reading skills: In the CSR villages, the assessment team found that the reading ability of the students was very low. For instance, in a learning outcome test conducted by the team in two schools at D.Antapur and Kodalu villages, it was found that at class V level, about 15% of the students could read a passage fluently in Kannada, while the corresponding figures for English averaged 5%. None of the schools in the CSR villages have a functional library, thereby limiting access to reading material beyond the textbook. Upgrading the existing public libraries has provided a well-equipped reading space for rural children. • There is no organised activity center in the villages for children and youth: Libraries do not act only as repositories of books but have the potential to provide opportunities for self-improvement and social interaction. The Rural Development & Panchayat Raj department intends to position the rural libraries as information and activity centers that hold sessions on life skills, conduct competitions, showcase education-based films, conduct story-telling sessions, hold competitions, showcase education-based films, conduct story-telling sessions, popularise indoor games like chess, etc. The prerequisite for broadening the role of rural public libraries is good infrastructure and a conducive physical environment. The up-gradation of libraries under the CSR program has helped bridge the infrastructural gaps. 	

- **Place for the elderly to interact:** The villages have a significant elderly population who do not have a place to meet and interact. The library provides such a space.

Effectiveness (is the intervention achieving its objectives?) **Vithlapura Library**

Score:
High

The up gradation of Vithlapura public library has led to the following

1. Membership has gone up:

Current membership at Vithlapura library				
Category	Boys	Girls	Total	Remarks
Primary School	18	24	42	After the upgradation of the library, the membership has gone up from around 150 to approximately 400 members. A large number of students have taken up membership. The membership drive is ongoing and the number of members is expected to go up further.
Middle school	15	20	35	
IX std	58	71	128	
X std	48	56	104	
	Male	Female	Total	
Village residents	78	7	85	
	Total		395	

2. Footfalls in the library has increased: The daily footfall in the library has tripled. Previously, about 8-10 people would visit the library; now around 25-30 people visit the library, including both students and villagers. .

3. The library has collaborated with the middle school to run a ‘read aloud’ programme to improve reading skills: The librarian, along with the middle school teachers, organizes read-aloud sessions every day during school hours at the library. Students from primary classes come to the library and read aloud a storybook from the library, assisted by the librarian and the class teacher. The library is contributing positively to the education of the students in the village and also helps inculcate reading habits. This program also helps students get familiar with the library and encourages them to visit the library on their own beyond school hours. It may be mentioned that the librarian has received training on the ‘Read Out Loud’ program, provided by the Rural Development and Panchayati Raj Department, but could not organize reading sessions due to poor infrastructure at the library. The library upgrade has helped the training to be put to its intended use.

4. Library provides career counselling to students: With the footfall of students having increased substantially after the upgradation, the library has started to provide career counseling to students of X and XII grades. The librarian has been provided training on career counseling by the Rural Development and Panchayati Raj Department. However, since prior to the upgrade, there were hardly any students visiting the library and therefore the career counseling service could not be started. However, with the upgrade and high footfall of students, career counseling sessions are regularly held. A large banner on possible careers for students post-schooling is prominently displayed in the library.

5. Collaboration between government and Epsilon Carbon evident: While the infrastructure inside the library room was upgraded by Epsilon Carbon, the outside environs of the premises were upgraded and beautified with funds from the Taluka Panchayat. It included garden benches, turf grass, and wire fencing for the library. Such a collaborative effort has helped provide a comprehensive upgrade of the library and made it a sought-after public space.

6. Elderly frequent the library: With good sitting facilities, proper lighting and nice environs the number of elderly frequenting the library has increased. It not only serves as a reading place but also for them to socialise and spend time in a fruitful manner. A group of 10-12 elderly persons are regular visitors to the library, which previously was not the case.



A lifelong attachment with Vithlapura Library

G. Ram Reddy, 64, is amongst the oldest members of the library. Reminiscing the days when the library was started in their village in 1996, he recollected the enthusiasm and happiness he felt having access to books. Educated up to class X, when education was a rarity in the village, Mr. Reddy had been a regular visitor to the library. He recalled that when the library started, there were no chairs but mats for the readers to sit on. Over time, the library got its building, but the facilities remained poor for the readers. The library he had known had about ten chairs, a table, and a dusty rack of books. Only the most motivated would visit the library, the environs did not attract most of the village. "I have spent so many hours of my life in this library and feel happy to see such modern

facilities come up. It feels so good to see children at the library. The love for books will get inculcated in the children and the library will continue to prosper and remain useful for many years to come," said Mr. Reddy. He also talked about a group of 10–12 elderly, including himself, who visit the library regularly to read and to socialize within themselves in the comfort of the upgraded facilities.

7. Elderly frequent the library: With good sitting facilities, proper lighting, and nice environs, the number of elderly people frequenting the library has increased. It not only serves as a reading place but also for them to socialize and spend time in a fruitful manner. A group of 10-12 elderly people are regular visitors to the library, which previously was not the case.

While the up-gradation of Vithlapura library has much to recommend for itself, there are certain issues which if ameliorated can further improve the functionality of the facility

1. The membership and footfall of women and teenage girls is low: Currently, there are only 7 women members and the footfall of girls and women is low. The library is seen by the women as the preserve of men. This perception needs to be corrected.

2. Essential books/kits not available: As per the guidelines of the Department of Rural Development & Panchayat Raj (RDPR) every rural library needs to have (i) Dictionaries, (ii) Indian Constitution, (iii) Karnataka Gram Swaraj and Panchayat Raj Act book, (iv) Atlas, (v) Weekly, monthly and yearly magazines, periodicals, (vi) Posters related to Child and women rights, (vii) Career guidance kit, Science kit. Most of these mandatory requirements are not being fulfilled by the Vithlapura library.

3. Demand for career guidance and competitive exam books: The youth in the village suggested that career guidance books, test papers, and exam guides for government recruitment tests be provided at the library.

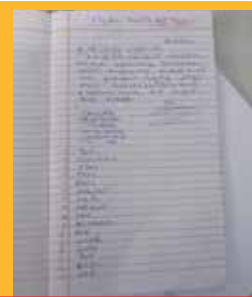
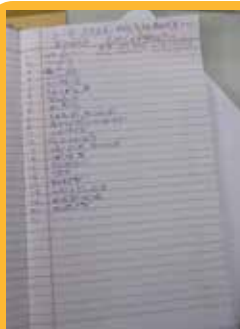
4. Library provide coaching facility: It was suggested that the library may provide coaching facilities to youth for competitive exams. The physical facilities are adequate, and a tie-up with a coaching institute for imparting competitive exam preparation classes may be considered.

5. Demand for a book bank: With PUC college coming up in Vithlapura, it was suggested that the library maintain a book bank of essential textbooks and guidebooks for senior secondary classes. Some of the books are expensive, and many students can ill afford to buy them.

6. No budget for newspaper or periodicals: Panchayat has not allocated funds despite the demand for a newspaper from visitors to the library,

7. Salary of librarian not regular: The librarian has not been paid a salary for the last 6 months by the Panchayat. The salary is Rs. 12000/month.

8. Training in computer usage for the librarian: While a computer has been provided for the use of the librarian, training is yet to be provided on how to use the same. Currently, the computer provided is lying unused.



Extract from visitor and membership register



Old library chair (foreground) replaced with modern ergonomic chairs (background)

Effectiveness <i>(is the intervention achieving its objectives?)</i> D.Antapura Library		Score: High		
<p>The renovation has included the construction of an additional reading room along with the provisioning of chairs, tables, filtered water, bookshelves, computers, flooring, and wall painting. It has been two months since the renovated library opened. It is too early to discern the impact. However, some positive trends have started to emerge:</p> <p>The library is now an open public space: Previously, the library was a small, dingy room and was used as a place for gossip by village men. No one else used to visit the library. After renovation, the rooms are spacious. The congregation of idle village men at the library was reported to have stopped.</p> <p>Students have started to come to the library: The librarian regularly goes to the D.Antapur middle school and talks to students to use the library and the benefits of doing so. The result has been that over the two-three months since the library has opened the footfalls of school students have increased. Now about 15-20 students come to school regularly. The data for school students coming to the library seven days prior to the day of assessment is given below:</p>				
Students who visited the library at D Antapur				
Date	Students	Date	Students	Remarks
19/08	18	14/08	15	
18/08	11	13/08	23	
17/08	23	10/08	17	
16/08	7	6/08	26	
15/08	8			
Source: Visitor register kept at D.Antapur Library				
<p>Coaching class for Morarji School admission: Mr. Kumaraswamy, the librarian for the last few years has been coaching students on Morarji school admission tests on a voluntary basis. He has shifted the classes to the library, given the improved environs of the facility.</p> <p>Tuition classes for X class students at the library: The library now houses the tuition class for about 10 students. The tuition is provided by the librarian on a voluntary basis.</p> <p>The library has recently started a chess club: The library has recently started a chess club. One child, Shahid, represented D.Antapur Gram Panchayat in inter-village chess competition held at Sandur by the Department of Rural Development & Panchayat Raj (RDPR). Shahid could reach up to third round. Shahid is the member of the library chess club and a star chess player in the making.</p> <p>Read out loud: The librarian organizes story reading sessions so as to encourage students to read and frequent the library. This has started after the upgradation of the library was done.</p>				



Some of the members of the chess club at D. Antapur library along with Mr Kumaraswamy, the librarian and chess coach. Mr Kumaraswamy has taken a number of initiatives to make library useful for he community.

The Chess Club at D.Antapur Library

Mr. Kumaraswamy, the librarian of the public library at D.Antapur has recently started a chess club at the refurbished library facility. Since children have started coming to the library, Mr Kumaraswamy picked a group of children and started to train them in chess. The best amongst the trainees represented D.Antapur Gram Panchayat at the inter village chess championship organised by the Panchayat Department at Sandur. The chess group now meets every evening at the library and play chess. The children have slowly started to become adept at the game. They are ably guided by Mr Kumaraswamy. *“The new environs of the library motivates me to take new initiatives, and chess club is one such step,”* said Mr Kumaraswamy, the librarian.



Students reading story books at D. Antapur library.

Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: High
<p>Having a repository of reading material helps improve reading skills in children:With schools in the project villages not having library facilities, the public libraries upgraded under the CSR program are the only place where children can have access to reading materials.With the increase in footfall of children and an active reading program in both the upgraded libraries, it can be expected that the reading skills of children frequenting the library will improve</p> <p>Upgraded libraries can potentially emerge as community resource centers:The upgraded libraries have started providing facilities that were traditionally not available, this includes reading classes, career counseling, indoor game clubs, and competitive exam books. In the future, they can provide digital services, ebooks, STEM labs, etc.A well-furnished infrastructure is in place to house the aforesaid facilities.</p>	
Efficiency (<i>How well are resources being used?</i>)	Score: Medium
<p>The footfalls at the upgraded libraries determine the efficiency of the money expended in the upgrades. Currently, the daily footfall at Vithlapura library is about 25–30 people per day, while the corresponding figure for D.Antapur is about 15-20 people/day.While these are the initial days, the increase in footfall is a function of the quality and spectrum of services provided and the effort made in popularizing the library among the villagers. It is also notable that very few women and young girls use the services of the library at present, and there is need for rectifying this gender skew.</p>	
Sustainability (<i>Will the benefits last ?</i>)	Score: High
<p>The Department of Rural Development & Panchayat Raj (RDPR) has put focus on upgrading the rural libraries.The upgrading of the libraries under CSR is in sync with the government's initiative. Further, with the devolution of the function of upkeep of the library to the panchayat, it can be expected that the infrastructure created will be maintained.The librarian at Vithlapura reported that the panchayat has been proactive in attending to minor repairs, installation of electricity meters etc. at the library.</p>	

Overall Assessment

The project has rekindled the interest of the villagers in the library and has been effective in engaging the students.The opinion of the villagers on the upgraded infrastructure is positive.The librarians have also displayed the potential for acting as a knowledge and information resource for the community. However, while footfalls have increased from almost negligible to around 25-30 persons, given that both Vithlapura and D Antapur are large villages with each having a population of over 900 households.

OVERALL SCORE

HIGH

Suggestion

While the first phase of making the library a welcoming public space has been achieved through excellent upgradation of the infrastructure, the second phase may involve increasing the services provided at the library.This will help increase footfalls and increase penetration of the library not only in the host village but also the satellite habitations. Some of the suggestions include:

- **Digital library:** Provide requisite number of computers, Internet connection, projector and other peripherals for providing digital services at the library. The standards followed by the Panchayat department in digitising rural libraries may be followed at the minimum.Already 2,632 libraries are upgraded as Digital Library in Rural Karnataka.
- **Expansion of services:** Life skill sessions , conducting competitions, showing education based films, Read Aloud , Story Telling, Health Checkup, Model Parliament in Library, etc.
- **STE(A)M-Ed Programme :** Started by Panchayat department in select rural libraries involves a programme is built around the dissemination of a curriculum, which seeks to meaningfully connect the sciences, technology,engineering, arts, and mathematics(STEAM) in a manner that encourages students and Library Supervisors.This process is underway in 70 GP Libraries across yadgir and Koppal District and may be included in the upgraded libraries in the CSR villages.

- **Provision of periodicals and newspapers:** Convince the gram panchayat to provide funding for newspapers and periodicals at the library. There is a great demand for them and will help increase foot fall at the library.
- **Start a book donation drive:** In order to create ownership about the library, in collaboration with the gram panchayat start a book collection drive where villagers are encouraged to donate books to the library.
- **Make the library a hub for coaching and tuition:** The library may provide services like coaching for Morarji School admission test, tuition for X class students appearing for their board exams, coaching for government entrance tests. Epsilon CSR in collaboration with the Gram Panchayat and the library may organise such services.



Independence day celebration at the upgraded D. Antapur library. Such activities and events are now being held at the library post-upgradation.



Mr. Vikram Handa Managing Director, Epsilon Carbon at the inauguration of the Vithlapura upgraded library. There is high degree of commitment and interest of the top management of Epsilon Carbon to the library project.

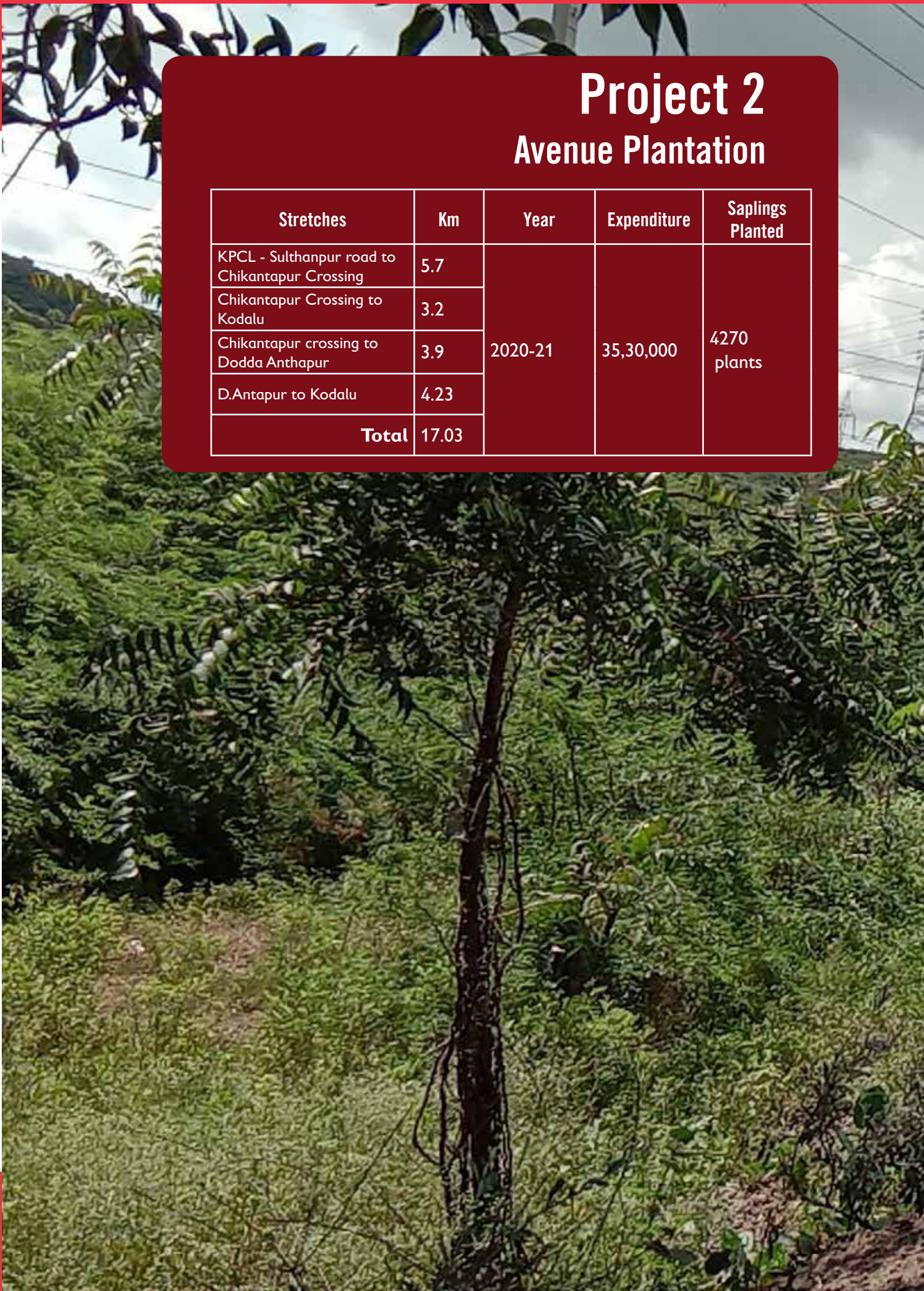


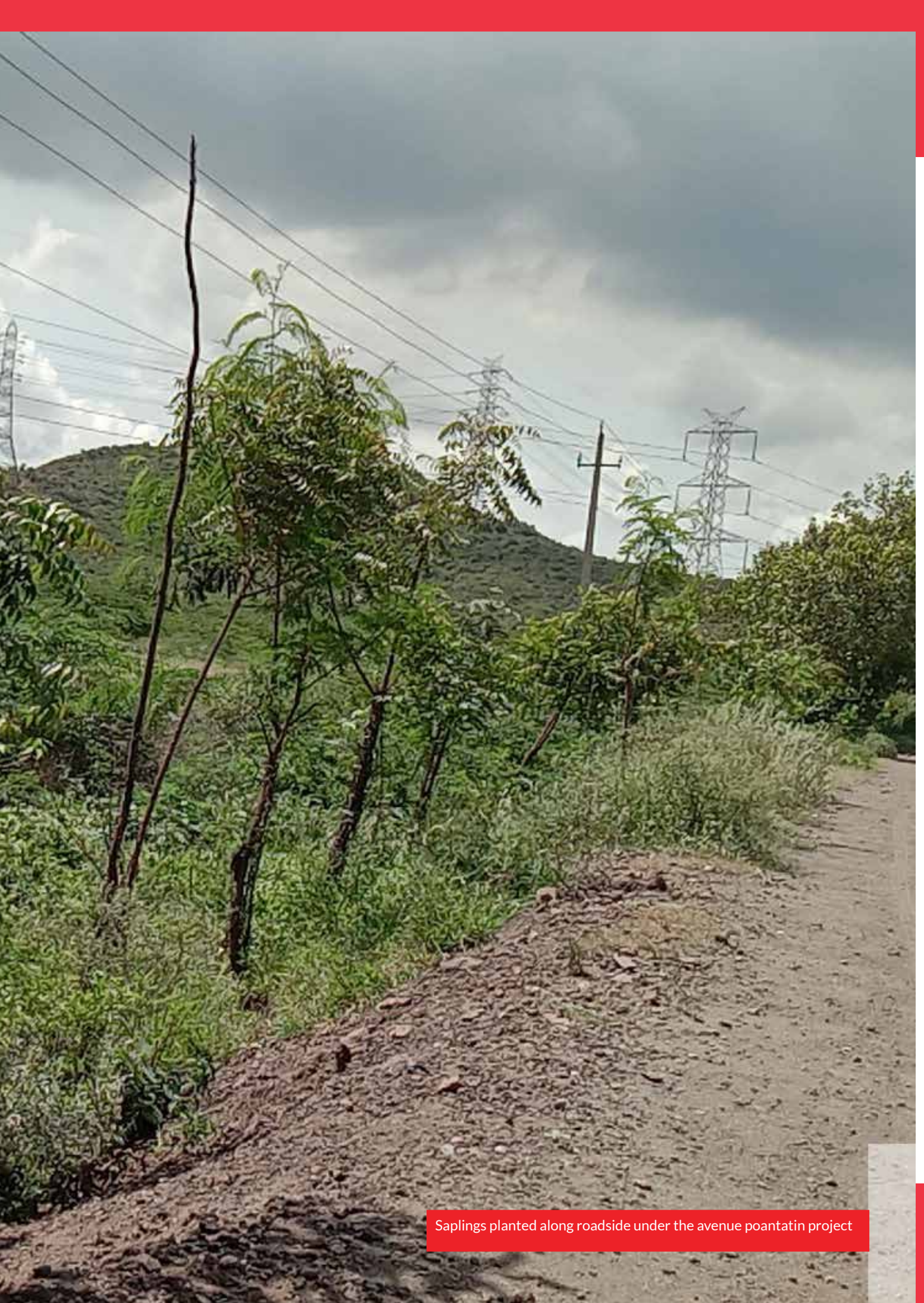
The sitting arrangement and turf grass provided at Vithlapura library in collaboration with the Taluka Panchayat. Leveraging funds from the government has helped provide additional facilities at the library.

Project 2


Avenue Plantation

Stretches	Km	Year	Expenditure	Saplings Planted
KPCL - Sulthanpur road to Chikantapur Crossing	5.7	2020-21	35,30,000	4270 plants
Chikantapur Crossing to Kodalu	3.2			
Chikantapur crossing to Dodda Anthapur	3.9			
D.Antapur to Kodalu	4.23			
Total	17.03			





Saplings planted along roadside under the avenue poantatin project

Project : Avenue Plantation	
<p>Project background: In collaboration with the forest department ECPL undertook a plantation drive along four stretches totaling 17.63 kms in and around the CSR villages of D.Antapur, Sultanpur, Kodalu and Chikantapur. A total of 4270 saplings were planted. The plantation drive was launched on 3 December 2020. The initiative was implemented and supervised by the forest department and funded under ECPL CSR program.</p> <ul style="list-style-type: none"> • Excavation and preparing the pits for planting of seedlings: Digging pits of size 1 Mtr. x 1 Mtr. x 1Mtr. with vertically cut edges to make an uniform cube. Refilling 75% of the pit with excavated soil and duly breaking the clods & formation of saucer shaped mound on the lower side of the pit • Watering by dipping: Watering polythene bagged seedlings at planting site in water, • Planting the seedlings: Fixing the supporting stake firmly in the pit, planting the tall seedling in the pit tying the seedling to the supporting stake at 3 points. Every 1 km 300 saplings were planted at both side of road which comprised of 17 different species of plants. • Application of chemical fertilizer around the plants about 15 cm. away in a furrow duly covering with soil • Saucer Bharav: Scraping out of grass and weeds to a radius of 50 cms around the plant, earthening up of soil in the form of a semi-circular slanting saucer shape slope, loosening of boulders if any with soil by using pickaxe and arranging the loosened boulders and soil in semi-circular fashion at the lower side of the plant • Weeding: Scraping of grass and other growth around the plant to a radius of 1 m. • Watering to the seedlings @ 50 litres/plants (5 watering in Jan, Feb & March) • Protection of the seedlings: Conveyance of Prosopis juliflora (P.J.) branches to individual pit, tying P.J. branches around the supporting stake properly covering the tall plant with P.J. thorny branches to a height of more than 2m and tying the P.J. branches with G.I. wire at 3 places (10 P.J. branches to be used for tying the fall seedling). • Providing & fixing plantation board (48"x27"x18") • Forest" slogan boards of size 5x8 • Tree Specie: Total 17 species of saplings were choose for the plantation in consideration of the nature of the land, soil, and climate this includes - Azadirachita Indica (Neem tree), Pithecolobium saman (Rain tree), Ficus religiosa (Peepal tree), Syzigium jambolanum (Java plum), Ficus infectoria, Tamarindus Indica, Thespesia populnea (Pacific rosewood), Terminalia catappa (Almond tree), Ficus benghalensis (Banyan fig), Ficus glomerata (Cluster fig), Millettia pinnata (Pongame oil-tree), Tecoma stans (Yellow elder or Yellow bells), Terminalia arjuna (Arjun tree), Pithecolobium dulce (Madras thorn), Swieteria marophylla (Mahogany), Coridia myxa and Melia dabia. • Implementation: November 2021 till March 2022 	
Location: 4 stretches - (i) KPCL - Sulthanpur road to Chikantapur Crossing, (ii) Chikantapur Crossing to Kodalu, (iii) Chikantapur crossing to Dodda Anthapur, (iv) D.Antapur to Kodalu	
Project cost : Rs. 35,30,000	
Project Objective: To reduce the impact of air pollution and dust by planting trees along main connector roads with heavy truck traffic. They will act as natural sink for air pollutants and arrest soil erosion at the embankment slopes.	
Assessment	
Coherence (How well does the intervention fit with the national, state and local imperatives?)	Score: High
External Coherence National Green Highways Policy 2015: Promote greening and development of eco-friendly road transport corridors across the country with participation of farmers, private sector and government institutions including Forest Department,	Consonance with SDG
	

UN Decade of Ecosystem Restoration (2021-30) : India has committed to having a third of its total land area, or 95 million hectares, under forest and tree cover by 2030. With the UN Decade of Ecosystem Restoration (2021-30) and other global commitments, mass tree-planting campaigns are often seen as a solution to mitigate the climate crisis by both government and non-government entities.

Avenue plantation encouraged in Karnataka: State and national highways across Karnataka will get trees on either side after as per an order by the Forest, Ecology and Environment Department dated Jan 2017.

Relevance (extent to which the intervention respond to beneficiaries priorities)

Score:
High

The CSR villages are in the midst of high industrial and mining activity. Heavy trucks ply along the roads connecting the villages with the highway. Large amount of smoke and dust remains suspended in the air due to vehicular traffic and industrial activity. Trees along the road transportation corridors help in

- Reduce the impact of air pollution and dust as trees are known to be natural sink for air pollutants
- Provide much needed shade on glaring hot roads during summer
- Reduce the impact of ever increasing noise pollution caused due to increase in number of vehicles
- Arrest soil erosion at the embankments slopes
- Moderate the effect of wind and incoming radiation
- Tree planting creates employment opportunities for local people

Effectiveness (is the intervention achieving its objectives?)

Score:
High

1. Good sapling survival rate:The assessment team checked the sampling survival rates on 6 sample stretches. The following was recorded

Plantation Stretch: KPCL - Sulthanpur road to Chikantapur Crossing							
Sample Stretch	Start	End	Saplings Counted	Living	Dead	Survival Rate	Location details/Remarks
Site 1/1	15.18347 lat 76.72002 long	15.18045 lat 76.71952 long	62	55	7	87%	Opposite KPCL till 1st bend of Sultanpur Road, counted right side road plants. Some saplings bent, leaves withered in some plants
Site 1/2	15.17127 lat 76.72074 long	15.16941 lat 76.72008 long	50	50	0	100%	From old Sunrise campus gate to 1st bend of Sultanpur road, after the New Sunrise campus. Counted right side road plants. Saplings appeared healthy
Plantation Stretch: Chikantapur Crossing to D Antapur							
Site 2/1	15.13475 lat 76.70755 long	15.13179 lat 76.70929 long	52	50	2	96%	Start point Padmavati factory boundary end point. Counted right side road plants.
Site 2/2	15.11969 lat 76.70817 long	15.11645 lat 76.70942 long	54	51	3	94%	Start stone quarry to sunflower field, farm house, Counted left side road plant.
Plantation Stretch: D.Antapur to Kodalu							
Site 3/1	15.11052 lat 76.71008 long	15.11201 lat 76.70599 long	69	50	9	87%	Start D.Anthapur water works, borewell Counted right side road plant.
Site 3/2	15.11776 lat 76.69624 long	15.11923 lat 76.69356 long	60	50	10	83%	Along D.Anthapur to Kodalu road. Counted Left side road plant.
			347	306	31	88%	

A 90% survival rates is considered to be good (MNREGA guidelines). The project averages 88% survival rate which is close to the benchmark of 90%.

2. Choice of tree specie need a relook: An elaborate avenue plantation strategy and recommended species have been provided in the Green Highway (Plantation Transportation , Beautification & Maintenance) policy (i.) https://megforest.gov.in/docs/cenrule_Green_Highways_Plantation_Transplantation_Beautification_Maintenance_Policy_2015.pdf , (ii) <http://environmentclearance.nic.in/writereaddata/Form-2FB/General8/24102019J27B4651TreePlantation.pdf> . **Many of the recommended specie are not included in the tress planted under the project.**

Tree specie suggested under Green Highways (Plantation, Transportation, Beautification & Maintenance) Policy 2015 (for loamy soils)

Botanical Name	Local Name	Whether included in the avenue plantation project of ECPL
Species recommended for 1st row of avenue plantation		
Delonix regia	Gulmohar	No
Cassia fistulia	Amaltasi	No
Bauhinia sps	Kachnar	No
Cassia nodosa	Cassia	No
Jacaranda mimosoefolia	Jacranda	No
Peltopharum ferrugineum	Peltophorum	No
Species recommended for 2nd and subsequent row of avenue plantation		
Melia azadiracta	Bakam	No
Pongamia pinnata	Kanji	No
Gravillea robusta	Silver Oak	No
Albizzia lebbek	Kala Siris	No
Dalbergia sissoo	Shisham	No
Terminalia aruna	Arjuna	No
Shade trees recommended last row in avenue plantation		
Ficus religiosa	Peepal	Yes
Ficus infectoria	Paker	Yes
Madhura indica	Mahua	No
Mangifera indica	Mango	No
Azadirachta indica	Neem	Yes
Tamarindus indica	Imli	Yes
Syzynium cuminii	Jamun	No
Dalberjia sissoo	Shisham	No
Dalbergia sissoo	Shisham	No

3. Supporting stakes in some cases found dislodged: During field assessment it was found that in some cases the supporting stakes were uprooted/dislodged leading to the plants not growing perpendicular to the ground as is desired.

Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: High
Planting trees is one of the cheapest ways of taking CO2 out of the atmosphere to tackle the climate crisis. As trees grow, they absorb and store the carbon dioxide emissions that are driving global heating. A mature tree can absorb approximately 25kg of CO2 per year. Thus if 85% of the 4270 saplings planted were to survive and grow into mature trees, they together will absorb approximately 90 tonnes of CO2 per year.	
Efficiency (<i>How well are resources being used?</i>)	Score: High
The per sapling cost for the plantation project is Rs. 826. Cost depend on local conditions and there are no comparable benchmarks available. It can be assumed that since the forest department was the principal implementing agency it would have quoted as per the government schedule of rates for avenue plantation. The forest department has used contractor to get the plantation done. EPCL may consider giving the tree plantation work to Women Self Help Groups so that plantation project can help the local village population with an alternate livelihood means. There are many instances in the country where women SHGs are undertaking avenue plantations.	
Sustainability (<i>Will the benefits last ?</i>)	Score: High
The project design ensured that saplings are looked after post planting. 5 waterings was to be done and the saplings protected using tree guard made of thorny JF branches. High sapling survival rates after 6-8 months of completion for the project means that the saplings have taken root and will grow into mature tree with passage of time,	

Overall Assessment

The plantation project will help increase the green cover in the area and help check air pollution and dust control along the road stretches which are frequented by heavy vehicular traffic due to high industrial activity in the area. The high survival rates of the saplings is an indicator that the management practices and oversight has been adequate.

OVERALL SCORE

HIGH

Suggestion

- **Avenue plantation guidelines by Ministry of Highways and Road Transport (MORTH) may be considered to extent feasible:** Green Highway (Plantation Transportation, Beautification & Maintenance) policy 2015, provides guidelines on avenue plantations While the recommendations are for highways, some of the suggestions remain applicable for avenue plantation along state and district roads
- **SHGs may be considered for implementation of avenue plantation:** To help percolate earning for the local population from avenue plantation, SHGs from CSR villages may be engaged. Current mechanism is for the forest department appointed contractor to implement the plantation drive.

Project 3

Upgradation of Dept. of Anesthesia at VIMS Ballari

Equipment	Year	Expenditure
Care station 650 & 9100 NXT - Anaesthesia workstation	2021-22	30,00,000
PCA Pumps		9,18,400
Target Controlled Infusion (TCI) System		2,37,888
Manujet Jet Injector Device Set Manujet III set		33,600
Endoscopy Mask with Bronchoscopy Airway		53,760
Cuff Pressure Monitor VBM		2,50,000
Gastro-Laryngeal		
Total Spirometer desktop		
Total		44,93,648

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VIJAYANAGAR INSTITUTE OF MEDICAL SCIENCES



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OPERATION THEATRE COMPLEX
MEDICAL SCIENCES, BALLARI.

Operation theatre complex at Vijaynagar Institute of Medical Sciences Ballari where the anesthesia department is located

Upgradation of Dept. of Anesthesia at VIMS Ballari

Project background: Vijaynagar Institute of Medical Sciences Ballari is a 680 bedded teaching hospital and caters to a large number of patients from neighbouring districts and that from states of Andhra Pradesh and Telangana. The anesthesia department of the hospital was in need of critical and upgraded equipments so as to be able to provide high quality services to the patients and also train medical students on state of the art devices. The hospital approached the district administration who in turn requested ECPL to provide support. The anesthesia department provided a list of required equipments which was procured and installed through funding from ECPL under its CSR.

Location: Anesthesia Department, Vijaynagar Institute of Medical Sciences, Ballari

Project cost : Rs. 44,93,648/-

Project Objective: Provide good quality care to patients seeking medical attention at VIMS.

Assessment

Coherence (How well does the intervention fit with the national, state and local imperatives?)

The Karnataka Health Vision document speaks of high-quality, equitable, accessible, pluralistic public health services that will promote good healthcare, effective disease management, critical disease care, and preparedness for health emergencies for a healthy citizenry. It also stresses that healthcare institutions in the state should undergo an accreditation process within five years for quality-care improvement in services, teaching and training. Upgradation of facilities available with the anesthesia department at VIMS contributes towards the vision.

**Consonance with
SDG**



Relevance (extent to which the intervention respond to beneficiaries priorities)

Anesthesiology is an important branch of medicine as it makes surgery safe, feasible and possible. Skills like airway management and resuscitation that form a basic part of anesthesiology training are life-saving procedures and are indispensable in any surgical procedure. VIMS is a super speciality hospital and medical teaching institution where approximately 12000-15000 surgeries are conducted every year. Many of these operations are complicated and performed on critically ill and fragile patients. This requires both highly skilled anesthesiologists and high quality equipments. Further availability of high quality and modern equipments means that the students get exposure and training on such machines.

**Score:
High**

Effectiveness (is the intervention achieving its objectives?)

**Score:
High**

The assessment team interacted with Prof Bala Bhaskar, HoD, Department of Anesthesia

Equipment	Numbers	Use	Impact
Care station 650 & 9100 NXT - Anesthesia workstation	2	At the time of the receipt of the workstations from EPIL, there were old technology based work stations which would impact the quality of care	<ul style="list-style-type: none"> Both the machines together serve 10-15 patients per day Students are getting exposure to modern anesthesia workstations Modern workstations have helped improve quality of care <p><i>Note: Subsequent to workstations provided by EPCL about 4 new advanced workstations and 7 more intermediate workstations have been received by VIMS Bellari</i></p>

Equipment	Numbers	Use	Impact
Patient Controlled Analgesia (PCA) Pumps	3	PCA is a pain management system that allows patients to make their own decisions as to when they need to take a dose of pain medication. The medication is administered through a PCA pump and can be used to treat acute (sudden, severe), chronic (long-term), or postoperative (after surgery) pain.	<ul style="list-style-type: none"> • It is for the first time that such an equipment has got introduced in VIMS • Till date 8 to 10 patients have benefited from PCA. Since the machine is operated by the patient, only literate patients are conformable with its use. • Two masters students from the department of anesthesia are pursuing a research project involving the PCA.
Target Controlled Infusion (TCI) System	2	The TCI system comprises an infusion pump interfaced with a computer and is also known as computer assisted continuous infusion (CACI) device. It is programmed to perform complex poly-exponential pharmacokinetic calculations and infusion rate adjustments to achieve accurate plasma concentration.	<ul style="list-style-type: none"> • The equipment is use for critical and highly fragile patients. 20-24 patients have benefitted from this system • This equipment has got introduced for the first time in the hospital. • A research project using the TCI is underway at the hospital
Manujet Jet Injector Device Set Manujet III set	2	As a life saving manoeuvre in the “cannot intubate – cannot ventilate” situation for oxygenation to avoid a severe desaturation of the patient.	<ul style="list-style-type: none"> • 6-8 patients have benefitted from the device till date. • The new improved mark III technology is better than the older technology (LMA) based Jet Injector available with the department.
Cuff Pressure Monitor VBM	2	Help reduce the risk of pressure necrosis and mucosal ischemia.	<ul style="list-style-type: none"> • 500-600 patients have benefited • Not available previously at the hospital
Endoscopy Mask with Bronchoscopy Airway	4	The Gastro-Laryngeal Tube (G-LT) is a modification of the laryngeal tube which provides a dedicated channel for the insertion of an endoscope while acting as a supraglottic airway for ventilation.	<ul style="list-style-type: none"> • 80-85 have benefited • This was not previously available with the anesthesia department
Gastro-Laryngeal	2		
Spirometer desk-top	1	Checks lung function. Helps quantify if patient fit for surgery.	Part of the curriculum for students

The aforesaid brings out three key impacts of the equipments supplied (i) Patient care has improved, (ii) New technology has been inducted, (iii) Helped students pursuing MD in Anesthesia to get be trained on cutting edge technology.

Impact (what difference does the intervention make in terms of indirect, secondary and potential consequences)

**Score:
High**

Vijaynagar Institute of Medical Sciences Ballari is mostly frequented by poor patient who cannot afford healthcare in the private sector. Improving facility at VIMS encourages equity in access to quality healthcare.

Efficiency (How well are resources being used?)	Score: High
All the equipments provided by EPCL are being used to provide healthcare to patients and also to train the students. The equipments has added to the additional capability and procedures that anaesthesia department can offer.	
Sustainability (Will the benefits last ?)	Score: Medium
The maintenance of the equipment is with the government. However it was indicated that the hospital does face issues with providing funds and contracts maintenance of equipments. It was suggested that it would have been good had comprehensive maintenance contract of 5 years been provided along with the equipment instead of the current two years. This would have ensured that down time of equipment provided due to breakdowns could have been avoided.	

Overall Assessment

The project has helped improve the healthcare services for patients. It has also ensured that medical students get trained on modern equipments

OVERALL SCORE
HIGH

Suggestion

Comprehensive maintenance contract for 5 years be considered: Public health institutions have procedural bottlenecks which delay the maintenance of equipments which break down. It was suggested that a comprehensive maintenance contract for five years for the equipment provided instead of the current two years would have ensured continuous operations of the machines due to timely maintenance and servicing.



Cuff Pressure Monitor VBM



Spirometer desktop



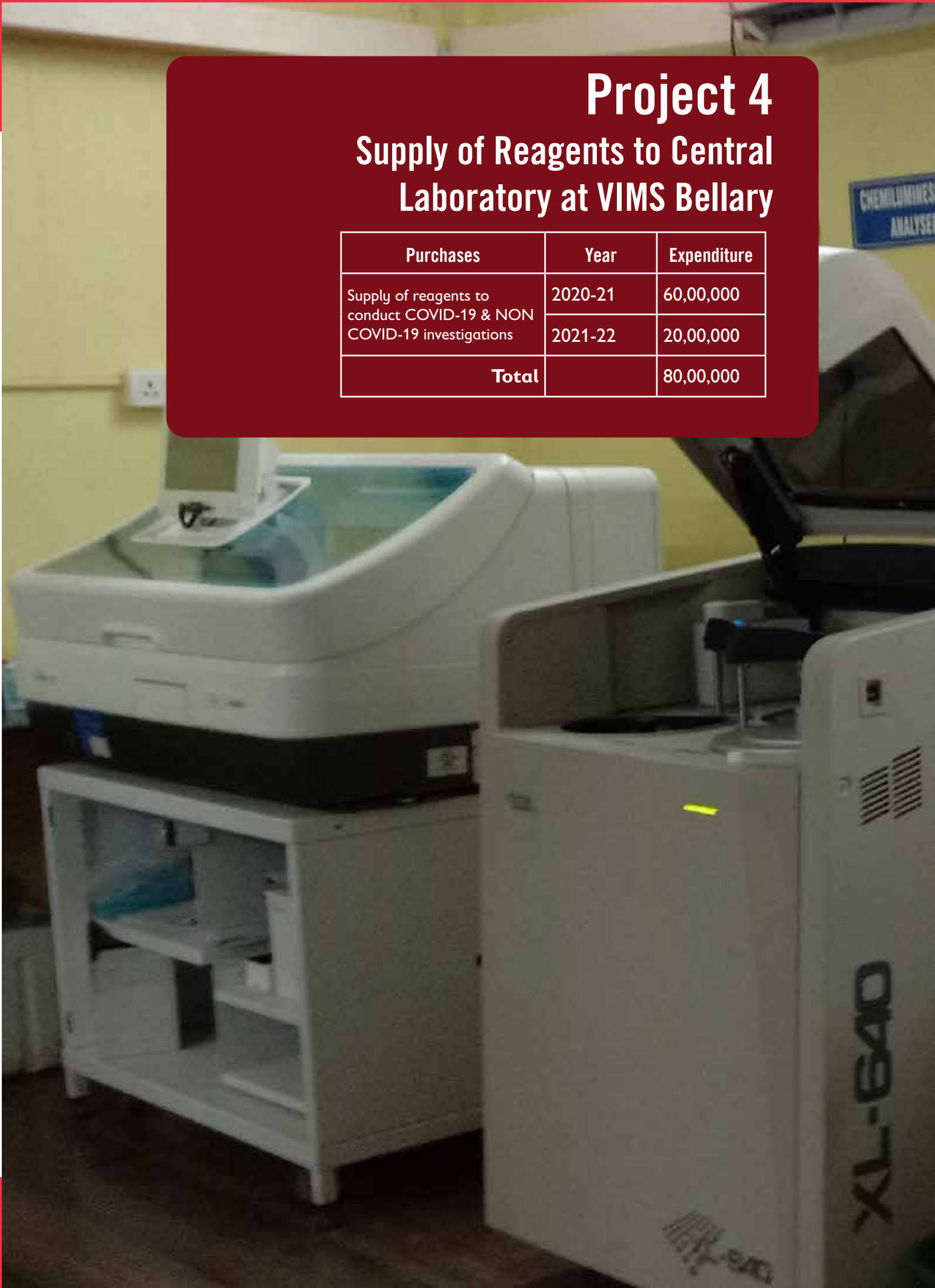
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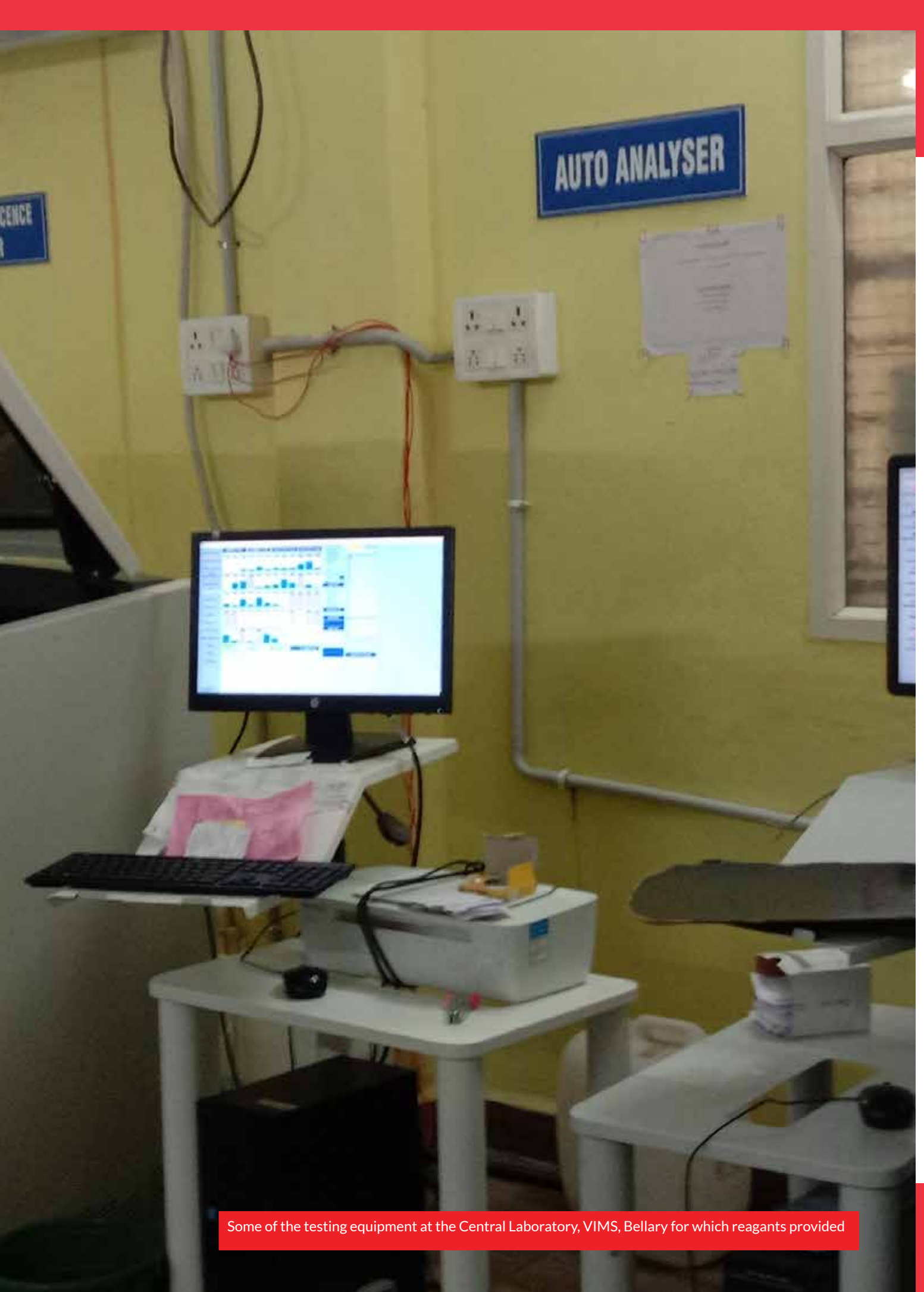
Care station 650 - Anesthesia workstation

Project 4


Supply of Reagents to Central Laboratory at VIMS Bellary

Purchases	Year	Expenditure
Supply of reagents to conduct COVID-19 & NON COVID-19 investigations	2020-21	60,00,000
	2021-22	20,00,000
Total		80,00,000

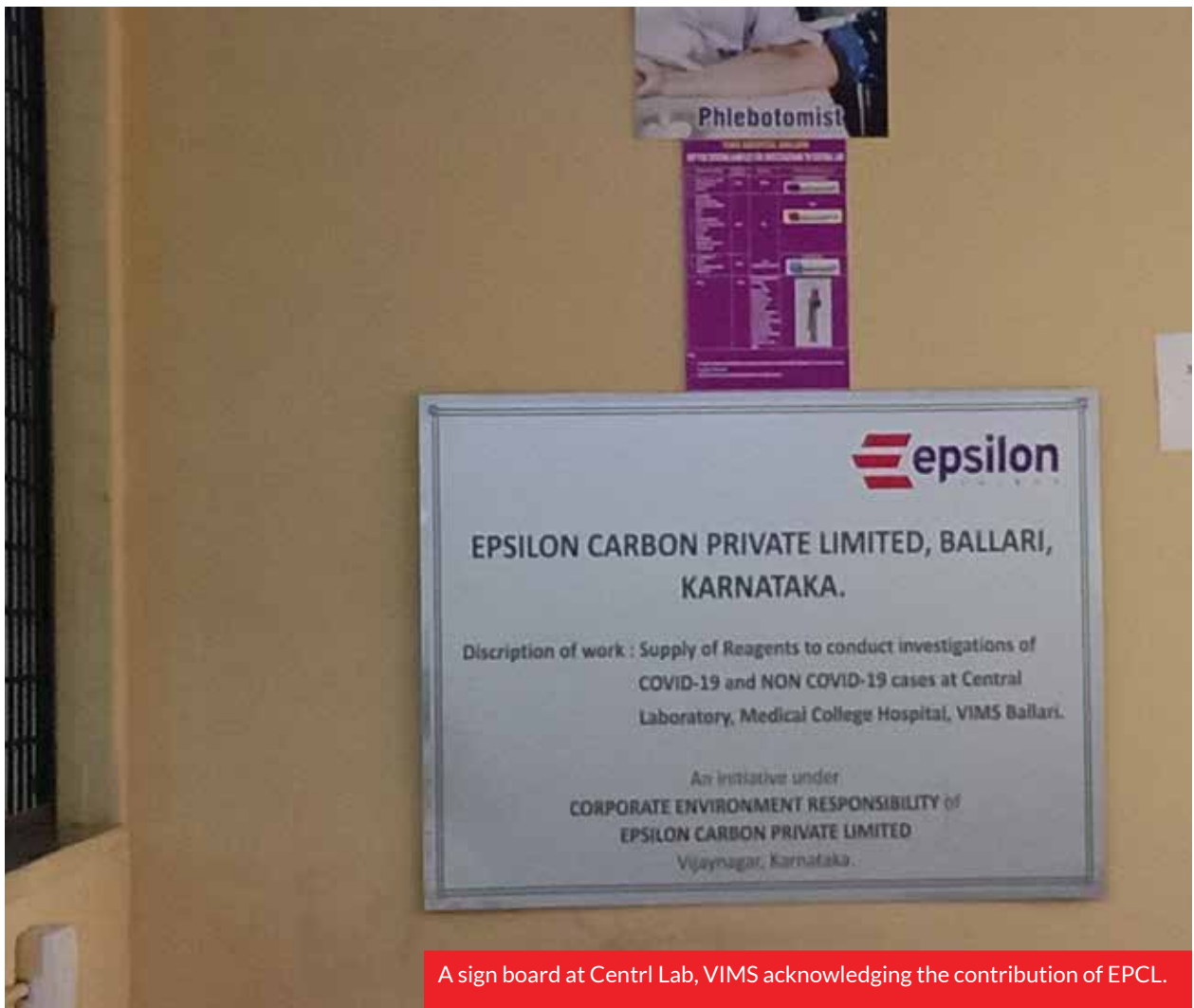




Some of the testing equipment at the Central Laboratory, VIMS, Bellary for which reagents provided

Strengthening Central Laboratory at VIMS Bellary	
<p>Project background: VIMS Bellary entered into an agreement with M/s Manjunath Enterprises, Hospet for installation of select diagnostic equipments at Central Laboratory for five years in lieu of purchase of reagents to be used to do tests on the machines worth minimum amount of Rs. 5 lakhs/ month. EPCIL paid the price of reagents for 16 months amounting to Rs. 80 lakhs. The diagnostic machines installed for which reagents were supplied include (i) 5 Part Cell Counter H560, (ii) 3 Part Cell Counter H560, (iii) ECL 760 Fully Automated Coagulator, (iv) Laura Smart Urine Analyser, (v) Medica Easylyte 3 Na/KVCL (vi) EM 200 Fully Automated Biochemistry, (vii) XL 640 Fully Automated Biochemistry, (viii) CLIA (ROSH) e411, (ix) ELAN 30S Automated ELISA System,</p>	
<p>Location: Central Laboratory at VIMS Bellary</p>	
<p>Project cost : Rs. 80,00,000</p>	
<p>Project Objective: Provide a wide range of diagnostic serviced to patients seeking medical atten- tion at VIMS.</p>	
Assessment	
<p>Coherence (<i>How well does the intervention fit with the national, state and local impera- tives?</i>)</p>	<p>Score: High</p>
<p>The National Health Mission recommends that the states should provide a comprehensive/expanded list of tests to cater to the diagnostics needs of the populations. The state should strive to provide all rapid and routine tests through in-house laboratories. the tests should be conducted using appropriate technology and the laboratory processes should be state-of-the-art and with minimal manual intervention.</p>	<p>Consonance with SDG</p> 
<p>Relevance (<i>extent to which the intervention respond to beneficiaries priorities</i>)</p>	<p>Score: High</p>
<p>Every quarter the Central Laboratory makes indent for reagents. The process then involves calling foe lower quotes or tender. Procurement depends on the budget available. It sometimes so happens that the process of procurement or availability of budgets leads to non availability of key reagents and thus many tests cannot be performed at the lab. The assistance from EPCL ensured that the Central laboratory budget was supplemented thereby ensuring that reagents were available for tests especially during COVID-19 when the testing load increased.</p>	
<p>Effectiveness (<i>is the intervention achieving its objectives?</i>)</p>	<p>Score: High</p>
<p>The assessment team interacted with Head, Central Laboratory, VIMS and the following was dis- cerned:</p> <p>The number of tests done by the Central Lab has increased post assistance from EPCL: Previously the patient load at the lab was 100-125 patients, after EPCL assistance average went up to 250 samples. The momentum is sustained and average patient load is 320 patient. Of the total reagent expense of Rs 16 lakhs/month, EPCL contribution was Rs, 5 lakhs/month.</p> <p>During COVID-19 pandemic the increased testing load could be handled: The testing load increased considerably during COVID pandemic. The EPCL assistance for reagents coupled with the assistance from the district administration and JSW helped the central laboratory to meet the increased testing load during the pandemic.</p> <p>Reputation of the Central Lab has gone up: With all routine and sophisticated tests being available, due to availability of reagents, the patients are no longer required to undertake tests from private labs which entails significant expenditure. Also the doctors can prescribe all the re- quired tests to poor patients knowing fully well that the central lab will do the testing.</p> <p>Helped in teaching: Since VIMS is a teaching hospital, availability of reagents meant that the stu- dents would get hands on training. Further diagnostic testing required for student research projects could be done in house at the Central Lab itself.</p>	

Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: High
<p>To project addressed the urgent need for accessible and quality diagnostics in public health facilities, It provided a set of essential diagnostics enabling doctors to make rational decisions regarding treatment and patients can benefit by getting their tests conducted within the facility free of cost. This has reduced both direct costs and out-of-pocket expenditure. For instance a CBC test in Bellary costs Rs. 250 which would get done free at the Central Lab.</p>	
Efficiency (<i>How well are resources being used?</i>)	Score: High
<p>The project ensured uninterrupted supply of reagents to the Central Lab thereby ensuring all routine tests were done and there was no down time at the lab due for want of reagents.</p>	
Sustainability (<i>Will the benefits last ?</i>)	Score: LOW
<p>The project was a time bound initiative for reimbursing the cost of reagents @ Rs. 5 lakhs/month to the private vendor who has set up the testing machinery for a period of 16 months. It was envisaged that the subsequent payments(for the remaining 44 months) would be made by the hospital. However, the hospital has not been regular at making the payments. The entire project timeline was 60 months. The hospital has however changed its strategy of managing the Central Lab and that all diagnostic tests are being outsourced to a private entity. The private entity will do the testing for a specific fee. The entity will install their own equipment and provide for manpower at the Central Lab.</p>	



A sign board at Centrl Lab, VIMS acknowledging the contribution of EPCL.

Project 5


Donation of Medical Equipment to 06 General hospitals of Ballari District

Stretches	Year	Expenditure
Dist. Hospital, Ballari	2020-21	60,00,000
Govt. General Hospital, Hospet		
Govt. General Hospital, Siruguppa		
Govt. General Hospital, Harappanahalli		
Govt. General Hospital, Sandur		
Govt. General Hospital, H B Halli		





Dentist Chair provided at Govt General Hospital, Hospet

Strengthening Central Laboratory at VIMS Bellary	
Project background: On request of Deputy Commissioner, Bellari District, various taluka level government hospitals and district hospital Bellary were provided critical medical equipments as per the list provided by the district health department. This would enable the government hospitals to provide good quality medical services to the rural populace.	
Location: Dist. Hospital, Ballari, Govt. General hospitals of Hospet, Govt. General hospitals of Siruguppa, Govt. General hospitals of Harappanahalli, Govt. General hospitals of Sandur, Govt. General hospitals of H B Halli	
Project cost : Rs. 80,00,000	
Project Objective: Provide good quality care to patients seeking medical attention at District and Taluka Hospitals	
Assessment	
Coherence (How well does the intervention fit with the national, state and local imperatives?)	Score: High
The Karnataka Health Vision document speaks of high-quality, equitable, accessible, pluralistic public health services that will promote good healthcare, effective disease management, critical disease care, and preparedness for health emergencies for a healthy citizenry.	Consonance with SDG 
Relevance (extent to which the intervention respond to beneficiaries priorities)	Score: High
Indian Public Health Standards (IPHS) for District Hospitals lists the services which the health institution has to provide to the patients. Ophthalmic, dental and TB detection equipments was provided. The equipments were intended to enable the beneficiary institution provide (i) newer services and (ii) quality service.	



Ophthalmologist at Hospet Hospital checks a patient using a slit lamp fitted with 90 DI lens provided by EPCL

Effectiveness (is the intervention achieving its objectives?)

Score:
High

Equipment	Numbers	Available	Use	Comments
Govt. General hospital, Hospet- Ophthalmology Department				
Auto Refractometer Machine	1	Yes	High	Previously it was not available. Helps determine the correct eyeglass or contact lens prescription. It is a must have equipment
Chair Unit (motorised surgeon chair)	1	Yes	High	Previously not there. Motorized chair is certainly helpful. Should be paired with a motorized surgery table. Motorised chair and table together would reduce surgery time significantly and also reduce surgeon fatigue.
Snellens drum with refractor set	1	Yes	High	Previously one was there. Given that there are two ophthalmic officers(OO), two sets mean that both OO can attend to patients concurrently thereby more patients can be attended to during OPD.
Cataract sets	5	Yes	Standby	The ones available previously are being used. The cataract sets provided are on standby. Each set has a life of 4-5 years. If the case load increases or the existing sets need replacement, the ones provided will be used. .
DCR set	1	Yes	Not used	Blood suction set not given, without it DCR set of no use.
DCT set	1	Yes	Not used	
Indirect Ophthalmoscope	1	Yes	Not used	No 20 D lens is needed. 90 D entire view of fundus. Limitation to see the fundus. 20 D much wider view. Without 20 D lens not used
90 DI lens	1	Yes	High	This lens is a perfect choice for general examination and retinal imaging. Previously one was available. Given that currently two ophthalmologist are there, an additional lens helps
78 DI Lens	1	Yes	Low	Not being used much, depends on surgeons preference. . The is an ideal lens for doctors who regularly cater to populations prone to glaucoma and other posterior pole abnormalities. Not all surgeons prefer 78D lens
Adult trial frames	1	Yes	High	One was available. Prone to wear and tear. the one provided being used,
Kids trail frames	1	Yes	High	Previously not there. Being used
Single mirror Gonio lens	1	Yes	Low	Helps identify type of glaucoma in patients. Since no glaucoma treatment is being provided at the hospital, this lens is not being used much.

Patients served: Average 60 patients/day
Surgery: 12 cataract surgeries /week



Auto Refractometer provided by EPCL at Hospet hospital

Effectiveness (is the intervention achieving its objectives?)

Score:
High

Equipment	Number	Comments
Govt. General hospital, Hospet- Dental Department		
AGNI PLUS Dental chair with underhanging delivery system with LED	1	<ul style="list-style-type: none">• All equipment available and in working condition, except for Xray tube which has been sent for servicing and repair• Previously there was a old chair, which did not have facilities for many dental procedures and would constant breakdown leading to stoppage of services.• The new chair has additional attachments/ facilities which was not available in the old chair- inbuilt scalar system, light cure, suction, air rotor along with micro motor adjustable spitton, and motor assisted patient positin adjustments• New procedures like composite restoration with light cure and scaling is now possible• The new chair has helped reduce procedure time, <p>Patient load : 30-40 patients/day Request: Need computerised dental xray machine</p>
Compressor DYN air 1 HP	1	
Suction 0.25 HP	1	
Scaler woodpecker UDS with LED	1	
EKD airrotor push type handpiece	1	
Light cure woodpecker LED C with battery	1	
EKD racer contra angle HP	1	
ELD racer straight	1	
Micron micro-meter cord	1	
Smart endo motor wireless charging automatic torque	1	
Rio sensor size	1	
Indian X-Ray head &time- wall mounted scissor ARM (X-Ray Machine)	1	



Procedure being done on dental chair at Hospet Hospital

Effectiveness (is the intervention achieving its objectives?)

Score:
High

Equipment	Numbers	Available	Use	Comments
Govt. General hospital, Sandur- Ophthalmology Department				
Refraction set	1	Yes	High	Helps serve 30 patients per day, previously the mechanized set not there
Auto Refractometer Machine	1	Yes	High	Previously it was not available. Helps determine the correct eyeglass or contact lens prescription. Serves 20 patients/day
Pterygium set	2	Yes	High	Assists in pterygium surgery, and removal of the abnormal tissue. Serves 4 patients/week. Previously not available.
DCT	2	Yes	Not used	No blood suction set provided, risk of hemorrhage, equipment not used
Chalazion set			High	Assists in chalazion surgery, and removal of the abnormal tissue. Serves 2-3 patients/week. Previously not available
OT microscope (AOM Brilliant model)	1	Yes	High	Very good quality Appasamy machine provided. Has very good illumination. Serves 40 cases per month.

Patients served: Average 40 patients/day

Surgery: 40 surgeries / month

Issues:

- Rats nibble at the wiring of the equipments provided. This problem has cropped up 3-4 times since the equipments arrived.
- After sales service was reported to be poor,



Ophthalmic officer at Sandur hospital uses the refraction set

Effectiveness (is the intervention achieving its objectives?)**Score:
High**

Equipment	Numbers	Available	Use	Comments
District TB Center, HB Halli				
True NAT machine	1	Yes	High	The TrueNat test is run on the battery-powered Truelab system. This system consists of a sample preparation device (this device is used for RNA/DNA extraction and then the purification from the sample) and along with that - the PCR analyzer device. The Truenat test was incorporated in India's National Tuberculosis Elimination Programme after recommendations from the Indian Council of Medical Research (ICMR).

The assessment team had a detailed discussion with the RNTCP Technician which is summarized below:

- **TrueNat results have very high accuracy:** Compared to sputum smear microscopy, TrueNAT has very high accuracy. Studies have shown that sputum smear test is about 70% accurate (Bailey, S. L., et al. 2022, PubMed), while accuracy of TrueNAT accuracy is 97% (Meaza, Ahyot, et al. PMC." 2021). The high accuracy of TrueNAT as compared to sputum smear microscopy was confirmed by the RNTCP technician at HM Halli. The TrueNAT can detect TB in sputum with low bacterial load which might escape detection under microscope.
- **The TrueNAT machine installed as per need:** TB Center, HB Halli was chosen for installation of the TrueNAT machine because HB Halli taluka has the highest incidence of TB in Bellari and Vijaynagar districts. Currently on an average 340 slide diagnosis 140 TrueNAT tests are done at HB Halli. The TrueNAT machine can do about 15 tests per day and is unable to cater to the entire testing load. The rest of the sputum samples are done through the traditional smear microscopy.
- **TrueNAT is cheaper to operate and more robust:** TrueNAT is an indigenously developed, portable version of CB-NAAT or Cartridge Based Nucleic Acid Amplification Test, also known as the Genexpert test. TrueNAT is battery operated and portable, while CB-NAAT machines need an uninterrupted power supply and air conditioning, and hence cannot be deployed in containment zones. Further the reagents of CB-NAAT are imported and hence costly. The TrueNAT reagents are indigenously manufactured and hence cheaper. The devices function in a wide range of environmental conditions with minimal user input, making them suitable for use in primary healthcare settings with minimal infrastructural requirements.



Test being run on TrueNAT machine at **District TB Center, HB Halli Hospital**

Effectiveness (is the intervention achieving its objectives?)**Score:
High**

Equipment	Numbers	Available	Use	Comments
Govt. General hospital, Ballari Ophthalmology Department				
OT microscope	1	Yes	High	Helps serve 20-25 patients/week. The equipment is better than previously available.
Applanation Tonometer with Gonio lens	1	Yes	Not used	This test measures fluid pressure in the eye. There is no supply of florescent strips
Cataract set	10	Yes	High	Benefits 20-25 patients/week.
DCT set	2	Yes	Not used	5-6 patients/week
90 DI Lens	2	Yes	High	Being regularly used benefiting 60-70 patients on average
78 DI Lens	1	Yes	High	
Ophthalmic re-refraction unit with vision drum	1	Yes	High	Previous drum got spoiled. The equipment given is being used and benefits 60-70 patients.
Patients served: Average 70 patients/day Surgery: 25 surgeries / week				



Ophthalmologist at Bellari District Hospital checks a patient using a slit lamp fitted with 90 DI lens provided by EPCL. Patient tested using therefraction vision unit with vision frum provided by EPCL (Behind)

Effectiveness <i>(is the intervention achieving its objectives?)</i>				Score: Medium
Equipment	Numbers	Available	Use	Comments
Govt. General hospital, Harpanhallii Ophthalmology Department				
Ophthalmic re-fraction unit with vision drum	1	Yes	High	Serves 50-60 patients
Ophthalmic scope	1	Not seen (mentioned in stock register)	Not used	The staff at the ophthalmic department could not identify/show this equipment. Not was the equipment located at the hospital store. However there is mention of the equipment in the stock register
Retinoscope	2	Yes	High	Being used
Cataract sets	2	Yes	Not used	Since doctor has recently joined, no cataract operations were being done and is yet to start
Adult trial frame		Yes	Not used	Was seen in packed
Kids trial frame	1	Yes	Not used	
Patients served: Average 50-60 patients/day				
Surgery: None				



Ophthalmic officer with refraction unit with vision drum at Ophthalmology Department, Harpanhalli

Effectiveness (is the intervention achieving its objectives?)

Score:
Low

Equipment	Numbers	Available	Use	Comments
Govt. General hospital, Siruggupa Ophthalmology Department				
Trial set	2	Yes	Not used	All the equipment was found stored in the almirah at the department and not in use
Trial frame	2	Yes		
Ophthalmic scope	1	Yes		
Patients served: Average 40 patients/day				



Equipments provided to Ophthalmology Department, Siruggupa hospital

Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: Medium/High
The hospitals where the equipment is being used has lead to improved health care services and contributed towards equity in health care. However in instances where the equipments are not being used, no corresponding benefits have accrued.	
Efficiency (<i>How well are resources being used?</i>)	Score: Medium/High
While in most cases the equipment provided is being used, there remain cases where equipment is lying idle due to absence of key attachments (e.g. DCR set) ,because unavailability of eye surgeon (e.g. Harpanhalli Hospital), or remain unopened (e.g. Siruggupa). ECPL has provided the equipment as per indent and specification from the government, the low usage rate of some of the equipment cannot be attributed to EPCL.	
Sustainability (<i>Will the benefits last ?</i>)	Score: Medium/High
<p>Good quality equipment :The best quality equipment has been provided (e.g.Appasamy brand, which is the leading manufacturer of ophthalmic equipment) which was acknowledged by the doctors at the facilities. Good quality means that the equipment will last for a long time.</p> <p>Maintenance can be a bottle neck: Comprehensive maintenance contract with the manufacturer for key machines for a period fo 5 years would have further ensured maintenance support for the equipments provided. It may be stated that in public health facilities, high patient load means that the equipment is intensively used and thus concurrent maintenance is necessary. Government systems and processes are time consuming and equipment maintenance is time consuming leading to high down time. It was reported that rats nibble at the wires of the equipment and present a substantial risk in machine downtime.</p> <p>Some equipment requires complementary services: In some cases the equipment effectiveness is limited due to no followup services being present. For instance Single mirror Gonio lens which is used to diagnose type of glaucoma, gets limited in effectiveness since the taluka hospitals do not offer treatment of Glucoma. Similarly absence of dental xray attachment to the dental chair provided limits point of care diagnosis of tooth decay and infection.</p>	

Overall Assessment

The project has helped improve the healthcare services for petients. The quality of machinery helps in better diagnosis and treatment. In many cases new equipment has got introduced thereby increasing the bredth of services provided. However, where the equipment is not being used, the envisaged benefits have not accrrued to the patients.

Suggestion

Comprehensive maintenance contract for 5 years be considered: Public health institutions have procedural bottlenecks which delay the maintenance of equipments which break down. It was suggested that a comprehensive maintenance contract for five eyars for the equipment provided instead of the cuttent two years would have ensured continuous operations of the machines due to timely maintenance and servicing.

OVERALL SCORE
HIGH

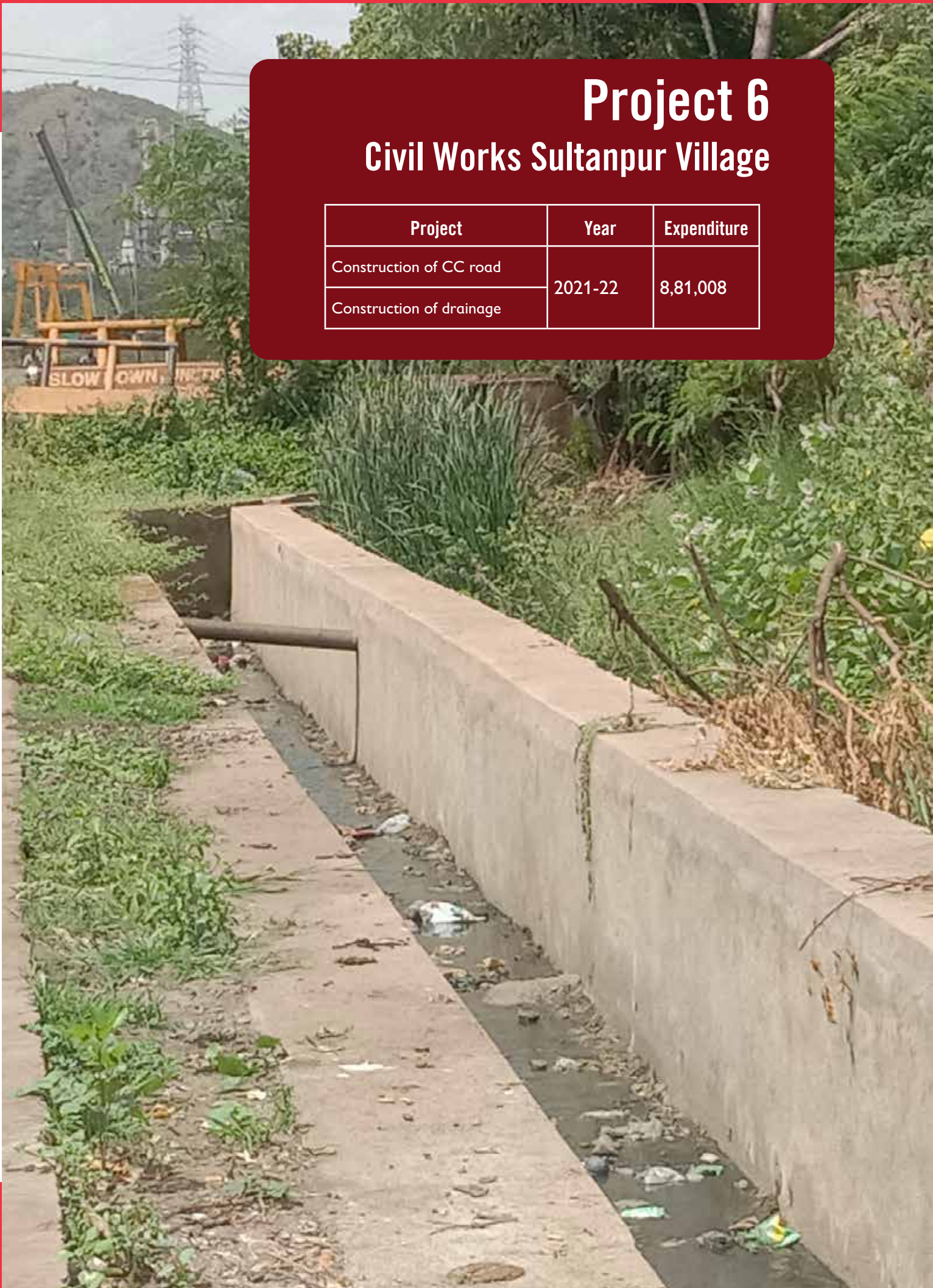


A patient at the ophthalmology department, **Govt. General hospital, Hospet.** The contribution of medical equipment has helped reach quality helthcare to the economically marginal-ised patients.

Project 6


Civil Works Sultanpur Village

Project	Year	Expenditure
Construction of CC road	2021-22	8,81,008
Construction of drainage		





CC block drain constructed in Sultanpur village

Project : Civil works, Sultanpur village	
Project background: Due to persistent water logging issues civil works were undertaken in Sultanpur village comprising (i) 9 mtrs CC drain along the main road to drain out water from the village to a natural drain, (ii) a stretch of road was extended to prevent water accumulation on a pathway to the fields.	
Location: Sultanpur village	
Project cost : Rs. 8,81,008/-	
Project Objective: To tackle the issue of water logging in the village	
Assessment	
Coherence (How well does the intervention fit with the national, state and local imperatives?)	Score: High
External Coherence Swachh Bharat Mission (Gramin) entails improve cleanliness by initiating Solid and Liquid Waste Management (SLWM) projects in the villages of the country. This includes providing proper drainage facilities so that household waste water and rain water is quickly dispersed so as to prevent water logging and spread of disease.	Consonance with SDG 
Relevance (extent to which the intervention respond to beneficiaries priorities)	Score: High
<p>i. A 9 mtrs CC drain along the main road constructed to drain out water from the village to a natural drain:There was a significant issue of water accumulation of household waste water and rain water with no outlet.A drain was made under the road and then further channeled for a 9 mt stretch using a CC drain. It was expected that the water accumulation will clear off.</p> <p>ii. Stretch of road was extended to prevent water accumulation on a pathway to the fields: The panchayat has constructed internal CC road in the village.After construction of the such roads, a stretch of pathway leading to the fields would get flooded during rains making it difficult for the farmers to walk to their fields.The cc roads was extended by about 15 mtrs and so sloped that the water would now flow into an existing natural drain.This has helped make access to the fields easier.</p>	



Stretch of road extended to facilitate drainage and keep the path to the fields clear of water logging

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>1. Stretch of road was extended to prevent water accumulation on a pathway to the fields: The pathway to the field is free of any water-logging issues. The water flows over the extended cc road and drains into a natural drain.</p>	High
<p>2. A 9 mtrs CC drain under the main road and then extending over-ground along the main road to drain out water from the village to a natural drain:</p> <p>i. The drain under the road is blocked due to garbage accumulation: The village does not have a proper garbage disposal system and therefore the garbage indiscriminately thrown around the village accumulated along with the flow of the water around the inlet of the drain making the drain ineffective and leads to water logging.</p> <p>ii. The outlet channel of the drain was also found to be full of garbage and water was stagnant in the drain. The accumulated water in the drain leads to breeding of mosquitoes. High mosquito burden was reported by households residing close to the drain.</p>	Low



Garbage accumulated near the inlet of the drain has made the drain ineffective. Significant water logging and garbage was seen around the inlet.





The drain constructed along the road has garbage dumped into it which hinders the free flow of water. The accumulated water is a breeding ground for mosquitoes.

Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score:
1. Stretch of road was extended to prevent water accumulation on a pathway to the fields: The initiative has improved access and helped reduce water logging. It has improved the status of cleanliness in the village and improved civic infrastructure	High
2. A 9 mtrs CC drain under the main road and then extending overground along the main road to drain out water from the village to a natural drain: The water drainage issue has not completely solved due to blockage of the drains by solid waste dumped indiscriminately by the villagers	Low
Efficiency (<i>How well are resources being used?</i>)	Score: High
Both the projects were helmed by civil engineers from EPCL and high quality engineering inputs was provided. The set procedure for bidding and tendering as per EPCL norms was followed.	
Sustainability (<i>Will the benefits last ?</i>)	Score:
Stretch of road was extended to prevent water accumulation on a pathway to the fields: Has lead to a permanent solution to the water logging issue on the path towards the fields	High
A 9 mtrs CC drain under the main road and then extending overground along the main road to drain out water from the village to a natural drain: The project is well intentioned and addressed a felt need of the village. However the drain project could not deliver to its potential due to indiscriminate dumping of garbage by the villagers which clogged the drains For the drain project to be successful, a solid waste management system has to be in place so that the household garbage is properly collected and disposed. Abandoning garbage at public places floats along with floating water and blocks the drain.	Low

Overall Assessment

The infrastructure upgradation project at Sultanpur has been a mixed bag. While the road project has achieved its desired objective, the drainage project has not achieved its full potential. The issue has been the poor solid waste management in the village leading to clogging of the newly constructed drain.

OVERALL SCORE

MEDIUM

Suggestion

A proper solid waste management system needs to be put in place to keep both the newly constructed drain and other internal drains in the villages free from garbage accumulation which hinders free flow of waste and rain water.



At Sultanpur village huge piles of garbage can be seen strewn around the village. Many of the internal drains are clogged with carelessly thrown household waste. Currently there is no system of waste collection in the village. Till the solid waste problem is not addressed, drainage of waste and rain water will remain a challenge. The accumulated water is a health hazard.

Project 7


LED Street Light, Kudithini

Project	Nos	Year	Expenditure
30 watt LED streetlights bulbs to Kudathini	1000	2021-22	7,72,800





CC block drain constructed in Sultanpur village

Project : LED Street Lights, Kudithini	
Project background: On request of the town officer, Kudithini, 1000 LED street lights with casing and fittings and installation was provided to Kudithini town	
Location: Kudithini Town	
Project cost : Rs. 7,72,800/-	
Project Objective: Promote security, and to increase the quality of life by extending the hours in which there is light so that human activity can take place. LED fittings to reduce energy bills and are environmentally friendly	
Assessment	
Coherence (<i>How well does the intervention fit with the national, state and local imperatives?</i>)	Score: High
External Coherence Government of Karnataka is promoting LED street lights across the state. The 10 city corporations in the state are in the process of installing LED lights. This is being done to save on electricity expenditure in illuminating towns and cities.	Consonance with SDG 
Relevance (<i>extent to which the intervention respond to beneficiaries priorities</i>)	Score: High
<p>i. Conventional street lights not working: About 60% of the street lights (neon tube lights) in Kudithini town were not in working order. Of those lights which were working the intensity of illumination was low. The town would be enveloped in darkness after sun set.</p> <p>ii. The city administration was facing protests due to non-working street lights: The residents of the city had started to take out lantern marches in the town protesting against non-availability of working street lights in the city. This was giving the town adverse publicity in the media.</p>	
Effectiveness (<i>is the intervention achieving its objectives?</i>)	Score: High
<ul style="list-style-type: none"> • The Kudithini town is virtually illuminated by EPCL: Of the 1250 street lights (1000 30 Watt and 250 100 watt), 80% has been provided by EPCL. All the internal roads in the town are illuminated by LED lights provided by EPCL • LED lights are cheaper to operate: LED lights consume 30% lesser electricity than conventional neon street lights which were present in Kudithini prior to the EPCL project. • Kudithini is the second town in Karnataka to be fully illuminated by LED street lights: As per media reports, after Shomoga town, Kudithini is the second town to be fully illuminated by LED lights. • Residents expressed high satisfaction: The town residents with whom the assessment team interacted expressed that the streets appear safer. Women, the elderly and children can venture out in the night for an evening stroll, to play or to run an errand. They also reported that the community appears more livelier in the late evening with street lights working. 	

Feedback from residents on LED street lights



“Our colony is no longer shrouded in darkness in the evening. The elderly can now take a walk, those coming home after work in the evening do not have to negotiate dark roads and women and children can be seen on the streets or outside the house after dusk. This all has been enabled by working street lights.”

Mr Mehboob Pasha, resident, Raghvendra colony, Ward II, Kudithini



“Earlier we would come back home by 8 PM, but now we can do evening walk or after dinner walk upto 10 PM. The illumination from the domestic lights from houses along the road was the only illumination available. We also put up a light in front of our house. Now with street lights working, the road is well illuminated. It is psychologically also uplifting with a well lighted neighborhood.”

Ms Anita Srinivas, resident, Raghvendra colony, Ward II, Kudithini

Impact (what difference does the intervention make in terms of indirect, secondary and potential consequences)	Score: High
The working street lights have improved the quality of life of the community than traditional incandescent, fluorescent and halogen options.	
Efficiency (How well are resources being used?)	Score: High
Replacement of the traditional fluorescent and neon lamps with LED has significant advantages: <ol style="list-style-type: none"> LED lead to 30% decrease in consumption of electricity. Unlike incandescent lighting, LEDs don't "burn out" or fail, they merely dim over time. Quality LEDs have an expected lifespan of 30,000–50,000 hours or even longer LEDs are breakage resistant and largely immune to vibrations and other impacts. Most fluorescent lamps do not provide full brightness the moment they're switched on. LEDs come on at 100-percent brightness almost instantly Traditional light sources tend to have a shorter lifespan the more they're switched on and off, whereas LEDs are unaffected by rapid cycling. Less than 10 percent of the power used by incandescent lamps is actually converted to visible light; the majority of the power is converted into infrared (IR) or radiated heat. Excessive heat and ultraviolet radiation (UV) present a burn hazard to people and materials. LEDs emit virtually no IR or UV. 	
Sustainability (Will the benefits last ?)	Score: High
The initiative has high ownership of the town administration. The operation and maintenance is being taken care by the town. A contractor has been appointed to switch on and off the lights and check if all the lights are properly working. The town takes pride in being able to provide its residents working street lights and has received appreciation from the residents and the political leadership.	

Overall Assessment

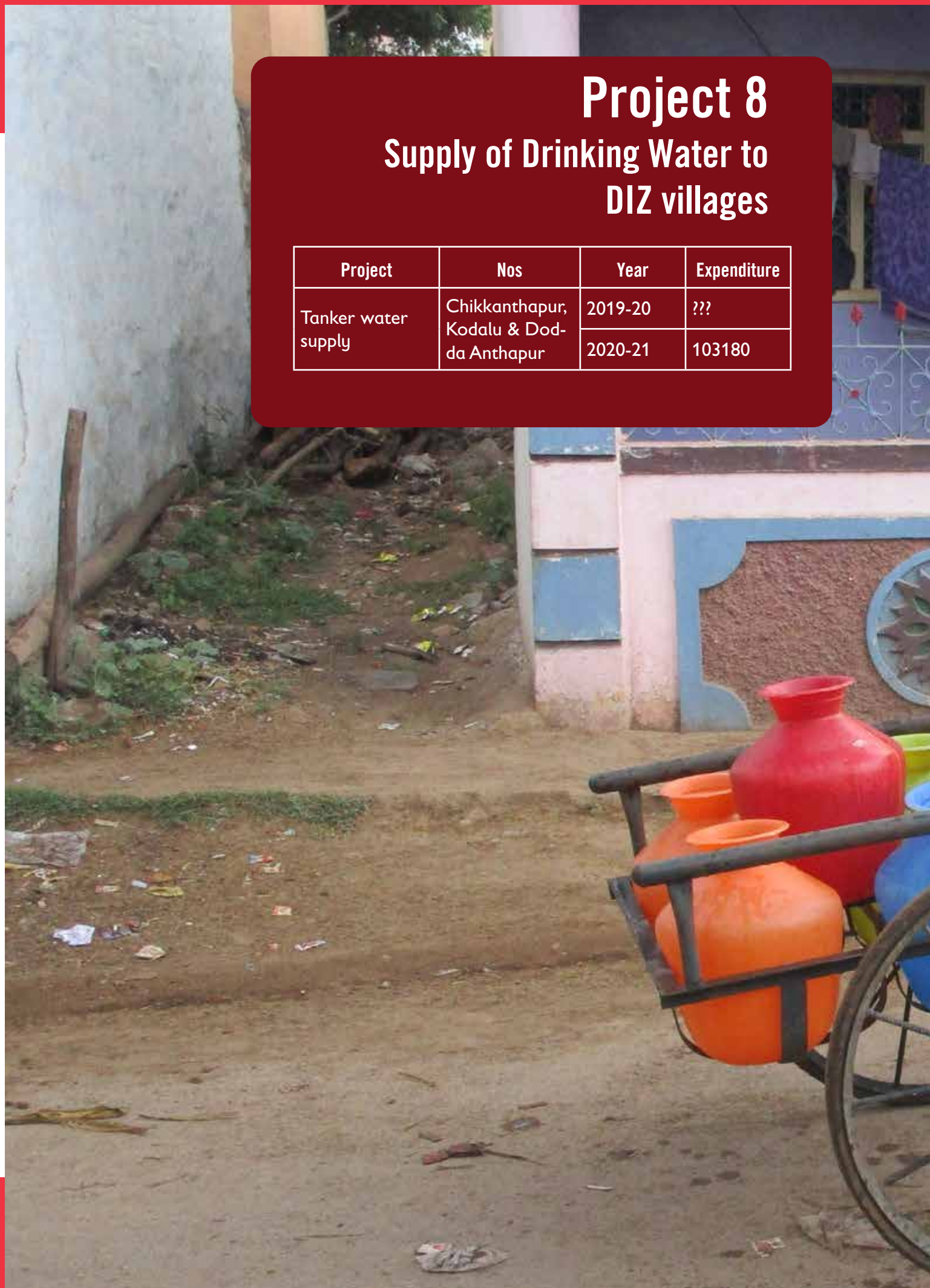
The initiative has been able to light up the Kudithini town which prior to the project had only 40% of its street lights working. Use of LED lights helps the town conserve on electricity. The project has received appreciation from the town residents.

OVERALL SCORE
MEDIUM

Project 8

Supply of Drinking Water to DIZ villages

Project	Nos	Year	Expenditure
Tanker water supply	Chikkanthapur, Kodalu & Dod-da Anthapur	2019-20	???
		2020-21	103180





A youth hauls water from the RO plant at D Antapur village

Project : Supply of drinking water to DIZ villages

Project background: During the summer months of March-April, some of the CSR villages face water shortage if the rainfall in the preceding monsoon has been low. Low rainfall leads to insufficient recharge of the ground water aquifer. Since the CSR villages are dependent completely on ground water, the large villages namely Kodalu, Chikantapur and D.Antapur face significant water shortages. To make available water for domestic use, EPCL provides tanker water to these villages. Depending on shortage levels, the water tanker (5000 lt capacity)

- 2019-20: separate tanker for each village- every day three trips/day over 2 months
- 2020-21: one tanker covered all village - twice a week three trips/day over 2 months

The water supplied was for domestic use other than drinking

Location: Kodalu, Chikantapur and D.Antapur

Project cost : Rs.

Project Objective: Provide water security to households in water scarce summer months.

Assessment

Coherence (How well does the intervention fit with the national, state and local imperatives?)

Score:
High

External Coherence

The Karnataka Water Policy 2022 notes that the state will undertake all the drinking water supply programmes to increase 24x7 supply of water of suitable quality for domestic water throughout urban and rural areas and also at times of water scarcity.

Consonance with SDG



Relevance (extent to which the intervention respond to beneficiaries priorities)

Score:
High

During summer months the CSR villages face water scarcity due to fall in groundwater table. The drinking water of the villages depends on ground water and water supply borewells in the villages see a drop in yield during summer months. Pockets of the village which lie on higher ground are more adversely effected.

Effectiveness (is the intervention achieving its objectives?)

Score:
High

The effectiveness of water tankers provided was assessed through conversation with the persons incharge of water distribution in the villages of D.Antapura and Kodalu.

i. A large number of people directly benefited from tanker water for domestic use

D. Antapura		Kodalu	
Locality	Households	Locality	Households
Kumti (Nr church)	80	Thyamma temple	70
Janata Colony (Nr ICDS)	120	Suklama temple	150
Bh Primary school	60	Uliamma temple	100
Nr Thayamma Temple	60	Kalyan Mandir	100
SC colony	70		
Total	390	Total	430

ii. Epsilon helped ensure water availability during crisis: In 2019-20 & 2020-21 of all the companies in the area, Epsilon supplied the most water through tankers. JSW has pressed into service one tanker in 2019-20 at Kodalu village.

iii. Non availability of tankers from Epsilon would have meant either the panchayat would have to hire tankers and/or people would use other natural water sources (e.g. pond at entrance to Kodalu village)	
Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: High
Ensured water security in the village during acute water shortage from existing sources	
Efficiency (<i>How well are resources being used?</i>)	Score: High
The water distribution was controlled by the Gram Panchayat. ECPL ensure bulk transport of water to the villages. The panchayat as per local needs distributed the water leading to efficient and equitable distribution.	
Sustainability (<i>Will the benefits last ?</i>)	Score: NA
The project is an emergency measure meant to be in place temporarily till the water crisis was over, therefore has no sustainability dimension. .	

Overall Assessment

The project helped tide over an emergency situation of extremely low availability of domestic water in the project vilages. The tanker water was provided as per demand placed by the Gram Panchayat.

OVERALL SCORE

MEDIUM




Project 9

Support to Inspire Institute of Sports

Year	Contribution
2019-20	25,00,000
2020-21	25,00,000
2021-22	35,00,000



Athletes training under coach at IIS

Project : Support to Inspire Institute of Sports	
Project background: The Inspire Institute of Sport is the country's first privately-funded High Performance Olympic Training Centre. It aims to create a world-class inter-disciplinary training environment that allows Indian athletes to maximize their potential and turn it into medal-winning performances at the Olympic.	
Location: Vidyanagar, Dist. Bellary	
Project cost : Rs. 85 lakhs (over three years)	
Project Objective: Support the quest for Olympic goal by Indian sports persons.	
Assessment	
Coherence (<i>How well does the intervention fit with the national, state and local imperatives?</i>)	Score: High
External Coherence India wishes to see podium finish of its athletes and sports persons in the Olympics. Towards thi goal Ministry of Youth Affairs and Sports has started TOPS (Target Olympic Podium Scheme) .The scheme aims to provide all requisite support and assistance to probable athletes identified for the Olympic Games/Paralympic Games and other major international tournaments so that they can win medals. Similarly the Inspire Institute of Sports also works towards podium finish of our athletes supported by private funding.	Consonance with SDG 
Relevance (<i>extent to which the intervention respond to beneficiaries priorities</i>)	Score: High
India's poor performance in Olympics has been variously attributed to by the experts as (i) Lack of sports culture, (ii) Infrastructure, (iii) Lack of encouragement, (iv) Less budgetary allocation to sports, (v) poverty & (vi) poor nutrition amongst others. IT is therefore necessary that both promising and elite sports persons be provided with world class facilities, coaches, sports medicine support and equipment to be able to take on the best in the global sports events.	
Effectiveness (<i>is the intervention achieving its objectives?</i>)	Score: High
In 2020-21, IIS was recognized as a 'National Centre of Excellence' for our 4 sports. (boxing, wrestling, judo and athletics). The Athletics Junior Nationals at the beginning of 2021 saw IIS athletes win 9 medals, including 4 new national records.Wrestlers and boxers registered medal-winning performances in the first international tournaments for Team India since the pandemic.The IIS athletes who qualified for the Tokyo Olympics include: Bajrang Punia (Wrestling), Neeraj Chopra(Javelin) Vikas Krishan Yadav(Boxing), Avinash Sable (3000 m Steeplechase), Satish Kumar(Boxing), Ashish Kumar(-Boxing), M. Sreeshankar (Long Jump), and Seema Bisla (Wrestling)	
Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: High
IIS in its 4 years of operation has provided opportunities to Indian athletes to be able to realize their potential.To date, IIS have had over 250 athletes be part of the IIS residential programs, and countless others have benefitted from short training and rehabilitation stints on campus.With more professional teams and athletes making use of the facility, IIS is gradually becoming the country's most sought-after training base.	



Efficiency (<i>How well are resources being used?</i>)	Score: High
<p>Currently, there are 24 donors associated with IIS, of which ECPL is one. Pooling of resources by a large number of donors spreads the costs and sustains IIS.</p>	
Sustainability (<i>Will the benefits last ?</i>)	Score: High
<p>IIS is fulfilling a felt need in preparing Indian sports persons for international competitions. IIS has also integrated itself well within the existing sports system the country. Other than catering to elite athletes, it has started grassroots sports programs in collaboration with state government, most notable being that with the state government of Odisha. It is also contemplating bringing in newer sports within the IIS ambit. This continuous widening of services provided and extremely good results on the medals podium augurs well for IIS and will ensure that it will remain relevant in the Indian sports canvas.</p>	

Overall Assessment

The donation made by ECPL to IIS goes towards strengthening the competitiveness of Indian sportsmen in International sports events. The high quality infrastructure, foreign coaches, sports medicine support and equipment has meant a number of sports person having qualified for the olympics and many budding IIS mentored sports person have shown promise in national and regional sports meets.

OVERALL SCORE

HIGH

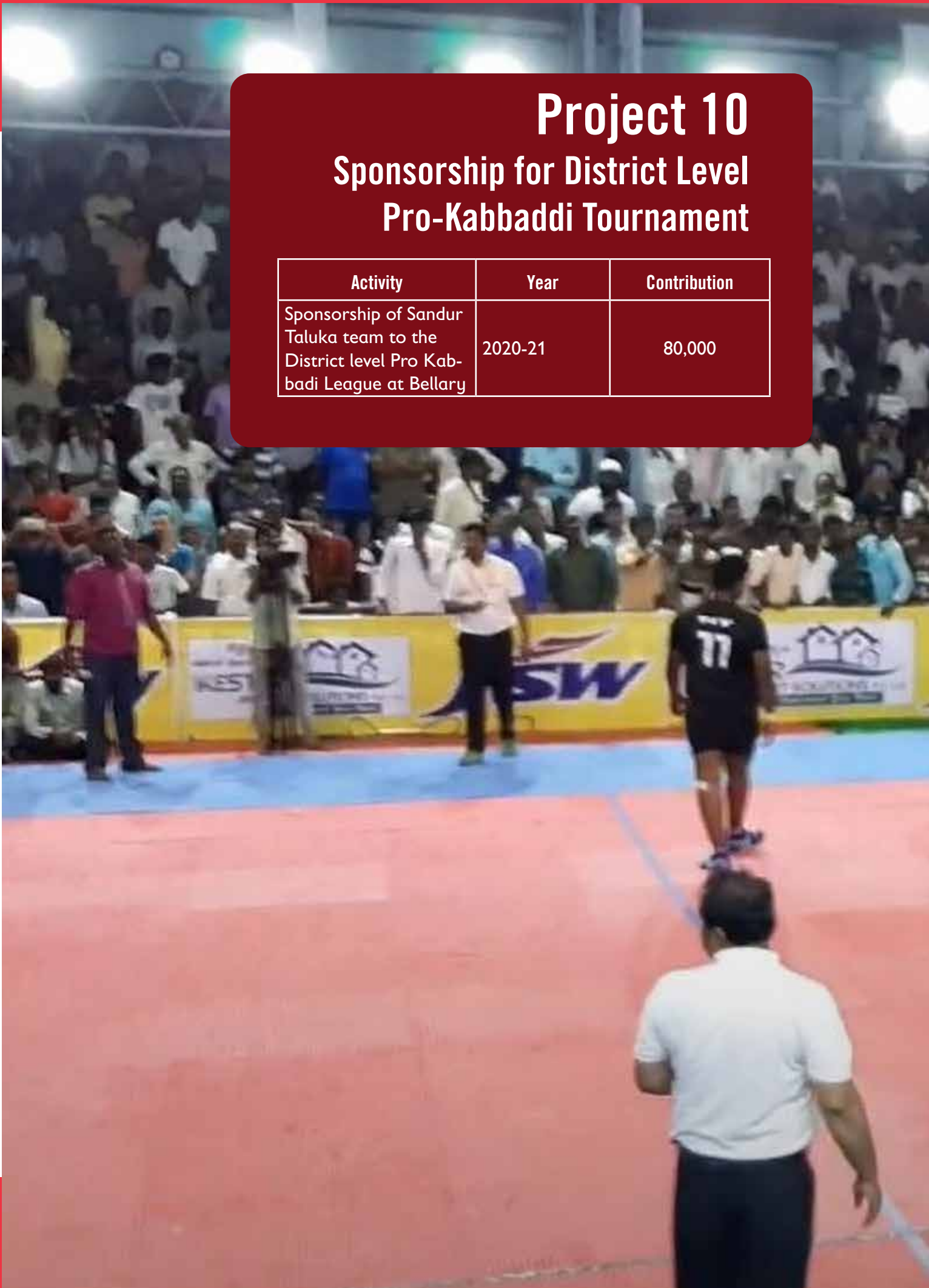
Suggestion

While supporting elite sports person is indeed a laudable effort, ECPL may also consider grooming and spotting sports talent at the grass root. It was suggested by COO, IIS to the assessment team that ECPL may appoint physical education teachers in the school in the CSR project villages. This will lead to focus on sports in school and also participation in school level sports competitions. Talent identified through this process may then be further groomed for district and state level meets. It is possible that from this talent pool may emerge a national or even a Olympic champion.

Project 10


Sponsorship for District Level Pro-Kabbaddi Tournament

Activity	Year	Contribution
Sponsorship of Sandur Taluka team to the District level Pro Kabbadi League at Bellary	2020-21	80,000





Finals of the Pro-Kabaddi tournament, Bellari

Project : Sponsorship for Dist. Level Pro-Kabaddi tournament	
<p>Project background:The Amateur Kabaddi Association, Bellary is affiliated to the Amateur Kabaddi Federation of India which helps organise the hugely popular National ProKabaddi League. TH3 Pro Kabaddi league in Bellary district (also includes Vljaynagar and Koppal districts) is structured similar to the Pro Kabbadi league. Eight teams representing 8 talukas of Bellary and Vljaynagar compete in a Kabaddi tournament held in the league format every year at Mahatma Gndhi Indoor Stadium, Bellary. Sandur taluka is also reprsented in the tournament from kabaddi players drawn from the villages in the taluka which includes players from the CSR villages of Lingdahalli (2 players), Chikantapur(2 players), Kodalu (3 players) and Vithplapura (1 player).The Sandur team was sponsored by ECPL which provided for : (i) Entry fee to the league competition (Rs. 10000), cost of Sports Authority of India qualified Kabbadi coach to train the team, training camp cost at Sandur including lodging and boarding, shoe, jersey and track suits for the 18 member Sandur men’s kabbadi team.The SAI qualified coach was provided by the Bellary Amateur Kabaddi Association.A 10 day coaching camp was held at Ghorpade college, Sandur followed by a 3 day coaching on kabaddi mat at Bellary.The Sandur team is helped by Mr Chandrashekhar, who is the coach and manager of the team and belongs to Lingdahalli village. It may be mentioned that the Pro Kabaddi league is held for both men and women teams, however Sandur is currently represented by only men’s team.The final configuration of the Sandur team is determined by a layer auction wherein some of the Sandur players may get to play for other teams in the league and players from other talukas may be part of the Sandur team in the final competition.</p>	
Location: Sandur/Bellary	
Project cost : Rs. 85 lakhs (over three years)	
Project Objective: Promote Kabbadi in and around the region of the CSR villages.	
Assessment	
Coherence (<i>How well does the intervention fit with the national, state and local imperatives?</i>)	Score: High
<p>External Coherence Amateur Kabaddi Federation of India has been given government recognition to promote the sports of Kabaddi in the country. It is being provided with the admissible financial assistance and other support under the various Schemes of the Ministry and the Sports Authority of India. Kabaddi is part of the Khelo India Youth Games and Khelo India University Games. Kabaddi has also been included in the list of games/sports which qualify the meritorious sports persons for recruitment to Group ‘C’ posts in Central Government offices. More than 125 Kabaddi payers have been selected under Talent Search and Development vertical of Khelo India Scheme for Long Term Athlete Development Programme. Kabbadi is getting popular in India after the advent of national level Professional Kabbadi league. Kabbadi league is the second most viewed sports on television after the cricket IPL. Kabaddi has become professionally rewarding for good players.</p>	<p>Consonance with SDG</p> 
Relevance (<i>extent to which the intervention respond to beneficiaries priorities</i>)	Score: High
<p>The CSR villages and its surroundings do not have an active sports culture.The youth are addicted to mobiles and games and sports have taken a back seat. Even in the schools in the CR villages, sorganised sports does not find much of a place in the school time table. Sponsoring a kabbadi team from the region helps promote indigenous sports of kabbadi and provides encouragement to youth to pursue the sport.</p>	

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score: High
<p>The Sandur team competed in the Pro Kabaddi league and won 4 of their 8 matches. The support provided by ECPL was acknowledged by the team coach and manager during his conversation with the assessment team. Participation in Pro-Kabaddi tournament has helped in (i) Possible opportunities for selection to state and district level kabaddi teams, (ii) Exposure to the best players and teams in the district, (iii) coaching by SAI coach helped improve skills, (iv) Exposure to new kabaddi rules which get introduced from time to time especially after professional kabaddi has got popular in India, (v) Experience of playing Kabaddi mat at the tournament. The team practices on mud courts while professional kabaddi is played on mats which are expensive. Playing on mat is invaluable for players hoping to play professional kabaddi. (vi) Providing basic necessities like shoes, jersey and track suit helps the kabaddi players who mostly come from poor backgrounds.</p> <p><i>“We are extremely grateful and happy with the support extended by EPCL. Our players could participate in the tournament and were also could be provided with good quality shoes, jersey and track suits. It was a pride to wear the jersey with EPCL logo. For the first time our players played in front of such a large crowd. This was a great exposure for the players. Playing against the best teams in the district helped our players to learn about the areas for improvement, We also got acquainted with the new rules which have come into force after pro Kabaddi in India got popular.”</i></p> <p style="text-align: right;">Mr Chandrashekhar, Lingdahalli Village Coach and Manager, Sandur Kabaddi Team</p>	
Efficiency <i>(How well are resources being used?)</i>	Score: High
<p>Each match at the Pro Kabaddi tournament in Bellary attracted about 5000 spectators. The exposure and the leverage which the team got from playing at such a popular tournament was inspiring and a learning experience for the players.</p>	
Sustainability <i>(Will the benefits last ?)</i>	Score: High
<p>The Pro Kabaddi tournament is organised by the Amateur Kabaddi Association, Bellary which affiliated to the Amateur Kabaddi Federation of India. The Federation helps organise the hugely popular National Pro Kabaddi League. It can be expected that the district level affiliate will continue to organise the tournament in Bellary. The tournament is hugely popular and has big crowd turnout and is also telecast on local channels. The main sponsor of the Pro Kabaddi tournament is JSW. It can be expected that regular participation in such big tournaments will enthuse local youth to take up the sport and aspire to be part of the Sandur team.</p>	

Overall Assessment

The support provided to the Sandur Kabaddi team will help in (i) Possible opportunities for selection to state and district level kabaddi teams, (ii) Exposure to the best players and teams in the district, (iii) coaching by SAI coach helped improve skills, (iv) Exposure to new kabaddi rules, (v) Experience of playing Kabaddi on mat which is invaluable for players hoping to play professional kabaddi. (vi) Providing basic necessities like shoes, jersey and track suit helps the kabaddi players who mostly come from poor backgrounds.

OVERALL SCORE
HIGH

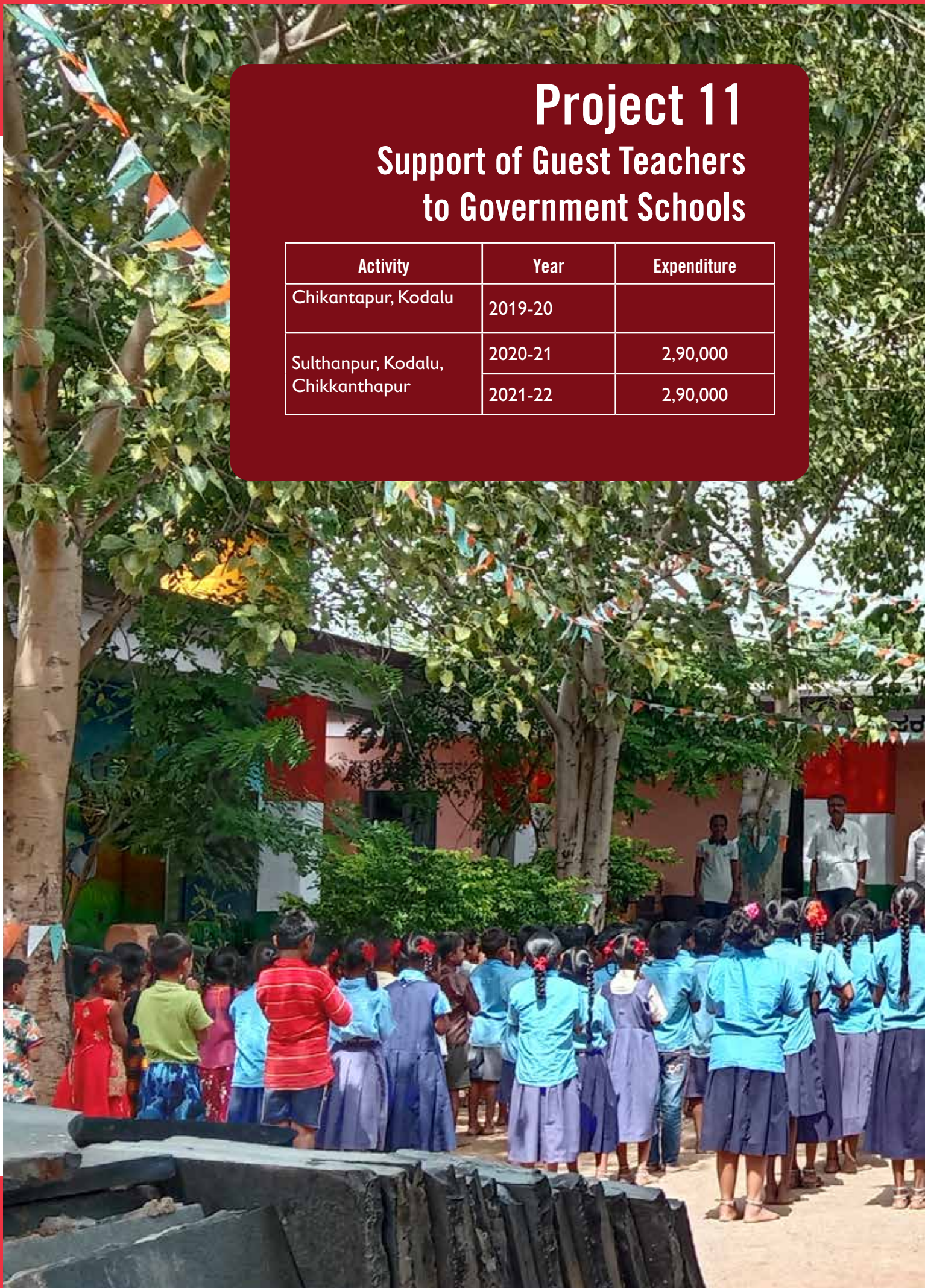
Suggestion

EPCL may consider providing encouragement to youth and children to take up kabaddi in the CSR villages. This may be done through providing coaching facilities (local kabaddi players can coach) at schools, and organise local level tournaments to identify talent. It may be mentioned that Govt school Chikantapura has a very strong Kabaddi team and has recently secured first position in Taluka level school kabaddi competition.

Project 11

Support of Guest Teachers to Government Schools

Activity	Year	Expenditure
Chikantapur, Kodalu	2019-20	
Sulthanpur, Kodalu, Chikkanthapur	2020-21	2,90,000
	2021-22	2,90,000





Morning assembly at Government School, Chikantapur

Project : Support of Guest Teachers to Government Schools

Project background: The middle schools in the CSR villages face shortage of teachers which impacts the education level in these schools. On request from the school HM and School Management committee, ECPL had provided guest teachers to schools to bridge the teacher shortage. However practice has since been discontinued on instruction of the district administration. Government has been posting guest teachers despite which shortage of teachers continues to persist in most of the schools. Government has set up norms for guest teachers which includes they need to have a N.Ed qualification and have to pass a recruitment test.

Guest teachers which were sponsored by ECPL (2019-21/22)

Village	Guest teacher from ECPL	Class	Qualification	Period
Chikantapur	K. Gadilingappa	Science and Maths from class VI to VIII	BSc, BEd	2017-2021
Kodalu		Drawing teacher I-III	PUC	2019-2022
Sultanpur	Shilpa	Coputer, English alphabets, painting, Kanadda Nudi from class I-V	PUC , certification in Computer	2020-2022

Location: Chikantapur, Kodalu, Sultanpur

Project cost : Rs.

Project Objective: Improve learning outcomes in schools by bridging the teacher shortage

Assessment

Coherence (How well does the intervention fit with the national, state and local imperatives?)

**Score:
High**

External Coherence

Across Karnataka there is an acute shortage of teachers. At primary level 13% of the sanctioned posts are vacant whereas in post primary classes the shortage is 27%. As in May 2022 across the state there were approximately 29,000 guest teachers appointed by the government to fill in for non availability of permanent teachers in government schools. Providing guest teachers is an accepted practice, which was followed by ECPL in the schools in the CSR villages.

**Consonance
with SDG**



Relevance (extent to which the intervention respond to beneficiaries priorities)

**Score:
High**

There is significant shortage of permanent teachers in the CSR village schools, necessitating recruitment of guest teachers to bridge the gap in the shortun.

Current configuration of teachers at select CSR schools

School	Strength	Permanent Teacher	Government Guest Teachers	Company sponsored Guest teacher
Chikantapur	208	3	3	1 (Minera)
Kodalu	402	6	4	1 (Minera)
Sultanpur	66	1		1 (Minera)

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>Guest Teacher at Govt School, Chikantapur</p> <p>Mr. K. Gadilingappa joined the school in June, 2017 as guest teacher provided by EPCL and worked till March 2021. He has BSc, BEd. qualification and is a resident of Chikantapur. Since June 2021 he continues to work in the school as a government guest teacher. He teaches Science and Maths to classes VI,VII,VIII. Mr. Gadilingappa has brought in some interesting value additions to the classes he takes:</p> <ul style="list-style-type: none"> • Started the Meghshala classes in the school: He runs the smart class through Megashala app, In 2019 he got offline training at BRC Sandoor office and in 2020 there was online training. Meghshala is e ‘e-lessons’ and helps the teacher go from being lecture-based to interaction-driven. The teacher plays the role of a facilitator who can engage students in active learning. Since there is no internet connection facility in the school, he personally connects the net through mobile hotspot and runs the modules on the television screen provided by ECPL • Participation in science competition: Under the mentorship of Mr. Gadilingappa, in the year 2019 students from class VI-VIII participated in science exhibition at Jindal Adarsha School. This was the first time the students from the school had participated in such a competition. The students built science models on environment, water, electricity conservation in a industrial unit, rain water harvesting, various usage of chemicals in chemistry etc. Mr Lingappa organises such science exhibitions regularly in the school as well. • A diligent teacher: Every day from 9:30 am till 4:30 pm Mr. K. Gadilingappa stays in the school, he is punctual and regular. To bridge the learning gap during Covid-10 pandemic, Mr Lingappa is using the Kalika Chitra Katha, to teach in the classroom. The book has been recommended by the education department. 	High
<p>Guest Teacher at Govt School, Sultanpur</p> <p>EPCL provided guest teachers to the school from 2018. Ms Shilpa joined as Guest Teacher provided by EPCL in 2020, when the previous EPCL guest teacher left after securing a government job. She remained in the position till March 2022. A resident of Sultanpur village, Ms Shilpa had a PUC qualification along with a computer application certificate. She was very well liked by the students and the HM appreciated her all round contribution to the school. Some of her initiatives include;</p> <ul style="list-style-type: none"> • Revived teaching on computers in the school: The computers provided by JSW to the school were lying unused due to dearth of a computer teacher. Shilpa started training the students on computer basics and involved the students from class I-V. The classes would involve typing English alphabets, painting, using the mouse and Kanadda Nudi. Every day separate classes were allotted for each class from I-V, each session is for one hour. On Quarterly basis she used to take exam on computer; oral, written and small practical tests Parents are also happy that their children can operate computer. • Enrollment to the school increased due to computer classes: As the computer class at school taught by Ms Shilpa started to get good feedback from students and parents, the enrollment of the school went up from 40 to 66. The parents were particularly attracted by computer education for their wards at primary level, unheard of in a rural government school. 	High

<ul style="list-style-type: none"> • Took initiative to organise extracurricular activities in the school: Mr.B. Umapati, HM of GLPS Sultanpur praised Ms Shilpa's involvement in extracurricular activities at the school. She would engage the children in song and dance especially during celebration of important national days. Due to busy schedule of the HM sometimes would not be able to take Nali Kali classes and Ms Shilpa would facilitate the Nalli Kalli classes. • Helped teach at anganwadi center located within the school premises: Shilpa would spend 1-2 hours every day providing foundational literacy to the students at the Anganwadi. The regular teacher of the anganwadi mostly remains busy with the administrative work, taking care of the pregnant, lactating mothers and other allied activities and the education of the children suffers. Involvement of Ms Shilpa at the anganwadi brought a huge change in the learning outcome of the children. <p>With government making it mandatory for guest teacher to have BEd degree, Ms. Shilpa had to leave due to not possessing the prescribed qualifications. She is sorely missed by the students and the parents.</p> <p>The HM and the SMC members whom the assessment team met were highly appreciative of Ms Shilpa's contribution to the school. Mr Jambiah, SMC member said,</p>	
<p>Guest Teacher at Govt School, Kodalu</p> <p>ECPL engaged a drawing teacher at the school from 2019-22 to support Nali Kali classes. A skilled teacher was required who could draw the charts and design the TLM and that time this guest teacher was of great support. Apart from drawing he also engaged in teaching children alphabets and basics of arithmetic, construction of simple sentences etc., He would also encourage the children to participate in cluster and taluka level drawing competition. Some children won prizes as well.</p>	High
<p>Impact (what difference does the intervention make in terms of indirect, secondary and potential consequences)</p>	Score: High
<p>The guest teachers could effectively bridge critical gaps in teaching resources in the school, may that be computer education, teaching in science or the arts. The guest teachers stationed by ECPL went beyond their core subjects and helped in other teaching and extracurricular activities of the school. This helped the school to deliver improved learning outcomes,</p>	
<p>Efficiency (How well are resources being used?)</p>	Score: High
<p>The remuneration, working hours and other service conditions of guest teachers engaged by ECPL was at par with government guest teachers.</p>	
<p>Sustainability (Will the benefits last ?)</p>	Score: NA
<p>The placement of guest teacher was a stop gap arrangement and were to be in place till permanent teachers got posted.</p>	

Overall Assessment

The guest teachers posted by ECPL have performed admirably well and efficiently plugged the gap in learning caused by absence of permanent teachers.

OVERALL SCORE
HIGH

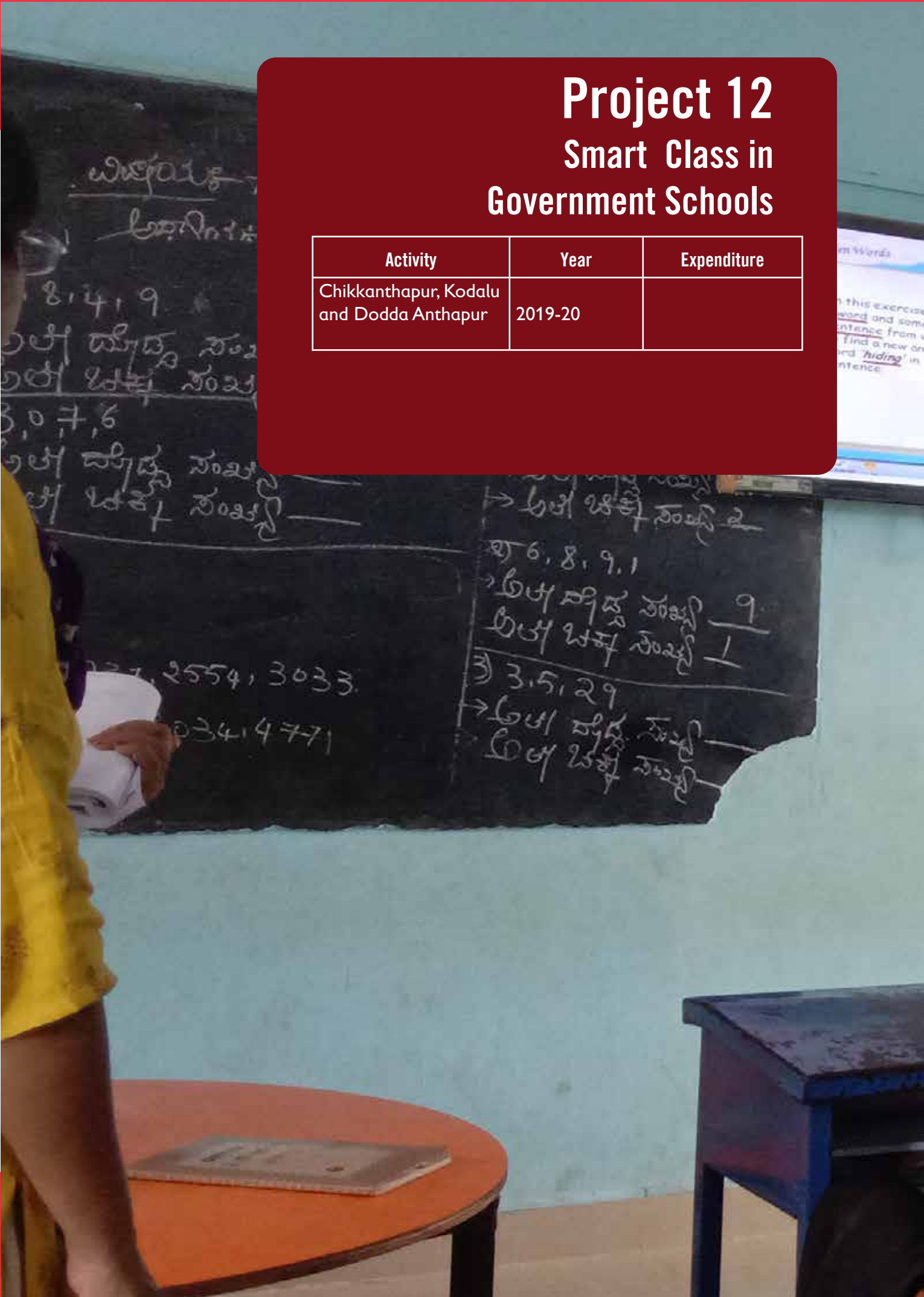


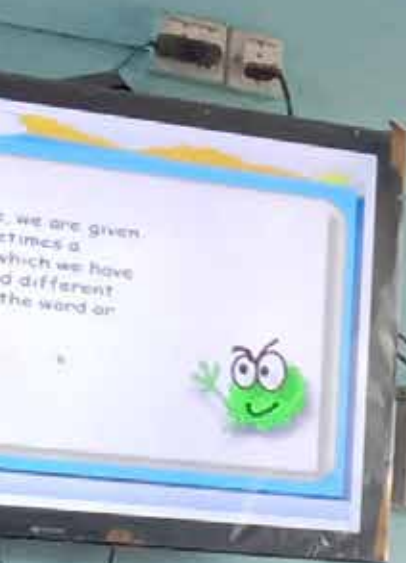
A guest teacher taking class at GUPS, Kodalu

Project 12


Smart Class in Government Schools

Activity	Year	Expenditure
Chikkanthapur, Kodalu and Dodda Anthapur	2019-20	





A digital TV (and audio visual material) installed at, GUPS, D.Antapur. Such classrooms are designated as smart classrooms

Project : Smart Class in Government Schools	
Project background: The smart classroom kit provided by ECPL comprise the following: <ul style="list-style-type: none"> • 43” LED TV installed in one of the classrooms • Educational content for students of VI-VIII grade on English Grammer, Mathematics and Science. Children’s Love Castles Trust (CLT) is the knowledge partner and has provided the digital content. • Solar panel and battery to run the TV 	
Location: Chikkanthapur, Kodalu and Dodda Anthapur	
Project cost : Rs.	
Project Objective: Improve learning outcomes by introducing audio visual content in the classroom	
Assessment	
Coherence (<i>How well does the intervention fit with the national, state and local imperatives?</i>)	Score: High
External Coherence National Education Policy 2020 states that schools will develop smart classrooms, in a phased manner, for using digital pedagogy and thereby enriching the teaching-learning process with online resources and collaborations.	Consonance with SDG 
Relevance (<i>extent to which the intervention respond to beneficiaries priorities</i>)	Score: High
<p>A learning outcome test was conducted for the CSR needs assessment study in project villages which revealed very poor learning outcomes.The report states: <i>The needs assessment team conducted learning assessment at V grade level in two schools - GHPS D.Antapur and GHPS Kodalu.The results were disconcerting.Almost no student was able to do division and the majority could not do multiplication.About 30% students in GHPS D.Antapur and 60% students in GHPS Kodalu could not do any mathematical operation in class V. In English about 20% of the students in Class V could not identify the alphabets. Only a handful of students could read a paragraph in English.The performance in Kannada language was relatively better with almost all the students being able to identify alphabets. However, the reading ability in Kannada remained poor with only 15% being able to read a story in the language. In a nutshell, the students in class V are ill prepared to tackle the syllabus of the middle school to which they would soon be promoted to.</i></p> <p>One of the means to step the poor learning of the children in government schools in the CSR villages is to introduce new teaching methodology through introduction of audio visual content in the classroom.The advantages are as follows:</p> <ul style="list-style-type: none"> • Strengthen teachers’ skills in making teaching-learning process more effective • Attract and retain learners’ attention • Generate interest across different levels of students • Develop lesson plans that are simple and easy to follow • Make class more interactive and interesting • Focus on student-centered approach 	

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>Smart Classroom at Govt School, Chikantapur</p> <p>Smart class was started in 2019-2020. Epsilon provided 32” LED television and solar panels,</p> <p>The concepts are explained better through audio-video mode: Previously blackboard and chalk was the only tool available with the teacher to explain concepts. Drawing or writing with chalk on the blackboard takes time, i sometimes not clear due to ol boards and poor lighting in the classroom hinders clarity.The audio-visual technology has no such bottle necks and enables the teacher to explain the lessons better using videos and animations.</p> <p>Teacher efficiency improved: The teacher is able to accomplish much more in a 40 minute class that was previously possible with blackboard and chalk.</p> <p>More teaching material now available: The teacher is able to show video, picture, music, colour etc. through which children could learn better.</p> <p>Use of teaching apps: One of the science teachers reported that he uses mobile hot-spot to connect with teaching app (Megashala) and project the same on the LED TV. The children now have access to additional learning material than only their text books.</p> <p>High satisfaction amongst students and parents:The introduction of audio visual system in the classroom is seen as a big upgrade and perceived as an indicator that school is making effort to improve learning of the children.</p> <p>Currently the Smart Class kit not in use. Due to problem with the solar panels, there is no power available to run the LED TV.The school does not have funds for repair and replacement of the panels.The school authorities could not provide clarity on when the smart classes will be operational.</p>	<p style="text-align: center;">Medium/High</p>
<p>Smart Classroom at Govt School, Dodda Anthapur</p> <p>Smart class started in 2018. Subject teachers handles the smart class. There are 2 LED TV in two separate rooms one provided by Zila Panchyat Ballari, Karnataka and another by ECPL.The LED TV provided by ECPL is 43”, Class 4 and class 5 students sit in these two rooms.</p> <p>Smart classrooms in terms of usefulness was appreciated:Through smart class children learn on environment, healthy life, teacher show video on health from YouTube, MegaShala app etc. . Through digital mode student are learning by seeing, they realise more and retention is more. There is no maintenance issue of smart class room, the TV runs on electricity. Teachers reported that through smart class there is 20% improvement in the learning outcome of the students. Parents are also feel happy, that children are getting facilities at par with private schools.</p> <p>Students of Class VI-VIII not benefiting from Smart Classroom: Classes VI-VIII are held in the High School building which is at a distance from the middle school building. These students reported not having attended smart classes in last 6 months, since no such facility is provided at the high school. The CTL learning material which was provided by ECPL along with the LED TV is meant for standard VI-VIII and currently is not getting used.</p>	<p style="text-align: center;">Medium/High</p>

<p>Feedback from beneficiaries at D.Antapur</p> <p>Arshia of class 5 said she loves Kannada and while watching video through smart TV they get more interest on the subject.</p> <p>Anjanappa the guest teacher of the school working for last 2 years said children love to read EVS.</p> <p>Rajsehhan of class 5 said he loves to study Environment and in smart TV he watches picture of animals birds, he loves Dove the most.</p> <p>Md Riyaz of class 5 said it is easy to learn Kannada language through smart TV.They love to see Vandaan through this TV.</p> <p>Sneha one of the student said she loves to watch English rhymes which teach on English alphabets.</p> <p>Mr. Raghendra , teacher at the school maintains the app login password to run the preloaded module. He reported that through students from class VI-VIII are not being derive benefits to the desired level, students in other classes do derive significant benefits.They are shown videos on topics on Mathematics, Science, English Grammar. Students learn of hidden words finding, noun, adjective, adverb, conjunction, tense, active and passive voice, homophone, article, collocation.</p>	
<p>Smart Classroom at Govt School, Kodalu</p> <p>Epsilon provided 64” LED TV and preloaded pen drive in 2019.The pen drive contains learning material on subjects like English, Maths, Science, EVS related to syllabus. It contains video, audio, picture and different learning material of class VI-VIII.</p> <p>Smart classes ran for 1 year: For 1 year the smart classe was functional then the Covid pandemic happened. Post COVID-19, the equipment is not operational. At the time the smart classes were operational, each period would be for 40 mins during and would be conducted by subject teachers. They used their own internet as required and the classes were a great success.The teacher reported that with smart class there was an improvement in the learning standard of the children, they understood the concepts well and their attention span had increased.</p> <p>Equipment requires maintenance, smart classes have now stopped: The display of LED TV has got blurred and repair is needed. However, school has not proceeded with repairing the TV. For one year the smart classes have seized. .</p>	<p>Low</p>
<p>Impact (what difference does the intervention make in terms of indirect, secondary and potential consequences)</p>	<p>Score: Medium</p>
<p>The efficacy of smart classroom to learning outcomes was acknowledged by students, teachers and SMC members in the project schools. However the impact of the project has got limited due to non maintenance of the equipment. In two of the three schools (Chikantapur and Kodalu), currently the smart classes are not operational. In D Antapur, classes VI-VIII are not getting the benefit of smart classrooms.</p>	
<p>Efficiency (How well are resources being used?)</p>	<p>Score: High</p>
<p>Good quality and branded equipment was provided by ECPL Also it was ensured that along with harware, digital learning material is made available.</p>	

Sustainability (Will the benefits last ?)

Score:
Low

The non availability of maintenance funds with the school is hampering the efficient use of the smart classroom equipment. The smart classrooms in two of the schools remains suspended.

Overall Assessment

The smart classroom has been highly appreciated by the students, teachers, parents and the school management committee. IT helps improve retention, understanding of core concepts and aids in attention of the students in the classroom. The project is faltering due to the inability of the schools to maintain the equipment provided. Smart classes remain suspended in two schools.

OVERALL SCORE
MEDIUM

Suggestion

1. The proper handling and maintenance of equipment is critical. The teachers need to be given training on how to handle the equipment and safe keep
2. The LED TV has been installed in regular classrooms, which need to be vacated each time the smart classes are to be taken. For instance in D.Antapur, the LED TV is in class IV and V. If other classes are to be taught, then students of class IV and V have to vacate the room and wait in the school courtyard till the smart class is ongoing in their classroom. A dedicated room for digital classes is suggested equipped with smart board, projector, audio system, internet, sitting arrangement etc.



The digital learning material from CLT provided by ECPL being demonstrated at D.Antapur school

Project 13

Civil Works In Government Schools

Activity	Village	Year	Expenditure
Constructed podium in Govt. School	GUPS, Chikan-tapur	2019-20	
Constructed compound wall in Govt. School			
Kota stone flooring in 03 class-rooms	GUPS, Kodalu		






Podium constructed at GUPS, Chikantapur



Boundary wall, GUPS, Chikantapur

Project : Civil Works In Government Schools	
Project background: On request from the HM and SMC the following works were done <ul style="list-style-type: none"> • Constructed podium at GUPS, Chikantapur • Constructed compound wall at GUPS, Chikantapur • Kota stone flooring in 03 classrooms GUPS, Kodalu 	
Location: GUPS Chikkanthapur, Kodalu	
Project cost : Rs.	
Project Objective: To provide infrastructure for quality learning environment at school	
Assessment	
Coherence (How well does the intervention fit with the national, state and local imperatives?)	Score: High
External Coherence Section 5.9 of New Education Policy(NEP) 2020 document states the primacy of school infrastrcuture on student learning: “A very first requirement in this direction will be to ensure decent and pleasant service conditions at schools.Adequate and safe infrastructure, including working toilets, clean drinking water, clean and attractive spaces conducive to learning, electricity, computing devices, and internet, library and sports and recreational resources will be important to provide to all schools in order to ensure that teachers and students including children of all genders and children with disabilities, receive a safe, non-violent, inclusive and effective learning environment and are comfortable and inspired to teach and learn in their schools.”	Consonance with SDG 
Relevance (extent to which the intervention respond to beneficiaries priorities)	Score: High
Recent studies have shown that students’ performance is enhanced in schools with better physical learning environments.As this report will show, the empirical argument for investing in learning environment is strong. Furthermore, although causal evidence on this topic is scarce, there is a growing number of non-experimental studies that indicate that investments in quality school infrastructure are strongly associated with learning. (refn:“Barrett, Peter;Treves, Alberto; Shmis,Tigran;Ambasz, Diego; Ustinova, Maria. 2019.The Impact of School Infrastructure on Learning :A Synthesis of the Evidence. International Development in Focus;. Washington, DC:World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/30920 License: CC BY 3.0 IGO.”)	
Effectiveness (is the intervention achieving its objectives?)	Score:
Podium at GUPS, Chikantapur <ul style="list-style-type: none"> • Used for school performances: This facility is used by the children to stage performances (skits, dance, singing etc) during functions held at school on days of national importance. Earlier when there was no podium the children would stage the show at a level as that of the audience.The students mentioned that it gives a good feeling to perform on stage. . • Used during morning assembly: The morning assembly is held in the school courtyard with school choir, speakers , house captains etc stand on the podium. • Used during mid day meal: Children partake their lunch sitting on the podium which has a large tree providing shade.. • Used for group study: The children of class VI to VIII sit every day from 3:30 pm to 4:15 pm. on the podium along with teachers for group study. Studying in the open outside the confines of the four walls of the class room is a good experience for the students and the teachers.The subjects taught in group study include: English, Hindi and Kannada. 	High

<p>Compound wall, GUPS, Chikantapur Earlier the school had a compound wall which got damaged when a lorry while reversing hit the wall. The school is beside the main road and there is heavy vehicle movement, they carry minerals and materials for nearby factories. At that time the podium was being constructed and the school requested that the damaged compound wall be reconstructed as well. The wall is critical for the safety of the students at school. The wall painting on heritage and history on the compound wall is a constant reminder to the children and the villagers of the rich history and culture of the region. The cartoon characters painted on the wall makes learning fun and gives vibrancy to the school environment.</p>	<p style="text-align: center;">High</p>
<p>Floor tiling in 03 classrooms GUPS, Kodalu The tiling replaced the black stone flooring which was uneven and cracked at a few places. A smooth flooring is easy to sweep and also children are protected from abrasions etc.</p>	<p style="text-align: center;">HIGH</p>
<p>Efficiency (How well are resources being used?)</p>	<p style="text-align: center;">Score:</p>
<p>Podium at GUPS, Chikantapur Concern was raised by the school authorities on the quality of construction, of the school authority. The work was done by a local contractor who finished the work in 20 days. Many of the tiles have broken off and cracks have started to appear.</p>	<p style="text-align: center;">Medium</p>
<p>Compound wall, GUPS, Chikantapur and flooring at GUPS, Kodalu The school authorities were appreciative and no damage or cracks due to faulty construction was reported.</p>	<p style="text-align: center;">High</p>
<p>Impact (what difference does the intervention make in terms of indirect, secondary and potential consequences)</p>	<p style="text-align: center;">Score: High</p>
<p>Podium at GUPS, Chikantapur Has helped create a child friendly space in the school, where both expression of talent and interaction with peers is facilitated.</p> <p>Compound wall and flooring The compound wall has helped make the school safe for the students. Flooring has helped in keeping the classroom clean and protect against any injury</p>	

Overall Assessment

The assets are performing their intended purpose well. .

OVERALL SCORE

MEDIUM

Project 14


WATSAN Infrastructure at School

Activity	Village	Year	Expenditure
Constructed wash basin and fixed overhead and underground water tank in Govt. School	Kodalu	2019-20	
Constructed toilet for boys and girls in GHPS			
Constructed urinal toilet at Govt. Model School	Kudithini		





Drinking water station and overhead tank at primary section of GUPS Kodalu

Project : WATSAN Infrastructure at School	
Project background: On request from the HM and SMC the following works were done Hand washing station and water tanks at GUPS Kodalu: ECPL constructed a hand wash station with 4 taps. It also provided a overhead syntax water tank with pipe line for running water supply to the taps. .Also was constructed a underground water tank for water storage. Toilet constructed at GUPS, Kodalu: EPCL has constructed toilet for both boys and girls in the school. Girls' toilet has 2 urinals, boys' toilet has 4 urinals. Constructed urinal toilet at Govt. Model School Model School, Kudithini- 3 urinals were provided in boys toilet at Government Model School	
Location: GUPS Kodalu and Model School, Kudithini	
Project cost : Rs.	
Project Objective: To provide good sanitation at sch	
Assessment	
Coherence (How well does the intervention fit with the national, state and local imperatives?)	Score: High
External Coherence As per national norms, there should be one toilet for 80 students, one urinal for 40 students and one drinking water facility for 80 students in schools.	Consonance with SDG 
Relevance (extent to which the intervention respond to beneficiaries priorities)	Score: High
School toilets and drinking water facilities are a basic right, not a privilege, no matter what a child's circumstances or where they live. Having well-maintained, clean school toilet facilities and potable water demonstrates respect for children and their wellbeing, and also helps support them through their academic life.	
Effectiveness (is the intervention achieving its objectives?)	Score:
Hand washing station and water tanks at GUPS Kodalu: <ul style="list-style-type: none"> • School now has adequate water:The hand wash station is functional , however one of the four taps is not in working condition.The underground storage tank ensures adequate availability of water in the school.The overhead water tank to which water from the underground water tank is pumped ensures flowing water. • Student safety enhanced: Earlier the students would go out of the school premises to wash hands and mid day meal plates.The road abutting the school has vehicular traffic and children moving out of the premises posed a safety hazard. It was extremely difficult to monitor each child. Now the wter storage and hand washing facilities are within the school premises. • Meeting norms:As per national norms there should be one water facility (tap) for every 80 students.The primary section(where the hand washing station has been put up) has 290 students which as per norms would require 4 taps.The hand-washing station constructed has 4 water taps. 	High

<p>Toilet constructed at GUPS, Kodalu</p> <ul style="list-style-type: none"> • Toilets are being used: ECPL has constructed toilet for both boys and girls in the school. Girls' toilet has 2 urinals, boys' toilet has 4 urinals. Earlier there were 2 toilets and the condition of the toilets were very poor, door could not be closed and the toilets were not in usable condition. ECPL has demolished the toilets and constructed new ones. Both teachers and student use the toilets as required and this has reduced going out in the open. Epsilon has also created the provision of running water by giving syntax overhead tank, pipe line connection with tap facility in the toilets, it was not their earlier. • Meeting the norms: The norm is to provide one urinal for 40 student. The school has currently 290 students and for every 48 students there is one toilet 	<p>High</p>
<p>Constructed urinal toilet for boys at Govt. Model School Model School, Kudithini</p> <p>All the three urinals provided were found to be broken and unusable</p>	<p>Low</p>
<p>Efficiency (<i>How well are resources being used?</i>)</p>	<p>Score: High</p>
<p>There was no complaint on construction quality.</p>	
<p>Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)</p>	<p>Score:</p>
<p>Hand washing station and water tanks at GUPS Kodalu</p> <p>Facilitating and implementing proper hand washing, with soap and water can initiate a ripple effect. Students form healthy hygiene habits which last a life time. They also influence their family to adopt such habits, which if happens at scale can bring about behavioral change across the community. Hand washing is described as the king in the prevention of illness, leading to better pupil health and resultantly better attendance. It was reported that hand washing However provisioning of hand-wash station is an essential but not sufficient condition to ensure hand hygiene. A program on behavioral change in school towards hand washing, teaching the students on the WHO recommended 6 step hand wash technique and provisioning of soap are essential to avail the full impact of providing a hand washing station at school.</p>	<p>High</p>



Toilets provided by EPCL at Model School, Kudithini were found to be broken and urinal fittings missing

<p>Toilet constructed at GUPS, Kodalu Toilet usage at school is important in ensuring that learning happens. Evidence from global studies reveal that (i) children find it hard to concentrate in class due to 'holding it in' to avoid using dirty and poorly maintained school toilets. (ii) students deliberately do not eat or drink at school to avoid using the toilet, (iii) School absence to avoid using toilets. In case of project school, the students would have to go in the open when the number of toilets were limited. This has eased with more toilets being constructed. Running water in toilet (overhead tank constructed by ECPL) ensures improved cleanliness.</p>	<p>High</p>
<p>Constructed urinal toilet for boys at Govt. Model School Model School, Kudithini The toilets have not been maintained properly and are unusable. Therefore the potential of providing better hygiene at school has been lost.</p>	<p>Low</p>
<p>Sustainability (Will the benefits last ?)</p>	<p>Score: Medium</p>
<ul style="list-style-type: none"> • Limited school maintenance funds available with the schools: Maintenance of the infrastructure created at the school remains an achilles heel towards realising the full potential of the investment in improving WASH. This is due to limited funds available for school maintenance. For instance an upper primary school with 6-7 classrooms is provided with a maintenance grant of Rs 15000/year. This has to be expended on (i) protection of school building, (ii) maintenance of the school like whitewashing, minor repair works, (iii) preparation of teaching-learning equipments, (iv) payment of electricity and telephone bills, (v) provision of drinking water facility, (vi) maintenance of toilets and cleanliness of school and its campus. • Improper usage and vandalism: The urinal fixtures at Model School, Kudithini are missing. • No staff available for cleaning of toilets: Non availability of dedicated staff for toilet cleaning makes the toilet dirty. For instance the toilets at the Sultan village which neighbours Kodalu are much more cleaner than at GUPS Kodalu, because the school at Sultanpur has a dedicated cleaning staff provided by a nearby corporate. 	

Overall Assessment

While effectiveness and impact of toilet and hand washing facility at GUPS Kodalu is high, the urinal fixtures are damaged and unusable at model school Kudithini. The problem of sustenance of the initiative is

- Availability of limited school maintenance funds to maintain the infrastructure created.
- While the project builds useful WASH infrastructure in school, it is not supplemented with hygiene and hand washing education. For instance proper toilet usage, or WHO recommended 6 step hand washing technique will help bring about behavioural change in the students towards hygiene practices followed.

OVERALL SCORE
MEDIUM

Suggestion

The WASH infrastructure development needs to be supplemented with awareness, capacity building, and creation of institutions for maintaining these infrastructures.

Project 15

Upgradation of Nalli Kalli Classrooms


Activity	School	Year	Expenditure
Nali Kali wall art + furniture	Torangallu	2019-20	
	GUPS at Kodalu , Chikantapur, D. Antapur and PS, Sultanpur	2021-22	8,76,150

Note: Furniture not provided in GUPS, Torangallu. GUPS, Chikantapur





Wall painting in Nalli Kalli classroom in PS, Sultanpur

Project : Upgradation of Nalli Kalli Classroom	
<p>Project background: Nalli Kalli translated into English means Joyful learning. Implemented all across the government schools in Karnataka for students of class 1-3, Nalli Kalli emphasizes on making the learning process a joyful one, through child-centered, activity-based learning. There is an extensive methodology including use of Teaching Learning Methods and improvement in the learning environment in the classroom to make it attractive for the students. The ECPL intervention has helped towards this through:</p> <ul style="list-style-type: none"> • Wall Painting: The classrooms are aesthetically painted using motifs which display (i) Identification of words, (ii) Kannada alphabets, (iii) Number tree, (iv) Ascending and descending order, (v) Maths calculation, (vi) Kanadda rhymes, (vii) Months, (viii) Table, (ix) Picture of different animal, birds, fruits, vegetables, vehicles, flower, (x) Colours shapes, (xi) Body parts (xii) Village community picture • Furniture: Ergonomically friendly and colorful furniture for Nalli Kalli classrooms 	
Location: GUPS Kodalu Chikanptapur, Torangallu, D. Antapur and PS Sultanpur	
Project cost : Rs.	
Project Objective: To improve the environs of class room for grade I-III so as to aid in implementation of the Nalli-Kalli Program	
Assessment	
Coherence (<i>How well does the intervention fit with the national, state and local imperatives?</i>)	Score: High
<p>External Coherence The Nali-Kali Method is being implemented in all the Government Schools in Karnataka. The methodology requires as one of its building blocks a inviting classroom environs for the students.</p>	<p>Consonance with SDG</p> 
Relevance (<i>extent to which the intervention respond to beneficiaries priorities</i>)	Score: High
<p>The schools are required to prepare the TLM for Nalli Kalli classroom where multigrade teaching is done for I-III grade students using the school grant. The grant are meagre and the schools in the CSR villages were unable to afford the expenses for making the Nalli Kalli classroom child friendly. The grants available to the schools is as follows:</p> <ul style="list-style-type: none"> • Primary School (class 1 to 5) is considered as one unit and Rs. 5000/year is given as school grant. • Schools with Primary and Upper Primary classes are considered as two separate units and Rs. 12,000/ year is given as school grant. <p>This grant can be used for preparation of teaching learning materials and contingencies. This amount is insufficient to convert the Nalli Kalli classroom into a vibrant learning space. The Nalli Kalli classrooms in the schools in the CSR villages were very dull spaces with barely any wall painting or wall blackboard for students.</p>	

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>GUPS Torangallu</p> <p>ECPL undertook wall painting of Nali Kali rooms in 2019 in 3 rooms benefiting at that time 30-40 students, the strength now os 115 necessitating 4 Nalli-Kalli classrooms in operation of which two classrooms have wall paintings. The third classroom which was provided with wall painting has been converted to VI standard classroom.</p> <p>Wall Paintings:</p> <p>Ms. Hanuramma teacher in charge of Nalli Kalli class - section A has been teaching since 2007 said</p> <ul style="list-style-type: none"> • The wall painting made learning more efficient. The wall painting contains Kannada alphabet total 49 letters, counting table, weeks, days, months both is English and Kannada. Children love to learn about body parts watching the wall painting, there are pictures of vegetables, fruits etc. • The wall paintings are time saver, as teachers don't have to write every thing on the black board, From the wall the children can read and it's easy to learn together. The children remember when they see the motifs on the wall everyday. Children can easily identify letters, picture, and interest of the students is retained. <p>Ms. Parbati, has been teaching Nalli Kalli since 2010 and is in-charge of section B. She said</p> <ul style="list-style-type: none"> • Earlier there was no wall paintings in Nalli Kalli room and the walls were of a single colour. Wall painting has elicited interest in Mathematics and Kannada. • The wall black boards are not in good condition and she requested for re-colouring the wall black boards. These boards are easily accessible for children and they enjoy writing on this mini black boards but due to chipped paint the children can't write properly on the boards and school resource is getting wasted. <p>The school has two new Nalli-Kalli rooms which houses section C and D. These rooms have not been painted with motifs as has been section A and B (by ECPL). The students in these sections find the classroom less inviting. Aditya K. student of class 3, earlier he was sitting in old class room, now he is in section C room. He said, he does not like this new Nalli Kalli room, there is no wall painting and he does not want to sit here. This validates the importance of wall paintings and its benefits for Nalli Kalli classes at GUPS Torangallu.</p> <p>During assessment it was observed that the wall paintings are not so attractive compared to Nali Kali painting by ECPL done in other schools during 2020-21. The paintings are not vibrant/colourful, visually it's not so attractive and the quality of art work is not so good and colours became faded. A new coat of paint and some additional motifs would further enhance the effectiveness of wall paintings.</p>	<p style="text-align: center;">Medium/High</p>



Nalli Kalli classroom in GUPS, Torangallu with wall painting



Nalli Kalli classroom in GUPS, Torangallu without wall painting



Nalli Kalli classroom in GUPS, D. Antapur. The wall paintings in Nalli Kalli classrooms done in 2021-22 by ECPL are much brighter than the ones done in 2019-20 at GUPS, Torangallu.

Effectiveness (is the intervention achieving its objectives?)

Score:

GUPS D.Antapur

Wall Paintings:

3 rooms are allotted for Nali Kali class. Each class is multi grade with students from standard 1-3, class 1 has 51 students, class-2 64 students and class-3 has 53 students. Epsilon has painted the wall of all 3 Nali Kali rooms in 2021-22, December-January. Though there were no such guidelines for painting of Nali Kali wall from education department the HM was inspired by the wall art ECPL did in Kodalu and Sultanpur schools. He requested for similar type of wall painting in Nali Kali rooms for his school, accordingly ECPL provided the same.

- **No budget with the school for wall paintings in Nalli Kalli rooms, ECPL support has been highly appreciated:** There is no budget from government to paint walls of Nali Kali rooms in the school. In a year Rs 12,000 is sanctioned and this fund is utilised mostly for events and other purposes, the shortage of funds makes it impossible for school authority to upgrade the Nali Kali room with modern art work. **The HM commented that ECPL has done an excellent job in painting the Nalli Kalli rooms.**
- **Move away from paper art:** In this school Nali Kali was started in the year 2008, earlier they used chart papers, hang papers decorations with thread from ceiling. But the new wall art changed the look of the class rooms completely. The visually attractive colours create interest among students.
- **Children look at the pictures and learn.** The assessment team found that students could easily identify letters, words, numbers, body parts and other learning material painted on the wall. In the Nali Kali rooms the wall art comprised - (i) Identification of words, (ii) Kannada alphabets (iii) Number tree, (iv) Ascending and descending order, (v) Maths calculation (vi) Kanadda rhymes (vii) Months, (viii) Table, (ix) Picture of different animal, birds, fruits, vegetables, vehicles, flower, (xi) Colours and shapes, (xii) Body parts, (xiii) Village community picture
- **Spelling mistakes:** The spelling of 'Body Parts' is spelled as 'Body Ports', and needs to be corrected.

Furniture in Nalli Kalli classroom

ECPL provided 15 round tables, 135 mini chairs in 2018. Previously the students would sit on the floor. The teacher and students expressed that the furniture is comfortable. One table top and 10-20 chairs were found to be damaged.

High



Wall painting inspires art amongst students

Ms. Chanamma is the guest teacher in this school, for last 6 years she is teaching in Nali Kali class. She said that the paintings in the room help children to learn new things with fun, pictures are attractive, easy to identify, easy to learn. One of her student Panduranga, class III loves doing painting on paper. The wall art inspires him paint. He showed his paintings done in school notebook. He finds the painting of village scenery on the wall the best. His classmates agreed with Panduranga's assessment.



The village scene painted on the wall in Nalli Kalli classroom at GUPS,D.Antapur a hit with the students

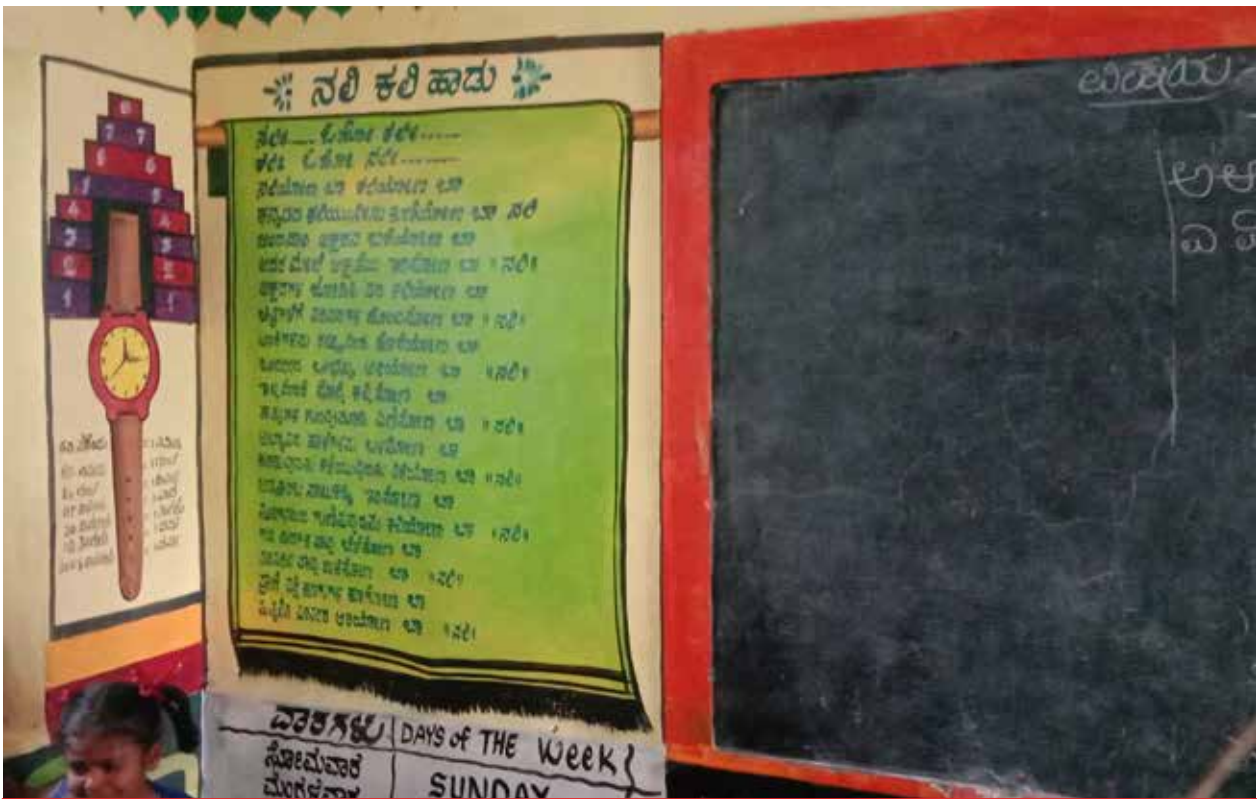
Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>GUPS Chikantapur</p> <p>Wall Paintings:</p> <p>The school has 8 class rooms, 2 rooms are exclusively allotted for Nali Kali. Nali Kali runs with children of class 1-3. Each day there are classes on Kannada language, Mathematics, Social Science and English and 2 periods are allotted for each subject. Throughout the day children of class 1-3 seats in Nali Kali room and learn through this method..</p> <p>The findings are similar to that found in Nalli Kalli classroom at GUPS, D.Antapur.</p>	<p>High</p>



Class Wall painting is “Super !”

When the assessment team asked the Nalli Kalli class at GUPS Chikantapur if they liked the wall painting Mahesh, one of the students put up his hand and shouted “Super” and the entire class shouted “Super” behind him. Shri S.V. Rangaswami is the assistant teacher and in-charge of Nalli Kalli cwith a strength of total 43 children. He said that the students find the wall paintings very engaging and it helps them to learn fast. Repeatedly seeing the learning material painted on the wall helps in

retention. Apart from motifs, there are 18 black painted wall boards on the lower part of the wall. These boards are used by the children to write, they are very proud to have personal wall black boards. Previously only the school teacher had the access to the classroom black board.



The watch painted in Nalli Kalli classroom in UPHS, Jodalu he

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>GUPS Kodalu</p> <p>Wall Paintings:</p> <p>Nali Kali was started in this school in 2009 and caters to 170 children. The school has 4 Nali Kali rooms and ECPL has made attractive wall painting in all the 4 rooms.</p> <p>The findings are similar to that found in Nalli Kalli classroom at GUPS, D. Antapur.</p> <p>Note:</p> <ul style="list-style-type: none"> • In Nali Kali room no. 2 there are spelling mistakes on the wall paintings, instead of the word “vehicles” it is written as “vehicls”, instead of “Neck” it is written “Nick”, Body Part heading in English was missing which was there in other rooms. • In many English words upper and lower cases were used within same words inappropriately, this will lead to generate wrong language concept among children. • In other school in Nali Kali rooms in word learning section – fruits, animals those words are written in English but in this school it was not written in English thus the teacher has to get involved • In Nali Kali rooms there were dust, maintenance was not up to the mark, especially the room on the first floor Due to storage of materials some of the wall art is not visible. 	<p>High</p>



Walk the talk

Shri Alla Baksh is working in GUPS, Kodalu for last 15 years. He is MA in English and in Hindi and BEd. from IGNOU. He said that with colorful art work retention level has improved among children. He gave example of song, when someone listen to a song by own interest he loves to listen and sing that song spontaneously and in the same way when a child learns by own self looking at the colourful picture they learn spontaneously and remember. Earlier the classrooms had white washed walls where art work, chart papers was put up to teach the children. Now the wall paintings are permanent exhibit. Despite being able to afford private schooling for his own children, Shri Alla Baksh has got his children admitted to GUPS, Kodalu. He said that if he is not confident of the teaching potential of the school, why will other parents believe in the school. More teachers like Shri Alla Baksh are needed who walk the talk.

Effectiveness <i>(is the intervention achieving its objectives?)</i>	Score:
<p>PS Sultanpur:</p> <p>There is one Nali Kali classroom in primary school Sultanpur. Wall painting was done in this room. ECPL also provided 40 mini chairs, 5 round tables for Nali Kali class room. This has created good learning environment. Also the parents who are interested to send their children to private schools while seeing the well furnished school with modern arrangements think of sending their children to local government school instead of expensive private schools.</p> <p>The findings are similar to that found in Nalli Kalli classroom at GUPS, D.Antapur.</p>	<p>High</p>



Impact (<i>what difference does the intervention make in terms of indirect, secondary and potential consequences</i>)	Score: High
Assessment team found that students were conversant with learning material painted on the wall. While it would be wrong to credit the improvement in learning of the Nalli Kalli class students on wall paintings alone, the learning material painted on the wall helps. Students reported that they love writing on wall black boards with chalk. With a stick in hand senior children in class do the role play of teacher with the wall art acting as teaching learning material. The wall painting also provides vibrant atmosphere to the classroom and improves attendance.	
Efficiency (<i>How well are resources being used?</i>)	Score: High
The motifs to be drawn on the walls was well thought through and related to the Nalli Kalli syllabus. The school teachers were involved in finalizing the themes which will be painted on the walls. ECPL brought in expert wall artists to finalize the murals. It may be mentioned that the wall paintings done in 2021-22 are much better in quality than the ones done in 2019-20 (at GUPS, Torangallu)	
Sustainability (<i>Will the benefits last ?</i>)	Score: High
The wall paintings need minimal maintenance and will serve the school for many years.	

Overall Assessment

The wall paintings have been effective in making the Nalli Kalli methodology effective in the classroom. Not only the children learn from the motifs on the wall the classroom is a colourful and welcoming place. The wall blackboards are the personal spaces of children in the classroom to write and express themselves.

OVERALL SCORE

HIGH



Wall board in Nalli Kalli classroom in primary school, Sultanpur



