



IMPACT ASSESSMENT STUDY ON KUDANKULAM NUCLEAR POWER PROJECT CSR PROGRAMS

Conducted by Participatory Learning Action Network &
Training (PLANT)



Contents

1. Acknowledgements	6
2. Acronyms	7
3. Executive Summary	8
4. Introduction	9
5. Background	10
6. Objectives of KKNPP CSR Programs	11
a) Education and Early Childhood.....	11
b) Health Care	11
c) Social Development.....	11
7. Impact Indicators	11
8. Users of the Study	12
9. Location and Coverage Area.....	12
10. Methodology of the Study.....	13
a. Generic Challenges In Assessing The Impacts Of Multiple Projects.....	13
b. Evaluation Design and Methods of Data Collection	13
11. Findings.....	15
A. Segmentation and Program Spread	15
B. Program Partners.....	17
C. Sustainability : How Sustainable are these Development Programs.....	17
D. Program Implementation Effectiveness	18
E. Resource Utility Rate.....	20
12. Overall Outcomes	20
I. Education Materials.....	20
II. Social Infrastructure Development Programs.....	21
III. Early Childhood Development Programs (Anganwadis)	21
IV. School Infrastructure Development Programs	21
V. Community Health Development Programs.....	22

13. Key Learnings	22
14. Recommendations	24
15. Individual Assessment Reports.....	25
A. Education Materials (Computers / Laptops).....	25
1. Program details	25
2. Felt Need and Selection of Program	25
3. Quality and Quantity of Development Tools (Desktop Computers and Laptops)	26
4. Rate of Utility	26
5. Impact Indicators.....	27
6. Assessment Methodology	27
7. Program Sustainability (continuation possibility)	27
8. Impact Indicators Analysis.....	28
9. Overall Findings.....	30
10. Key Learnings	31
11. Recommendations	31
12. Photographs	31
B. Education Materials (Solar lamps and Note books).....	32
1. Program details	32
2. Felt Need and Selection of Program	33
3. Quality and Quantity of Development Tools (Solar Lanterns and Notebooks).....	33
4. Rate of Utility	33
5. Impact Indicators.....	34
6. Assessment Methodology	34
7. Program Sustainability (continuation possibility)	34
8. Impact Indicators Analysis.....	34
9. Overall Findings.....	35
10. Key Learnings	35
11. Recommendations	35
12. Photographs	36
C. Social Infrastructure (High Mast Light and RTO Infrastructure).....	36
1. Program details	36
2. Felt Need and Selection of Program	37

3.	Quality and Quantity of Development Tools (High mast light and RTO Facilities)	37
4.	Rate of Utility	37
5.	Impact Indicators.....	38
6.	Assessment Methodology	38
7.	Program Sustainability (continuation possibility)	38
8.	Overall Findings and Impact Indicators Analysis.....	39
9.	Overall Findings.....	40
10.	Key Learnings	40
11.	Recommendations	41
12.	Photographs	41
D. Community Health Program (Government Hospital / Garbage Collection Vehicle)		41
1.	Program details	41
2.	Felt Need and Selection of Program	42
3.	Quality and Quantity of Development Tools	43
4.	Rate of Utility	44
5.	Impact Indicators.....	44
6.	Assessment Methodology	44
7.	Program Sustainability (continuation possibility)	44
8.	Impact Indicators.....	45
9.	Overall Findings.....	45
10.	Key Learnings	46
11.	Recommendations	46
12.	Photographs	46
E. Early Childhood Development Program (Anganwadis)		47
1.	Program details	47
2.	Felt Need and Selection of Program	48
3.	Quality and Quantity of Development Tools	48
5.	Impact Indicators.....	49
6.	Assessment Methodology	49
7.	Program Sustainability (continuation possibility)	50
8.	Impact Indicators Analysis.....	50
9.	Overall Findings.....	51
10.	Key Learnings	51

11. Recommendations	51
12. Photographs	52
F. Education Infrastructure Programs	52
2. Program Felt Need	54
3. Response and Assets	54
4. Rate of Utility	55
5. Assessment Methodology (Proportionate random sampling)	56
6. Program Sustainability	56
7. Impact Indicators.....	57
8. Achievement Analysis.....	58
9. Learnings.....	59
10. Recommendations	59
11. Photographs	60
16. Conclusion.....	60
17. Annexures	61
Annexure 1 - Impact Assessment Form	61
Annexure 2 - List of 33 Programs	62
Annexure 3 - Program Implementation.....	63
Annexure 4 - Program Sustainability.....	64
Annexure 5 - Program Utility Rate	64
Annexure 6 - Social Infrastructure Programs – Survey	65
Annexure 7 - Community Health Programs – Survey	66
Annexure 9 - School Materials Programs – Survey (Others)	68
Annexure 10 - School Materials Programs – Survey (Computers/Laptops)	69
Annexure 11 - Early Childhood Programs -Anganwadis – Survey	70
Annexure 12 - Overall Assessment - Anganwadis – Survey	70
18. Bibliography	71
1. Corporate Social Responsibility Annual Report 2012-13.....	71
2. Rapid Environmental Impact Assessment of Proposed Nuclear Power Plant (Units 1 & 2),	71

Kudankulam, T.N.	71
by National Environmental Engineering Research Institute Nehru Marg, Nagpur 440020 (India) May 2002	71
3. Inauguration of Additional Class Rooms & Toilet Facility at Sivasubramaniyapuram Village... www.npcil.nic.in/pdf/news_12nov2013_01.pdf.....	71
4. KKNPP - CSR ACTIVITY Yacobpuram School Building.....	5
www.npcil.nic.in/pdf/news_17june2013_02.pdf.....	71
5. KKNPP CSR Activity at Hindu Arulnery middle school	71
www.npcil.nic.in/pdf/news_18april2013_01.pdf.....	71
6. KKNPP - CSR ACTIVITY at Radhapuram on.....	71
www.npcil.nic.in/pdf/news_19jul2013_01.pdf.....	71

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It is hoped that this report furthers the impact of all CSR initiatives of KKNPP and their efforts to engage the local community towards cooperation and goodwill.

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2. Acronyms

CSR	Corporate Social Responsibility
ECG	Electro Cardiogram
HR	Human Resources
ICDS	Integrated Child Development Scheme
KKNPP	Kudankulam Nuclear Power Project
KM	Kilometer
Lab	Laboratory in School
NEERI	National Environmental Engineering Research Institute
NGO	Non-Governmental Organization
NPCIL	Nuclear Power Corporation of India Ltd
PLANT	Participatory Learning Action Network & Training
PHC	Peripheral Health Centers
PSU	Primary Sampling Unit
RO	Reverse Osmosis
RTO	Regional Transport Office

3. Executive Summary

The Kudankulam Nuclear Power Project (KKNPP) has initiated various CSR-related development programs for the communities within 16 km radius of the plant. The need identification and baseline study on development requirements have been carried out much earlier along with other feasibility baseline surveys conducted for KKNPP by NEERI. It had been decided that there were many critical needs for the local communities in education, health, economic and social areas, and that it was impossible to address all needs by KKNPP alone. The following CSR strategies were adopted to address these needs:

1. Strengthening existing government institutions
2. Partnering with Local Administration and Village Panchayats
3. Supporting independent social institutions
4. Providing basic amenities and infrastructure for the communities as a first step

Also, it had been decided that these programs will be deployed over phases to Study, Observe, Assess and Learn, which was the best intervention program type and incorporate improvements as they went along. Hence, the CSR activities were positioned as development in process rather than one-off charity projects. So, the first set of 18 CSR programs (33 project sites) deployed was based on priority needs, during 2012-2013 period.

On completion of the first phase, an impact assessment on the development programs was carried out during June 2014 with the partnership of PLANT, an independent, social research organization. This organization was chosen based on their expertise to work with other CSR programs of NPCIL, including MAPS. The objective of the assessment was to find "best practices and innovations", to draw lessons for the implemented programs across all need areas, to provide options for the future deployment of the CSR programs of KKNPP and to identify areas where improvement may be necessary to enhance impact.

Further, the study was to provide a qualitative and quantitative assessment and analysis of the processes and resulting impact of the programs as per CSR objectives. The techniques of data collection included Focus Group with beneficiaries, structured questionnaire, in-depth interviews and visits to all 18 CSR programs (33 projects sites) and deployment partner locations in villages.

The assessors carried out physical study at every site of 18 CSR programs across the villages in Radhapuram Taluk of Tirunelveli District. These visits included education institutions, Anganwadis, Village Panchayat Offices, hospitals and RTO. There were repeated visits made to several programs to validate the findings and eliminate observation errors. In each province, the samples were selected independently, including partners, administrators, beneficiaries, parents and local communities.

As a whole, it has been found that these programs are selected based on the needs of the local communities and the program design was flexible enough to accommodate changing situations and longer development needs, especially in child care, health care and school education. The programs across health care and educational facilities have increased the scope of developing young children. This meant, the whole community took a step towards improving quality of life in days to come. Overall, these programs have reached out to the intended beneficiaries and created an appreciable goodwill towards KKNPP barring a few exceptions. The study concluded that the implementation of the CSR programs were quite effective.

4. Introduction

The CSR Programs of KKNPP were designed to meet the requirements of the local communities through the Schools, Colleges, Government Hospitals, Anganwadis and Local Administration, within a 30km radius around KKNPP. The choice of these program partners were such that they supported and enabled those partners who work among the needier communities around Kudankulam. The objectives of these CSR programs therefore, were to address the needs felt by the local communities across Child Care, Education, Community Health Care and Social Development. These developmental programs were carefully chosen to strengthen and empower the existing partners and offered development opportunities for local communities for better health care, education, child care and social development, within the Radhapuram Taluk of Tirunelveli District.

After the completion of the first phase of project implementation (2012-2013), the CSR department of KKNPP is purposed to incorporate the learnings from the implementation of the first phase programs. Hence, an external research agency M/s. PLANT was selected to carry out this impact assessment and submit the learnings from implemented projects.

The time given for this assessment study was limited to 45 days (June-July 2014). The study tried to capture the essence of program impact within the given period. This report is the outcome of the study.

The objective of this exercise was to draw lessons from these programs to enable the CSR team of KKNPP to provide options for design and development for the future CSR developmental programs and to identify areas in which improvements would be necessary to enhance its impact.

From the interviews and field visits the impression gained is that both KKNPP staff and local government and others partners have put in a great deal of effort to improve educational, health and social development around KKNPP where the impact study was conducted.

5. Background

The Radhapuram Taluk of Tirunelveli district, has many villages which are underdeveloped and economically backward. There are a large number of students studying across schools located in the local communities. However many such schools lack basic amenities and are unable to provide quality learning to these children from an underprivileged background. Also, they are unable to compete with the other elite students from city schools as the knowledge and skill in computers is a major drawback. The schools are not equipped with computers or laptops to teach them computer skills thereby reducing their competitive edge. There is also a lack of good class rooms, lab facilities and basic learning tools like note books which has placed these students in a disadvantageous situation. Hence there is an urgent requirement for them to have good infrastructure facilities and computers and laptops.

Secondly, early childhood development is a major concern in these areas as both parents are compelled to work full time to meet their daily financial needs forcing their young kids to be on their own. The government-run ICDS program has been of great support to such kids but lacks tools and materials to support these centers.

The poor socio-economy status also results in health issues and the only free facility availability is that of the government hospital, which is in need of essential diagnostic and treatment equipment. Also, there are needs within the local community across various aspects like the RTO which need to be addressed. As the RTO is far away from local communities and lacked basic amenities like a waiting shed and cover over payment counters, it resulted in clamor for cover during the hot summer. The under-lit and garbage-filled streets added to the hygiene problems of Kudankulam.

With these felt needs of the local communities around KKNPP, the CSR team came up with Development Intervention programs across these major areas - Education, Early Childhood, Health Care and Social Development. In the period of 2012-2013, there were 18 CSR development programs (33 projects sites) that were determined and implemented in partnership. They were classified into 5 major development programs, across schools, ICDS, Hospital, College and Government agencies like RTO and Panchayat.

6. Objectives of KKNPP CSR Programs

Based on the segmentation of the programs the objectives are classified under each of these broad categories:

a) Education and Early Childhood

1. Improve academic performance overall and in particular in the annual passing out exams.
2. To enhance the school environment and infrastructure facilities to improve the quality of learning for children studying in various Government and Tamil medium schools, which cater to underprivileged communities.
3. To enhance the knowledge of computer education and technology to students in various schools catering to underprivileged communities.
4. To improve the overall attention rate and strength of the partnering schools.
5. To improve the overall safety of the children in schools.
6. To improve the quality of child care given through anganwadi units of the ICDS program.

b) Health Care

1. To improve the quality of diagnosis and treatment at the Government Hospital.
2. To improve the hygiene and cleanliness within the local community of Kudankulam village.

c) Social Development

1. To support the local government agencies (RTO/Panchayats) to improve the quality of service to local communities.
2. Improved safety of local community after dark.

7. Impact Indicators

- 1) To assess the extent to which these programs have:
 - a) Enabled children to continue their education and excel in their exams
 - b) Helped improve attendance and overall improvement in school strength
 - c) Improved computer knowledge and skills of children

- d) Increased qualitative child care and early childhood development
- e) Improved health care provided by the Government Hospital
- f) Improved community hygiene and provided a clean and safe environment
- g) Improved quality of service by RTO

2) To review the lessons learned from the process of program implementation and prepare a comprehensive summary of the results compared with the goals and objectives outlined in the program document.

8. Users of the Study

- a) The Site Director, Kudankulam Nuclear Power Project (KKNPP)
- b) The CSR Committee KKNPP
- c) R&R Directorate at Nuclear Power Corporation of India Limited (NPCIL), Head Quarters.

The study will also be used for preparation of a comprehensive report by KKNPP to NPCIL and will be used to strategize for the future road map of the CSR strategy for KKNPP.

9. Location and Coverage Area

The location and coverage of all CSR initiatives are well planned and cover most of the immediate radius to derive most impact for KKNPP to create goodwill and cooperation among the local community. The choice of programs is inclusive in nature and covered a wide range of partners and beneficiaries. The given map shows the overall coverage within two definite ranges of 10 and 16km having the KKNPP plant as the mid-point.

The nearest program is the social infrastructure program of the high mast

light and the garbage collection vehicle within 2km of the plant and the farthest is the Valliyoor RTO infrastructure program for communities living within a 16km radius.



10. Methodology of the Study

a. Generic Challenges In Assessing The Impacts Of Multiple Projects

It is useful to start by thinking about the nature of different types of developmental projects and ways in which they may differ from homogeneous initiatives in terms of having uniformity. Their distinguishing features also have important implications for evaluation design and methods, as well as for data requirements.

The heterogeneous nature of this impact study spans five major categories of development programs:

- I. Social Infrastructure Development
- II. Education Infrastructure Development
- III. Education Materials
- IV. Early Childhood Development
- V. Community Health Development
1. Derived and Conditional Benefits of Social and Education Infrastructure Programs

The first distinguishing characteristic is that their prospective benefits — whether positive or negative — are derived and conditional. One does not obtain utility directly from a high mast lamp or a waiting shed at the RTO or a school building, but indirectly via the rate of increased utility and safety that it allows. In the same way the nature and extent of impact are also likely to be heavily dependent on interactions with other social and physical infrastructure, and the geographical area, with community and students characteristics of where they are located.

Thus a large number of factors can be expected to interact with infrastructure intervention programs in determining what impact it has on its intended beneficiaries, as well as the environmental factors in evaluating the same.

2. Dispersed Effects on Multiple Outcomes

A second challenge is that of the infrastructure-based development programs that are widely expected to have dispersed effects on numerous outcome variables. The sorts of benefits the social interventions viz infrastructure, health and safety programs like garbage collection auto or a solar lantern could conceivably have on household/community impacts on overall outcome, that extend beyond the target beneficiaries. Hence the traditional evaluation method that uses a single data point cannot be relied upon. This challenges conducting a worthwhile evaluation without adequate baseline (pre-intervention) data. Hence, a variable approach has been applied to collect quantitative and qualitative data from various linkages with collateral benefits.

b. Evaluation Design and Methods of Data Collection

What are the implications of the foregoing discussion of multiple intervention features for evaluation design and data collection?

1. Evaluation Methodology

Single difference comparisons can be either reflexive (before and after) comparisons that track gains solely in program areas, or with and without comparisons that take single differences in mean outcomes between participants and non-participants using cross-sectional data. The reflexive comparison is able to separate the school impact, but with and without changes best explains the impact of social infrastructure projects.

2. Deciding what data is needed (Outcome variables)

As noted, these can be numerous. How many outcome variables an evaluation focuses on depends in large part on the objectives of the evaluation, which will be setting and project specific. One option is to focus on a single development or increased service consumption or increased school strength, assumed to encompass and reflect the net effect of myriad factors. Where there are large number of beneficiaries, overall outcome is established but the depth of individual benefit (due to personal factors) cannot be measured and do not contribute to the overall learning. Such data was done through proportionate random sampling and well-trained interviewers.

3. Beneficiaries and the unit of analysis for measuring benefits

Beneficiaries are simply the individuals, households, social firms and communities found within the projects. Impacts can be measured for any one or more of these beneficiary groups. The choice depends a lot on the objectives of the programs and of the evaluation, and on the constraints on data availability. For example, data and analysis can focus on community level variables if one is solely interested in assessing whether improved garbage collection leads to better health at community level. Alternatively, if the focus is on whether the solar lantern results in improved pass percentage, then individual level data will also be required.

4. Collection of the data (Data sources)

Various pre-existing data sources (student strength, pass percentage, increase in service, reduced incidents of health issues and other socio-economic secondary data (demographic, educational, geographic, occupational, and other inventories) were utilized for this study. The sampling is done with the idea to provide sufficiently flexible data for the purpose of the evaluation. Furthermore, this ensures that the survey can be replicated for follow-up in the future. In certain programs, the before and after scenario of comparative study has been used to arrive at the effectiveness of the program and re-confirmed with feedback and structured inter-view with end users.

Collecting qualitative information could be useful in a case like waiting shed for RTO or the street light program, and such cases. For example, focus group discussions with transport operators/vehicle owners may be one way of getting perspectives on how the RTO/lighting improvement has altered the situation from the point of view of service providers. Qualitative data from unstructured interviews can be of considerable use in interpreting and understanding the underlying and intermediate processes that explain final impact, as well as to inform the design and content of the quantitative survey instruments. So, for best result, it is necessary to combine qualitative and quantitative data and data collection methods in the context of impact evaluations.

5. Sampling and Sample Size

The precision of impact estimates (their standard errors) will depend on both the sample size and the design of the sampling. Two stage sampling is the norm. It includes samples from geographic locations such as school/hospital – called the primary sampling units (PSU) – within the overall program area/institution defined as the area within which the individual student/patient is expected to have impacts.

6. Evaluation Timing

The evaluation needs to start as soon as possible, in 6 to 12 months' time after the implementation of the program as the education materials come with shelf life and the wear and tear of materials as in case of Anganwadis, to convincingly capture the impact. Much of the evaluation-related work will be concentrated in a few months at the beginning and end of the program. The data collection will also take place at the beginning and end of the program, with a possibility of an additional survey being fielded sometime earlier in the post-intervention period.

7. Implications for Data

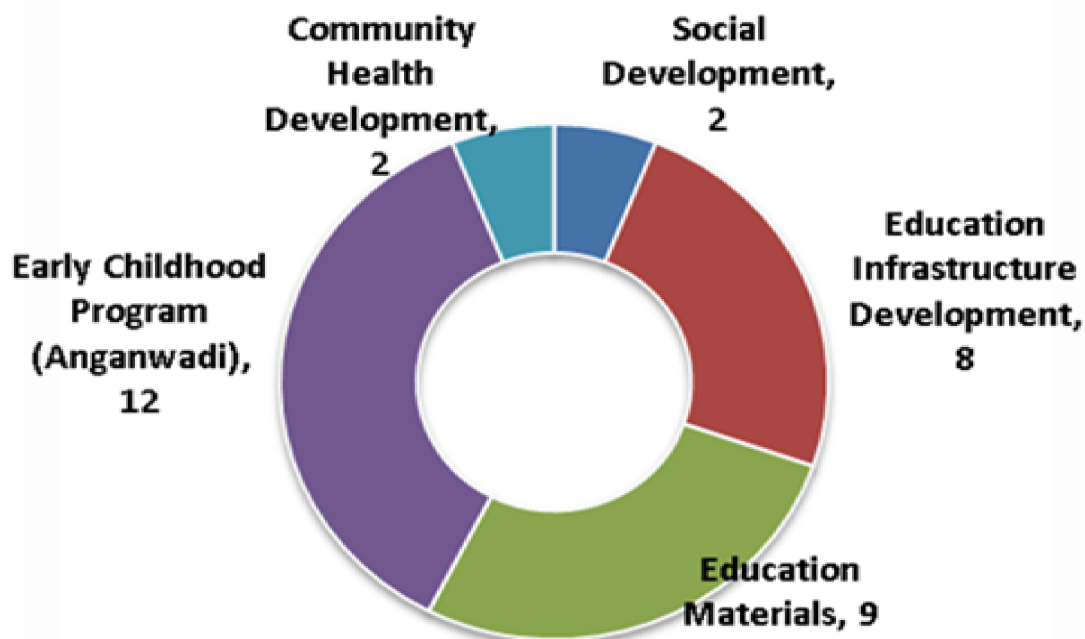
A credible multipurpose social programs impact evaluation will require pre-intervention baseline data. This will need to be available for both project and non-project areas that resemble the project areas to enable creation of an appropriate counterfactual. In order to further control — whether by means of a regression or a matching model — for initial conditions that may have led to placement as well as outcomes, one will need detailed information of baseline attributes that potentially influenced selection into the project as well as appropriate controls for exogenous time varying factors. The data should also contain a set of outcome indicators of interest, controls for heterogeneity, and data that allow one to differentiate between beneficiary groups (Garbage collection area vs other places and Radhapuram Govt Hospital vs Govt Hospitals in another area). There are tremendous gains from data that is specifically designed and collected for the evaluation.

11. Findings

A. Segmentation and Program Spread

The intervention programs have been segregated into 33 individual projects (18 CSR Programs) across 5 major areas of needs as below:

1. Social Infrastructure Development
2. Education Infrastructure Development
3. Education Materials
4. Early Childhood Development
5. Community Health Development



The table below gives a clear spread of all the 33 individual programs implemented and assessed as part of this study, across these 5 areas. All 33 individual projects categorized are spread around the KKNPP within a 16km radius.

#	Program Name	Location	Assests / Infrastructure/Material
SOCIAL INFRASTRUCTURE			
1	Kudankulam Village	Radhapuram, Kudankulam	High mast lstreet ight
2	RTO office, Valliyur	Valliyur	Waiting shed, watch shed, roofing for payment counter
COMMUNITY HEALTH			
3	Government Hospital	Radhapuram	Essential Hospital equipments
4	Kudankulam Village	Radhapuram	Garbagecollection auto
EDUCATION INFRASTRUCTURE			
5	TDTA Govt. Aided School	Yacob Puram, Valliyur	Class Room Building
6	Arul Neri Middle School	Chidambaram Puram, Valliyur	Class Room Building
7	Sri Mutharamman Primary school	Siva Subramaniam Puram, Valliyur	Class Room Building
8	Tirunelveli Dakshina Mara Nadar Sangam College	Kudankulam, Radhapuram	16 Nos. of Cement Benches
9	Government Higher Secondary School	Kudankulam	20 desks and bench, 25 Lab Table, 50 sitting stools
10	Government Higher Secondary School	Kudankulam	Generator
11	Sri Kanya Gurukulam Ashram	Palavoor	Roofing for generator, open shed
12	Sri Kanya Gurukulam Ashram	Palavoor	RO Plant
13	Sri Kanya Gurukulam Ashram	Palavoor	3295 note books for 130 children
EDUCATION MATERIALS			
14	Concordia Hr Sec School	Vadakkankulam	20 nos. of solar Lanterns
15	Government Hr Sec School	Kudankulam	98 nos. of solar Lanternsn
16	Baliah Marthandam Higher Sec. School	Avaraikulam	341 nos. of Solar Lanterns
17	Hindu Higher Secondary School	Kannankulam, Levenchipuram	41 nos. of solar Lanterns
EDUCATION MATERIALS - COMPUTERS			
18	Baliah Marthandam Higher Sec. School	Avaraikulam, Valliyur	20 computers
19	St. Anne's Primary School	Rajakrishnapuram, Valliyur	6 computers
20	St. Anne's Hr. Sec. School	Rajakrishnapuram, Valliyur	4 computers
21	St Mary's High Sec School	Uvari, Radhapuram	55 laptops
ANGANWADI ASSETS			
22	All Anganwadi Units	Kudankulam (Melur)	One set of the below materials given for each of the 12 units:
23		Kudankulam (Naduvloor)	Water Filter -1
24		Kudankulam (Keezhur)	Office Steel Almira-1
25		Gandhi Nagar	Office Steel Chair-1
26		Indra Nagar	Office Steel Table-1
27		Ambedkar Nagar	Shoe Stand-1
28		CSI Street	5 KG Vessel-1
29		Periyavar Nagar	2 KG Vessel-1
30		S S Puram	Plastic Mats-5
31		Vairaavi Kinaru	Drinking Glasses-30
32		Madha koil Street	Eating Plates-30
33		Vijayapathy	Plastic Chairs-30

B. Program Partners

The program partners are spread across the education and health sectors, and include government institutions and private social organizations.

1. Schools and College

There are 11 schools and one college across the Radhapuram Taluk area, identified for this program. These schools are located with 2-15km radius around KKNPP. The choice of schools has been made keeping the beneficiaries, who are from very needy communities, mostly government-aided schools that lacked amenities like Class rooms, Toilets, Seating facility (college), Power back-up, Lab facilities, computer labs, note books and drinking water facility. As a strategy, the KKNPP picked these schools that were losing students due to lack of infrastructure and quality of teaching.

2. ICDS Units

These are early childhood development program units run by government to address the need for parents to look after their young children as both, work through the day and are unable to take care of children who are 1-5 years old. However, these units were found lacking in the quality of service delivered and require support from outside to develop valuable child care and a stimulating development environment.

3. Village Panchayat

The local administration of Kudankulam village, could not afford to own a garbage collection vehicle which was critical to keep the streets clean and healthy. Also, after dark became a safety hazard for the community as the street lighting was inadequate.

4. The RTO

The RTO is located well outside the community at Valliyoor, and during the hot summer, it has become a stress for the local community to avail the services of the RTO as there is no shelter for them as they wait to get their driving licenses and register their vehicles. Hence, it has been chaotic to serve the community on the RTO campus.

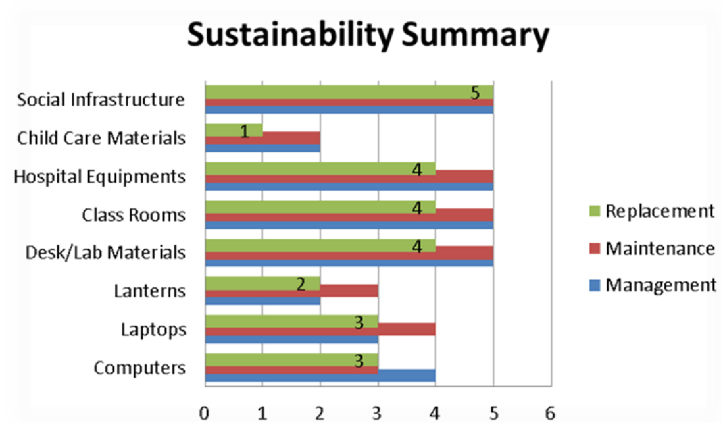
5. Government Hospital (Radhapuram)

The Government Hospital at Radhapuram is the referral hospital for PHCs catering to patients from all villages in the Radhapuram block. However, the lack of essential equipment prolonged the treatment time for patients, bringing down the quality of service.

C. Sustainability : How Sustainable are these Development Programs

(Rating Scale: 5 –Best sustainable, 4-To a large extent, 3- To some extent, 2-Partially, 1-Not Sustainable)

These programs have facilitated the revitalization of local community aspirations through these multiple development programs in partnership with Schools, College, Hospitals, Government Agencies and Administrators. The overall outcomes across these 33 project sites have generated hope for a progressive future among



program participants. Communities have also benefited in the process. Participation in these programs has contributed to enhance self-esteem, pride, enhanced education, safety and social betterment.

Thus, barring a few programs (like lantern and notebooks) maintaining and sustaining these programs and facilities were vital for the increased benefit of local communities.

Assessment experiences indicate the popularity of these programs and the interest generated in the local communities, has created a fresh perspective and the long term progress that could be achieved through partnership with KKNPP CSR programs.

The sustainability of each program is assessed across three major sustainability criteria:

1. Management (leadership)
2. Maintenance
3. Ability to duplicate or replace the solution

The nature of multiple programs and multiple partners has best fitted these criteria.

As expected, the three sustainability factors are intertwined and directly proportional, and a pull or push in one area affects the other two. Interestingly, the asset-based social infrastructure programs (RTO facilities/high mast light) and health care programs (Govt. Hospital/Garbage collection vehicle) are bestowed with the best rating as the partners chosen for these programs demonstrate a high degree of motivation, are committed to the cause and have directly taken charge of the day-to-day management of these programs.

The bottom of the stack is occupied by the Anganwadi units, not from a need perspective but from the management perspective, thus throwing the paradoxical element of need and sustainability as not coupled. The absence of strong leadership and program management has pulled down the sustainability rating to the bottom.

The other areas are relatively better placed with school infrastructure programs (School Building, RO Plant, Power Generator, etc..) being placed above the school materials like computers, laptops and lanterns.

D. Program Implementation Effectiveness

(Rating Scale: 5 –Best Implemented, 4-To a large extent, 3- To some extent, 2-Partially, 1-Need Improvement)

The implementation of the diverse programs across varied types of partners required different criteria for implementation framework. The implementation challenges for an infrastructure development project like building a new school building and the distribution of the solar lanterns to children clearly follow a different set of implementation process.

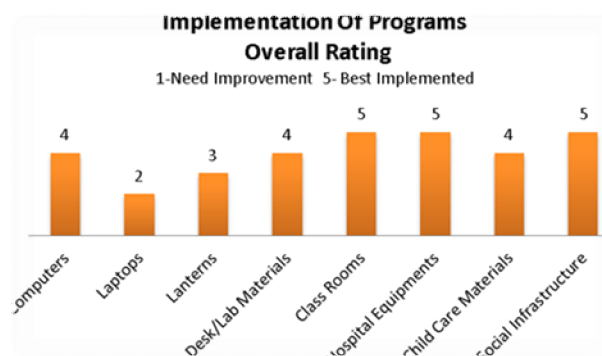
The general components of implementation process for the program implementation included:

- Field visits by the KKNPP CSR staff to local community and partner office
- Activity reports by program partners

- Evaluation of implementation work by partners
- Periodic program implementation reviews and completion reports

However, this study highlights the common facets of program implementation across these programs to bring out generally accepted generic guidelines and commonalities in any development program implementation. This rating is based on those aforementioned criteria of :

1. Implementation timeline
2. Partner Capacity
3. Ownership by Local community (see Table).



There are few implementation issues experienced as most of the programs are based on the felt needs of the society. Implementation of social infrastructure development, educational infrastructure development and health care development programs have got the top billing from an implementation perspective.

The St Mary's school partner in Uvari could have pro-actively managed the laptop distribution program. There was a minor disturbance by local community, which was later successfully managed and the laptops are given to all the students.

Also, the program ownership was observed to be at a lower level for Early Childhood Programs (Anganwadi program). As a result, the goal of strengthening the multi-sectorial coordination and cooperation between parents, staff and scheme officer for these Anganwadi units requires considerable improvement.

Implementation Of Programs				
Dev Areas	Overall rating	Implementation Timeline	Positioning for Local Support	Partner Ability to Lead
Computers	4	4	5	4
Laptops	2	2	1	3
Lanterns	3	2	4	3
Desk/Lab Materials	4	5	5	5
Class Rooms	5	4	5	3
Hospital Equipment	5	5	5	5
Child Care Materials	4	5	4	4
Social Infrastructure	5	5	5	5

E. Resource Utility Rate

(Rating Scale 5-best, 4-Optimum, 3-Partial, 2-Poor, 1-Not used)

The utility rate for all the 33 programs across the intervention areas studied, have found to be, largely, very effective and at 100% utilization rate with very few exceptions. The utilization rate was arrived at after studying the utility records of the assets, materials and the program impact indicators.

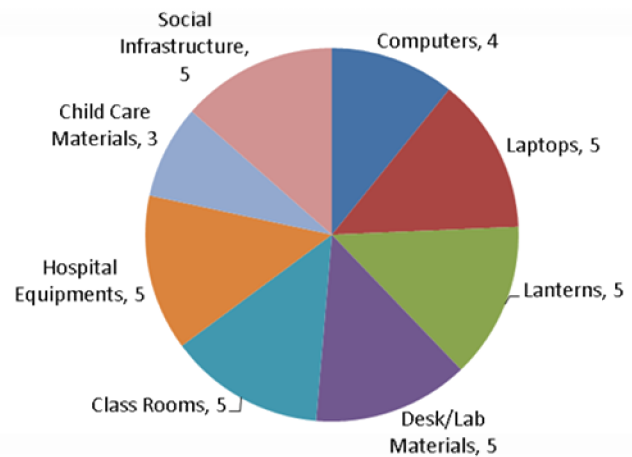
The social infrastructure program at the RTO, Kudankulam village and the health care program at the government hospital and garbage collection vehicle have been utilized to the maximum and greatly appreciated by the partners and the local community

The education materials like solar lanterns, note books, lab materials, desks and benches have been found to be fully utilized and serve the objectives of the program.

While the utility rate for class room infrastructure has been very effective and created an enhanced quality improvement, the same is expected to increase further, once the TDTA School gets the pending approval for High Sec classes.

In the same way, the laptops and computers have been a great source of value addition and fully utilized by all the partners/students to derive the intended outcome fully.

The Anganwadi materials have been used with a varied utility rate across the 12 centres. While the materials are used in general, the demand has lessened due to reduction in number of beneficiaries. Thus the supplied materials exceeded demand pulling down the utility rating. And in all 12 units the water filter is damaged and out of use for over 6 months. Also, normal wear and tear has been observed in some cases.



12. Overall Outcomes

I. Education Materials

- i. There is an overall increase in the pass percentage of computer course students across all four partners of computer skills development program
- ii. As an outcome, there is a sustenance and increase of strength in computer science course as a career stream
- iii. The computer lab and laptop materials provided, has given them an edge to position their brand value for these partners and as a result, there is an increased strength witnessed during this year
- iv. The overall strength of these schools has seen increment owing to new and better infrastructure

- v. The solar lamps for the students have helped them to beat the power cuts during night time to complete their homework and studies, resulting in an improved overall academic performance in annual/ Board exams
- vi. The use of solar lamps have greatly improved overall safety at night for each of the 500 students from under privileged communities, studying in government and government-supported schools
- vii. The notebooks given to 130 orphan kids at Sri Kanya Ashram has improved their academic performance and learning quality
- viii. There is a growing goodwill and vocal appreciation of these initiatives by KKNPP and there is an ever-increasing expectation voiced during the assessment visit on their continued engagement

II. Social Infrastructure Development Programs

- i. Due to high mast lighting, the usage of streets after dark has increased, enabling better people movement and quality of life in Kudankulam village
- ii. There is an overall increase in safety for public and the law and order situation after dark. as a result of better lighting
- iii. The quality of service experienced by the local community at RTO, Valliyoor has exponentially increased due to the infrastructure facilities provided by KKNPP. The RTO has significantly raised the profile of the facility and invites people in rather than turning them away

III. Early Childhood Development Programs (Anganwadis)

- i. The overall quality of service has improved with the utilization of materials in each of these 12 Anganwadis
- ii. The rate of impact of the program differs from centre to centre as there are many other interacting parameters like infrastructure, competition and staff availability that contribute to the development
- iii. However, there is a profound appreciation for KKNPP partnership in helping the ICDS units to use essential materials to serve the children better. For example, the individual chairs, plates and water glasses have reduced the incidents of hygiene issues and improved the quality of service
- iv. Centres having inadequate staff (either cook or a care giver) fared poorly
- v. Centres which have their own building have a better quality of service
- vi. Care givers who are on permanent rolls and experienced delivered better service to the children

IV. School Infrastructure Development Programs

- i. The overall learning quality has improved with increased pass percentage due to improved facility and materials given to various school partners.
- ii. The overall attendance of each of the four schools has greatly improved due to the availability of brand new class rooms, lab facilities, generator and other infrastructure.
- iii. The overall strength of these schools has seen increment owing to new and better infrastructure.
- iv. The cooperation and participation of parents- teacher engagement has improved, resulting in better learning.

- v. The cement bench facility at the Tirunelveli Dakshina Mara Nadar Sangam College has improved the ambience, student comfort and the quality of campus social life, resulting in 15% growth in strength in one year.
- vi. The lab facility has been an influence for a 15% increase in the number of students opting for the Science stream in government school at Kudankulam.
- vii. The generator at the school has given uninterrupted power supply even during power outage and has improved student concentration, as the classrooms have become more favorable and the practical classes at science and computer courses could function without any break due to continuous power supply.
- viii. The RO plant at Sri Kanya Ashram School is producing 250 litres per hour of safe water every day for drinking and cooking purposes. A previously recurring cost of INR 40,000 per month is being saved by producing RO water internally. This has considerably reduced any chances of water borne disease and skin problems for the children at the Ashram.
- ix. Owing to the shed, the generator is protected from the elements and starts immediately. The generator is generally in good condition and when run, enables uninterrupted power. The open shed is used as a vehicle parking shed and to store goods.

V. Community Health Development Programs

- i. With the placement of essential diagnostic/treatment equipment in the Radhapuram Government Hospital, there is an overall quality and quantity improvement in diagnosis & treatment for deadly diseases like Dengue Fever, Leptospirosis and Skin diseases.
- ii. The partnership with the government hospital by KKNPP has opened opportunity for the predominantly poor community in and around Radhapuram to avail a quicker diagnosis and quality treatment free of cost.
- iii. The number of referral patients from PHCs in the Radhapuram block has increased resulting in more influx of out-patients and inpatients.
- iv. The addition of Glucometers has enhanced the faster diagnosis and treatment of diabetes.
- v. The multi parameter patient monitor has greatly improved the quality of treatment and reduced the treatment cycle time.
- vi. The garbage collection vehicle provided by KKNPP has made a tremendous impact in the way of waste is being disposed in Kudankulam village, drawing appreciation from local community on this very important public health issue.
- vii. It has created goodwill among the local community of Kudankulam and the local administration as well as KKNPP.

13. Key Learnings

1. There is a wide range of appreciation on the overall impact of the development programs by the KKNPP in partnering with able partners on very essential programs, benefitting the locals directly.
2. There is a suggestion from partners on the need to plan jointly with KKNPP on the most efficient way of implementing the program with maximum acceptance from the local community– as in the case of the St Mary's School, Uvari – a better implementation strategy could have helped to derive most of the intended objectives.

3. The time gap between need identification and implementation of intervention should be realistic to achieve the objectives fully. As observed in the case of providing the solar lanterns, it had taken 6 months for the delivery cycle to be completed from need assessment.
4. Some of the partners can be sensitized to take good care of the developmental assets given by KKNPP, as in the case of St Anne high school, instead of utilizing warranty card for maintenance, they tried unskilled labor for computer maintenance, leading to glitches in the functioning of computer assets. However, the same was resolved after CSR team intervened and corrected the problem, restoring the function.
5. All the school infrastructure project partners are extremely happy about the positive outcome on utilizing the facility. Also, the utility of the new class rooms at TDTA School facility at Yacobpuram will increase more, once the pending approval for higher secondary classes received.
6. The strategy of KKNPP, partnering with government agencies and the local administration to reach out to the local community using the existing system is laudable, but comes with administrative challenges as seen in the case of the Kudankulam panchayat (the present panchayat president is not to function) and the issues in anganwadi administration, which are found to be lacking in decision-making ability and responsibility to sustain and improve the programs sponsored by partnership with KKNPP.
7. It has been observed, that the overall attendance across all the anganwadi units has been dropping. However, the attendance records maintained at all Anganwadi' depict full strength by the workers. This is due to the fear that the unit might be closed if the student strength reduces significantly.
8. According to the anganwadi staff, some of them have still not received allocated material from the ICDS scheme office, as in the case of chairs, plates and other items (only 20 numbers instead of 30). However, the ICDS office has maintained that the all allocated resources were dispersed.
9. The maintenance and replacement of materials do not happen, as in the case of the water filters (The filter candles), which are not being utilized for over 8 months.
10. There are incidents that some of the assets have been kept in care givers' homes, rather than in the office. It is learnt that some of them were brought back to office just before the visit of the Impact Assessment Team.
11. The rented space for few units are inadequate and do not contribute to a stimulating or hygienic environment for early childhood care or child development.

14. Recommendations

1. Addressing critical needs has been a huge start which has also revealed other crucial areas in the bigger picture. Therefore there is a raised level of expectation of KKNP from these village communities and the scope and potential for long term, critical development programs to be built on this foundation.
2. The CSR team has pro-actively educated and took written assurance from beneficiaries to take care of the maintenance of the solar lamps. To compliment this effort, for future programs, we could provide written guidelines on maintenance mechanisms, risk mitigation and Manuel as reference
3. Specific baseline data for each of the program initiatives must be conducted and made available for impact assessment.
4. The frequency of engagement with partners could be increased to interact with new staffs that has been taken over or added at the partner's office, to continue to derive the stability and goodwill for CSR efforts contributed by KKNPP. To cite an example, the Principal of Tirunelveli Dakshina Mara Nadar Sangam College, did not know about the CSR contribution by KKNPP.
5. There is a raised level of expectation of KKNPP from these village communities and the scope and potential for long term, critical development programs can be built on the foundation laid. As schools grow, there will be an escalated need for buildings, furniture and other essential equipment.
6. As strength has increased, the need for increase in infrastructure has escalated significantly in partner schools. For example, sufficient measures are to be taken to proportionately increase the number of computers as enrolments of new students are on.
7. Infrastructure needs could be cost-intensive and therefore, a tripartite discussion with staff, parents and students, even at the planning stage would further strength community ownership over maintenance and usage of the developmental tools.
8. Purely from a qualitative and accountability perspective, partnering with reputed, non-governmental and other independent, social developmental organizations can be explored for future CSR interventions.
9. For the Anganwadi programs, there are multiple shortcomings like inadequate staffing and multiple tasks for existing staff that take away their focus on and availability for child care. Due to inadequate infrastructure, some of the units can be merged with nearby ones or provided with new structures. Local sponsorship for individual units will bring in corporate partnership to sustain the program.
10. Report writing, maintaining registers and visits to ICDS office by care givers take up considerable time. Hence, a computer with an e-mail system can help to reduce manual work and e-tize the reports.

11. KKNPP can play a higher role through partnering on staff development and implementing a structured development program for Anganwadi units, as these units opens an avenue to foster a lasting relationship with local communities.