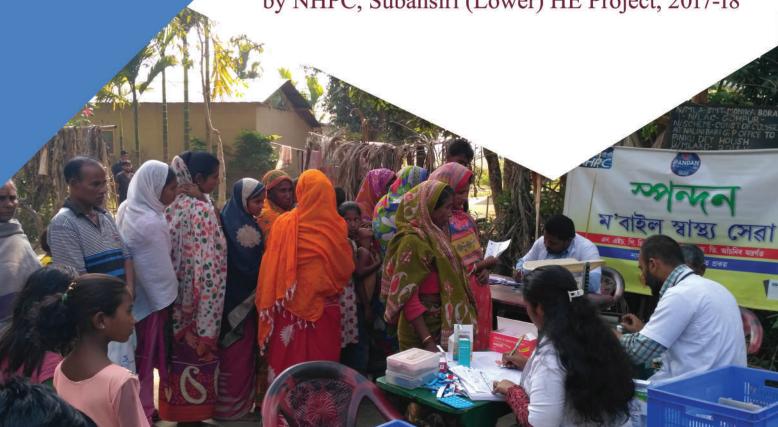


CSR & Sustainability

Evaluation Report of CSR Initiatives by NHPC, Subansiri (Lower) HE Project, 2017-18



Prepared by: OKD Institute of Social Change and Development
An Autonomous Research Institute of ICSSR, New Delhi & Govt. of Assam



Report of the Evaluation of CSR & SD initiatives of NHPC Ltd. undertaken during 2017-18

Prepared by

OKD Institute of Social Change and Development, Guwahati (An Autonomous Research Institute of ICSSR, New Delhi & Govt of Assam)

Author: Dr. Rajib Sutradhar

Study Team: Dr. Saswati Choudhury

Akshay Jyoti Sarma Dr. Joydeep Baruah Dr. Monjit Borthakur

Research Associates/Assistants

Dr. Bipul Kumar Das, Research Associate

Raju Sharma, Research Associate

Dhruba Jyoti Saikia, Research Assistant

Ankur Deka, Research Assistant

Diganta Chakraborty, Research Assistant

Abdul Mazad, Research Assistant Manjul Hazarika, Research Assistant Mrinal Bourah, Research Assistant

Bhim Bahadur Newar, Research Assistant

Layout & Design: Biswa Ranjan Sharma

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NHPC & CSR Socially Responsible Environmentally Sustainable

1. NHPC: A Brief Overview

NHPC Limited, a Government of India Enterprise, was incorporated in the year 1975 with an authorized share capital of Rs. 2,000 million with an objective to plan, promote and organise an integrated and efficient development of hydroelectric power. Later on NHPC expanded its objects to include development of power in all its aspects through conventional and non-conventional sources in India and abroad.

Within less than 4 decades of its establishment, NHPC today is a Mini Ratna Category-I Enterprise of the Government of India with an authorised share capital of Rs. 1,50,000 Million. At present, NHPC is ranked as a premier organization in the country for development of hydropower. With total assets valued at Rs 387,180/ million approx, the Company completed 24 projects that yielded total power of 7097 MW.

Subansiri (Lower) HE Project

Expanding its foot print in the North-East region, NHPC sets up Subansiri Lower HE Project as the biggest hydroelectric project undertaken in the country so far. A run of river scheme on River Subansiri, the Project is located near North Lakhimpur on the border of Arunachal Pradesh and Assam. The nearest railhead is Gogamukh and nearest airport is Lilabari. It is estimated that once completed, the project will yield annual power generation of 7421 MW.

CSR & SD Initiatives of NHPC Ltd

The concept of Corporate Social Responsibility (CSR) in India came to the forefront in corporate governance with the enactment of the Company's Act, 2013 which stipulates mandatory CSR spending for companies with an annual turnover of Rs. 1,000 crores and more, or a net worth of Rs. 500 crores and more, or a net profit of five crores rupees and more (Section 135). Under this act, initiatives under CSR got better defined and streamlined. Following Schedule VII of the Act, CSR Rule has made it mandatory for companies to spend funds stipulated for CSR initiatives under the areas that include eradication of extreme hunger and poverty, promotion of education, women empowerment, gender equity, reduction of child mortality and improvement of maternal health, employment enhancing vocational skills training, and environmental sustainability.

Even prior to the coming of the Section 135, the company was involved in responsible corporate citizenship delivering its social responsibilities as per its sustainable business ethics. With the coming of the Section 135, CSR initiatives got strengthened and more focused. Based on the principle of strong social responsibility, NHPC Ltd. is committed to sustainable development and inclusive growth while taking care of People, Planet and organizational goals/growths. The primary objective of the company's CSR initiatives is to address the social, economic, environmental and welfare concerns of key stakeholders, to adopt green technologies, process and standards that contribute to social and environmental sustainability and to contribute to inclusive growth and equitable development through empowerment of the marginalized and underprivileged communities.

In North-East India, NHPC has been engaged in a number of CSR activities. Major focus of CSR initiatives of the Company include making better provisioning for health care, drinking water and sanitation, contribution to education and empowering the local youth with skill development training.

Monitoring and Evaluation of CSR & SD



Figure 1:1: CSR & SD Administration

At the beginning of the each financial year, the annual CSR plan of is drawn based Company the consultations with the stakeholders. The drawing up plan follows a bottom up approach. Annual CSR plans are prepared at the project levels based on need assessment studies by the CSR team headed by Regional ED/Project Head/Unit Head. The Project level CSR Committee examines the plans and then recommends the final list of initiatives to the Committee of Directors on CSR & Sustainability through the Nodal Officer for approval.

The regular monitoring of the CSR activities has been ensured through Departmental Monitoring Committees (DMC) comprising of 2-3 members at the Projects/Power stations/units. The DMC regularly reports the progress of CSR schemes to the Nodal Officer of CSR & Sustainability. The highest monitoring level is the Committee of Directors on CSR. The independent monitoring and impact evaluation, whenever required, is carried out by external agencies. Accordingly, the company signed a MoU on January 12, 2017 (revised on April 26, 2017) with OKD Institute of Social Change and Development (OKDISCD), an autonomous research institute of Indian Council of Social Science Research and Government of Assam, as an independent agency. The MoU entrusted the responsibility of documentation, monitoring and evaluation of CSR & Sustainability initiatives of Subansiri (Lower) HE Project to OKD Institute for a period three years w.e.f 2017-18. The present report is a part of the documentation and monitoring and evaluation of CSR & Sustainability initiatives of 2017-18.



Figure 1:2: Monitoring Mechanism

CSR & SD Initiatives of NHPC

The CSR & SD initiatives of Subansiri (Lower) HEP during the fiscal 2017-18 can broadly be identified under five major categories –

- 1. providing healthcare services with the popular name "SPANDAN"
- 2. making provision of safe drinking water and sanitation facilities
- 3. promoting education,
- 4. skill development training for unemployed youths belonging to disadvantaged section of the project affected areas and
- 5. Swachh Baharat Abhiyan.

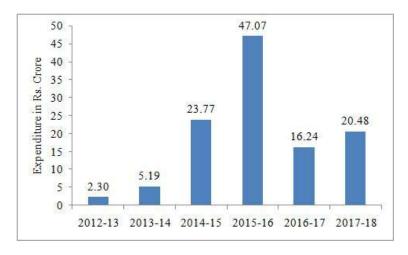


Figure 1:3: Year-wise CSR-SD Fund allocation

As is evident in Figure 1.3, NHPC's commitment towards its social responsibility is well reflected by the increase in allocation for CSR budget, from Rs 2.3 crore in 2012-13 till Rs 47.07 crore in 2015-16,

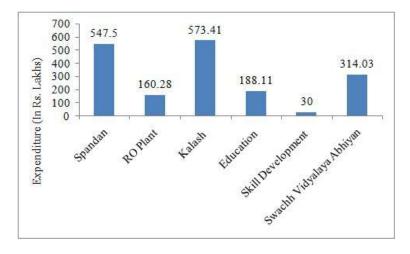


Figure 1:4: Fund allocation on major CSR & SD initiatives

Some broad heading of expenditure on CSR reported by NHPC for the year 2017-18 such as Health and Sanitation and Swachh Bharat Abhiyan include several minor headings, all prepared to address different area specific concerns. The minor headings subsumed within major headings are as follows:

- 1. Health care (SPANDAN) includes
 - a) Deployment of Mobile Medical units
 - b) Organizing Medical Health camps
- 2. Drinking water and Sanitation includes
 - a) Providing safe drinking water facilities at public places KALASH
 - b) Providing RO drinking water facilities and sanitation complex
- 3. Promoting Education includes
 - a) Establishment of Vivekananda Kendra Vidyalaya
 - b) NHPC Scholarship Scheme
- 4. Skill development training
- 5. Swachh Bharat Abhiyan
 - a) SwachhVidyalaya Abhiyan

Towards the end, the CSR intervention has to be judged against the broader framework of Sustainable Development Goal which has replaced Millennium Development Goal (MDG). The Sustainable Development Goals has 17 $^{\rm 1}$ mini goals and the CSR initiative of NHPC has subsumed 10 of such goals to complement the process to ensure SDG. . The 10 goals of SDGs the CSR activities of NHPC addresses are -

- 1. No Poverty
- 2. Zero Hunger
- 3. Good Health and Well being
- 4. Quality Education
- 5. Gender Equality
- 6. Clean Water and Sanitation
- 7. Decent Work and Economic Growth
- 8. Reduced Inequalities
- 9. Sustainable Cities and Communities
- 10. Responsible Consumption and Production

-

¹ The rest 7 SDG goals not coming under the present intervention domain are – Affordable and clean energy, industry innovation and infrastructure, climate action, life below water, life on land, peace justice and strong institutions and partnerships for the goals.



Figure 1:5: CSR framework within SDGs

The intervention made by NHPC through broad programs under CSR has touched upon 10 of the 17 goals under SDG. The programs launched under CSR include launching of Kalash and RO, Spandan and Health Camps, construction of toilet in schools, construction of school building and making provision of better infrastructure, offering scholarship to the students and conducting skill development program in partnership with local agencies to impart skills to the youths belonging to disadvantaged background. As outlined above in figure 1.5, these program are expected to make an impact on some of the major SDG goals through access to education for boys and girls, access to safe drinking water, reduction in water borne disease, improved access to health care, better acquisition of skill to pave the way for income and gender equality and finally eradicate poverty and hunger.

1.1 Evaluation Framework

A robust and rigorous evaluation is premised on a carefully and scientifically designed evaluation framework. The framework draws on the essentials of the programme description for its various components. The program guidelines for different interventions undertaken by NHPC are different, but all are designed with an objective to ameliorate the present situation to meet the larger national goal of clean, healthy and skilled India. For example, the programme guideline of the Swachh Vidyalaya campaign clearly aims at ensuring every school in India to have a "set of *functioning* and well-maintained water, sanitation and hygiene facilities". Similarly, Skill India is a campaign launched by Prime Minister to train over 40 crore people in different industry relevant skill to help them secure a better livelihood. The interventions made by NHPC as a part of its CSR activities for the year 2017-18 through Swachh Vidyalaya Abhiyan and Skill India initiatives are to be judged in

the light of these programs. In a similar tone, the interventions made by NHPC in health care, both preventive and otherwise, are to be judged in terms of overall objective to secure better overall health outcome for people living in its vicinity.

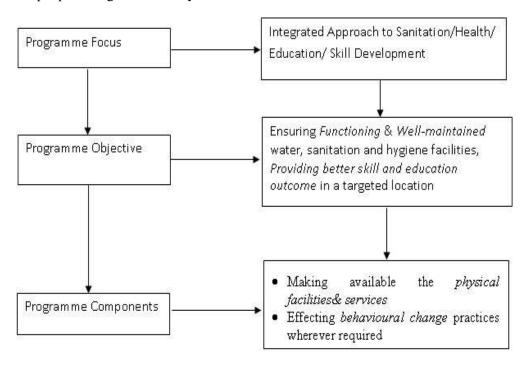


Figure 1:6: Essential Emphasis of the Programme Components

Towards the Theory of Change

All programmes are designed depending on an underlying Theory of Change (TOC). The TOC describes the logical path along which the desired intervention is envisaged to produce the results. This path, essentially, depicts the logical flow from programme *inputs* to programme *outputs*, then from programme *outputs* to programme *outcomes*, and finally, from programme *outcomes* to programme *impact*.

The programme guideline of Swachh Vidyalaya Abhijan clearly provides an underlying TOC. It is maintained that improved sanitation and hygiene in schools results in improved health and less diseases, which, in turn, results in improved attendance of the students. This facilitates better educational outcome of the students leading to economic growth and development in the society.

More specifically, Swachh Vidyalaya intervention provides physical facilities i.e. construction of toilets with water as *input*, which is expected to result in a 'functional' toilet as *output*. The *use* of toilets by students results in an *outcome* of improved health and reduced morbidity reflected in their improved attendances. The better attendance is envisaged to result in better performances attracting more students to school leading to improved enrolment. This finally will result in economic growth and development in terms of long term impact of the programme.

Interventions made by NHPC in the sphere of health and sanitation are of different types that include setting up of Mobile Medical Units (MMUs) and Medical Health Camps (MHC), RO plants and Kalash water points. It is expected that access to better health services and drinking water/ sanitation facilities result in improved health and less water borne disease. In the entire scheme of things, making provision of health and drinking water services by NHPC as part of its CSR & S activities may be viewed as *input*, which is expected to result in a 'functional' health camps and water points

(Kalash/RO). The access to these services by local population mostly belonging to disadvantaged location identified as project affected areas result in an *outcome* of improved health and reduced morbidity. The long term impact of such interventions may be healthy population with positive effect on growth and development of the country.

Similarly, in the sphere of education, NHPC intervention in making better provision of infrastructure/scholarship program in schools VKV and KV may be viewed as *input*, which is expected to result in better infrastructure of the schools as *output*. The *use* of these facilities by students results in an *outcome* of improved attendances, higher enrolment, leading to better educational performance as outcome. The long term impact of such intervention may be expected in terms of its positive effect on economic growth and development.

NHPC has also made interventions as part of its CSR responsibilities by partnering with many institutions, local and national level, to impart skills to youths belonging to disadvantaged social categories in project affected areas. Making provision of skills in collaboration with other training institutes may be viewed as input. Acquisition of skills in different relevant areas under the training program and getting placed in different jobs may be viewed as output, which eventually leads to better outcome. The long term impact of such intervention may be assessed in terms of higher income, economic growth and development of the country.

The Theory of Change of CSR intervention



Figure 1:7: The Theory of Change of CSR intervention

Evaluation: Type Criteria and Indicators

The present evaluation is aimed to be an *outcome evaluation* rather than an *impact evaluation*. To have an impact evaluation, it needs a long sustained period of observation based on which the impact can be assessed. However, the present interventions of NHPC have just made a beginning and therefore at present an evaluation of the outcome is feasible due to the short time-lag involved. The evaluation is carried out within a year of post-intervention. Impact being a long-term phenomenon, impact evaluation, therefore, is not feasible at this point of time. The present evaluation is based on three evaluation criteria – *efficiency, effectiveness* and *sustainability*. It may, however, be mentioned

that most of the programs outlined under CSR are implemented as a part of national commitment such as Swachh Bharat Abhiyan, Skill India and other intervention such as making provision for better education outcome etc, the criteria of *relevance* is supposed to be automatically fulfilled.

Efficiency of Output

The criterion of *efficiency* is applied at the level of *output*. The *output* is *efficient* only when facilities created under the program are functional. In case of Swachh Vidyalaya, efficiency of the program is defined as *functionality* of the toilets – i.e. *functional toilets* are complete in respect of the essential elements that include adequate sanitation, privacy and space, hand-washing facilities as well as practice, drinking water, regular operation and maintenance, capacity building and behavioural activities. If these elements are met, the toilet facilities are more efficient in delivering the desired outcomes. Similarly, in sphere of education, NHPC making provision of better infrastructure in the schools in remote areas and making scholarship available to eligible backward students fulfil the efficiency criteria. There is huge demand for the services that are being met by NHPC through interventions made under CSR & S schemes.

In case of intervention through Kalash and RO points, output is efficient if the essential elements of drinking water and sanitation are fulfilled. These facilities include adequate sanitation, cleanliness, regular operation and maintenance and behavioural awareness and change.

Similarly, in case of skill development programs, a program is defined as efficient only when the candidates who are enrolled with the training institutes complete their training and a good majority of them get placed in jobs in relevant skill after the completion of the programs. The outputs generated through health camps are efficient only when the essential elements of health camps are fulfilled. These include periodic health check up, medicinal support and most importantly awareness generation and perceived sense of better health by the beneficiaries.

Effectiveness of Output

The criterion of *effectiveness* is applied at two levels – both at the level of *output* as well as *outcome*. Evidently, the *output* is *effective* when it is in use. On the other hand, the *outcome* is *effective* when anticipated results are obtained.

For example, in case of Swachh Vidyalaya campaign, there are two intended outcomes – improved health and improved educational performances. The first is captured through overall *school attendance rate* while the second is captured by the overall *enrolment* in the school. Effectiveness of interventions made under the sphere of education can also be judged by improved attendances and better educational outcome. Further, effectiveness of education output can be enhanced if such facilities are provided to students belonging to poorer economic and social background. The effectiveness of Kalash/ RO Water points can be judged by whether these facilities are in use by the beneficiaries.

In case of health camps organized under the banner of *Spandan*, the output generated under the program can be judged as effective only when there are enough participants in these camps and they reached out to disadvantaged section. Further, effectiveness of such output can be judged by how many of the patients revisit the camps again. In case of Skill Development program, effectiveness of output can be judged on the basis of placement record of the candidates.

Sustainability of Outcome

The criterion of *sustainability* is applied at the level of *outcome*. The impact is consequent on the sustainability of the outcome. In case of Swachh Vidyalaya Program, two interconnected outcomes improved health and improved educational performances are sustainable when comprehensive perspective of sanitation is put into practice. The comprehensive perspective of sanitation includes, apart from physical facility of functional toilets, the other two components viz. drinking water and better hygiene behavioural practices. Besides, maintenance of the toilets also contributes positively towards its sustainability. Similarly, in case of Spandan, the outcome may be sustainable only when there is an awareness generation program. In case of Skill development program, the outcome is sustainable if the candidates placed through the agencies continue with the jobs assigned to them. There is also need for adequate market linkages with the training for candidates to continue with the facility. The above thus constitutes a log frame of the present evaluation of different interventions of CSR undertaken by NHPC for the year 2017/18.

TABLE 1.1: EVALUATION LOG FRAME

Swachh Vidyalaya Kalash/ Ro Skill developn Campaign		Skill development	Spandan	Education		
Evaluation Criteria	Level	Indicator	Indicator	Indicator	Indicator	Indicator
Efficiency	Output	whether toilets are functional	Whether facilities are functional	Whether candidates have completed the program	whether health camps have the required provisioning	Whether facilities are still functional
Effectiveness	Output	whether toilet is in use	Whether water/ sanitation facilities are in use	whether candidates competed training and are placed in jobs	whether camps are being attended by participants and their response	whether facilities are still in use
	Outcome	Improved attendance/ improved health	Whether reached out to deprived sections, and are in use and how they are rated by beneficiaries	whether the candidates are continuing with their jobs	whether there are enough participants from disadvantaged background, whether patents revisit and have better health outcome	Whether there are enough users, and students from disadvantaged background, whether there is better educational outcome
Sustainability	Outcome	Use drinking water/ behavioural changes	Whether there is community ownership of facilities	whether there is adequate linkages with placement agencies for continuation of jobs	whether there is adequate awareness program	Whether there is behavioural changes and whether there is infrastructure to ensure its continued use

Evaluation Method

Generally speaking, evaluation attempts at obtaining *attributable results* emanating from any intervention. From the Log-Frame presented in Table 1.1, it is, however, obvious that barring the effectiveness of outcome intended to be measured, other criteria of evaluation don't necessarily require any attribution. Many standard evaluation methods require an appropriate 'control group' where no such intervention has taken place, but are similar to those where intervention has taken place for making necessary comparisons of attributions. This eliminates the possibility of applying several standard evaluation methods – both experimental as well as quasi-experimental – such as randomised control trial, propensity score matching or double difference.

The second challenge is regarding the possible *counterfactuals* – determining what could have been the situation without the intervention. Usually, such a comparison is arrived at by examining 'pre' and 'post' scenarios provided all intervening factors are suitably controlled. However, for such method to be applied, it has to be ensured that there is no other specific intervention that also has positive effect on effectiveness of outcome. However, that is hardly the case. Therefore, in some cases, such as evaluation of intervention at the school, where there is no specific new intervention that directly targets school attendance, 'pre' and 'post' comparison is applied in case of attendance rate to evaluate the programme effect.

In the evaluation of program interventions made by NHPC, we have adopted a mix of different methods. In some cases, we have randomly drawn a representative sample to elicit their responses on the effectiveness of the intervention of the program. This is further supplemented with the large scale data supplied regularly by the implementing agencies such as Piramal in case of Spandan program which helped us to both monitor and evaluate the performance of such intervention. In case of skill development program, we have randomly sampled some of the beneficiaries and implemented a semi structured questionnaire to evaluate outcome.

2. SPANDAN -Providing Healthcare Services in Rural Assam

The project site of NHPC Lower Subansiri HEP is located in a catchment zone that includes some of the most disadvantaged areas in the country. Among different areas of intervention under CSR, Lower Subansiri unit of NHPC treated improving health care infrastructure with utmost importance. Leveraging the scope available to it under CSR & SD, the Subansiri unit of NHPC Ltd, has been working on making better provision of healthcare for the local communities living in and around the area affected by its project.



Figure 2:1: Mobile medical unit vehicle used for health camp under Spandan

It is needless to mention that healthcare infrastructure many places in the state is in abysmal condition. To ameliorate the condition, Subansiri Lower HE Project, Arunachal Pradesh signed an agreement with Piramal Swasthya Management &Research Institute (PSMRI) 17^{th} February, 2016 to introduce **Mobile** Health services for local people living in remote and inaccessible rural areas of Assam. The program

"Providing Healthcare Services through Deployment of Vans/Mobile Medical Units (MMUs) in Rural Areas of Assam" popularly known as "Spandan" wasNHPC's flagship program under CSR & SD activities. The MoU came into force from the date of signing and the agreement remained valid for a period of one year. Headquartered at Hyderabad, Piramal Swasthya Management & Research Institute (PSMRI) is a non-profit organization registered under Society Regulation Act, 2001.

As a part of the program, the mobile healthcare project aimed at providing basic healthcare facilities to the needy people in rural areas of Assam . PSMRI organizes medical camps across the targeted districts Dhemaji, Lakhimpur, Sonitpur and Jorhat in Assam to make provision of consultation by MBBS Doctor, referral services and free distribution of medicines. PSMRI deployed 20 numbers of MMUs/Vans five days a week and 8 hours per day at the clusters/locations identified in consultations with NHPC. Each vehicle deployed under the project covered an average distance of approximately 1000 km per month in target clusters/locations. In each MMUs/ Vans, PSMRI also deployed qualified and experienced staff including a MBBS Doctor, Nurse/midwife, Data entry operator and driver-cumhelper during field visits of MMUs.

Primary healthcare services provided through these medical camps were

- 1. Detection and treatment of Childhood illness such as vitamin deficiencies, malnutrition, diarrhea, measles, mumps etc.;
- 2. Detection and treatment of anemia and common deficiencies in pre-natal and post-natal mothers;
- 3. Screening for hypertension, diabetes, defective vision, epilepsy, asthma etc.;

- 4. Detection and treatment of commonly endemic communicable and non-communicable diseases; detection and counseling of patients suffering from mental illness, tobacco/alcohol/drug addiction etc.; and
- 5. Dressing of minor cuts and wounds, providing first aid for snake/animal bites etc.

Geographical location of Services



Figure 2:2: A Spandan Camp at Dhemaji District

TABLE 2.1: DISTRIBUTION OF MMUS ACROSS DISTRICTS

District	No. of MMUs
Dhemaji	7
Lakhimpur	6
Sonitpur	4
Majuli	3
Biswanath	2

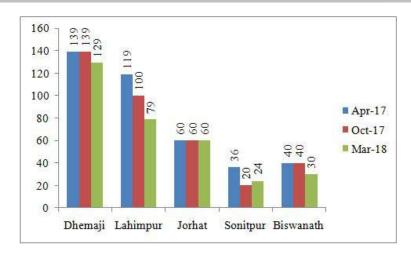


Figure 2:3: Number of villages served by Spandan program across districts in various months

The program had maximum coverage in Dhemaji and Lakhimpur district, followed by Majuli, Sonitpur and Biswanath district. In the month of April, 2017, the programme had covered 139 villages

in Dhemaji district, followed by Lakhimpur (119 villages), Majuli (60 villages), Sonitpur (36 district) and Biswanath 40 villages). Ranks of districts in terms of coverage had remained the same after a period of 12 months in March 2018, but with some decrease in the number of villages covered (Figure 2.3).

The primary objective of SPANDAN was to provide primary healthcare services in the remote areas of rural Assam. Accordingly, the programme was designed to cover some of the remote villages of Dhemaji, Lakhimpur, Jorhat, Sonitpur and Biswanath districts. The proposed location for the sites of health camps were selected based on inputs obtained from district health administration, which ensures coverage of the programme in the areas which are most backward in terms of health care provision by the government.

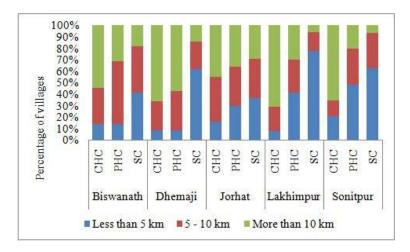


Figure 2:4: Access to Government Health Care facilities of the targeted villages under SPANDAN (Census 2011)

As reported earlier, during the month of April, 2017, the MMUs have covered 139 villages in Dhemaji district, followed by Lakhimpur (119 villages), Jorhat (60 villages), Sonitpur (36 district) and Biswanath (40 villages). As per Census 2011 data, access to health care facilities in these villages was far from the reach of many households (Figure 2.4). The MMUs were successful to bring health care facilities to the households at closer vicinity.

The social profiling of the participants is another important parameter to examine whether the program has been designed to extend benefits to the people and communities belonging to

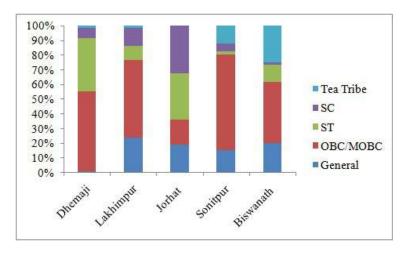


Figure 2:5: Percentage share of participants belonging to different social categories across districts

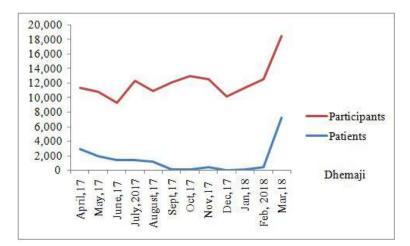
disadvantaged groups. The programme ensured participation of communities belonging to ST/ SC/ OBC and Tea Tribes, which reflects efficacy of the program design (Figure 2.5).

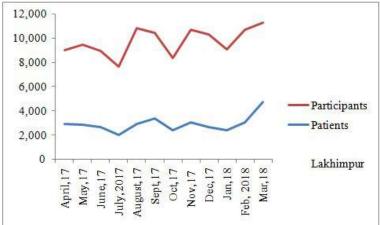
For example, in Biswanath and Sonitpur districts, where tea tribe represents the most disadvantaged section of the population, they figure prominently among the participants of Spandan Program. Similarly, population belonging to OBC/ MOBC represents most backward communities who have significant presence among the participants in Dhemaji and Lakhimpur. Moreover, majority of the people accessing health care under Spandan camps were women. This was evident in both on the spot inspection and also registered records. In all the camps, female patients accounted for more than 60 % of the total patients. Children also accounted for a significant portion of participants attending the health camps.

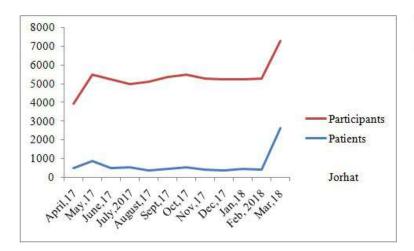
Mapping of Participants: The study tracked the number of participants and patients along with their disease and socio economic profile. This helped in understanding the implication of Spandan program for the deprived and poor living in the areas lacking such health care facilities. Trend noted across districts are quite different, which may possibly because of variation of social mosaics and responsiveness of people in the villages as well as the nature of diseases treated.

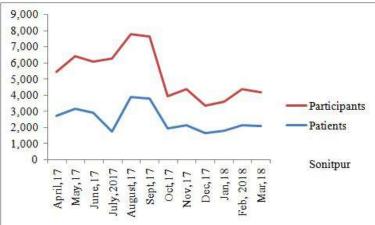
- 1. In Dhemaji district, there was wide divergence between the number of participants and patients reported in the health camps, with the curve indicating the number of patients flattening out at near zero before sudden spurt in number in February 2018, suggesting seasonality of disease burden (Figure 2.10).
- 2. In Lakhimpur, however, the divergence between the number of participants and patients reported in the health camps remained the same almost throughout the period until February, 2018 when the gap between the two decreased significantly. (Figure 2.7).
- 3. In Jorhat also, the gap between the number of participants and patients was high. (Figure 2.8). Except the sudden spike in the number of patients since February 2018, the gap between the two was almost uniform. Also, the number of patients reporting at least one health issue remainsed consistently low for the major part of the year.
- 4. Interestingly, in both Sonitpur (Figure 2.9) and Biswanath districts (Figure 2.10), the pattern of participants and patients remain the same almost throughout the year. Field visits to the camps organized in these two districts indicate that these programs were organized in remote and often inaccessible areas and high proportion of participants in the health camps were chronically ill. It may be noted that in these two districts, many of these participants belonged to deprived communities such as Tea Tribe who had high incidence of falling sick because of their poor living and working conditions.

It was observed during output monitoring that 50 to 60 percent of the patients visiting the SPANDAN camps were re-visitors. This gives the impression that participants of the health camps were satisfied with the quality of the services offered by the camps. The programme, therefore, was effective to ensure positive outcome i.e. improved health status of the beneficiaries. However, high incidence of diseases in some districts call for infusion of additional provisioning









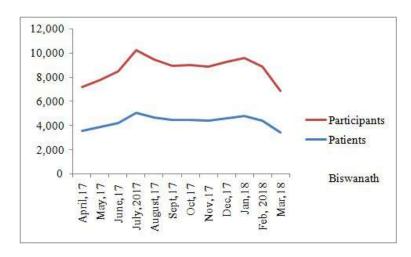


Figure 2:6: Month wise mapping of participants and patients across districts

The improved health conditions are sustainable when comprehensive perspective of awareness and sanitation is put into practice. However, in absence of any awareness generation efforts under the programme, the sustainability of the output may be highly uncertain.

To evaluate the *Spandan Program*, we have administered a detailed semi structured questionnaire on the beneficiaries entailing the details of family, her/his perception on benefits under the program and expenses on health services pre and post *Spandan* program to better evaluate the impact of the program. The number of sample villages and respondents that were chosen from a district reflect its importance in the *Spandan* program, with large number of villages being selected in the district of Dhemaji and Lakhimpur, where *Spandan* program was more widely in operation.

TABLE 2.2: DISTRIBUTION OF VILLAGES SELECTED FOR SAMPLING ACROSS DISTRICTS FOR SPANDAN

Districts	Number of villages
Sonitpur	3
Biswanath	3
Dhemaji	6
Lakhimpur	7

In each village, we attempted to choose 4 to 5 respondents who received services under *Spandan* program to evaluate the effectiveness of the services delivered under the program. A total 80 respondents were selected randomly, whose distribution across districts is presented in Figure 2.12.

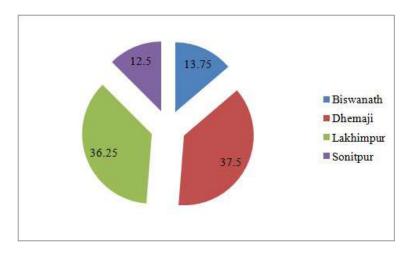


Figure 2:7: Distribution of sample respondents across districts

On an average, the waiting period for the beneficiaries to get treatment for the specific disease reported in *Spandan* health camp had been 34 months. It indicates that on an average for 34 months the ailment or diseases left unattended. This emphases and indicates the need of regular mobile health care services in remotest locations for the economically weaker section of people.

More than two thirds of the respondents of *Spandan* health camps reported visiting the camps once every month, with the remaining less than one third respondents visiting them either occasionally or when the need for the services was felt. Regular visits of the large section of respondents also indicate regularity of the *Spandan* camps as well as people's confidence on such health camps.

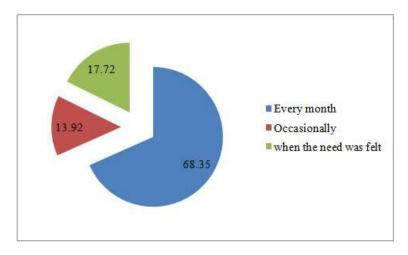


Figure 2:8: Distribution of sample respondents frequency of visits to Spandan camps

When asked about the reasons for accessing the services under *Spandan* program, most respondents cited easy accessibility of medical services under the program as the most important reason (43.75%), followed by expectation of cure (41.25%). Almost 38 percent availed services from *Spandan* because of free treatment and free medicine which indicate that medical treatment at affordable cost remains the biggest challenge in disadvantaged groups despite large expansion of NHM. The kind of medical services as reported by respondents included wellness advice on diet, and other advices related to life style, free medicine, referral services, and consultation with Specialist Doctors.

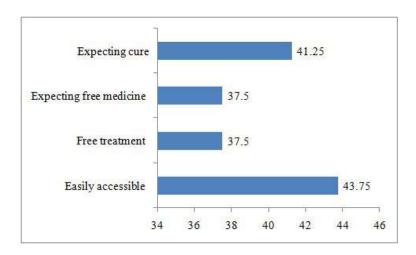


Figure 2:9: Reasons for using Services under Spandan by beneficiaries

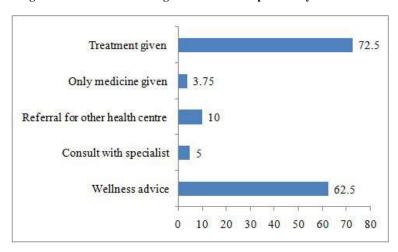


Figure 2:10: Percentage share of different types of medical services received by beneficiaries of Spandan camp

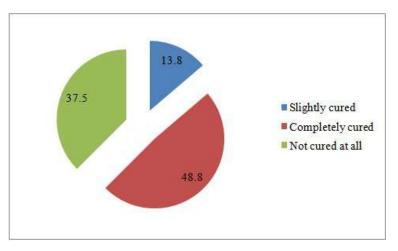


Figure 2:11: Share of responses cited by beneficiaries on their health status post Spandan services

Overall, the effectiveness of the programme in providing preventive and basic curative care, the participants revealed mixed experiences. While almost 49 percent of the respondents reported complete cure after receiving the treatment from the doctors who visited their villages once a month under the programme, 14 percent reported being cured to an extent and 38 percent were not cured. Relative success of the *Spandan* camps also indicates that the burden of health care, both of

not accessing as well as accessing the care, and thus the burden of travel as well as pressure put on district and state hospitals can be relieved by organising health camps at the doorstep of the villages.

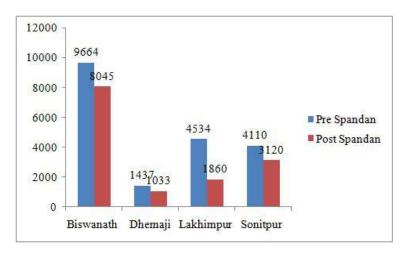


Figure 2:12: Average expenses on medical in a year pre and post Spandan program

Comparison of average medical expenses reported by the respondents before and after *Spandan* program also highlights the effectiveness of the services received under the Program. In all the districts, the mean expenditure as reported by the respondents was found to be lower after post *Spandan* program compared to pre *Spandan* program (Figure 2.17). This was mainly due to reduction in expenses on regular drugs, visit to health facilities and doctor consultation and also changes in dietary and life style pattern leading to improvement in health condition and expenses thereafter.

The field survey indicates that there was overwhelming support towards the programme among the participants and beneficiaries in health camps.

The evaluation also documented some cases from the field to get further insights into how the health care program launched by NHPC as a responsible corporate entity affects the community life.

Cases: Access to medical consultation and free medicine at doorstep bring about significant outcomes and reduce burden of health care expenditure

Md. Mozamin Haq, Golia village, Sonitpur:

Md. Mozamin Haq,is a resident of N K Jhapori village. A farmer by occupation he is the sole bread earner of his family which consists of his wife and two children. He grows rice as the main crop in his field. His work schedule includes physical labour in his fields on a day to day basis.

His children are school going minors. Despite his meagre income he has ensured sending his children to school. The hard physical labour has been taking a toll on his health.

He revealed that he suffers from physical exhaustion after working long hours in the fields. As a result he often suffers from vertigo. This has been persisting for almost four years. He often fell down in the fields or home out of sheer exhaustion and vertigo induced dizziness. He recollects and narrates many instances when he had a fall while working on the fields or while at home. To get over his health condition, he had visited the doctor available at the nearest sub-Centre is in Golia village, approximately 2 km away from his home. However, the doctor visits twice a week; and only for an hour on each visit. Before SPANDAN van visited his village he was spending Rs. 5,000 (approx.)

annually for his treatment and medicines. The Doctor at the SPANDAN camp gave him Iron tablets, Vitamin tablets and checked his blood pressure. He was advised to be careful of his food consumption and asked to increase his daily intake of more iron related vegetables and fruits. Once he started following the diet pattern advised to him, he found himself overcoming his health condition.



He also had the recurring problem of gastritis (like a majority of people in his village) and the SPANDAN camp really benefited him as he could get access to medicines without relying on others to visit the Sub-Centre or PHC. He was given tablets for his condition and he admitted that that he was happy with the medicines and their effects. He got relief almost instantaneously from his gastritis problem. He is now able to go to work and put in the hours needed to work on his fields without relapsing. When he visited the SPANDAN camp, the next time they came to his village, the doctor enquired about his condition. He was really excited with the free medicines he received from them and it saved him of expenses as he no longer required procuring medicines of his own or visiting the doctors in the nearby health centres. He saved a lot of valuable time too which by his own admission he utilized in his fields. With his Vertigo problem in check

he no longer needed to be afraid of working alone in his fields or the fear of falling down unconscious.

While he was not cured of his Vertigo problem completely, he still maintained a healthy working condition with the intake of free medicines he received from SPANDAN camp. But in the aftermath of the SPANDAN services being withdrawn he admitted that his Vertigo condition has relapsed as before. He has to spend RS. 1,000/- (approx.) every month in procuring medicines and with his frugal income he finds it difficult to maintain the cost of running his family.

Kavita Devi, Nalbari village, Biswanath District



Kabita Devi is a housewife, aged 35 years and mother of two children in Nalbari village under Sootea block of Biswanath district. Her husband is a farmer who works in his plot of land and earns Rs. 5,000/- (approx.) per month. Both her children are school going kids. She has been suffering from diabetes and has high blood sugar levels as well as high blood pressure from past eight years. With the meagre family income she finds it difficult to have a good treatment for her. She has continuously visited doctors in Tezpur town who advised her using insulin for her diabetes. Insulin is the only treatment she requires but the cost of insulin is high and therefore she is unable to afford the treatment. Moreover, the local Sub-Centre is not equipped to address her

ailment forcing her to visit hospitals at Sootea and Tezpur town. The travel cost and the dependence on her husband for travel is a significant factor of not seeking the care she requires regularly. It requires about Rs. 3000/a month to address her health care need.

She approached the health care personnel at SPANDAN camp and reported problems including of Gastritis and urinary infection. She was given medicine for her diabetic condition but no test was conducted on her. She also reported that she received tablets for high BP. The health care personnel at the SPANDAN camp advised her to do brisk walking in the morning and also to eat healthy.

Ms. Devi found the SPANDAN camp helpful, it saved her time, money and dependence on family members to seek health care. The free medicines also relieved her from the burden to procure from market. She experienced overall satisfaction with the camp and desired that it would have been better with provisioning of sugar test .Ms. Devi also made recommendations for inclusion of Malaria and Japanese Encephalitis test and also medicines in the SPANDAN camp as these two diseases are quite frequent in her villages as well as the neighbouring localities.

DipenTamuli, Bordoibam, Gogamukh



Dipen Tamuli, aged 50 years, is a marginal farmer with two bighas of land. He supplements his income by working as casual labour at times. But of late, he was not able to work regularly because of his illness. He has been suffering from stomach ache. He is too weak, both physically and financially to travel far enough to avail medical treatment. Towards the end of 2017, his friends informed him about medical camp organized by NHPC under *Spandan program*. He considered himself lucky that he met one senior retired doctor, specialized in medicine. The doctor at the camp also asked him to meet him in his next visit. Liver tonic and other medicines provided by the camp free of cost following the prescription cured him of the pain that he was carrying with himself for more than six months. He is now able to

resume his work as casual labour. He further noted that his close friend living in the same neighbourhood has also got similar benefits from the camp. He feels that such doorstep health camp and services are of great values for people with meagre income like him.

Cases: Health camps at doorsteps reduce dependency condition of women and elderly people

Buparam Koch, Raidingia, Ghilaram



Buparam Koch, aged 77 is both too poor and old to visit the nearest hospital that is in Ghilamara, 3 km away from his village. His entire family of 6 depends on 4 bighas of land, which could be cultivated only once a year because of flood that comes to the area during monsoon. The meagre income of the family put a huge burden when any member fell sick. He has been suffering from arthritis and bronchitis for quite some time. When he visited medical camp organized under *Spandan* on the suggestion of his neighbour, he was however referred to district medical hospital. The medical team at the camp gave him some medicines. He is now somewhat relieved, but not completely cured. He wished that there was a specialized doctor who could cure his ailments

completely. He however wants the camp to be continued in his locality.

Sakhina Begum; Nalinifari, Gohpur



Sakhina Begum, from Morasenguli, Nalinifari, Gohpur lives in a very remote area, with even the nearest PHC being located 20 km away from the village. Her son stays away mostly as he works as casual labour in Itanagar, Arunachal Pradesh. She has been suffering from arthritis for quite sometimes, but there is no one at home to take the trouble of taking her to district hospital. The presence of Spandan health camps near her home could not have come at a better time for poor and old patient like her. She could access the medical services at door step without depending on others. During her first visit, she could not access the special treatment given to her as the camp did not have medicine. The doctor however noted that there were several patients with similar disease profile. On their request,

the camp came with the required medicines in the following month. She is now almost cured of arthritis and has resumed her normal activities.

TABLE 2.3: UNDERLYING THEORY OF CHANGE OF NHPC INTERVENTION ON RURAL HEALTH CARE SERVICES (SPANDAN)

Background Ideas	Approach of intervening agency	Anticipated Change	Changes and Outcomes	Remarks
1. Making health care available in remote areas	1. Deployment of MMU vans after an need based assessment survey and with consultation with the state health department and the intervening agency 2. Signing of an MoA with the implementing agency 3. Provisioning of resources	Facilitate the access to health care services	Participation of large number of women Participation of people from disadvantageous groups	The MMUs to an extent complement the state health care systems of Sub- centres in certain localities
1. Mobile health care in remote and inaccessible areas towards generation of awareness & perceived sense of better health	1.Provisioning of consultation of MBBS doctors2. Regular services	Awareness generation and perceived sense of better health practices and care	1.Significant proportion of people revisits the health camps, indicates confidence and awareness 2. Awareness on ailments people are suffering 3. Develop better approach to life	It may require an evaluation of the outcomes of withdrawal of the MMU; whether awareness on health front is sustained or not
1. Fulfillment of essential element of health care	1. Detention and treatment of childhood illness – vitamin deficiencies, malnutrition, diarrhea 2. Address pre and post natal care 3. Screening of diseases such as diabetics, defective vision, asthma etc 4.Dressing of minor cuts and wounds, first aid etc 5. Available of free medicine 6. Referral services	Fulfillment of essential element of health care	1. Reduce dependency syndrome of elderly and women to access health care services in health centers and hospitals located in distance places 2. Reduce financial burden to pay for health care services; decline in household expenses on health care 3. Save time and travel costs 4. Prevent indebtedness arising out availing health care services 5. Reduce pressure of patients with minor ailments on district hospitals	People, particularly women and elderly desire for specialized and women doctors. Referral services however nullify the needs of specialized doctors in such mobile camps.

3. Providing Access to Safe Drinking Water

Kalash and RO

The Northeast region of the country though falls under heavy—rainfall zone, many pockets of the region now face crisis to access safe drinking water. Moreover, high population growth along with poor economic condition has put the burden to ensure sanitation facilities in many villages. Negative impacts and health outcome of lack of access to safe drinking water and adequate sanitation on the citizens, particularly on children are well established. NHPC while implementing the *Swachh Vidyalaya Abhiyan* (SVA) in the state of Assam, recognised the importance of safe drinking water and sanitation facilities in the places of community gathering such as community centres, *Namghars*, markets, schools, colleges etc. and accordingly made intervention with provisioning of safe drinking water and sanitation facilities for improved access.

Based on the approval of Committee of Directors for CSR & SD for implementing the CSR Schemes for providing safe drinking water facilities in Assam, NHPC implemented the following CSR initiative on drinking water and sanitation:

- 1. KALASH: Providing safe drinking water facilities at public places
- 2. Providing RO drinking water facilities and sanitation complex.

KALASH



NHPC Lower Subansiri unit has been striving to address concerns regarding lack of access to pure drinking water in districts near and around its project sites. Over a period of three years, it has committed itself to build around 1450 Kalash water points, spread over five districts, which goes well beyond the project affected area. The distribution of 1450 Kalash water points in these five districts include 644 in Dhemaji, 628 in Lakhimpur, 115 in Majuli, 45 in Sonitpur and 18 in Biswanath district. The emphasis was on two districts near the Subansiri project-Dhemaji and Lakhimpur, which alone cover 1272 Kalash water points. This accomplishment was against the plan to set up at about 1000 points across these two districts in 2017-18. An amount of Rs. 4,00,00,000/-(rupees four crore only) was earmarked under the CSR budget of 2017-

18 for the programme. It is also to be noted that an amount of Rs 14 crore expenditure had already been incurred over past two years in this initiative since the program was launched in. 2016-17.

The drinking water facility includes a RCC platform for placing the conventional sand filter tank and for housing the filtered water storage of 500 liters. In case of absence of regular water supply facility in the location, borewells are provided to cater water supply requirement. The project is executed through an MoU with local bodies/executing agencies, named as "implementing agency" like Gram Panchayat, *Namghar* Committee, School Management Committee, Self-Help Groups (SHGs) or other local body/NGO etc. depending upon location of the facility. The implementing agency is responsible for the construction of 'Kalash' and also for maintenance of the facility for the use of the local people. The funding was made to the implementing agencies in phases depending upon construction progress as outlined in the MoU agreement.

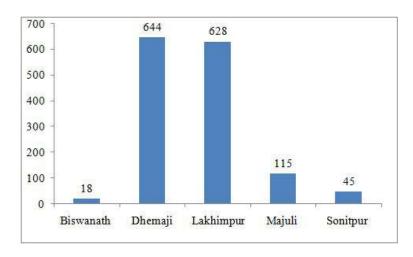


Figure 3:1: Distribution of Kalash water points across districts

TABLE 3.1: ESTIMATED COSTS OF THE WORK

Sl No.	Descriptions	Quantity	Rate	Amount
1	At locations where electricity is available	750	88,087	6,60,65,250
2	At locations where electricity is not available	100	45,895	45,89,500
3	Flood affected locations with no electricity	100	59,404	59,40,400
4	Locations affected by Arsenic contamination and no electricity	50	62,975	31,48,750

To evaluate the intervention made by NHPC in Kalash, a series of field visits was made to 100 Kalash water points during one year period (September 2017 to October2018) with a detailed survey involving semi structured questionnaires administered to different groups of stakeholders. Two sets of questionnaires were used, one for eliciting information from the management committee of the institutions who take the responsibility of managing the facilities and one for the beneficiary households wherever applicable.

The selection of sample water points has been done taking into consideration the distribution of Kalash water points and the type of institutions in which these have been installed; therefore a sizeable portion of the sample comprises of points located in Lakhimpur and Dhemaji districts.

Some of the Kalash Points





Boginadi Sankardev Sishu Niketan

Ahomgaon Hari Mandir





MuktabSubahi, Dhakuakhania

Community Hall, Bhimapara, Balijan

Figure 3:2: Kalash water points installed in different locations

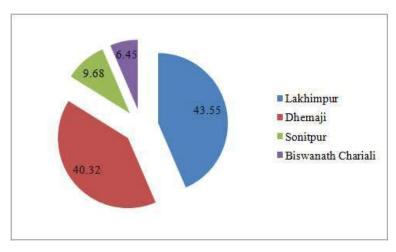


Figure 3:3: Distribution of Kalash points by districts

Majority of the Kalash points are located in religious institutions, followed by educational institutes, and community hall and daily market places.

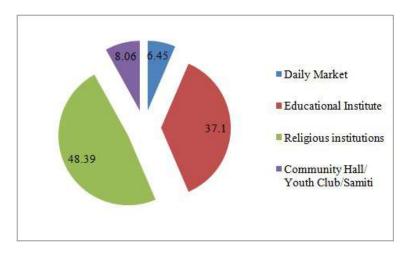


Figure 3:4: Distribution of Kalash points by type of institutions

The survey of institutions in which Kalash points have been installed revealed that some of these facilities were demand driven, while some of the facilities were suggested by NHPC and later the institutions took the initiative in operation and maintenance. The institutions responsible for managing the Kalash points did not cite any specific reason for setting up the facility except that provision of clean water for community access and use was one good reason for taking up the project.

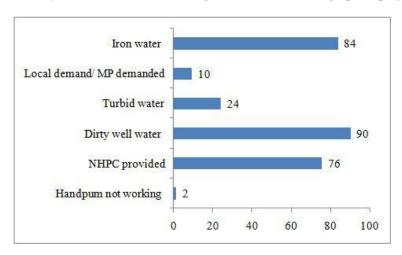


Figure 3:5: Share of responses on reasons (multiple reasons were cited) for demand of Kalash points by management of different institutes

As many as 90 percent of the respondents cited dirty well water, followed by 84 percent citing iron water as reason behind demand for Kalash water points (Figure 3.5). However, of the total Kalash water points surveyed, almost 76 percent revealed that it was NHPC's approach and offer to install the points that led to initiation and installation of the water points with community support.

The functional status of the Kalash water points reflects that almost 18 percent (17.74%) of the Kalash water points were non functional during the time of visit. Field visits to the non functional Kalash water points revealed that some of these water points are either left incomplete even though the deadline for the completion of the projects have already been passed. In some cases, Kalash water points were left incomplete mainly because the approved budget did not account for the cost of boring

which is a primary requirement Field survey also revealed reports of water pump being stolen which rendered the project useless.

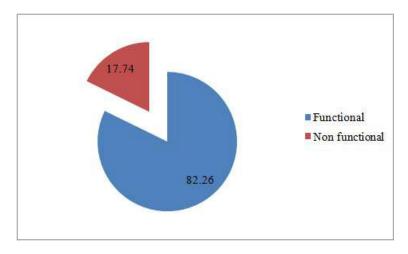


Figure 3:6: Share of Kalash points that are functional

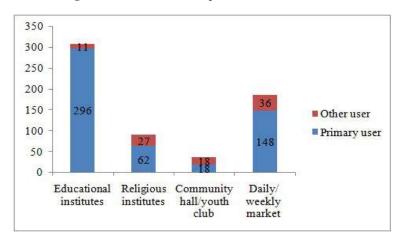


Figure 3:7: Average number of primary and other users of Kalash point by types of institutions

As revealed from the survey of implementing and managing institutions, committees/ agencies, the average number of daily users in Kalash water points was highest in educational institutions (307 persons/per day/per point), followed by daily/ weekly market. Though Religious institutions were found to have highest number of Kalash water installation, they have on average 89 users on a given day that compares with 307 users reported by educational institutes. Kalash water point in daily or weekly market also reported average foot fall of 184 users.

Though the standard average capacity of Kalash water point is 500 litres, management of the institutional bodies given choice to customize them to suit their requirement. School management bodies have installed water capacity to the tune of 768 litres on average compared to 500 litres in daily market, 640 litres in community halls and 687 litres in religious institutions.

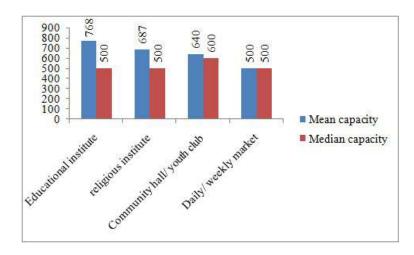


Figure 3:8: Average mean and median capacities of Kalash points belonging to different types of institutions

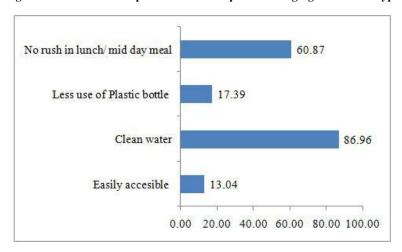


Figure 3:9: Average share of responses cited by school management as benefits of installation of Kalash points

The implementing/ management bodies of the Kalash water points also cited various positive impacts that the facility has on the beneficiaries. Majority of them cited access to clean water as the biggest benefit of the Kalash water point. As many as 61% of the implementing bodies, most of them school governing bodies, also attributed significant decline in rush in lunch and mid day meal because of Kalash water installation. Interestingly, 17.39% of the users also cited less use of plastic bottle in public place as another positive impact of installation of Kalash water.

In Kalash water points that are surrounded by local inhabitants, a semi structured questionnaire was administered with the households who have accessed water emanating from the Kalash water points. A household questionnaire was also administered, with the beneficiary households living in the vicinity of water points.

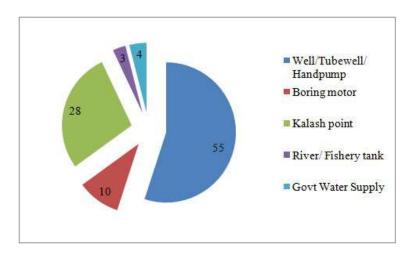


Figure 3:10: Share of different primary sources of water as reported by beneficiary households

When asked about the primary source of water points, only 29 % of the beneficiary households have reported Kalash water point as their direct source, with more than half of the beneficiary households reporting well/ tubewell and hand pump as their main source.

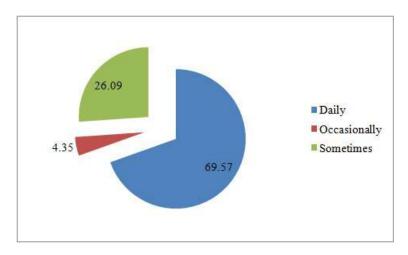


Figure 3:11: Share of beneficiary households on how they use Kalash water

Approximately 70% of those beneficiary households who have reported accessing Kalash water points have reported accessing Kalash water daily, 26.09% sometimes and rest only occasionally.

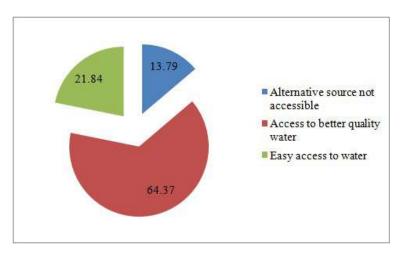


Figure 3:12: Share of beneficiary responses on the reasons cited by them for using Kalash water

As many as 65% of the beneficiary households cited access to better quality water as reason for accessing water, followed by 21.84 % of them citing easy access to water as reason for accessing Kalash facility. Only 13% of the users report not having alternative source for drinking water as a reason for accessing Kalash water. On being asked to rate the quality of water, as many as 92.45% of the beneficiary households report water with iron and another 62.5% reporting water with turbidity.

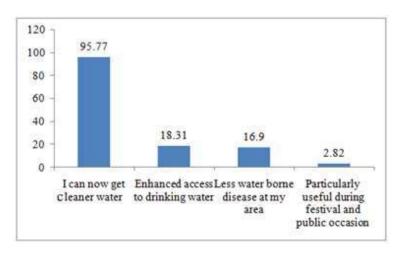


Figure 3:13: Benefits cited by beneficiary hhs of using Kalash water points

The beneficiary households cited various impacts of having access to Kalash water points. While majority of the beneficiary households report having access to cleaner water, approx 18 % of them also cited enhanced access to water (disregarding quality) and another 17% of them reported less water borne disease at their home as other long term impact of Kalash water points. Few of them also maintained that such installation of water facilities is particularly useful during festival and public occasion.

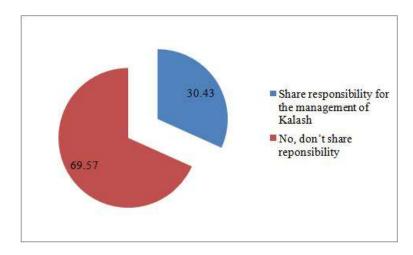


Figure 3:14: Share of responses on how the beneficiary hhs share responsibility for management of Kalash

Interestingly, only 30% of the households reported sharing responsibility for the management of the Kalash water point facility. Such low level of community participation in the management however raises serious question about the sustainability of provision made under Kalash water facility by NHPC.

Interaction with some of the beneficiaries revealed certain important facets of such community provisioning.

Case: Kalash points ensure self esteem of poor households in accessing drinking water

Riyajul Hussain, Bihpuria, Lakhimpur

Riyajul Hussain of Lakhimpur district owns a small shop in his locality from where he earns approximately Rs. 5000 per month. His family consists of six members and he is the only earning member. Earlier, Mr. Hussain's family used hand pump of his neighbour to meet his daily requirement of water; quality was not good because of high iron and turbid content. At times, they also had to face irritation of their neighbour. An installed Kalash point just about 100 meters away from his home now provides relief for his family, as they can now access better quality drinking water. Hussain confirmed The Kalash water is available any time during the day and fetches about procures 50 litres every day and there is no restriction in the access." During the period of flood also Hussain's family uses water from the Kalash point, a big relief for the family. Hussain's family now enjoys unaccountable benefits of safe drinking water from the Kalash point, saving the burden of water filtration efforts and costs as well as ensuring self esteem by procuring from the public source.

Case: Kalash points provide relief the burden of water purification cost

Pratima Roy, Bihnupur, Nowboicha, Lakhimpur



Pratima Roy a house-wife, comes from a cultivator family with a monthly income of Rs.3000. Her husband is the only income earning member. Though they have a well in their premises for their personal and domestic use, the quality of water is not good and is highly turbid. Over the years, there has been some seepage in the well which has led to contamination of the well water leading to quality issues..

This had an impact on the health of her son who fell ill. The doctor at the PHC whom they visited for their son's ill health advised them to boil their drinking water. This has been an additional burden on the family on fuel. The meagre income also prohibits them to repair the well and make useable.

The NHPC installed a Kalash point in their locality now has made safe drinking water accessible to them. This Kalash point has additional advantage of ensuring safe drinking water during floods when almost all water points in the locality get submerged; Kalash was the only option accessible to majority of households during the last floods.

Case: Kalash point comes handy for petty traders; shoulder responsibility for operation and maintenance

Sobin Das, Golia, Biswanath Chariali



Sobin Das owns a small restaurant at Golia market centre of Biswanath Chariali District. He is the only earning members of his family of 5, he earns about Rs. 15000/ a month from his endeavour.

Mr. Das now draws most of the requirement of water for his restaurant from the Kalash point located in the market. Earlier he has to spend an amount to water carriers for the supply of drinking water to his restaurant. He now draws "50 to 100 liters of turbid free water daily free of cost from Kalash."

The water point is managed by the Golia market committee. As a member of the market committee, Mr Das contributes Rs 20 as charge for electricity bill per month. Contribution of the members of the

society of the market is also reflection of community effort to maintain and functioning of the Kalash point.

Observations and cases of implementing agencies and management bodies of Kalash water point management

Case 1: Kalash point installed at Madrassa Arabia Azizia at Bihpuria: Ameliorate discomforts and ailments of students caused from iron laden water

The Kalash point installed at Madrassa Arabia Azizia at Bihpuria Block under NHPC CSR &S Scheme is of high significance because all other water points around the Madrassa contain high amount of iron which make water unsuitable for drinking. High iron content in the water makes it even unsuitable for washing or bathing. As the location is flood prone, the Kalash water point is extremely useful during



the rainy season. Installation of Kalash point also made people aware of benefits of drinking clean water. Keeping in view large number of potential users, the Madrassa incurred additional expenses to expand the capacity more than what is prescribed by NHPC. The upper tank capacity is 1700 litres and the capacity of at the lower level is 750 litres.

The students and teachers of Madrassa which comprises of 5 teachers and 50 students of this residential institution have been using the Kalash point as a source of drinking water. Md. Rizawul Islam, one of the teachers reported that incidences of vomiting, stomach ache have declined significantly among the inmates since installation of the Kalash point. In addition to the teachers and students, approximately 300 people that gather at the Madrasa on every Friday are also benefited from using the facility. The teacher further noted that most people living in the vicinity are poor not having access to clean and safe drinking water now access this point.

Case 2: Lengeri Thaan of Mashkhowa, Dhemaji: Kalash point eases the demand of potable water for various needs of management and devotees



Kalash point installed at Lengeri Thaan of Mashkhowa of Dhemaji district under NHPC CSR &S Scheme has benefitted a large number of devotees who visit the *thaan*. The Thaan managing committee is vested with the responsibility of operating the Kalash point. Prior to installation of the point, the committee has no alternative to use the water sources of the vicinity having high iron content, and the committee did not had resources to install filtration process. The quantity of water filtered and consumed range from 2000 litres to 15,000 litres during the day. The *Thaan draws about* 1000 devotees every day, particularly on Sunday, Monday and Wednesday. The management committee noted that keeping in view of

large number of people that visit *thaan* regularly, water is lifted throughout the day to cater to the needs of the people for various uses like cooking, drinking and washing. During Durga Puja around 5000 people come to *Thaan* and all these people use water from the Kalash point. *Thaan* management committee members also reported that better facilities such as Kalash installation has also led to the increase the number of visitors. The rise in inflow of people to the *Thaan* has also led to emergence of many outlets of eatery, flower shop, stationery in the vicinity.

Case 3: Gamiri High School, Chaiduar block, Biswanathi district: Kalash point is of great services for public events and functions



The Kalash point installed at Gamiri High School, Chaiduar block of Biswanathi district is run by the school authority. There is no other water facility of drinking in the school premise. The total number of students and teacher at the school is about 700; rely on the Kalash point for drinking water. Availability of water has made it also feasible to upkeep the sanitation facilities of the school.

The school ground is used for organizing various numerous

socio-cultural events by the local communities, including of sports meets. State level annual competitions on kick boxing, annual District Sports meet are regular events organised in the playground of the school. The Kalash point now has assume significance to run all these events. The Principal of the school leads from the front to ensure functioning of the Kalash point.

The evaluation also captures non-functional Kalash points in the intervention areas of NHPC. Non-functionality of the Kalash points was however due to certain externalities emerged even after the points were made operational. Some of the reasons cited were floods and not able to raise the maintenance costs to replace the inputs.

Case 4: Pahumara Jatiya Bidyalaya, Nowboicha, Lakhimpur: Management Bodies fail to raise resources for operation

The Kalash point installed at Pahumara Jatia Bidyalaya in Nowboicha Block of Lakhimpur district is of significance in this flood affected area. During the floods, there is acute crisis of safe drinking water in the area. Moreover, the water sources of the surrounding sources have has high iron content and also turbidity. The maintenance of the Kalash point is being done by the School authority. There

are 250 students in the school who use this Kalash point for drinking water. But during field visit, the water point was found to be non-functional as it had been damaged by flood during last monsoon. The sand used in filtration process has been contaminated with debris and required to be changed. To the school authority the costs of replacement would be about Rs. 2500/ and prohibitive with lack of adequate fund available with them.

Evaluation of RO Water facilities

The NHPC Lower Subansiri project, as a part of the CSR initiative provisioned to install 10 RO water points for the year 2017-18. Unlike the Kalash scheme, the RO water facility is planned to run on no profit no loss basis, imposing an user charge to avail the facility. The NHPC provisioned a sum of Rs. 30,36,105/ for each of the RO point. Till the end of 2017-18, just one RO point was operational within the NHPC premises. The reasons for non initiation in other localities were being higher cost required for boring of the water source, installation of high voltage power link and non-finalization of date to inaugurate the completed points. To get some insights on probable benefits, three RO facilities were visited:, functional RO facility in NHPC premises, one at Padumoni *thaan* and the other at Gogamukh. It was estimated that the price of per litre of water would cost Rs.0.30 to Rs 0.50/ if run on commercially sustainable basis. To understand the overall efficacy of the facility interactions were held with stakeholders that include management committee of the installation facilities, probable users and those living in the vicinity of the RO installation point.

Observations from RO water installation at Padumoni, Gogamukh and Gerukamukh

The Padumoni *thaan* is run and managed by a committee comprising of 27 members. The committee observes that approximately 200 people visit the *thaan* on any given day, however, the number of visitors go up to 500 on festive occasions. In addition, the *thaan* also serves as picnic spot for people during the winter season. Sometimes, school students, accompanied by their teachers, come to the place as part of excursion visit. This suggests that the choice of location of the RO point was well justified, also considering the fact the available water sources in the locality have high iron content.

The RO point at Padumoni *Thaan* however is still not functional. This is because of faulty technical specification of the boring facilities required for RO. Consequently the sum of Rs 1,31,000/ approved from NHPC for boring facilities was not enough, forcing the *than* committee to spend an additional Rs 3,00,000 for installation of boring facility. One additional constraint emerged to make the facility functional is to raise the installed capacity of the power connection of the *than* to run the RO water facility. As per the MoU, NHPC authority is not entitled to bear expenses required for enhancing power capacity. The *thaan committee* however observes that 1 the required power capacity would be installed once they are reimbursed the additional expenses incurred in boring for RO.

Willingness to pay for RO water: perception of the people

The evaluation made an attempt to get opinion on anticipated benefits of the RO points among the people in the vicinity and their willingness to pay to procure water from the point. Ms. Junti Phukan, age 26, one of the residents in the vicinity of the Padumoni *thaan entirely relies* on petty business (*pan shop*) owned by her husband for living. Her family of six relies on public well to source water for household requirements. Her family members occasionally suffer from digestive disorders and gastroenteritis, which she believes is linked with quality of water they consume.



Figure 3:15: Bhaskar Nath would prefer to pay the user charge for RO water over paying price for a bottle of mineral water

When asked as to whether they were ready to buy better quality water at Rs 1 per litre, she said it was next to impossible for them to spend money on buying water for drinking. This indicates that local people are unlikely to buy packaged water for drinking despite their lack of access to pure drinking water facility. Committee members of *thaan* are also of the opinion that the local living in the vicinity of the *thaan* are also unlikely to use and pay for the facility, as even Rs 1/ per litre is unaffordable high for many poor households; reveal no effective demand for RO drinking water provisioned if it is priced.

The visit to the RO water facility at Gogamukh found completion of construction of the building facility, but was yet to be functional as the approved budget for boring was not enough to extract ground water. The facility of water could start once the NHPC approves the additional budget. Set up near the Police Station of Gogamukh, the RO facility

can use high voltage power already available in the police station. However, the choice of the location near a Police station may limit its uses.



Figure 3:16: Enhancing access to drinking water for casual workers

Interaction with some shopkeepers/petty enterprises and households living in the vicinity of RO water points revealed mixed responses on probable use. Bhaskar Nath, a shop keeper in the area, aged 25 years, noted that he was ready to buy the water he requires from RO even if it priced.

She remarked "I won't mind paying Rs 1 per litre for water of quality that I am myself charging Rs 20." He was aware of the qualitative difference of water from RO facilities.

Interaction with Anjana Devi, a housewife and Mahim Gogoi, a small businessman, revealed enthusiastic responses. Both the respondents

welcomed the idea of installing sources of pure drinking water. However, they were reluctant to fetch water from the point which was at a distance of 500 meters from their homes. Although they knew about the benefits of clean drinking water but time cost of fetching would be a deterrent.

The visit to the RO facility set up near temple within the NHPC premises, revealed that the use of RO facility is limited for outsiders as the campus is a protected area with limited access for outsiders. The facility ceased to function after working for some months as the purifier required replacement after operating for 5 months. It took 4 months to restore the facility to functional status.

Long period taken to repair the filter also drives home the need for better maintenance to ensure regular use. The most regular and intensive users of RO facility are mostly construction workers who work within the NHPC sites. The NHPC premises are still under construction which engages a large number of construction workers.

TABLE 3.2: UNDERLYING THEORY OF CHANGE OF NHPC INTERVENTION ON SAFE DRINKING WATER (KALASH POINTS)

Background Ideas	Approach of intervening agency	Anticipated Change	Changes and Outcomes	Remarks
Provision access to clean, turbid free and safe drinking water in localities of intervention	1. Identification of sites 2. Provisioning in CSR budget, allocation and disbursement 3. Consideration of site specific needs in the budget provision including of electricity and of prevalence of arsenic	1.Provisioning of functional water sources 2. Provisioning of iron and turbid free clean drinking water	1. Large number of users – primary (eg.school children) and secondary (neighbouring households and petty vendors etc.) indicate the importance of the water points 2. Examples of collective effort through raising resources for operation and maintenance	Users (traders) at market places value such water sources for their own economic benefits, hence share the burden of operational costs
Address constraints of not having functional as well as clean and safe drinking water in public and community institutions, and market places	1. Identification of public institutions and public places requiring intervention and supports most 2. Handover the responsibilities to stakeholders for operation and maintenance	Convenience of students at schools Convenience of visitors and devotees of religious institutions Conveniences of visitors at market places Convenience of organizing public events Reduced financial burden on public institutions and community organizations to provision water	 Access to clean and safe drinking water in schools No lunch hour rush to nearby homes and water sources Reduced use of plastic bottles Reduction in water borne diseases Great services during the public events and functions 	Non-functionality of some water points constructed are because of factors like damage caused by floods, failure to generation of O& M costs by the stakeholders committees
Remove constraints of individual households to make provisioning of clean and safe drinking water	 Selection of sites at appropriate location Accommodate the demand of local communities 	1. Improved access to safe drinking water of households in the locality having constraints to filter or treatment of water.	Reduced reliance on unsafe water sources - on river and tank water Regular, easy and non-prohibitive access to clean and safe water Reduced reliance on irritating neighbor having safe drinking water sources Reduced financial burden to treat and filter water	Kalash points to an extent complement the water supply provisioned by PHE department in certain localities

4. Promoting Education

NHPC Ltd.'s intervention in promoting education has been two pronged:

- 1. Establishment of VKV at Dollungmukh, Arunachal Pradesh; and
- 2. NHPC Ltd's Scholarship Scheme.

Vivekananda Kendra Vidyalaya (VKV), Dollungmukh, Arunachal Pradesh



Figure 4:1: Students at VKV, Dollungmukh, Arunachal Pradesh

Promoting education has remained one of the core areas of CSR intervention of NHPC. Attempt has been made through two different but endearing interventions to make sustainable and durable impact on promoting quality education in the vicinity of the NHPC project site at Lower Subansiri. There are two specific interventions —provisioning school

infrastructure, and providing scholarship to the needy and meritorious students. The

provisioning of school infrastructure has been basically invested in establishing one new school – Vivekananda Kendra Vidyalaya (VKV), Dollungmukh in a village called Kolaptukar in the Kamle district of Arunachal Pradesh. Secondly, scholarship scheme has embraced hundreds of young children and youths.

Provisioning of School Infrastructure

It was a longstanding necessity of the people of Kalaptukar and nearby villages to have a school at their locality to give quality education to their children. The access to quality education has been a basic right of every child and provision of such facility has to be made available to every one of them. In a place where there is no access to quality education, students had to travel a long distance for school. The Lower Subansiri Hydro Electric Project of NHPC Ltd. under its long-term CSR and SD programme has made a remarkable intervention by establishing a school and providing all necessary infrastructures for a durable change in the society in the vicinity of the project area. Thus, through the present intervention of NHPC Ltd. –the Vivekananda Kendra Vidyalaya (VKV), Dollungmukh has been constructed and established. The school infrastructure has been provisioned under the CSR and SD programme of NHPC Ltd, however, the school is managed by the Vivekananda Kendra Vidyalaya Arunachal Pradesh Trust (VKVAPT).

Vivekananda Kendra Vidyalaya Arunachal Pradesh Trust (VKVAPT), a charitable organisation under the spiritually oriented service mission Vivekananda Kendra, Kanyakumari, mainly working in the state for promotion of education and has already earned a reputation in the state during last few decades. The Trust has been running 37 schools and one Teachers' Education College in different parts and remote localities of Arunachal Pradesh. Since its inception in 1977, Vivekananda Kendra Vidyalaya (VKV) has become a name in itself in the state by imparting education with a vision of 'man making and nation building'. The VKVAPT has been receiving a grant-in-aid from the government of Arunachal Pradesh to maintain these schools. NHPC has probably considered VKVAPT for such a reputation that it has already earned in the state.

The present intervention –the VKV, Dollungmukh was initiated in December 2013 and became operational from the academic year 2015. However, the present academic building of the school was inaugurated by Mr. Pema Khandu, Chief Minister of Arunachal Pradesh on 12 December, 2017. The school was started with an initial enrolment of 79 students for three standards –class I, II, and III including 30 hostellers. Presently, the school has 196 students from class I to class VI of which 159 are boys and 37 are girls and a total of 112 students stay in the hostel. However, the hostel facilities are meant only for the boys. The present hostel building which is a single story building with an area of 4000 square metres was initially used partly as class rooms, residential quarter for the teachers and hostel for students before coming up of the present academic building. Although, the classes are currently there up to middle level, there are sufficient infrastructures to grow and extend the classes in the coming years.

Implementation of the Project

There are three Memorandum of Understanding (MoU) concluded with implementing agencies for implementation of CSR intervention so far as the funding of school infrastructure is concerned. As part of the commitment of NHPC Ltd to finance the construction of a school (VKV, Dollungmukh), the first Memorandum of Understanding (MoU) was signed with Peri Pumbh Association in December 2013 to implement the project under its CSR and SD programme. The initial agreement was for 'construction of VKV academic building, retaining wall along VKV boundary, VKV hostel including dormitories and dining hall' for a cost of Rs. 7,77,09,182 (Rs. seven crore seventy seven lakhs nine thousand one hundred eighty two). The implementation of the project was supposed to complete by 17 December 2016. The project was successfully implemented and school came into functional even before the completion all construction in 2015. There is another MoU signed on 31 March, 2017 with the VKVAPT for a financial support of Rs. 47,34,400 (forty seven lakhs thirty four thousand four hundred) for 'infrastructural requirements regarding furniture, smart boards, other supporting materials etc for classrooms, hostel, office, library, lab etc. for the VKV Dollungmukh'. Intervention under this phase was meant for other infrastructural requirement of the school for proving quality education and supporting the teaching-learning process. Continuing with the commitment and to bridge other infrastructural gap, an another MoU was signed in June 2017 with Peri Pumbh Association, the implementing agency for 'construction of VKV staff quarter, internal roads, sewage disposal, boundary wall, entrance gate and playground' for a cost of Rs. 3,08,16,249 (Rs. three crore, eight lakhs, sixteen thousand two hundred and forty nine). As per the Agreement, the implementation of the project was supposed to complete by 31 March, 2018. However, construction of staff quarter and boundary wall is yet to be completed. The implementation of completed projects is, however, satisfactory and sustainable in nature. As provisioning of school infrastructure has been a part of the long term intervention of NHPC, there will be many more necessities for the growth and development of the school.





Inauguration of VKV Kolaptukar by Shri. Pema Khandu, CM, Arunachal Pradesh.

VKV School Building





VKV Hostel Building

Insidestble Hostelostel

Figure 4:2: Different structure of VKV campus

Contributing to the Society by Promoting Education



Figure 4:3: Students at Computer Lab, VKV, Dollungmukh

Establishment of the school (VKV, Dollungmukh) fulfils a longstanding demand of the local people. The interventions are found to be extremely relevant in terms of adherence to the objective of promoting education. As the CSR guidelines of NHPC also give special consideration to the cause of promoting education which has been one of the top priorities for them under their CSR and SD programme. The invention in the field of

education has also been mandated and made relevant by the existing rules and norms under various parameters and statutory provisions such as Companies Act, 2013, Right to Education Act, 2009, Sustainable Development Goals etc.

The effectiveness of the intervention i.e. improvement in the school environment has been evaluated through three things –usability and functionality of the facilities, fulfilling the need and satisfaction of the beneficiaries about the quality of interventions. The present school has become one of the of the best in terms of infrastructure including hostels, smart classrooms, trained teachers, sports facilities and modern equipments such as computer lab, science lab, library etc. Apart from the physical infrastructure, the school has 11 teachers including science teacher, physical trainer, and computer instructor. The teachers are having required qualification including teacher training. Similarly, 6 non-teaching support staffs are also there to maintain the infrastructure and taking care of the children staying at the hostel.

As per the class schedule of the school, the school has been trying for all-round development the students by giving them regular slots and sessions for games and sports, physical training, computer science, library etc apart from the classroom teachings. It was observed during the multiple visits to the school that students are readily and habitually using all available infrastructures such as library, computer lab, and smart classrooms etc. During the evaluation process, observation method was also used to understand –whether students and teachers are spontaneously using the facilities available or not. It was found that both –students and teachers are using facilities such as digital teaching aid whenever necessary without any hindrance.



During the interaction with the students, it was observed that they could learn a lot and also happy with the new school. There are some students who migrated to this school from other school and they are highly satisfied with all new infrastructures and facilities available here. There are different reasons for migration of students to VKV, Dollungmukh. Some students came here because of their convenience as school has been near to their home and some came here from long distance to get better educational environment. As per the record available, apart from the local students from villages like Kalaptukar, Soma, Paro etc, there are sizable numbers of students coming from distant places like Itanagar, Gensi, Seppa, Daporijo, Along etc. This has been evident about the acceptability and

reputation of the school in the state of Arunachal Pradesh.

Teachers are also very happy being associated with this school. It was reported that VKV, Dollungmukh has been one of the best schools in terms of infrastructure among all the VKVs in the state. Therefore, the school has also been growing as a centre for different activities like inter-school functions and training programmes within the VKV network in the state. As part of the thrust for betterment and prosperity, there different programmes held in the school which eventually enhances the quality of teaching and learning. Such programmes are –orientation camp for English teachers, inter-VKV singing workshop for students, inter-VKV essay writing competition, celebration international day of yoga, and international brotherhood day etc which have become regular activity in the school. These activities are gradually showing the vibrancy of educational as well as coeducational environment in the school. Students from this school are also participating in different state and national level programmes through different initiatives of the school. Nevertheless, the school maintains a close bond with the local society and community too. As part of such community initiatives, the school has also organised social events such as cleanliness drive in the locality.

Bini Sunny, a student from sixth standard of the school could represent the school at the state level painting competition under National Campaign on Energy Conservation, 2018 organised by the Ministry of Power, Government of India. Similarly, a group of students from the school participated in inter VKVs essay writing competition, state level quiz competition at Itanagar organised by Education Development Organisation Society. Thus, students are getting different exposure and opportunities which are important for their all-round development and also for the over-all educational environment at the school.

Similarly, parents are also glad about the environment at the school. Bini Topuk, a parent, expressed that coming up of the VKV in their locality has given them a sense of satisfaction that local children are now getting access to quality education at their doorstep. Parents are also hopeful that their children will grow and become good and responsible person of the society. Parents are also happy about the fact that the school provides good boarding facilities and thus in a way, the school is taking all care of their children. The fee structure of the school has also been very reasonable as the school is managed by a Trust which is a not-for-profit organisation under a spiritually oriented service mission. A student staying at the hostel has to pay Rs. 36000 to 38000 including admission fee, tuition fee, and boarding and food charges etc per year. Parents are happy that their children are staying and studying in a good school having best of the infrastructure, trained and caring teachers and good accommodation.

The school has been making all efforts to be one of the best schools in the state and also making sincere attempts to impart quality education to the students not only from the locality but also from other parts of the state. However, there are scope for further improvement and development. For an instance, there is no hostel facility for the girls which can be added to the vision of the school so that girls can also access to a healthy educational environment. Similarly, maintenance of the huge infrastructure has also to be taken care off. For an example, the computer lab and the science lab which are currently underutilised but will become important once higher classes are introduced. Therefore, the sophisticated infrastructures have to be maintained carefully for its durability and sustainability.

NHPC Scholarship

The NHPC Lower Subansiri project has provisioned educational scholarships to students from lower income groups living in the vicinity of the project area. This is with anticipation that the scholarship programme would motivate the students to continue education with more efforts to achieve their goals.

The scholarship program covers SC/ST students, students belonging to economically weaker section, meritorious students and those who excel in sports and other extracurricular activities. A budget provision of Rs. 24.70 lacks was made under CSR & SD 2017-18 to disburse scholarship. Two schools located in and around the project sites - KendriyaVidyalaya, Gerukamukh, Assam and VKV, Dollungmukh, Arunachal Pradesh were selected for this purpose. The budget allocated for the program was as follows

TABLE 4.1: DETAILS OF SCHOLARSHIP FOR THE FINANCIAL YEAR 2017-18

Sl No	Name of School	Class	No. of Students	Amount per annum
1	KendriyaVidyalaya, Gerukamukh, Assam	I to XII	212	16,86,000
2	VKV, Dollungmukh, AP	I to V	108	7,10,000
3	Total			23,96,000

The program mandates scholarship of varying amounts to students depending on the class students study. Scholarship of Rs. 6000/- per annum is being offered to the students up to class IV, followed by Rs. 8000/- per annum for students studying up to class VII, Rs. 10000/- per annum for students up to class X and Rs. 12000/- per annum for students studying in senior secondary classes.

TABLE 4.2: DETAILS OF SCHOLARSHIP

Sl No	Class	Amount (in Rs.)
1	I-IV	6000
2	V-VII	8000
3	VIII-X	10000
4	XI-XII	12000

During 2017-18, the scholarship programme covered108 students from VKV, Dollungmukh and 212 students from Kendriya Vidayala, Gerukamukh. It is also noteworthy to mention here that all the beneficiary students are from the project affected area.

The unique feature of the scholarship scheme is that once received, the scholarship is renewed till the student completes the course she or he is enrolled.

The scholarship programme is implemented through a committee comprising of members from its CSR Division and HR & Finance Division for both finalizing the candidates and processing the formalities. The Principal/Head Master of the school are the default member in the committee, who has the responsibility of selecting the students for the scholarship. The selection process is transparent and targeted for the needy and meritorious students.

Among the 108 students from VKV, Dollungmukh who received scholarship during 2017-18, 71.3 percent belonged to primary class and 28.7 percent belonged to high school. Approximately 15.0 percent of the students receiving scholarship were girls.

The scholarship programme covered 212 students from Kendriya Vidyalaya, Gerukamukh. Among those who received scholarships, students up to class IV constitute 37.0 percent, with students between class V and X accounting for 60.0 percent, and those studying in senior secondary classes accounting for the remaining 3.0 percent of the candidates who received the scholarship. Altogether 54.0 percent of the students receiving such scholarship are girls.

Social group wise 70.0 percent of the students receiving scholarships belong to SC, ST and OBC communities. Among the beneficiaries, ST students account for 34.0 percent, followed by students from OBC and SC accounting for 27.8 percent and 8.5 percent respectively.

The scholarship pragramme has encouraged the students to continue their education which results in better educational outcome. More than 50 percent of the students receiving scholarship have performed well in their annual examination.

The scheme has been extremely successful in providing opportunities to deserving students to pursue higher education of their choices. Enhancing the choices marks an important dimension of human development. This opens up plethora of opportunities for the students besides boosting their moral and confidence. The amount of scholarship not only helps covering tuition fee and other expenses of the students directly but indirectly relieves the family from incurring costs for providing their children with quality education which otherwise would have entailed substantial cost on the family.

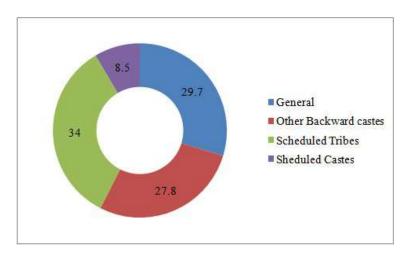


Figure 4:4: Social Category wise students receiving scholarship

Cases of beneficiaries of scholarship scheme

A few students and their families narrated their experiences on how the fellowship has been a major source of strength in continuing and encouraging their children to strive better in their academics.

Bini Yater, VKV, Dollungmukh: Scholarships are incentive to strive harder

Bini Yater and Bini Nunu are twins: a brother and a sister. They are both students of VKV, and are benefiaries of scholarships given by NHPC. Their father is engaged in timber trade and also owns a plot of land which he cultivates for home consumption.



Though a successful trader, Tamla Bini, the father of the twins, felt that the environment available at VKV is conducive for his children to pursue their studies. He lamented that such an environment was absent in his home as his house is often full of visitors and traders in connection with his trade. He was emphatic that setting up of the VKV has helped him to find an opportunity to send his children for better education.

Although the family is well endowed to finance the education of their children at VKV, nevertheless they value scholarship as the biggest incentive to motivate children to strive harder. As Tamla Bini quipped, "Scholarship is atleast providing incentives to give more attention to studies". Availability of

hostel accommodation has helped him put his son in safe custody of the school authorities and relieved him from worries.. If similar facility is introduced for girl students, he would admit his daughter in the hostel too so that she too can find a good environment for studying.

Bini Sunny, VKV: Scholarships come handy to avail the hostel environment



Bini Sunny, a student of class 6 at VKV, is one of the most deserving students to receive the scholarship. His father was working as sub contractor with L&T who were involved in the setting up of NHPC campus. Though his father still earns a decent monthly income of Rs 25,000, it is not enough to support increasing expenses of the family. His mother is also associated with NHPC as casual worker where she draws a salary of Rs. 10000 per month.

The family has always aspired to send their children to a good school. The opening of VKV was a moment of great joy for the family as they could very well send their children to a good school that they had always hoped for. As the school also came up with

hostel facility for boys, the parents decided to put their sons in the hostel which could provide them with a better learning environment beside teach them better interpersonal skill. Although the family stays barely 1.5 km away from the school, the parents have put up their sons in the hostel where the boys have found a congenial environment for study and also for other extracurricular activities.

The annual hostel fee of Rs 40,000 each for two sons are too high for the family, especially after slowing down in the construction activities in the campus. Bini Topuk, the father of Bini Sunny, could not thank enough NHPC for timely help with the scholarship amount of Rs 8000/ each to both his sons which partially covers their hostel dues.

Nowi Ul Ahmed, VKV: Scholarship prevent probable dropouts



Nowi Ul Ahmed is a student of class 4 at VKV. His father stays in Kalaptukur, Kamle district, in Arunachal Pradesh. He owns small shop. His elder son is pursuing studies from his maternal grandfather's house at Harmati where he is enrolled at Don Bosco School. His younger son is enrolled at VKV. With meagre income, his father was struggling to cope with high admission fee and other expenses to pursue his son's education. The annual scholarship of Rs 8000/ given to his son has come as a big relief for his family to take care of other dire needs of the family from his meagre income. The scholarship from NHPC has helped to continue their son's education and prevents probable drop-out.

Suman Roy, Kendriya Vidyalaya: Scholarships helps to procure basic necessities for education



Suman Roy is studying at class VIII at KV, Gigamukh. His father Dilip Roy hails from Biswanath Chariali, but now stays within NHPC Campus, where he works as a staff driver on contract basis. His father was deeply appreciative of the scholarship program launched by NHPC as the amount relieves his burden to a great extent.

He reported s that half the scholarship money of Rs 10000 is used in purchase of books, dresses and other necessities, with the remaining amount kept in the bank in his son's name. Mr Roy further comments "Now my son does not have to think twice before asking about books or any other necessities for his

studies. I am financially and mentally relieved now."

Rimpi Kumari, Kendriya Vidyalaya: Scholarship helps to pursue education



Rimpi Kumari at class is at KendriyaVidyalaya. The meagre income of her father Dhananjay Kumar engaged in casual work it is difficult to feed the family of five. Rimpi's elder sister stays in Bihar with her grandfather, who also takes care of her sisters' education. There are times when her father had to remit sister's educational expenses and with his meagre income it was beyond capacity to bear education expenses for Rimpi. The scholarship of Rs

8000 provided by NHPC has been of immense help to pursue her education.

TABLE 4.3: UNDERLYING THEORY OF CHANGE OF NHPC INTERVENTION ON EDUCATION DEVELOPMENT

Background Ideas	Approach of intervening agency	Anticipated Change	Changes and Outcomes	Remarks
Promotion of a comprehensive and modern school infrastructure in remote areas	1. Provisioning of all necessary infrastructure including of sufficient physical space constructed for expansion of classrooms 2. Provisioning with a reasonable fee structure 3. Infrastructure to be managed by a trust 4. Construction managed by an local association 5. Present provisioning as a part of long term intervention of NHPC for growth and development of the school	1. Access to quality education at doorsteps 2. Durable change in the society	1. One of the best schools in terms of infrastructure in the state 2. New infrastructure and better environment draws students from distant places 3. Significant enrolment of girls despite not having girls hostels 4. Space for all round development of the students with games and sports, computer science and library – students are readily and habitually using all available infrastructure 5. School space is being used for interschool programme- orientation camps for teachers and various competitions 6. Participation of students in state and national level programmes 7 Students involvement in community works	Parents hope that their children will grow and become responsible citizen in the society Hostel facility for girls will change the scenario further. Use and maintenance of all the sophisticated huge infrastructure will be taken care of carefully and effectively with introduction of higher classes in the school.
Provisioning of scholarships to needy students	1. Support students from lower income group and under privileged communities 2. Selection of students with consultation and recommendation of school principals 3. Provisioning of scholarships with upward allocation for higher classes to meet rising expenses 4. Award of scholarship till the students continue school education 5. Motivate students to continue education with effort to achieve goal in life	1. Relieve economic burden of the families 2. Motivate students and helping to strive harder to achieve goal in life	1. Scholarship is now major source of strength in the family 2. Motivated students strive harder 3. Performance in examination has improved 4. Scholarship has helped to meet part of hostel expenses and thus ensures a better environment of comprehensive and extra-curricular learning through hostel life. 4. Prevents possible dropouts. 5. Helping to purchase basic educational necessities in addition to payments of school fees.	Non-availability of hostels for girls affected enrolment of girls students as well as the proportion of girl students availing supports of scholarships.

5. Skill Development

NHPC, Itanagar envisioned the mandate of Skill India vision program launched by Prime Minister of India and towards this forged partnership with a number of training institutes to build capability of youths in its area of intervention. NHPC signed MOU with numbers of institutes operating at regional and national levels. The aim of the skill development scheme is to instill economic security and stability among the youth through skill training and holistic development, facilitating enhanced access to opportunities in industry jobs and through self-employment. As Figure 5.1 indicates, NHPC Itanagar consistently shows its commitment for skill development by allocating higher budgetary amount.

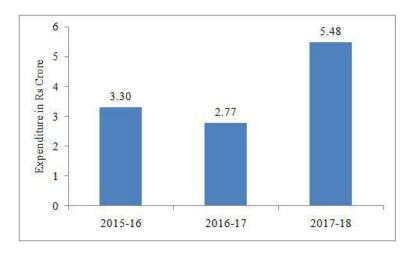


Figure 5:1: Promoting Education and Skill Development (in Crore Rupees)

NHPC Itanagar unit has allocated Rs. 548 lakh in Skill Development during the financial year 2017-18. In other words, allocation for skill development accounts for approximately 90 per cent of total CSR fund allocated for CSR& SD activities for the year 2017-18, underlining the emphasis given by NHPC to empower the local youth by imparting skills. To provide skill development trainings in various fields, NHPC Ltd has partnered with Construction Industry Development Council (CIDC), Don Bosco Youth Centre (DBYC), Skill Development and Entrepreneurship Department, Government of Arunachal Pradesh (SD & E) I Watch & Allied Services Private Agency Tawang, National Youth Project (NYP) Itanagar, North East Practical Education Development Sanstha (NEPEDS) Guwahati, IL&FS Skill Development Corporation limited, Guwahati.

TABLE 5.1: ALLOCATION OF BUDGET FOR DIFFERENT INSTITUTES FOR SKILL DEVELOPMENT PROGRAMS

SI No	Institute/ Training Centre	Amount (in Lakh)
1	I Watch & Allied Services	3.77
2	NYP	4.24
3	IL&FS	9.38
4	DBYC	22.50
5	NEPEDS	40.26
6	SD&E	60.39
7	CIDC	429.60

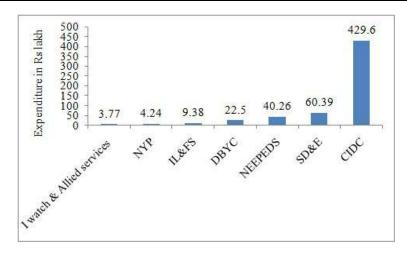


Figure 5:2: Allocation of budget for different institutes for skill development program

The following is the list of number of candidates that were targeted to be skilled with different training partners under the skill development program.

TABLE 5.2: DISTRIBUTION OF CANDIDATES TARGETED BY TRAINING PARTNERS

Training Partners	Candidates targeted	Trades / Industry
CIDC	1000	Construction (Electrician/ Plumber/ painter/ mason/ land surveyor)
NYP	30	Handloom and Handicraft
IL&FS	25	Medical services & Pharmacy profession
NEPEDS	100	Medical services & Pharmacy profession
I Watch & Allied Services	25	Security Guard
SD & E	150	Construction (Earthmover/ Dozer/ Roller/ Excavator/ operator cum mechanic
DBYC	50	Hospitality



Figure 5:3: Candidates successfully completed the training by IL & FS, Guwahati



Figure 5:4: Candidates undergoing training in IL & FS, Guwahati



Figure 5:5: Candidates undergoing training at Construction Industry Development Council (CIDC)

Imparting skills to poor and disadvantaged youths

The partner institutes with whom NHPC signed MoU imparted training in the field of construction, hospitality, health care, security guard and other related services, which account for bulk of the jobs generated in India at present.

To assess the impact of skill training, candidates were randomly selected, in proportion to the total candidates trained under different training partners. A semi structured questionnaire was administered with the beneficiary households to elicit information on the reasons behind the choice of trade, their persistence or quitting the jobs to evaluate the utility of the training program. As part of the program, as many as 73 candidates were randomly selected from the list provided by the training partners. The distribution of candidates, with their job status is reported in figure.

The performance of training partners thus varies across training institutes. In case of CIDC, of the 40 candidates with whom interaction was held, only 14 are (35 %) are still in jobs, with 23 persons (58 %) quitting the jobs and the rest 3 persons reporting that they did not even get jobs. Among the 17 persons trained under NEPEDS, 14 have quitted the job they got post training and only 3 persons now remain in the job. Altogether 7 persons received training under IL&FS of which 4 remain in job, one did not get a job and have quitted the job they engaged post training. All the 3 candidates interviewed trained under DBYC were in job, while none of the candidates trained under NYP were in jobs during the evaluation period. As regards the other local partners chosen for training, the I Watch Security & Allied Private Services Limited, though required to train 25 candidates as per the MoU only 17 candidates got the training. Among them only 4 got placement at Livingstone Foundation Higher Secondary School Tawang and 3 at Late Dorjee Khandhu Memorial Museum Tawang. As reported the training institute did not make efforts to place the candidates as a part of their dues were not cleared by the NHPC Itanagar to the MoU signed.

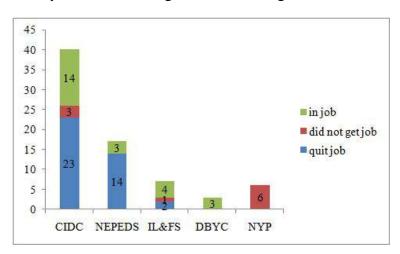


Figure 5:6: Distribution of candidates with job status across training partners

To the MoU signed between the SD & E, Government of Arunachal, the responsibility was to impart training to 150 youths in Earthmover/ dozer/ roller/ excavator operator and in trade of mechanics. The evaluation found after the post MOU period found that only 58 candidates completed training and got the assessment certificates. None of those who completed the training course got any placement. The training at later phase was discontinued by the Department of SD and E because of non-recipient of the dues from NHPC, Itanagar.

Another training partner National Youth Project, Itanagar, as per the report submitted to NHPC Itanagar, claimed that 23 of the 30 candidates trained by them are successfully placed. The evaluation team chooses 6 candidates randomly for an interaction and found to be unemployed with no record of being placed in any job. The findings highlight few learning points with respect to selection of training partners and their ability to provide gainful employment to the trained youths. The selection of trade for training and placement of the trained youths did not have a detailed plan of action which often led to youths being left unemployed or quitting their jobs as they were placed in activities for which they were not trained. This reflects that selection of training agencies have critical bearing on the success of the programme.

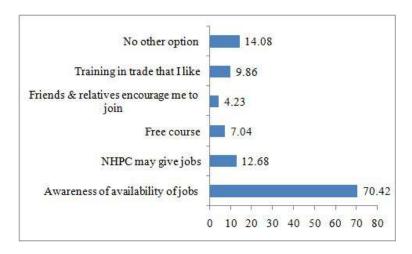


Figure 5:7: Percentage share of reasons cited by candidates for choosing the training program

The beneficiaries of the training program were asked about the reasons for the choice of trades that they chose for training. The reasons cited for choice of trade were found to be varied. Of the 71 candidates selected, the opinion of 70% was that they chose a particular trade because they were aware of the jobs availability in the trade. Altogether 14% candidates cited that they had no other option but to rely on whatever was available. Expectation of about 13% trainees was that NHPC might provide them a job if they undergo the training program. The rest of the beneficiaries reported their keenness to learn the skill, persuasion from family members as the reasons to undergo the training programme.

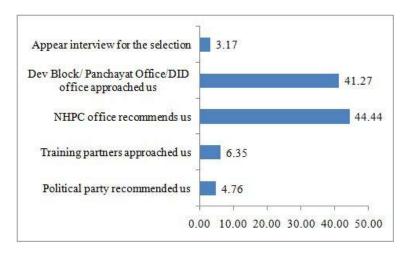


Figure 5:8: Responses on how candidates are selected for the program

Interaction with the sample beneficiaries on their selection for the training revealed that recommendation of the NHPC office, initiation of the offices of development blocks, panchayats and district industries centres were the main routes of selection. Recommendation by political parties, approach from the training institutes were also cites the route of selection, along with individual efforts of few beneficiaries (Figure 5.8).

Most of the candidates selected for the training were either unemployed or were studying. Altogether 13% of the candidates selected for the training were engaged in petty business or other jobs.

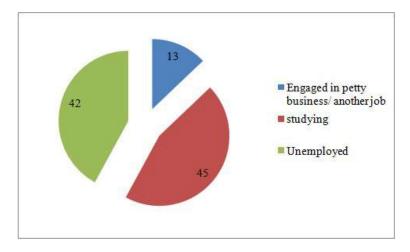


Figure 5:9: Status of candidates before they join the training program

On being asked to assess the training modules, majority (63 %) of the candidates reported that the syllabus was completed and training was comprehensive. Approximately 21 percent candidates reported training as not enough, and 3 percent reported that trainer was not good.



Figure 5:10: Percentage share of responses of candidates on how they assess the program

On the overall satisfaction of the training programme, the sample beneficiaries had mix responses. Two thirds of the candidates reported that they were not satisfied with the placement of the jobs, with only one third reporting that they are satisfied with the placement.

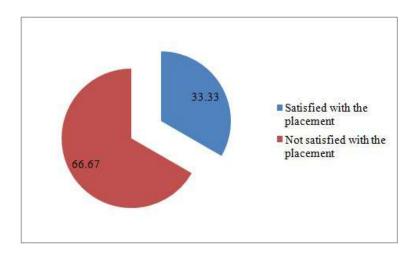


Figure 5:11: Percentage share of status on how candidates assess the placements

The reasons for dissatisfaction as cited were also varied. As many as 71 percent report that they were not happy with the salary offered to them which they receive is very low. Among those, who were dissatisfied with the placement, as many as 15 percent reported that the jobs that they were engaged in do not require the skills that they have learned, with remaining 14 percent terming the jobs as too risky which does not have adequate safety measures and insurance provision in the event of any mishap..

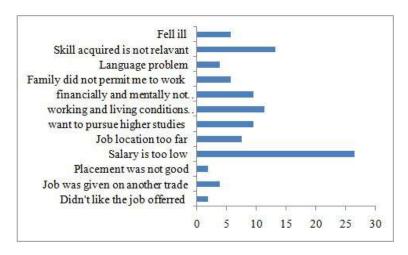


Figure 5:12: Percentage share of responses on reasons for quitting the job after completing the work

Needless to mention, majority of the sample beneficiaries of training had dropped out before completing their training. Among the reasons cited, salary being too low is most important, followed by irrelevant skill, poor working and living conditions and job location being too (figure 5.12) far.

The evaluation found that high level of job dissatisfaction led to frequent job changes among those who reported employed status. It was found that more than 80% of those who are in jobs reported changing their jobs at least once. The reasons as cited were obvious as people in crisis look for better salaries, better working conditions and jobs o their choices.

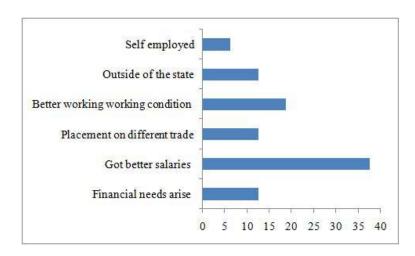


Figure 5:13: Percentage share of responses on reasons for shifting jobs as cited by respondents

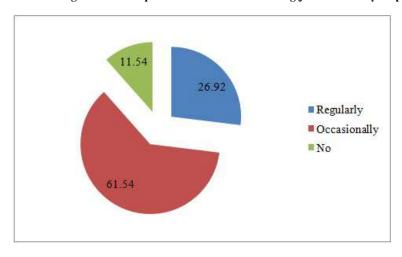


Figure 5:14: Percentage share of candidates who got placed by how frequently they send remittances

Of the total beneficiaries of the training who are reportedly in jobs, only 27% of them regularly remit money to their families, with 61% remitting occasionally to their home. On the other hand about 12% beneficiaries do not remit. The indication on remittance also reveals the attractiveness and return from the jobs the beneficiaries are now engaged.

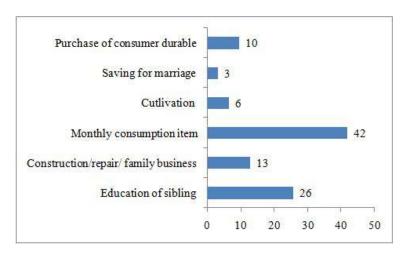


Figure 5:15: Percentage share of responses on how remittances are utilized

As reported by the sample beneficiaries most of the remittance money are utilised for monthly consumption needs, followed by education of the siblings. It was also fund that in few households the remitted money is used for construction and repair of homes and cultivation revealing the importance of remittance and the outcomes such skill development programme have probability to generate. Case study of a few individual beneficiaries revealed certain traits on the outcomes of such programme. The individual beneficiaries interviewed at length were trained and placed through Don Bosco Youth Centre (DBYC) highlights the impact that such program can unleash if proper institutional mechanism is put in place.

Aseng Mary, East Siang District, Arunachal Pradesh: Changed orientation with high motivation



The case of Aseng Mary from East Siang District is particularly illuminating. She is the eldest among 4 siblings. Her father is engaged in jhum farming and her mother looks after household affair. The family of four members is in perennial need for cash to meet increasing expenses. It was during such trying times to meet their life's challenges with father's meagre income that Father Cyrac from Don Bosco Institute approached the family with an offer to train and place their eldest

daughter with job. The family readily agreed. After the successful completion of the training program, Aseng joined Lakesong Resort, Kerala with a salary of Rs 9000 per month in addition to lodging and food that is provided free of cost. After six month of probation, she has become a regular staff with the hotel. Her elder brother also reported changed personality of her sister within a brief period as she gained confidence interacting with the guests at the resort coming from different states. The remittances sent by her to home are being used to educate her younger siblings in addition to meeting other urgent requirement of the household.

Meena Chungkurang; Dibang Valley, Arunachal Pradesh: Sense of fulfillment through hard work



The story of Meena Chungkurang from Divang Valley is fascinating. After she lost her mother in her childhood, she remained a neglected child as her father married for the second time. She was not good at studies, but was otherwise was a very pleasing girl loved by all. The opportunity to enhance her skills for hospitality industry could not have come at more opportune time. After the successful completion of the training, she initially joined at Sagara Beach Resort, Kerala where she was drawing a salary of Rs 8000/ plus lodging and accommodation. Her hard work and perseverance paid off finally as she finally found a job at Taj Hotel which now pays her Rs 20000/ per month. As she does not have to send money back home it has helped her save her earning for future endeavour. A girl whose life seemed lost

and wasted found new meaning through the skill development programme of DBYC which has not only given her the self worth but also a dream to do well in life and find a sense of fulfillment through her own hard work.

Noyomi Dolley, Pasighat District, Arunachal Pradesh: Meeting educational needs of Siblings



Noyomi Dolley, is presently working as a receptionist with Alexia Resort. A native of Pasighat district, Noyomi's family was approached by father Cyrac with an opportunity to train and place their daughter in the growing hospitality industry. After completion of her program, Dolley joined at Sagara Beach Resort at a salary of Rs 8000 per month. She felt the salary was too low for her and could barely save any money to pursue her other interests as well as remit money to home. After 8 months at job, Noyomi changed her job to serve at Alexia Resort where she has been earning Rs 9000 monthly salary plus free food and lodging. Noyomi knows that with every new assignment she can learn new skills and gain experiences which can give her better opportunities in life.

She has taken her new job as a new learning experience to move ahead in better opportunities where she could earn enough to save and help her family. Notwithstanding the challenges of hard work, Noyomi manages to save some money and feels happy that she could remit an amount of Rs 10000 few months back which helped her family to meet expenses for education of her siblings. She aspires to shift to a better job with higher salary so that she can regularly help her family and also save for herself. Confident and happy she feels that had it not been for DBYC she could not have found this strength in herself and become a capable member to support her family.

Beneficiaries at NYP, Itanagar; Misplaced emphasis and approach

In order to find the responses from beneficiaries of other agencies, reportedly not yield results in ensuring gainful employment, few beneficiaries of National Youth Project (NYP) undergone training on weaving and handicraft to women were interviewed.

Toge Likar, wife of a local policeman was selected for training program organized by NYP. A mother of two grown up sons and a daughter her enthusiasm was spontaneous. While her daughter is undergoing training as Nurse and her both the sons pursuing higher studies; left enough time for her to get herself engaged in the new skill.

Her husband now posted at Itanagar, Arunachal Pradesh, draws a salary of Rs 35,000 per month and her family is economically not hard stressed. Toge joined the training programme to acquire skill so that she too could contribute towards her family's well-being. She completed her training in stitching of traditional dress, and aspires to work on her own someday. Lack of dire needs on economic front in her family as well as lack of any significant entrepreneur venture in her locality debarred her to apply the acquired skills. At her age it is also not worth migrating outside the state to look for a job of her choice. Ms. Togo's case indicates that selection of right beneficiaries important to yield some positive outcome from the skill training intervention.



A neighbour of Ms. Toge, Ms. Tilling Yania is of similar case. Wife of a retired policeman, her family has monthly income of Rs 17,000 per month. She has 3 grown up daughters and 2 sons. Her daughter is also engaged as medical staff in district hospital. Ms Yania completed three months of training in tailoring and embroidery. , She is willing to work if she gets a job with salary of Rs 8000 to Rs 9000 within Itanagar only but she

observed that no efforts have been made by NYP to place her

Pura Meena, wife of a policeme, also lived in the same colony of Ms Tilling Yania and Ms. Toge Likar in Chandra Nagar, Itanagar. Under NYP, she also has completed training of 3 months in tailoring. She noted that training was good and there was talk of starting one's own business, but no effort was visible to initiate self employment initiatives.

Selection of trainees from middle-age group and that too from same locality indicate adhocism in the selection process. It is true that women aspire for gainful work and recognisation as well as workplace identity despite being from well-to-do families; these factors were not find space or perceived in planning, selection process and finally in provisioning to make space for application.

Puspanjali Rabha, Kalaigaon, Udalguri: Exposure to new idea and work, experiences would help to explore better opportunities

Pushpanjali Rabha from Bhulabari village of Udalguri District had undergone training on GDA Nursing that was organized by IL &FS at Guwahati under NHPC CSR & S Scheme. After completing higher secondary, she was looking for job opportunities that will at least help her meet her own expenses.



Ms. Rabha's family of 8 members was going through economic hardships with no land in possession and her father often remained without work. Among her siblings, her two younger brothers have started working, one as a driver and the other as shopkeeper. However, the accumulated monthly income of Rs20000 from all sources is not sufficient to meet the growing expenses and with anticipated burden of marrying off two grown up daughters. The parents were stressed but could find no solution to move out of their drudgery. As the eldest daughter in the family Pushpanjali always felt it to be her responsibility to ensure wellbeing of r the family.

It was around that time that she came to know about the NHPC Scheme from the block office. Ms Rabha was happy with the training as she learnt some basic healthcare tips such as checking blood pressure and bed bath. After the completion of three month program, she, along with other trainees, were placed as home care assistants. A few months later she was placed with Namecare Hospital in Guwahati as ward assistant. The earning though is meagre at Rs 7000/ per month, she is happy with the working conditions. She however hopes that the salary could have been more and hopes that with an increase in her salary she can afford to remit money to her home which could take care of her parents and her sister. Ms. Rabha also hopes that with experiences gained she could get better

opportunities to earn more. As the cost of living in Guwahati city is high the present salary barely leaves anything to save.

Sanjib Acharya, Gamiripal, Sonitpur: Wasted efforts, misplaced priorities?

Sanjib Acharya comes from a very poor family of 4 members from Gamiripal Village of Sonitpur District. His father is a cultivator and their family income is less than Rs.5000 per month. Though he was assisting his father to cultivate the 2 bighas of land, does not led any addition to their household income. Sanjib's elder sister who is a post graduate works as private tutor and earns Rs 1500/ a month, which is hardly enough to complement their poor family income. He had been looking for alternative employment opportunities to support his father and sister. It was a relative from his village who informed Sanjib about the skill training organized by NHPC on supervisor of construction works in Ranchi.

He decided to apply for the same and was selected. He completed his training which he found to be fairly good and the trainers also were experienced. After the completion of the course, Sanjib was placed as labor for construction works in Bangalore city. Soon he realised that job profile does not tally with the training he received at CIDC. In addition, he had to endure long working hours, no holidays, risks in jobs that is not covered by insurance. After one month of service in Bangalore, he returned to his native place. On his return, he found work as helper in ADHAR office. Though the salary is very low and the job does not require any of the skills that he learned at CIDC, Sanjib is content with his new job as he can save money and help his family income. He however regrets that the skill he has acquired and effort undergone in the process has gone wasted.

Rekhamoni Das, Gharamora, North Lakhimpur District: Hoping for better prospects with acquisition of quality skills and learning



A native of Gharmora village of Lakhimpurdistrict ,Rekhamoni Das comes from a very poor family. Her fathers is a farmer and mother a house wife. The meagre income of Rs 3000 per month that her family obtained from farming on 3 bighas of land was never enough for the family of four. She has long been in search of job to support her family financially.

On being informed by Block Office, Rekhamoni completed training on GDA Nursing at Guwahati organized by NEPEDS under NHPC CSR & S Scheme. She was satisfied with her training in basic nursing that was conducted over a period of 4 months. Although they had been promised of good placement and salary, the real

experience was different. As narrated by Rekhamoni, she was placed with home care nursing and her monthly salary is Rs.5000/-. Rekhamoni noted, "My salary is not sufficient to sustain life in Guwahati city. I have to commute long distance to reach my workplace and spend Rs 40 daily on travelling. I wish I got a better job after six months of training".

Prabhat Chandra Pegu, Bordoloni, Dhemaji: Wasted efforts of inadequacy in learning



Prabhat Chandra Pegu hails from Dirpai Gaon Ukhamati, of Bordoloni Block, Dhemaji District. Till two years back, he was working in his family farming. The annual family income was below Rs 40000/-and was never sufficient to sustain the family.

He had been looking for an opportunity to get some skill training. It was in one of his visit to the block office, he learnt about the opportunity of skill training in construction industry. He seized the opportunity to acquire new skills to make himself fit for other jobs. Sponsored by NHPC under CSR & S scheme, he enrolled himself with CIDC to learn trade skill as electrician. He hoped that this new skill would help him find better employment opportunity and take care of his family of four.

Prabhat was however not happy with the training that he received at CIDC office. Recounting his experience, Prabhat noted that training was not long enough to impart him with the requisite skill of an electrician. He noted that the job of an electrician has various components like earthing, fitting of meters, meter binding, wiring etc and the present job market has high demand for such skills.

However, training that he had undergone during the course of three months, was not adequate and he is not confident to pursue his work as an electrician. After the completion of the course, he also found no placement as had been promised. As a married man with two children, he can't afford to stay away from home for long without any income earning opportunity. He is therefore left with no option but to take up farming again.

Pankaj Das, Narayanpur, Lakhimpur: Failure to initiate self-employment initiative after acquiring the skills having market



Pankaj Das is son of a farmer from Lakhimpur District. With two bighas of land under cultivation, his father, finds difficult to support his family of 5 members. In search of better livelihood, Pankaj got enrolled for CIDC training sponsored by NHPC. Initially Pankaj Das enrolled forskill training as Plumber organised by NHPC under its CSR & S Scheme at Bongaigaon for 15 Days. Later, Pankaj as a part of a group, was sent to Uttar Pradesh for Theory and Practical. He believes that training was good and comprehensive enough to sustain in the job market. During the training they did not receive the allowance of Rs.1500 per month as t was assured by the company. However, he was ready to endure all these troubles in the hope of securing

a better livelihood. After the training was completed, Pankaj did not get any placement. The reason cited by the training agency was that there were no jobs available in the trade. Disheartened, Pankaj returned back home and took up tailoring in his own village. Presently he is earning Rs. 11000/ per month with his tailoring activity near his home.

Munu Borgohain, Ghilamari, Lakhimpur: Failure to chose a job of own' choice



Munu Buragohain comes from a very poor family of Jhalbari village in Lakhimpur district. His father is a farmer and mother is a housewife. Munu had been looking for employment to support his family income. He joined a training of Electrician organised by NHPC under its CSR & S Scheme. Initial training for electrician was imparted at Bongaigaon and later he was shifted to Bangalore for training in Grindering (construction).

Grindering is about cutting stones and concrete buildings. After completing the training he was shifted to Hyderabad and was placed at JNC Company under the trade of Grindering. Initially he was offered Rs.10,600/ per month from where Rs. 2000/ was

deducted monthly for food. Presently he is earning Rs.11,200/ per month and Rs.1500/ is deducted for food. Munu observed, "The working environment is not good which is full of dust and I fall ill frequently. The salary is also very less. I wish I could find a job according to the trade in which I had undergone training. That is not the case here."

Emerging issues from the cases of skill training and acquisition

The case studies reveal outcome of mixed nature. There are changes in orientation with high level of motivation to excel in life. The beneficiaries being engaged in jobs of their choices have able to shoulder responsibility of their family and bear educational expenses of their siblings. All indicate senses of fulfillment in their life.

Against the silver lining there are also cases of misplaced priorities and approach. Selection of trainees from middle-age group, and that too from same locality indicate ad hoc approach in the selection process. It is true that women would aspire for gainful work and recognisation in society as well as of having workplace identity despite being from well-to-do families; these factors were considered or perceived in planning, selection process and finally no outcome emerged from the training process.

It is also observed that after completion of the training, the trainees were forced to struggle to find suitable avenues in this world of abundant supply. There are no ways out other than to enhance capability and carve niche of their acquired skills. It is also found that efforts of a few got wasted reportedly because of inadequacy in training module and/or process. On the other hand, there are cases of failure to pursue self-employment even after acquiring skills in trades having high demand in the contemporary market. It is also important that choice of trade matter, to suit interest and background education.

TABLE 5.3: UNDERLYING THEORY OF CHANGE OF NHPC INTERVENTION ON SKILL DEVELOPMENT

Background Ideas	Approach of intervening agency	Anticipated Change	Changes and Outcomes	Remarks
Facilitate enhanced access to opportunities in industrial and services sectors jobs	I. Identification of relevant trades for training and do the planning as required Provisioning in CSR budget, allocation and disbursement Assign responsibility to local bodies and administrations to select the candidates who require the support most	1. Youths – unemployed as well as youth engaged in irregular jobs come out in numbers to participate in the process; build capability to make choices in life	1.Participation and appreciation of the training programme by the youths 2. Participation of women made it an inclusive approach	On the whole a platform is created to usher in social and economic changes
Ensure skill training in trades having demand in contemporary times and/or preferred	1. Identification of suitable training Institutes to impart training 2. Signing of MoU with conditions set to ensure capability development process of the trainees 3. Taking note of comprehensive training module and duration	2. Acquisition of skills boost confidence level and help to explore possibilities on their own	Capacity development has boosted confidence of many trainees Exposure to new ideas, skill and technology	People, including women have come out in significant number. Skill trainings reveal significant impacts on women participants from interior rural areas and reaching and carving space in emerging economic sectors outside the home state.
Encourage and support to take up self employment initiative as well as help in placements	1. Placement of the candidates to the possible extent with support of the institutions imparting training	1. Initiation of self – employment reading the market of the trades on which training received	 Change in orientation with high motivation Self initiated move towards setting and achieving higher goals; ensure job and employment security Capability to chose and shift to job of choice 	Some of the trained beneficiaries reported low salary after the placement; some reported on poor work condition and for some the jobs do not commensurate the skill acquired. There are no ways out other than to enhance capability and carve niche in this competitive world. There are also cases of failure to pursue self-employment even after acquiring skills having high demand.
Instill economic security of the individuals as well as of the dependents	Effort towards placements in right job and environment	1. Ensure income flow which is regular and decent	1. Capability to send remittance 3. Use of remittance money for productive purposes including of education of siblings, household consumption, home repair and investment in farm sector	There are incidences of regular as well as of occasional remittance. It was observed that many youth will require handholding supports in the post training period. Time frame is too short to assess the outcomes on wellbeing indicators.

6. Swachh Vidyalaya Abhiyan

Context and Background

On 15 August, 2014, the Honourable Prime Minister of India made a pledge that within a year, "all schools in the country should have toilets with separate toilets for girls". Access to clean and safe drinking water and proper sanitation for both boys and girls are, in fact, two important norms of a school, inter alia, mandated by the Right to Education Act (2009). Notably, both water and sanitation are closely linked to one another and have well-known associations with increasing enrolment, improving retention and attendance of students, reducing drop-outs and thereby improving the educational outcomes of students and positively contributing to economic growth.

The pledge, thus, besides underscoring the emphatic commitment of the Government of India towards realising, in general, the vision of "clean India" by 2019, it further represents the obligation of the Government towards achieving desired educational outcome for each and every child in the country. This, also, indicates the massive amount of resources that would be necessary to honour the pledge made by the Honourable Prime Minister.



As per the DISE (District Information System for Education, 2014-15) data, out of 14.5 lakh elementary schools in the country, 87.1 percent have separate toilets for girls while 95.4 percent have toilets for boys. The situation in secondary schools is, however, slightly better. As per the DISE (2014-15) data, out of 2.45 lakh secondary schools, 96.3 percent have toilets for girls and 93.4 percent have toilets for boys. Moreover,

'functionality' of available toilets remains to be a major concern which naturally impedes the desired outcome and impact.

Given this context, Swachh Vidyalaya Abhiyan was launched in response to the pledge made by the Honourable Prime Minister in August, 2014. It was estimated that around 2.63 lakh schools are to be covered by constructing and renovating 4.10 lakh toilets within August 2014-2015, in order to ensure that every child has access to toilet facilities in their schools. These toilets were required in schools located mostly in hardest to reach and very difficult to access areas including areas facing problems of insurgency and extremism, remote mountainous terrains, densely crowded slums, and areas covered by forests and jungles.

The overall approach of Swachh Vidyalaya Abhiyan has been an integrated one driven by a comprehensive perspective on sanitation. The first level of integration is evident from the fact that the campaign attempted at combining three components viz. water, sanitation and hygiene through a set of 'facilities' created at the schools which include physical as well as human components. The second level of integration is observed in the Government's effort to pool resources for the programme. Besides the Government funding under routine and regular programmes related to clean India drive i.e. Swachh Bharat Kosh and area development fund of MPs and MLAs, all public and private sector companies were mandated to contribute to the campaign under the Corporate Social Responsibility (CSR)

obligations. Due to such enormous efforts, the target of constructing 4.10 lakh toilets within a year has been achieved. It is, therefore, necessary that an objective assessment of campaign is carried out. In this section, an attempt is made to evaluate the programme supported by NHPC's contribution.

NHPC's Contribution

During 2014-2017, the Subansiri Lower Hydro Electric Project, NHPC constructed 3129 numbers of toilets in 2703 schools under the Swachh Vidyalaya campaign. Out of the total 3129 toilets constructed, 2240 have been new boys' toilet, 889 have been new girls' toilet. Girls' toilets thus constitute about 37 percent of the total toilets constructed by NHPC in the country.

A sum of Rs 57.45 crore has been spent, which constitutes a major activity under NHPCs CSR for the years. This evaluation considers intervention of NHPCs for past two years.

In the diagram below based on the data for the period 2000-2016 a trend line is fitted. The projected value of for the year 2017, based on the past trend is obtained as B, where as the actually observed value is found to be C. The modified Pre-Post Method will consider the difference between B and C, rather than usual Pre-Post Method of considering A and C.

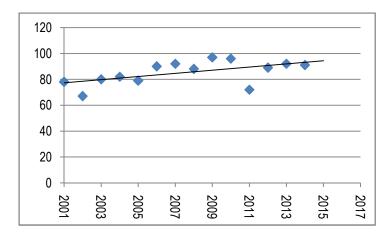


Figure 6:1: Result of Modified Pre-Post Method

The second challenge is regarding the possible *counterfactuals* – determining what could have been the situation without the intervention. Usually, such a comparison is arrived at by examining 'pre' and 'post' scenarios provided all intervening factors are suitably controlled. It is observed that there is no specific new intervention that directly targets school attendance. Therefore, 'pre' and 'post' comparison is applied in case of attendance rate to evaluate the programme effect. Since the programme period was 2014-2016, attendance rate of August and September 2015 is compared with that of the August and September 2016.

The case of enrolment, however, offers some special challenges. First, there have been several competing programmes aiming at improving school facilities which implicate enrolment. To statistically control all such intervention presents myriad practical difficulties. Second, indicator like enrolment also contains a "trend element". It is, therefore, necessary to incorporate trend element in the 'pre' intervention scenario.

With a modified pre-post method, the present methodology utilises the enrolment data given by DISE for deriving the counterfactual scenario for enrolment. Based on the trend of last five years of enrolment, a projected enrolment is obtained for the select schools, which is taken as the

counterfactuals. The observed enrolment is then compared with the projected enrolment to see the programme effect.

Two statistical tools are then applied to draw conclusions regarding effectiveness of the outcomes viz. attendance rate and enrolment. First, proportion of individual schools where post intervention scenario is better than the pre intervention scenario is obtained for evaluating success against the hypotheses. Second, averages of 'pre' and 'post' are compared by the paired-t test to evaluate the aggregate programme effect and success.

Sampling

The success of Swachh Vidyalya Abhiyan, is defined as the two-third (i.e. 66 percent) of the schools qualifying or fulfilling the specific criteria with a margin of error 5 percent. This, in general, defines the confidence interval for population estimate to qualify the programme as a 'success'. Given this, a sample of 314 out of the total 2702 schools will be to be good enough to draw conclusions with a level of confidence of 95 percent, with a fixed design effect of 1.1.

TABLE 6.1: SAMPLE DISTRIBUTION OF SCHOOLS

STATE	DISTRICT	SAMPLE
ASSAM	BARPETA	5
	DARRANG	11
	DHEMAJI	61
	JORHAT	11
	KAMRUP	7
	LAKHIMPUR	158
	NAGAON	7
	NALBARI	8
	SIBSAGAR	15
	SONITPUR	14
ARUNACHAL PRADESH	PAPUM PARE	12
	WEST SIANG	5
TOTAL		314

District wise number of sample schools is provided in the table below. The schools are stratified on the basis of school type viz. primary/upper primary and secondary and then the sample schools have been selected at random. This sample size of the schools under the Swachh Vidyalaya initiatives will be statistically robust for the proposed impact evaluation study. The sample schools were than selected at random. The sample distribution of schools is given in Table 6.1.

Hypotheses

The present evaluation intends to test the hypotheses that the Swachh Vidyalaya interventions of Subansiri Lower HEP have been *efficient*, *effective* and *sustainable*.

Findings

As evident from the Log-Frame (Table 1.1), there are four main questions which the present evaluation intends to answer. The questions to which answers are attempted are:

- a). Whether the interventions can be considered as efficient in terms of the output
- b). Whether the interventions can be considered as effective with respect to the output
- c). Whether the interventions can be considered as effective with regard to the outcome
- d). Whether the interventions can be considered as sustainable in terms of the outcomes

Efficiency in terms of output

The efficiency in terms of output is measured by taking note of the "essential elements" of the programme. Efficiency has been defined as fulfillment of the essential elements mandated by the programme guideline. From the sample of 314 schools it is found that total number of toilets constructed is 373, which includes 251 boys, 113 girls and 9 common toilets (Figure 6.2).

From the Figure 6.2, it is apparent that there are some schools where more than one toilet has been constructed. The school being the primary sampling unit, in such situation, the school has been considered to fulfill the essential elements when *all the toilets* built under the Swachh Vidyalaya campaign qualify to have the essential elements.

Following the programme guideline, nine "essential elements" of a "functional" toilets were considered for examining efficiency of the outcome which include availability of water, easy access, hand-washing facility, cleanliness, separate urinal, adequate space, adequate light and ventilation, adequate privacy and proper signage. The percentages of schools found to fulfill these essential elements are provided in Figure 6.3. From Figure 6.3, it is obvious that the schools are lacking in three essential elements viz. accessibility, cleanliness and proper signage

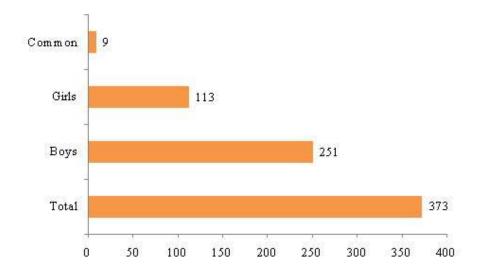


Figure 6:2: Type of construction of sample toilets

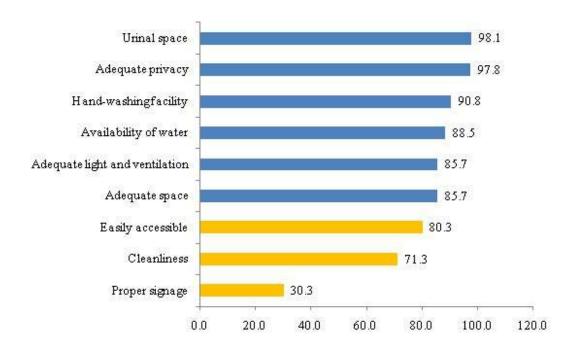


Figure 6:3: Schools fulfilling essential efficiency parameter of toilet (in percent)

To find out the overall efficiency of output, *simultaneous fulfillment* of the essential elements by schools needs to be considered. Given the nine elements, a school is considered to qualify efficiency criterion in terms of the output if two-third i.e. 6 out of 9 or more elements are fulfilled *simultaneously*. The number of criteria fulfilled simultaneously is given in Table 6.2.

TABLE 6.2: NUMBER OF CRITERIA FULFILLED SIMULTANEOUSLY BY SCHOOL (NUMBER)

Number of Criteria	Number of Schools
3	3
4	15
5	15
6	50
7	64
8	104
9	63
Total	314

From the Table 6.2, it is evident that all together 89.5 percent school qualifies the efficiency criterion of output. Given the assumed margin of error of 5 percent, this gives a confidence interval of 84.5 to 94.5 percent for the population proportion. Clearly, therefore, it may be concluded that *the interventions are efficient in terms of output*.

Effectiveness of Output

As per the Log-Frame, the *effectiveness* of output is defined in terms of the *use* of the output i.e. toilet. When toilets are used by students, only then desired outcome can be expected. It is found that out of 373 numbers of toilets constructed, 76.1 percent of the toilets are in use (Figure 6.4). With 5 percent margin of error, this gives a confidence interval of 71.3 to 81.3 percent which is more than the expected proportion of 66 percent. Thus, it may be concluded that the **interventions have been effective in terms of output**.

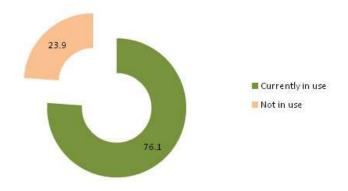


Figure 6:4: Use of toilet (in percent)

It is, also, found that *efficiency and effectiveness are both inter-related*. Efficient i.e. functional toilets tend to be more effective. It is observed that 74 percent of the total toilets are both *efficient* and *effective*. The inter-dependency is found to statistically significant (Chi-square 13.76, p<0.05) and hence can be expected in the population as well.

Effectiveness of Outcome

The Log-Frame defines *effectiveness* of the outcome in terms of two indicators – attendance rate and enrolment of students. As has been described earlier, the attendance rate is used to indicate the improved health and enrolment for improved educational performances of students.

The 'pre' attendance scenario in selected schools i.e. overall attendance rate of students in the months of August and September 2015 when compared with the 'post' attendance scenario i.e. overall attendance rate of students in the months of August and September 2016, it is found that 'post' scenario is better than the 'pre' scenario in 63.7 percent of the schools (Figure 6.5). This gives the confidence interval of 58.7 to 68.7 percent that contains the expected frequency of 66 percent. Therefore, with reference to the indicator of attendance rate, the outcome of the intervention can be considered as effective.

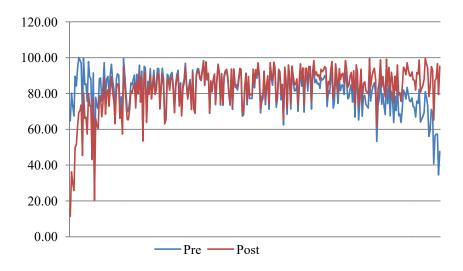


Figure 6:5: Pre-Post Attendance Rates in Schools (in ascending order of differences)

Further, it is observed that the average post attendance rate 82.7 percent is found to be higher than the average pre attendance rate of 81.2 percent (Figure 6.4). The difference in average attendance rate by 1.5 percent is found to be statistically significant (t=2.367, p<0.05). The intervention, therefore, contributes to improvement in attendance rate, which can be generalised for the population as a whole.

In case of the enrolment, 'pre' and 'post' scenario comparisons are carried out by 'modified method' (see Box 1). Data from sample reveal that 'post' enrolment scenario is better in 46.2 percent of the schools compared to 'pre' enrolment scenario (Figure 6.6). With a margin of error of 5 percent, this gives the confidence interval of 41.2 to 51.2 percent which is less than the expected proportion of 66 percent. Therefore, in terms of enrolment, the interventions can't be considered effective.

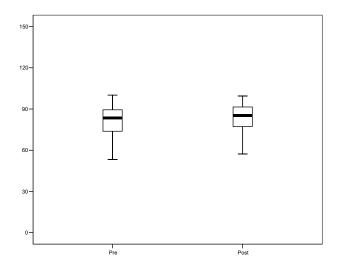


Figure 6:6: Pre-Post Average Attendance Rates in Schools

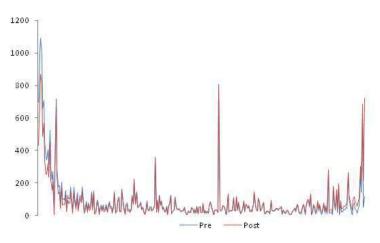


Figure 6:7: Pre-Post Enrolment Scenarios in Schools (in ascending order of differences)

Overall, the average enrolment in pre-intervention scenario (given by the counterfactuals) is found to be 87.6 which is higher than the post intervention enrolment of 83.1 (Figure 6.7), difference is not found to be statistically significant (t=1.614, p>0.05). This limits the conclusion regarding effectiveness of the outcome of the intervention in terms of increase in enrolment in schools.

Notwithstanding, the increase in enrolment is to be seen in proper perspective. Given the fact that only one academic session has passed since the intervention, the time-lag is too short for assessing improvement in enrolment in school. Secondly, since all schools are being covered under the

campaign, focusing on enrolment in any one particular school is met with practical limitations. Thirdly, enrolment depends on demographic distribution and factors which do not change in a short period of time. It is therefore expected that the intervention will start showing up results in improvement in enrolment by reducing over the period of longer time.

Sustainability of Outcome

The sustainability of the outcome is a primary requirement to continue the effectiveness of the outcome and resulting in impact envisaged. The Swachh Vidyalaya campaign takes thoughtful note of the comprehensive perspective of sanitation. This include, besides physical facilities of sanitation, access to drinking water and behavioural change. Moreover, ownership and maintenance of the facilities created are also vital ingredients of sustainability.

It is found that 66 percent of the schools have access to clean and safe drinking water. About 81 percent of the schools said to have provided behavioural awareness and 86 percent schools have reported to practice regular hand-washing before mid day meal (MDM). Likewise almost all schools (97.5 percent) said to have own the maintenance of the toilets while equally overwhelming number of schools reported to ensure community participation (98 percent) with a pro-active role of the school management committee (98 percent) (Figure 6.8).

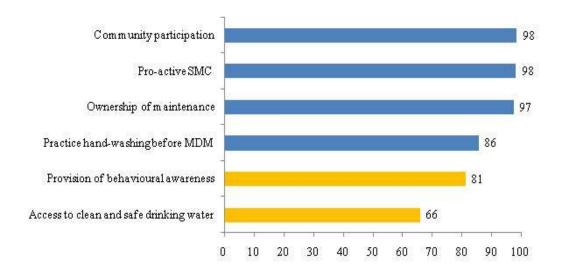


Figure 6:8: Drinking Water, Maintenance and Behavioural Practices (in percent)



It may be noted that with a defined margin of error of 5 percent for all of these produces a confidence interval that contains the desired proportion of 66 percent. It is, therefore, concluded that the interventions qualifies the sustainability criteria in terms of outcome.

7. Outcomes and way forward

Interventions towards achieving Sustainable Development Goals

- Interventions of NHPC Limited in the fields of Health Care, Water Supply, Sanitation, Education and Skill Development has abled to usher in changes in remote locations. NHPC's emphasis on these areas is also sheer reflections as envisaged by the UN's Sustainable Development Goals (SDGs). Thus it is of significance that the approach of intervention of NHPC has adopted most of the underlying agenda of the SDGs; at least 10 of the 17 SDGs of UN. One would see possibility to further orient the approaches to make progress in human development in the remote areas of intervention.
- The interventions on health care, education, skill development in remote rural settlements are
 vital to alleviate poverty and free people from all the constraints to make choices in their
 lives.
- Interventions on skill development in different trades of contemporary relevance have direct impact to ensure decent work (SDG 8) and address poverty (SDG 1) and hunger (SDG 2).
- Interventions on ensuring health care in remote locations through mobile medical units have contributed to ensure access as well as develop awareness to lead a healthy life (SDG 3). The intervention to a great extent complements the rural health care system of the state.
- Interventions through development of school infrastructure and scholarship provisioning have helped to access quality education at the doorsteps. Such interventions are towards ushering in durable changes in the society, as well as relieve the economic burden of the families. Such approaches complement the effort to achieve SDG 4 (quality education), SDG 5 (gender equality) and SDG 10 (reduced inequality) in short as well as in the long run.
- Provisioning access to clean and safe drinking water and sanitation (SDG 6) has helped to ensure good health and wellbeing (SDG 3), human settlements inclusive for all members of the communities with basic amenities (SDG 11) and ensure sustainable consumption (SDG, 12) with involvement of the communities.

Way forward

- The interventions targeted in certain areas need to be complemented by the stakeholders playing their role to ensure sustainability. It is important how the local communities value the infrastructure built for their own benefits (the Kalash points). There are examples of cooperation and collective efforts (raising operational costs of electricity bills), as well as of constraints to repair major damages caused by certain externalities such as floods. There is need to orient the local communities and institutions how best they could put effort to upkeep the infrastructure.
- The mobile medical units to a great extent complement the state health care system of subcenters in certain remote locations. This intervention has able to generate awareness among the common people on importance of better lifestyle and health care in addition to addressing

some of the basic and essential health care needs. Such medical camps in rural areas also reduce the dependency of women and elderly to access health care in distant locations in addition to saving and relieving the financial burden and time constraints of the households. People clearly express the need of continuation of such yeoman services; it is important to address the outcomes of withdrawal of such services, and to what extent the objectives fulfilled in the short run would sustain after withdrawal of the intervention.

- Provisioning of the comprehensive and modern school infrastructure in the remote areas is yielding positive outcomes. Complementing the school infrastructure with provisioning of hostels for girls would have drawn girls in large numbers in the school from remote villages, and change the scenario further. As reported and observed, parents of the students enrolled in the schools, and the boys availing hostel facilities value the environment created in the residential school. As non-availability of hostels for girls affected the enrolment of girls students, it has also resulted in low proportion of girls (15% only) availing the supports of scholarships.
- Intervention of skill development, though has created a platform to usher in social and economic change, the outcomes have been mixed towards ensuring a decent job. Some have able to carve out niches on their own as well as with handholding support; but a section has failed to do so. Low salary, jobs not commensuration with skill, as well as not having a job are all pointed to quality of the training received. Moreover on the part of the trainees there are cases of lack of failure to pursue self-employment initiatives even after acquiring skills of high demand. This further brings in the issue of start-up capital and supply of toolkits; and how the existing provisions of the state can be linked to such skill training interventions.