



# Impact Assessment Report Nayara Energy

*Assessment of CSR programs in Dwarka and Jamnagar districts of Gujarat*



**KPMG Assurance and Consulting Services LLP**

March 2023



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**Strictly Private & Confidential**

**Vikas Singh Patel**  
**Nayara Energy**

Date: 31<sup>st</sup> March 2023

**Subject: Final-report for Impact Assessment of CSR program of Nayara Energy**

Dear Vikas,

This refers to our engagement letter/engagement contract dated 14 September 2022 with Nayara Energy ("you") ('the Contract').

We appreciate the opportunity to assist Nayara Energy in providing services pertaining to the Impact Assessment of CSR programs.

Please find enclosed our final-report, which has been prepared in accordance with the scope and terms stated in our Contract.

This report is our final report and signifies completion of our Services as described in the Engagement Contract. The performance of our Services and the report issued to you pursuant to the Services are based on and subject to the terms of the Contract.

This report is solely for your benefit and information and is not to be referred to in communications with or distributed or disclosed for any purpose to any third party without our prior written consent. We have been engaged by you for the Services and to the fullest extent permitted by law, we will not accept responsibility or liability to any other party in respect of our Services or the report.

It has been our privilege to work with you, and we look forward to continuing our relationship with you.

Yours sincerely

**Full Signature** \_\_\_\_\_

**Name : Jignesh Thakkar**

**Director, ESG**

**KPMG Assurance and consulting services LLP**



# Disclaimer

## Important Notice

1. This report has been prepared exclusively for Nayara Energy Limited ("Client") based on the terms of the Contracts ("Contract") dated 14 September 2022 executed between Nayara Energy and KPMG Assurance and Consulting Services LLP ("KPMG" or "we").
2. The performance of KPMG's services and the report issued to the Client are based on and subject to the terms of the Contract.
3. This report is confidential and for the use of management only. It is not to be distributed beyond the management nor is to be copied, circulated, referred to or quoted in correspondence, or discussed with any other party, in whole or in part, without our prior written consent.
4. This report sets forth our views based on the completeness and accuracy of the facts stated to KPMG and any assumptions that were included. If any of the facts and assumptions is not complete or accurate, it is imperative that we be informed accordingly, as the inaccuracy or incompleteness thereof could have a material effect on our conclusions.
5. While performing the work, we assumed the genuineness of all signatures and the authenticity of all original documents. We have not independently verified the correctness or authenticity of the same.
6. We have not performed an audit and do not express an opinion or any other form of assurance. Further, comments in our report are not intended, nor should they be interpreted to be legal advice or opinion.
7. While information obtained from the public domain or external sources has not been verified for authenticity, accuracy or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. We assume no responsibility for such information.
8. Our views are not binding on any person, entity, authority or Court, and hence, no assurance is given that a position contrary to the opinions expressed herein will not be asserted by any person, entity, authority and/or sustained by an appellate authority or a Court of law.
9. Performance of our work was based on information and explanations given to us by the Client. Neither KPMG nor any of its partners, directors or employees undertake responsibility in any way whatsoever to any person in respect of errors in this report, arising from incorrect information provided by the Client.
10. Our report may make reference to 'KPMG Analysis'; this indicates only that we have (where specified) undertaken certain analytical activities on the underlying data to arrive at the information presented; we do not accept responsibility for the veracity of the underlying data.
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13. By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.

## Glossary

Acronyms	Full Form
<b>APL</b>	Above Poverty Line
<b>ASHA</b>	Accredited Social Health Activist
<b>BPL</b>	Below Poverty Line
<b>BISLD</b>	BAIF Institute for Sustainable Livelihoods and Development
<b>CDP</b>	Carbon Disclosure Program
<b>CEE</b>	Centre for Environment Education
<b>CHCs</b>	Community Health Centers
<b>CSR</b>	Corporate Social Responsibility
<b>EF</b>	Nayara Foundation
<b>FGDs</b>	Focus Group Discussions
<b>IEC</b>	Information, Education and Communication
<b>ILABSS</b>	Interactive Platform for Soft Skills
<b>INR</b>	Indian Rupee
<b>ITI</b>	Industrial Training Institute
<b>KII</b>	Key Informant Interview
<b>MCM</b>	Million Cubic Metres
<b>MIS</b>	Management Information System
<b>NMC</b>	National Management Center
<b>OBC</b>	Other Backward Classes
<b>PHCs</b>	Public Health Centers
<b>SC</b>	Scheduled Caste
<b>SHGs</b>	Self-Help Groups
<b>ST</b>	Scheduled Tribe
<b>WRD</b>	Water Resource Development



# Executive Summary

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India is currently undergoing a major transformation in its development trajectory, with a strong emphasis on health and sanitation, education and skill development, and sustainable livelihoods. In the health and sanitation sector, India has made significant strides in recent years. According to the National Family Health Survey-5 (2019-2020), the percentage of households in India with improved sanitation facilities has increased from 36.4% in 2015-2016 to 45.3% in 2019-2020. However, the COVID-19 pandemic has highlighted the need for better healthcare infrastructure and preparedness in the country. The government has launched several initiatives such as the Skill India Mission and the Digital India Mission to promote skill development and digital literacy among the youth. According to the Annual Status of Education Report (ASER) 2020, the overall enrollment rate of children between the ages of 6 and 14 in rural India was 96.5%. Additionally, the COVID-19 pandemic has disrupted education systems worldwide, including in India, highlighting the need for innovative solutions to ensure access to education during times of crisis. India has also made significant efforts to create an enabling environment for livelihoods through various government aided initiatives such as MGNREGS, NRLM etc., focused on marginalized communities. According to the Economic Survey of India 2020-2021, the unemployment rate in India increased to 7.8% in 2019-2020 from 6.1% in 2018-2019. The pandemic has further exacerbated this issue, with millions of people losing their jobs or livelihoods.

Despite these efforts, there are still several challenges that need to be addressed in these sectors. In the health and sanitation sector, access to healthcare facilities and sanitation facilities remains a major challenge, particularly in rural areas. In the education and skill development sector, there is a need to improve the quality of education and ensure that the skills being taught are relevant to the demands of the job market. In the sustainable livelihoods sector, despite of various government efforts, the challenges of creating jobs and livelihood opportunities remain significant. Hence there is a need to create more job opportunities providing judicial distribution and better access of resources.

Nayara Energy, which operates over 6,000 retail fuel stations across India, is committed to sustainable development, investing in renewable energy sources, and reducing its environmental footprint. Since 2006, Nayara Energy has been involved in Corporate Social Responsibility (CSR) initiatives, implementing programs in the districts of Jamnagar and Dwarka of Gujarat in villages near its business operations. Nayara Energy's CSR programs focus on promoting general well-being, providing healthcare, sanitation, sustainable livelihoods, education, and skill development. The company aims to make these initiatives available, accessible, and affordable for marginalized classes. The comprehensive initiatives are centered around water resource management, agriculture, animal husbandry, women empowerment, and youth development. The company's vision is to be among the most respected organizations in India by doing what is right and rightful for the communities and nation at large. To gauge the impact of Nayara Energy's CSR interventions (Community Health, Tushti, and Gram Shiksha), an impact assessment study was undertaken in 15 nearby villages of Devbhumi Dwarka and Jamnagar district which aimed at evaluating the intended and unintended impact on the direct and indirect beneficiaries of the interventions.

The Community Health program is aimed at providing qualitative primary healthcare to elderly and the community, and the Tushti program is designed to reduce malnutrition among children under 5 years of age and strengthen health and wellness centers in the area. The Gram Shiksha program aims to provide inclusive, equitable quality education to all and bring drop-out students back into the education system. The study found that the Community Health program has been designed and implemented in response to the felt needs of the community. The effectiveness of the program has been evaluated through different components, such as improved infrastructure, human resources, and on-time availability of ambulance service. The overall effectiveness of ambulance services was assessed to be more than 60 percent, and the awareness sessions conducted have been helpful in providing knowledge on basic but important topics. Similarly, the effectiveness of the Tushti program has been evaluated through different components of the program, such as improvement in MCH services, accessibility, and convenience and comfort for patients. All respondents indicated that there has been improvement in infrastructure and human resources post-implementation of Tushti program. The Gram Shiksha program has been effective in providing access to digital education through smart classes and training of teachers and principals. Events and other activities like 'Bharat Ek Khoj' have helped in improving the personality of the students.

The study recommends various measures for the Health, Education, and Livelihood and WRD sectors. These include involving female CRPs, creating an "ideal village" model, and organizing joint sessions for pregnant women and their families. It also proposes forming a group of community-based health enablers and providing training for Anganwadi helpers/active adolescent/active SHG members. For Education, it suggests introducing curriculum-based learning sessions, career guidance, adult literacy classes, and life skill sessions, as well as providing after-school support and sports equipment. The section also proposes establishing a pool of community-based change agents and introducing a skill-building module in the Livelihood and WRD sector, with a focus on women's skill development.

Overall, the programs have been effective in achieving their objectives and meeting the needs of the community. These programs have been executed in a well-planned and structured manner, with a clear focus on the community's needs and requirements. The implementation of these programs has been successful, and the results of the programs demonstrate that they have made a positive impact on the community. The various measures proposed in the programs have been tailored to meet the specific needs of the community, with a particular focus on the Health, Education, and Livelihood and WRD sectors. Overall, the success of these programs can be attributed to their well-planned implementation and their focus on meeting the needs of the community in a meaningful way.





# 1 Introduction

This chapter focusses on Nayara Energy's CSR programs and rationale for the study

## 1.1 Nayara Energy and CSR

Nayara Energy is an oil refining company in India, headquartered in Mumbai, Maharashtra. The company was formerly known as Essar Oil Limited until it was acquired by Rosneft and a consortium led by Trafigura and UCP Investment Group in August 2017. Nayara Energy operates a large oil refinery in Vadinar, Gujarat, which has a capacity of 20 million metric tonnes per annum.

The Vadinar refinery is one of the most modern and complex refineries in India and has been designed to process a wide range of crude oils, including high-sulphur heavy crude oil. The refinery produces a variety of petroleum products. In addition to refining, Nayara Energy also operates a network of over 6000+ retail fuel stations across India, which sell petrol, diesel, and other petroleum products.

Nayara Energy is committed to sustainable development and has implemented several initiatives to reduce its environmental footprint. These include investing in renewable energy sources such as solar and wind power, and implementing measures to reduce greenhouse gas emissions and water consumption. The company also supports various social and community development programs, such as education, healthcare, and skill development initiatives for local communities.

Nayara Energy has been involved in Corporate Social Responsibility (CSR) initiatives since 2006 with an objective of empowering communities around areas of its operations. Nayara Energy is implementing CSR programs in the districts of Jamnagar and Dwarka of Gujarat in the villages nearing Nayara Energy's business operations.

- Nayara Energy aspires to build a symbiotic relationship with its stakeholders and intends to make them equal partners in the process of nation building
- Nayara Energy's role is to lay the path that is collaborative, progressive, inclusive and sustainable through our CSR programs
- Technology and innovations can hasten the process of change and endeavor to support new and innovative models of development
- Gender equality shall be an over-arching theme in each of the CSR programs.

**Nayara Energy's vision is to be among the most respected organizations in India by doing what is right and rightful for the communities and nation at large.**



## 1.2 CSR Interventions at Nayara

With a focus on promoting general well-being, Nayara Energy actively engages the local community in 15 nearby villages of Devbhumi Dwarka and Jamnagar district. Both districts experience a tropical savanna climate characterized by hot temperatures throughout the year, with distinct wet and dry seasons. The average temperature ranges from around 20-22°C in January to 34-36°C in May. The area experiences its wet season from June to September, with the heaviest rainfall occurring in July and August. During this time, temperatures remain high, and the humidity levels are also quite high. From October to February, the area experiences a dry season, with cooler temperatures and lower humidity levels. Overall, both Dwarka and Jamnagar have hot and humid climates throughout most of the year, with a distinct wet season from June to September and a dry season from October to May.

Due to the proximity of the location to the sea, difficulties with water scarcity, salinity, and unpredictable rainfall are of concern. Sea water intrusion has an impact on agriculture, which is the main source of income. Additional problems include declining soil fertility, a lack of irrigation and potable water, a shortage of animal feed, a lack of supplementary sources of income, etc. While women perform over 70% of agricultural and dairy tasks, they are not involved in decision-making on a social level. The collective impact of these problems has decreased the local population's level of living. The region's literacy rate and lack of access to healthcare services are also significant challenges.

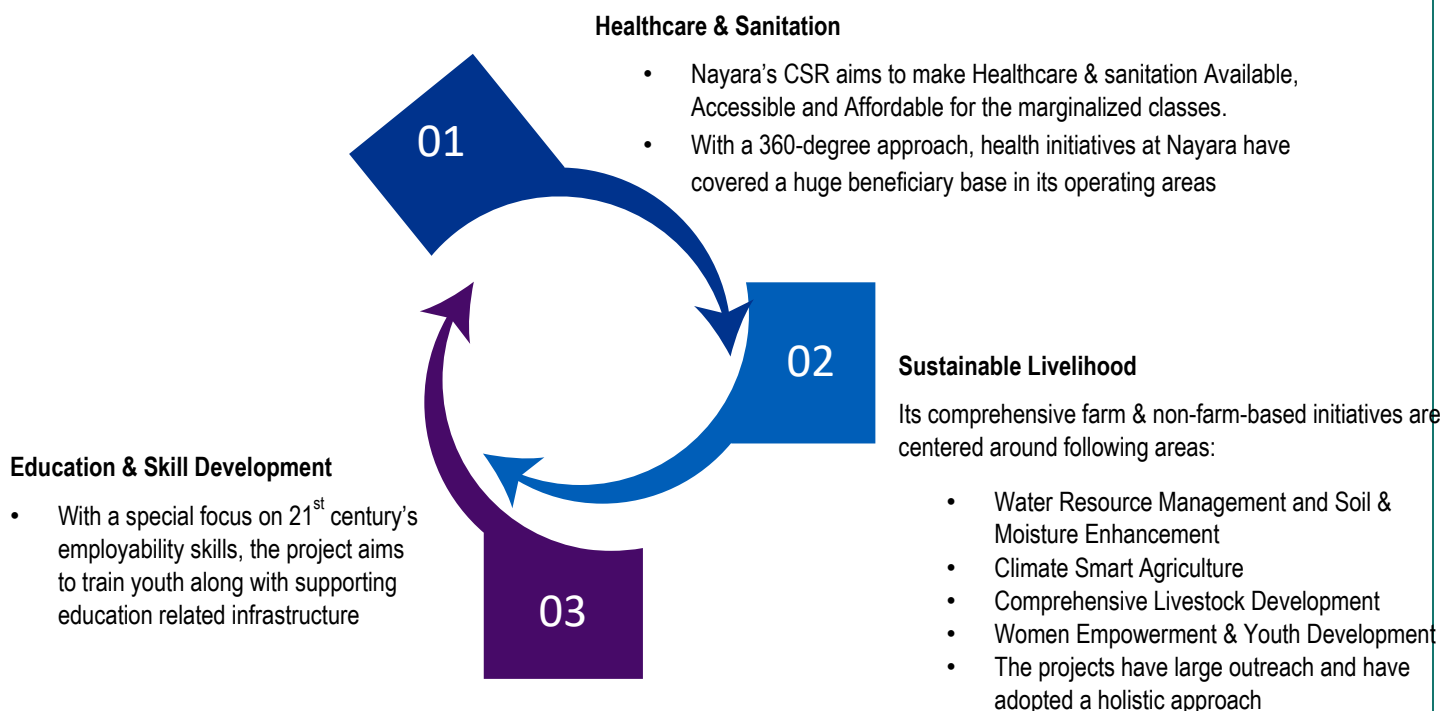


Figure 1 Focus area of community development

Table 1 Details of Nayara's CSR programs

Health and Sanitation	<b>Community Health Project</b> (Mobile Health Van, Ambulance, Health Camps, Awareness)	Ongoing since 2007 Outreach of more than 60,000 patient
	<b>Project Tushti</b> (focusses on the growth cycle of the child for the first 1000 days)	Public-Private partnership project with Govt of Gujarat, aims to make 249 villages in the Dwarka region under-nutrition free
Education & Skill Development	<b>Gram Shiksha</b> (Education for All)	Inclusive, equitable quality education Promoting lifelong learning opportunities for all
	<b>Linking drop-out students to secondary education through NIOS</b>	More than 500 students across 15 villages been connected to secondary education
Sustainable Livelihood	<b>Gram Samrudhhi Program</b> (Agriculture, animal husbandry, water harvesting, women empowerment and provide technical/capacity building support to the community)	Reaching out to more than 5000 beneficiaries annually. Double farmer's income through climate-smart agriculture and integrated water resource management across 11000 hectares in 15 villages. The WRD initiative over a span of 3 years has resulted in the additional water storage capacity of 11.3 MCM.



## 1.3 Objective(s) for the Study

The objective for the study are:

- Undertaking impacts assessment of programs in 15 villages under various themes to gauge the impact of interventions made. Assessment to be carried out through household, community and key stakeholder level interactions
- Evaluation of interventions by Nayara Energy under the purview of IRECS framework
- Assessment of the intended and unintended impact (pre-defined parameters) on lives of the direct & indirect beneficiaries
- Documenting stakeholder voices on the interventions





## 2 Approach & Methodology

This chapter focusses on Research design, framework, sampling and limitations for the study



## 2.1 Research design

A non-experimental single group post-study research design was chosen for the study considering that focus of the program is only on project area who have received support under the CSR programs.

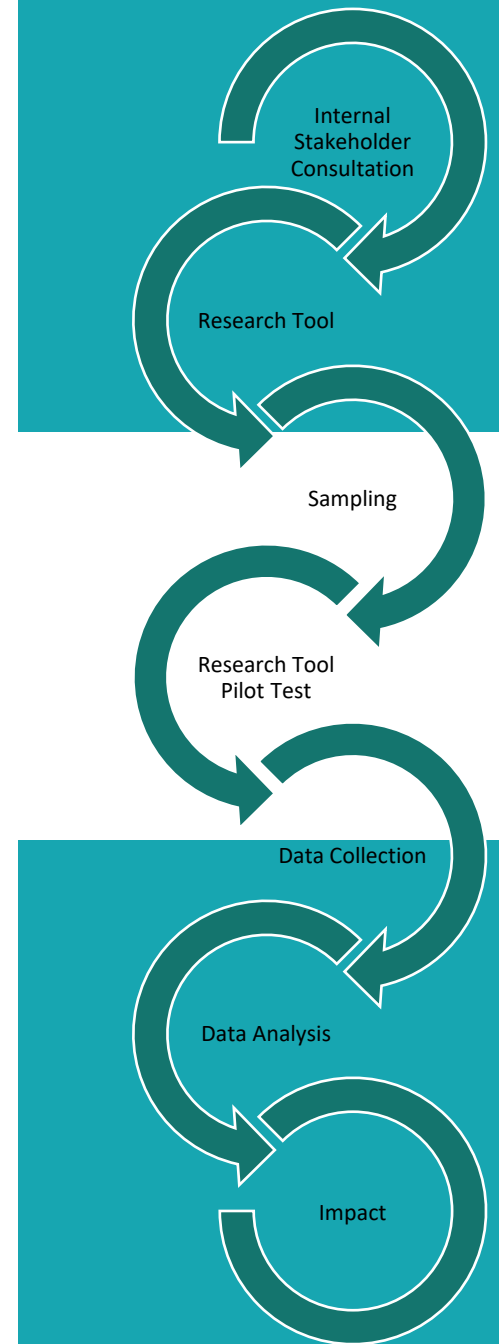
KPMG has adopted a mixed-method approach for assessing CSR programs of Nayara Energy, consisting of quantitative and qualitative research methods using primary and secondary data collection methods. This has helped in assimilating outcome related insights in a holistic manner from range of stakeholders and corroborating data related story with anecdotal evidences from the ground. The analysis of data and qualitative responses was looked through the lens of IRECS framework.

The approach for the study included multiple sequential steps:

- Interaction with CSR Lead and program lead at Nayara
- Review of program documents and report shared
- Detailed interactions with program partners
- Finalization of outcome and impact indicators and Sampling for the assessment
- Development of data collection tools for relevant stakeholders
- Interactions with stakeholders across geographies
- Data analysis and report preparation

For the research framework IREEICS framework was used as it offered flexibility to assess the impact of large CSR program both in terms of breadth as well as depth along with effectively gauging the impact based on various criteria which are:

- ▶ **Inclusiveness:** Assesses the extent to which communities get equitable benefits of all the programs and services offered.
- ▶ **Relevance:** Assesses the extent to which the program responds to the felt needs of the communities.
- ▶ **Effectiveness:** Assesses the extent to which objectives of developmental interventions are being achieved.
- ▶ **Efficiency – Degree of efficiency in utilization of resources for fulfilling the objectives of the program**
- ▶ **Impact:** Assesses the extent to which the outcomes and goals of a program are being achieved.
- ▶ **Convergence:** Assesses the degree of convergence with government or partners, and linkages with concurrent government programs in the field.
- ▶ **Sustainability:** Assesses the extent of continuation of benefits from a development intervention after major assistance has been completed.



## 2.2 Sampling

Programs have been implemented in 15 villages adjoining Nayara Energy refinery plant. As per an estimate, the population of these villages would be more than 45,000. To ensure that beneficiaries get fair representation and at the same time programs are adequately covered, purposive sampling method was chosen for the study. the total sampling proposed was 640 and the coverage on-ground was 646. The proposed sampling plan for the study is depicted below:

Table 2 Proposed sampling plan and Coverage

Program	Proposed sample	Stakeholders	Sample Covered (Outreach)
<b>Project TUSHTI</b> (2020-2022)	160	Parents of malnourished children; Pregnant & Lactating women; Adolescent girls	163
Implementing Partners: SI R&T India Foundation and IIPHG		Anganwadi workers and Helper	
		Other FLWs (ASHA, FHW, Staff at PHC/Sub-centre)	
		CMTC staff and beneficiaries	
		HWC-KIOSK (interaction with staff and beneficiaries)	
		Nutrition tele-counselling centre staff and beneficiaries	
		Government officials and PRI members	
<b>Community Health Program</b> (2020-2022)	200	Beneficiaries of MHU	201
Implementing Partner: Help age India		Beneficiaries of CHC	
		Beneficiaries of Health camps	
		Resource provided to Sub-centres	
		Beneficiaries of COVID rehabilitation centre	
		PRI members	
<b>Gram Shiksha</b> (2016-2020)	110	Students	110
Implementing Partner: CEE		Staff of Gramshiksha Kendra	
		PRI members	
		Govt officials	
<b>Gram Samruddhi</b> (2020-2022)	170	Farmers (Small and marginal farmers, landless)	172
Implementing Partner: Help BAIF Institute for sustainable livelihood and Development		Women	
		Community members	
		PRI members	
		Govt officials	

A total of 8 villages namely Timbadi, Sodha Taragadhi, Jakhar, Singach, Vadaliya Sinhan, Bharana, Mota Mandha, Vadinar were covered out of the 15 program villages. The mode of interactions were individual household interactions, FGDs and KIIs. A total of 168 individual surveys were conducted covering all four programs. The number of FGDs done were 43 covering a total of 465 stakeholders. The number key informants (government officials and PRI members) interacted with were 13 in number. Thus, the total sample coverage for the assessment was 646.

## 2.3 Limitations of the Study

All the evaluation criterion listed above are critical for a thorough program evaluation. However, considering the maturity of programs and availability of information, certain criterion took precedence in this impact assessment study. It is assumed that for education projects there is a risk of declining of achieved outcomes and impact over the period of time due to duration gap and further impact of

incremental learning from various other factors. The data provided by the respondents has been taken as it is, and no verification of the same have been conducted by KPMG.

## 2.4 Ethical considerations

- ▶ As part of data collection, team members ensured ethical data collection by explaining the purpose of the study and ensuring informed consent from the participants.
- ▶ The team members were trained on ethical considerations including working with children, women and aged people.
- ▶ The respondents were assured about the confidentiality of their information and the usage of data only for the purpose of this research.
- ▶ To maintain confidentiality of respondents, no information was collected that can help in identification (name, mobile number, any form of ID or bank account details and others) of the respondent.
- ▶ The group discussions were conducted in an environment that ensures convenience and comfort of the respondents.
- ▶ The participation of respondents was ensured to be voluntary and were not compelled to answer any question.





## 3 Data Analysis and Observations

This chapter focusses on data analysis and observations of the study

## Program-wise Analysis

### 3.1 Community Health Program

Nayara Energy has been focusing on thematic area of Health through two programs – Tushti and Community Health. The Community Health program is being implemented by HelpAge India in the 15 villages surrounding the area of operations of Devbhumi Dwarka & Jamnagar district.

The objectives of the program are:

- ▶ To implement the approved health programs
- ▶ To provide qualitative primary healthcare to elderly and the community
- ▶ To provide referral linkages for higher medical care facilities
- ▶ To conduct awareness sessions on health and hygiene, government scheme, behavioral change communication, maternal & child health care
- ▶ To encourage and strengthen the integrated health care system in the proposed location
- ▶ To improve the health status of vulnerable section through direct and indirect health care services
- ▶ To assist marginalized older persons and to reach out to those who are disabled or otherwise compromised to access available health care

#### Demographic details of respondents

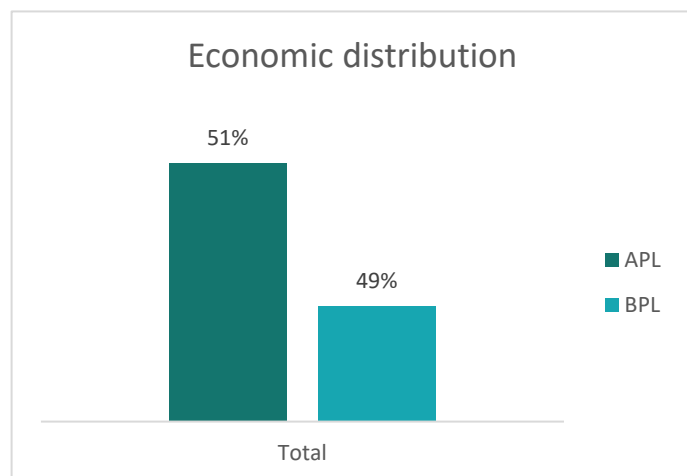


Figure 2 Economic profile of respondents

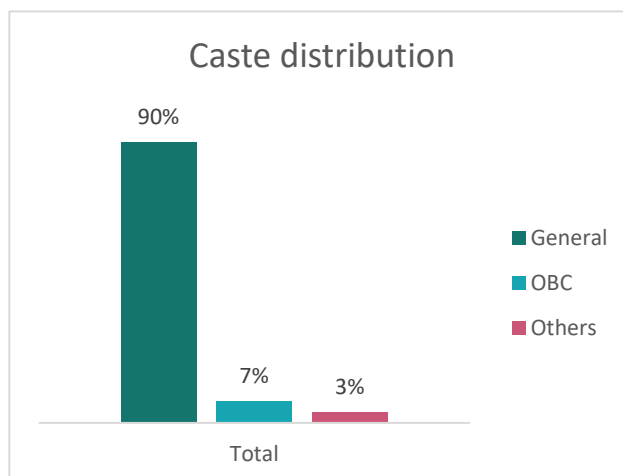


Figure 3 Caste distribution of respondents

A total of 87 one-to-one interactions, 10 FGDs and 5 KIIs were held with beneficiaries of MHU, CHC, Health camps and COVID rehabilitation centres. The respondents for Community Health program had Male:Female::63%:37% in all the sampled villages. Majority of the respondents belonged to general class and there was equal representation from APL-BPL categories and respondents having Pucca-Semi Pucca houses. The mean annual income indicated by the respondents is INR 2,32,356/- (median annual income is INR 2,50,000/-).

## Relevance – Responsive to the felt needs of community

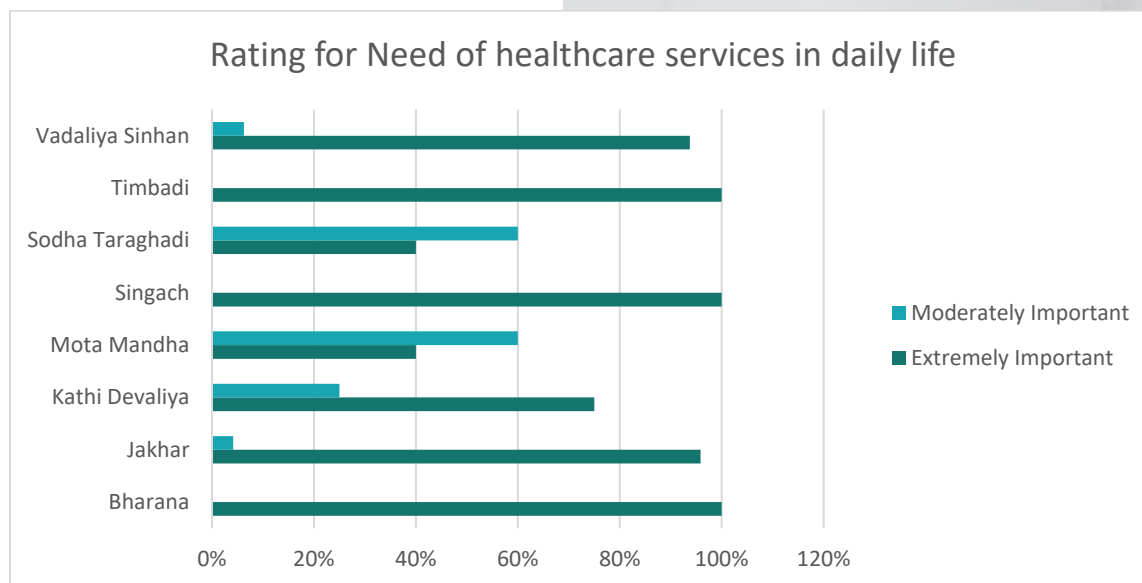


Figure 4 Need of healthcare services in daily life

Majority of respondents (more than 90 percent in five villages and 75 percent in Kathi Devaliya) felt the healthcare services are extremely important in their daily lives. In remaining two villages, more than 60 percent respondents felt moderate importance of health in their daily lives.

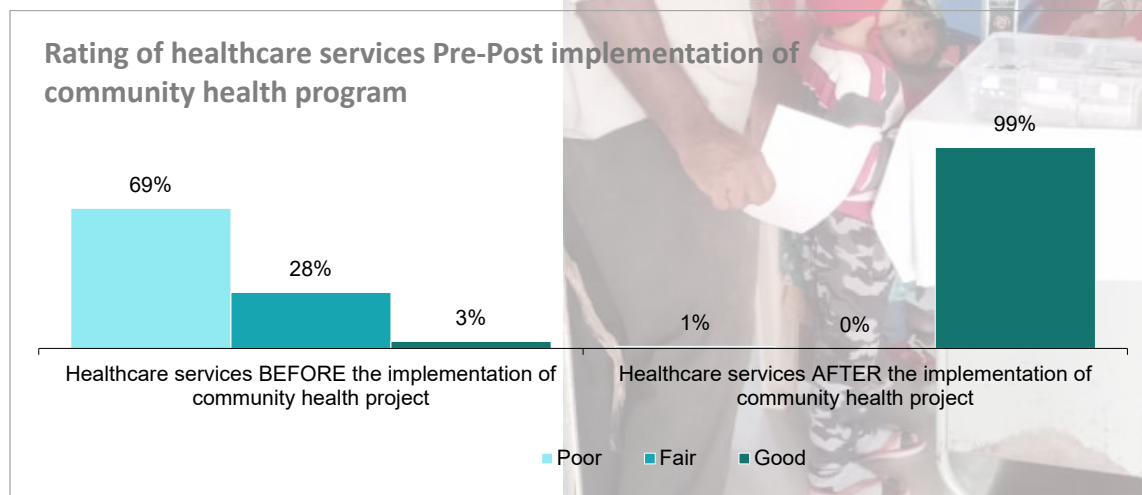


Figure 5 Rating of Healthcare service Pre-Post

Nearly all respondents across the sample villages indicated huge improvement in healthcare services post the implementation of Community Health program. Before the implementation of program, 69 percent respondents indicated the healthcare services to be poor in their area. A paired t-test shows significant difference in healthcare services before and after implementation of community health program.



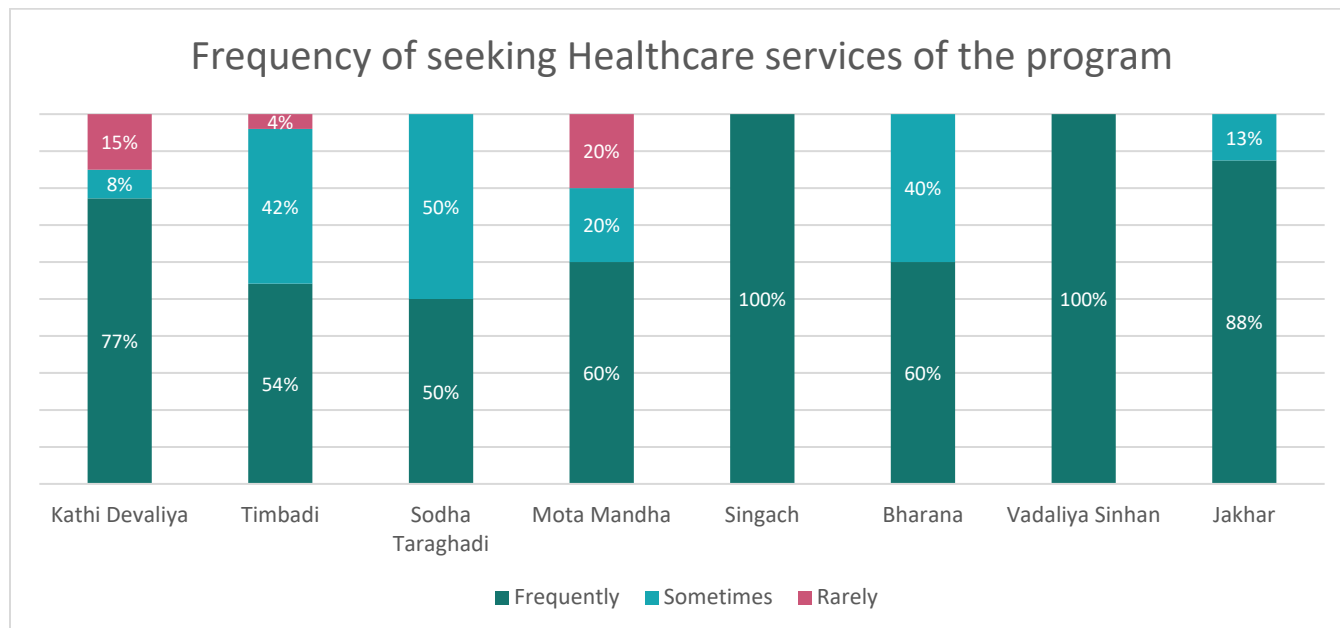


Figure 6 Frequency of seeking Healthcare services of the program

The relevance of community health program is further strengthened by respondents indicating seeking the healthcare services frequently (74%) and sometimes (21%). Some respondents from villages like Timbadi, Kathi Devaliya and Mota Mandha rarely seek healthcare services under the program citing reasons like they haven't been sick in past year and they had availed healthcare services under the program for COVID treatment. Frequency of usage of services also reflects positively on the relevance of the program and meeting the needs of the community members. Overall, Community health program seems to have been designed and implemented in the response to felt needs of the community.

## Effectiveness: Assesses the extent to which objectives of developmental interventions are being achieved

The effectiveness of the program has been evaluated through different components of Community Health program.

The below graph (figure–7) represents assessment related to CHCs in Bharana and Jakhar. The respondents (100%) from Bharana indicated CHC to be less than 5 kms from their home while majority of respondents (71%) from Jakhar indicated to be less than 1 kms. More than 70 percent respondents have indicated improvement in CHC pertaining to infrastructure, human resources, gender sensitivity and availability of necessary supplies. Only 29 percent respondents from Jakhar indicated improvement in ease of accessibility while 26 percent of respondents from Bharana indicated improvement in availability of services round the clock. Overall, the effectiveness of CHC components for Bharana is 82 percent and Jakhar is 75 percent.

*“Main centre (CHC) is very good. We need a centre like Jakhar. Treatment provided by the doctors is good. I come to this centre thrice in a month”*

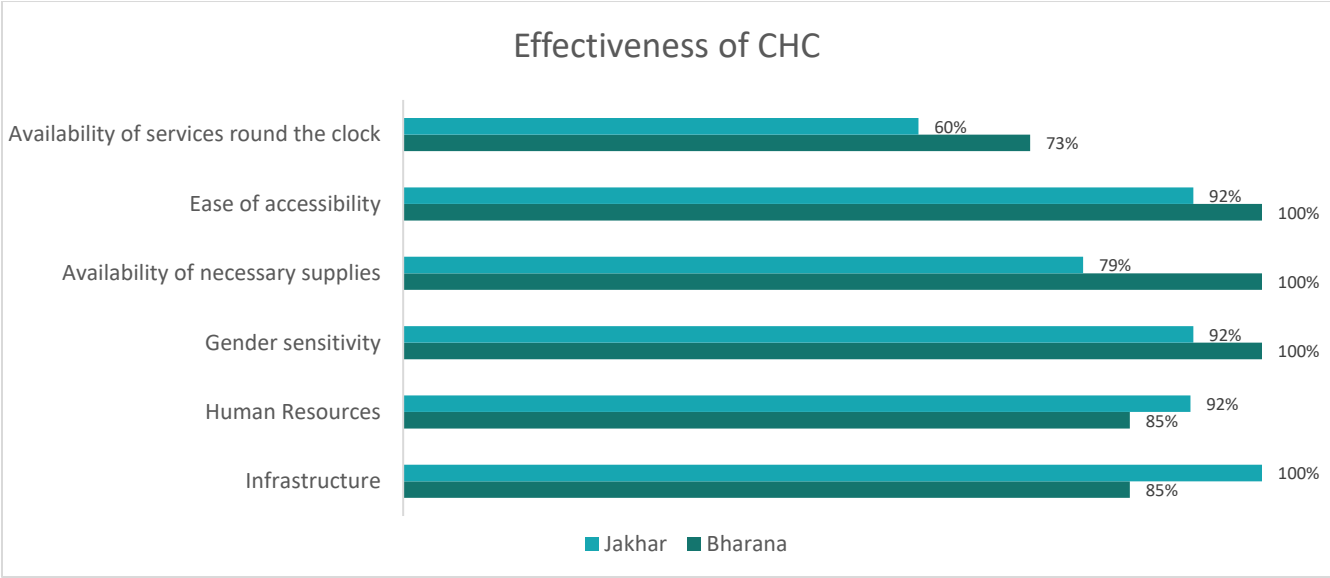


Figure 7 Effectiveness of CHC

*“MHU service is a very good initiative by Nayara. Initially mobile van was coming thrice a week. Now it comes twice a week. That is also good. We do not have to go out of village for our basic treatments. We all, specially **women and old people** are very much benefitted with this project”*

The below graph (figure-8) represents assessment of Mobile Health Unit in three villages. More than 80 percent of respondents from all villages indicated improvement in availability, facilities, infrastructure, tests, consultation, ease of accessibility, convenience and comfort for patients as a result of MHU operated by Nayara Energy. Nearly half of respondents from two villages were indicative of human resources staff that still needs improvement. The overall effectiveness of MHU was assessed to be at more than 85 percent.

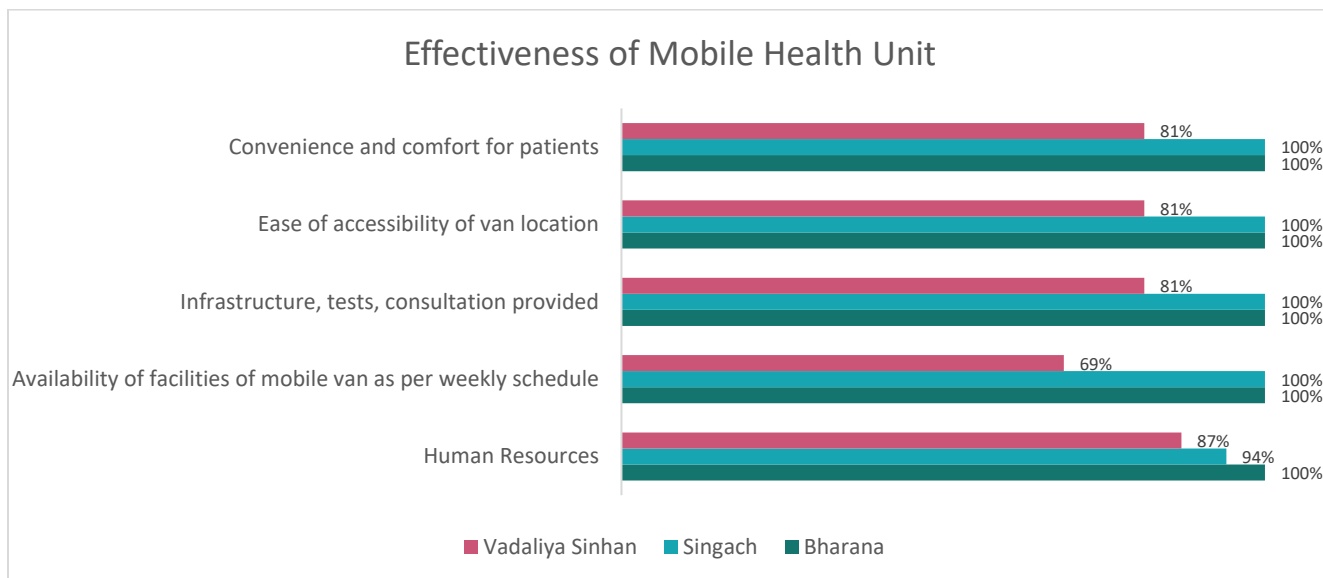


Figure 8 Effectiveness of MHU

*“MHU service is good. I am a diabetes patient. MHU service gives my medicines time to time and I don't have to go out of village for my medicines and treatment”*

The below graph (figure-9) represents assessment of Emergency Ambulance services. All respondents from Bharana village indicated improved infrastructure, human resources and on-time availability of ambulance service, and they indicated there was no overlap with government emergency helpline service. In Singach and Vadaliya Sinhan, nearly half of respondents indicated improved infrastructure, human resources and on-time availability of ambulance service, and they indicated there was 20%-40% overlap (supplementing) with government emergency helpline service (108 service). The overall effectiveness of Ambulance services was assessed to be at more than 60 percent.

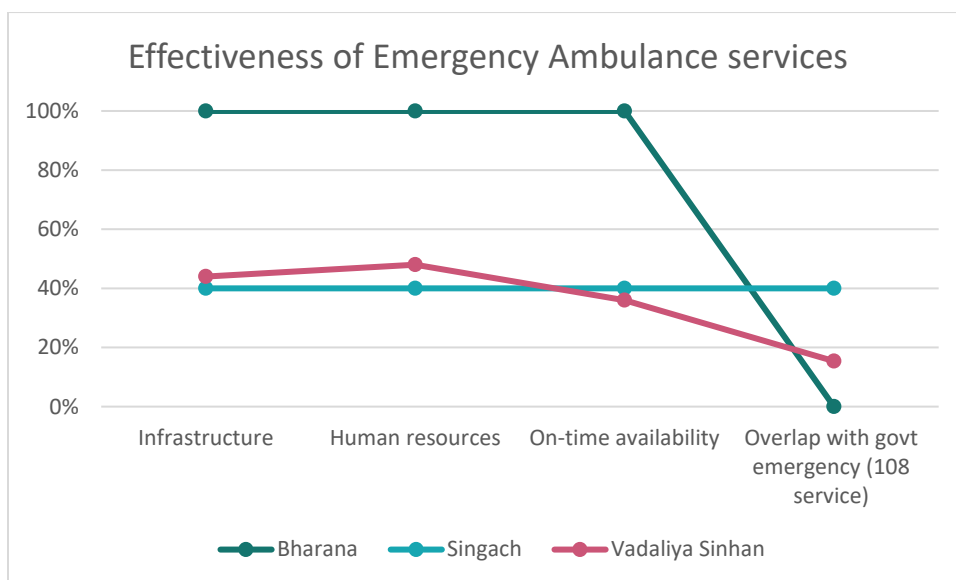


Figure 9 Effectiveness of Emergency Ambulance services

*“We access either 108 service or CHC ambulance service”*

*“Both of the services are free of cost. So, it is good for our village.”*

*“Ambulance service is good in our village. We either call for govt. helpline service i.e. 108 service or ambulance offered by Nayara.”*



All respondents indicated that doctors were available during health camps and checkups conducted in their village and 100 percent respondents indicated there has been improvement in health services offered during camps. Some of the responses from beneficiaries are detailed below:

*"Doctors come in health camps are experienced, kind and gentle. They campaign awareness sessions which are very useful."*

*"As I said this activities by the NGOs and govt. are very useful to us. We are thankful."*

*"Experienced doctors come here from outside in health camps to check up."*

*"Doctors are very kind and gentle. Health centre infrastructure is good but I think it needs to be more better."*

*"Doctors are experienced and active. They give proper medicines. They all are doing a great job."*

*"Doctors are good."*

*"Yes. Doctors are good undoubtedly."*

***"I will not say that health camps are not held. But more health camps should be held in our area so that people become more aware about health and can take care of their family."***

***"More health camps should be organised. Because health camps increase awareness which is more important."***

More than two-thirds of the respondents indicated that elderly person of their households have received healthcare services from Nayara program and nearly all of these respondents (97%) are satisfied and indicated the healthcare services for elderly has improved under the Nayara program.

Under the program, multiple awareness and communication activities have been conducted to impart behavior change in the community as part of preventive services. Nearly 70 percent respondents have indicated that they have attended awareness sessions on health, hygiene, or maternal and childcare conducted in their village and they have been helpful in providing knowledge on basic but important topics.

*"Awareness sessions are very useful."*

*"Very good initiative."*

*"Awareness should be spread all over."*

*"Very good experience."*

*"Yes, I attended awareness sessions. Lectures given by the doctors and health specialists should be followed so that we can make a disease and illness free society."*

## **Efficiency, Convergence and Sustainability of the program**



*“When husband met with an accident at that time we need to go Jamnagar thrice in a week. But we asked CHC centre people, and they arranged all the facility at home.”*

*“Nayara is doing a great job. This project should continue obviously. Facilitators are very good and humble. Doctors are also good. They give right medicines. Facilities provided under this project are truly helpful and appreciable.”*

*“Covid rehabilitation Centre played a vital role in pandemic period. We get all the treatment free plus received a kit.”*

*“We all are happy with CHC centre and its work. Two facilities which are we expecting from them.*

- 1. Full time gynaecologist*
- 2. High standard medicines.”*



## 3.2 Project TUSHTI

Project TUSHTI is being implemented by JSI R&T India Foundation and IIPHG in the area of operations of Devbhumi Dwarka & Jamnagar district. The thematic area of program is Nutrition, Health and System Strengthening. The overall Goal of the program is to 'Reduce malnutrition (among children under 5 years of age) and strengthen health and wellness centres in Dev-Bhoomi Dwarka'.

The objectives of the program are:

- ▶ To strengthen comprehensive nutrition improvement systems and practices by facilitating multi-sectoral convergent actions
- ▶ To improve uptake of nutrition services for young children, adolescents and pregnant women
- ▶ To promote positive behaviour change through a comprehensive Behaviour Change Communication Package
- ▶ To converge the existing ICDS with technology enabled digitized and sustainable "model health and wellness centres" for better monitoring the nutrition related parameters in vulnerable populations.

The implementation of program at three levels:

- a) At Village and Community level - Strengthening VHND and VHSNC; Implement a package of targeted high impact interventions through existing system (ICDS)
- b) At Facility level (PHC, SC, AWC) - Capacity building of staff (Triple "A") supportive supervision



- c) At District/Block level - System strengthening and convergence at all levels among Health, ICDS and education department

## Demographic details of respondents

More than two-thirds (77%) of the respondents belong to general category while remaining indicated to belong to OBC.

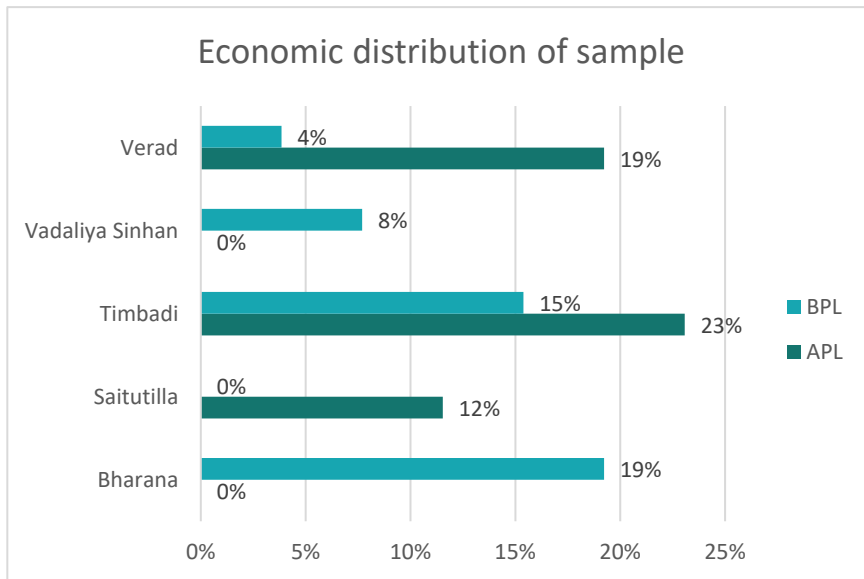


Figure 10 Economic distribution

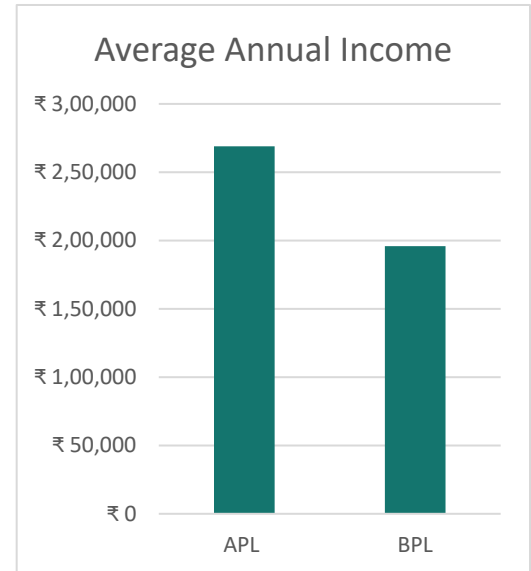


Figure 11 Average annual income of households

Nearly half of the respondents (54%) belong to APL category, while the rest 46 percent belong to BPL category. The average annual income of the respondents is INR 2,35,192/-. While looking at the disaggregated data, the average household income of APL category respondents is nearly 40 percent more than the BPL households. 85 percent of the respondents indicate having semi-pucca houses while the rest indicated having pucca houses.

## Relevance – Responsive to the felt needs of community

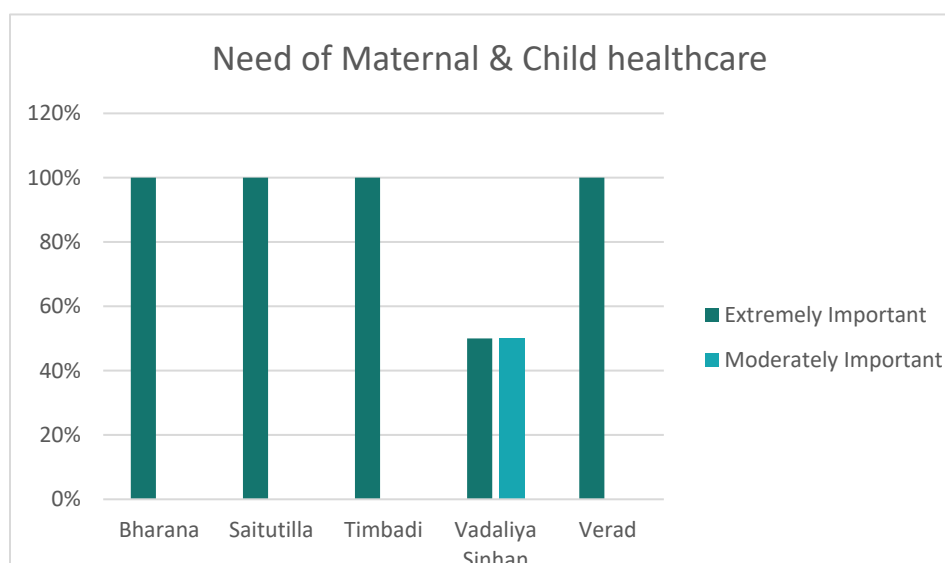


Figure 12 Need of Maternal & Childcare services

All the respondents indicated that maternal and child healthcare are important in their life. 96 percent of them indicated to be extremely important.

46 percent of the respondents indicated that they had a family member who has given birth in past three years.



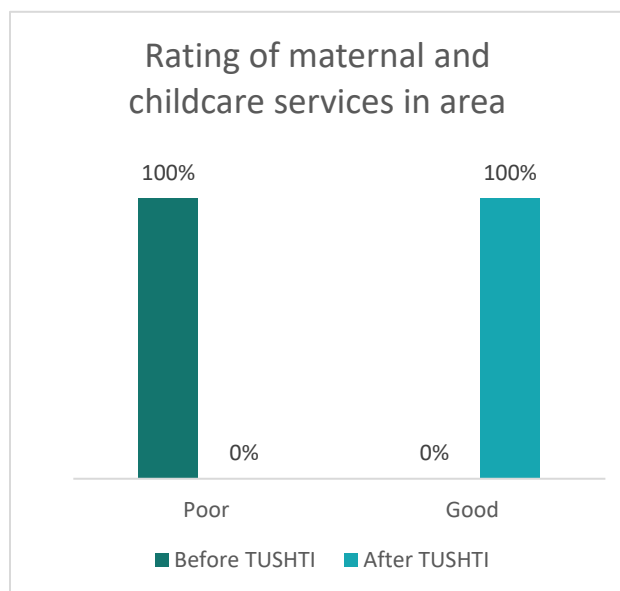


Figure 13 Rating of MCH services pre and post TUSHTI

100 percent of respondents indicated that they have received counselling on child nutrition, breastfeeding under TUSHTI program.

To understand the status of maternal and childcare services in the villages, the respondents were asked to rate the services before and after the implementation of TUSHTI program.

All the respondents indicated that the MCH services were in poor state before the implementation of TUSHTI program.

100 percent of the respondents indicated that there has been multifold improvement in MCH services post implementation of TUSHTI program and the services are in good state now.

More than half (54%) of the respondents indicated that they have visited Child Malnutrition Treatment Centre and received treatment there. 92 percent of the respondents indicated they have received tele-counselling services under the TUSHTI program. 100

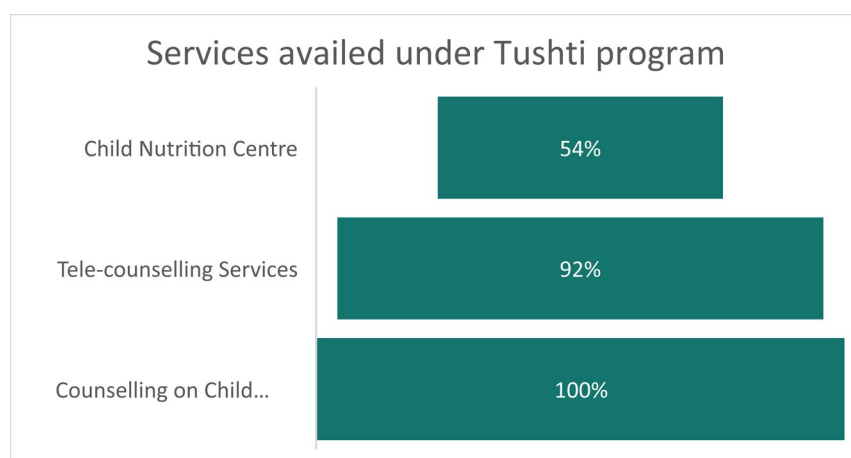


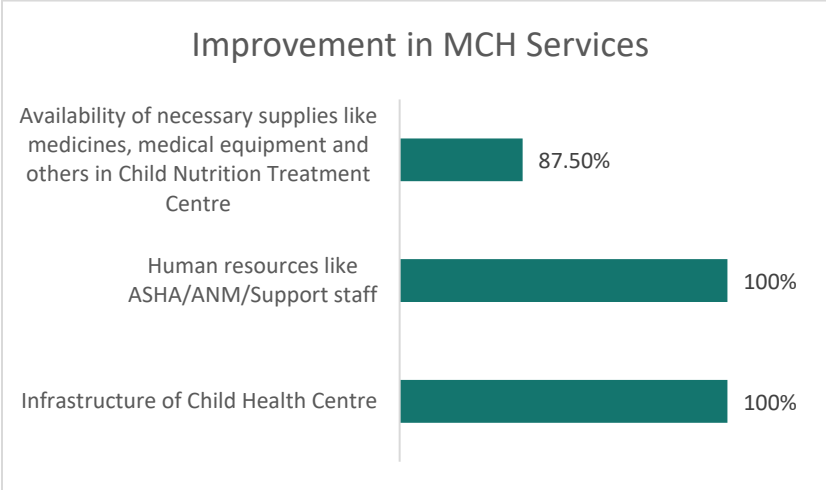
Figure 14 Services availed by respondents

basis their requirements and need.

On asking about types of services availed under the Tushti program, nearly half of respondents (54%) indicated receiving treatment at Child Nutrition Centre, 92 percent respondents reported using Tele-counselling services and all respondents reported that they received Counselling services on Child Nutrition and Breastfeeding. This is a clear indication of relevance of program in the community as majority of respondents have availed services

## Effectiveness – Effective in fulfilling the objectives of program

The effectiveness of the program has been evaluated through different components of Tushti program.



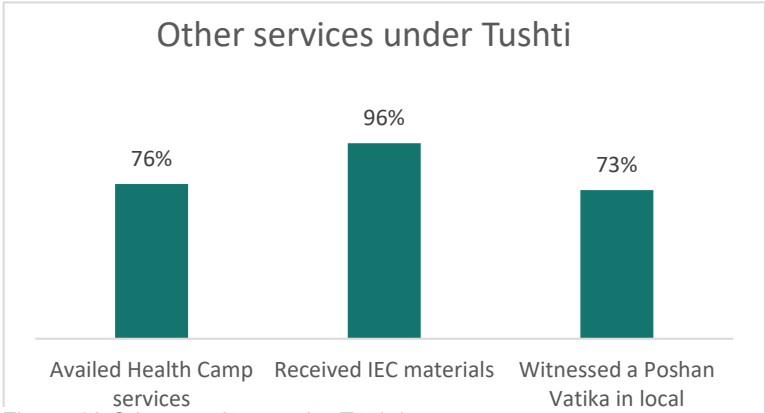
The primary measure of effectiveness is improvement in MCH services under the Tushti program. All respondents indicated that there has been improvement in infrastructure of CHC and human resources (ASHA/ANM/Staff) post implementation of Tushti program. Majority of respondents (87.5%) indicated improved availability in necessary supplies at Child Malnutrition Treatment Centre.

The next measure to gauge effectiveness is accessibility. All

**Figure 15 Improvement in MCH services**  
respondents indicated that the Child Malnutrition Treatment Centre is in the range of one to five kilometers from their home. Three-fourth of respondents (75%) reported improvement in ease of accessibility of CHC location. Respondents from *Vadaliya Sinhan* village indicated no change in ease of accessibility. All respondents indicated that there has been improvement in convenience and comfort for patients while availing services child nutrition centres. 100 percent of respondents who availed services of pediatricians and gynecologists at centres during their hour of need reported improvement in services.

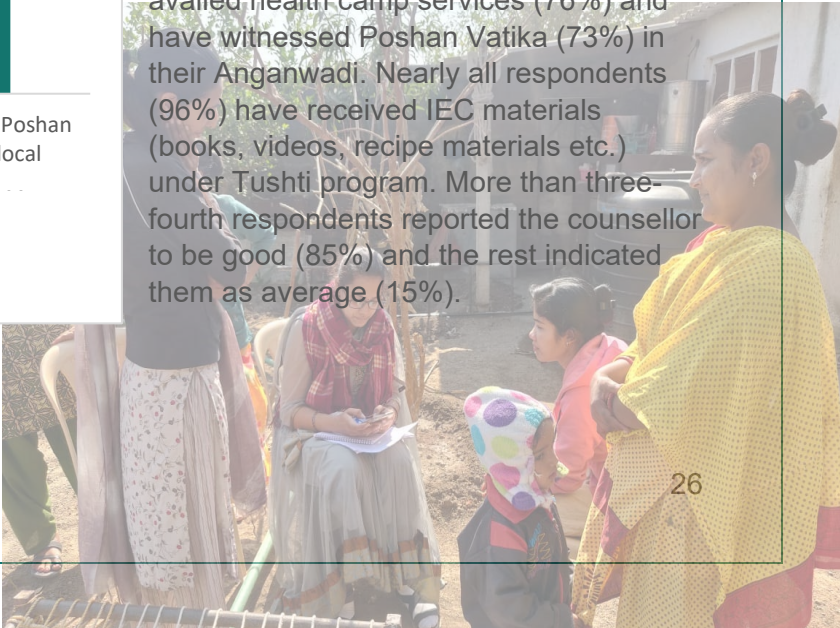
One of the aims of the program Tushti is to capacitate the front line health workers so that community are able to receive better MCH services.

100 percent of respondents reported that Anganwadi/ASHA workers are able to provide the right information to women about breastfeeding and child nutrition post implementation of Tushti program.



**Figure 16 Other services under Tushti**

When enquired about improvement in availability of facilities at Primary Health Centre, only 58 percent respondents indicated an improvement. Three-fourth of respondents reported that they have availed health camp services (76%) and have witnessed Poshan Vatika (73%) in their Anganwadi. Nearly all respondents (96%) have received IEC materials (books, videos, recipe materials etc.) under Tushti program. More than three-fourth respondents reported the counsellor to be good (85%) and the rest indicated them as average (15%).



The respondents were asked about various modes of information and whether they have received or witnessed those in the community. All respondents reported receiving Nutrition education on WhatsApp and they have seen messaging or videos on local cable regarding MCH. 92 percent respondents reported receipt of short videos on nutrition, breastfeeding, anaemia and other MCH topics.

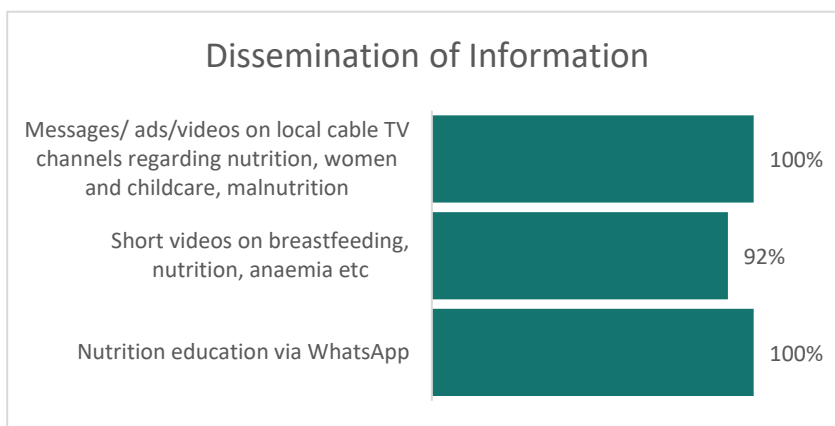


Figure 17 Information dissemination and reach

*“We attended counselling sessions. In the lockdown period They counselled through text messages, WhatsApp videos, cable tv. Those are very useful. We also celebrated nutrition month”*

To inculcate nutritional behaviour amongst the community, nutrition garden kits and nutrition cards were

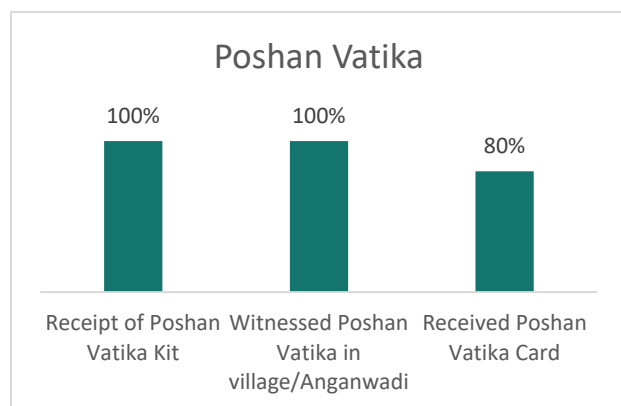


Figure 18 Poshan Vatika

distributed and nutrition gardens were established in community and Anganwadi. All respondents reported that they have received Poshan Vatika kits and observed Poshan Vatika in their community / village / Anganwadi. 80 percent of respondents reported receipt of Poshan Vatika Cards.

*“They provide us books which contains knowledge of each vegetable and recipes that help us in cooking”*

*“Poshan kit really helpful for me”*

*“We received 2 times benefit of Poshan Vatika, really very helpful”*

*“I received Poshan vatika kit containing vegetable seeds, leaflet, book etc. and also Poorna potli containing hygienic menstrual pads, leaflet from Tushti. Those kits are very useful”*

As part of the Tushti program, special focus has been given on adolescent girls with respect to their status of Anaemia, menstrual hygiene and overall nutrition. The adolescent girls have been given *Poorna Potli* encompassing hygienic sanitary pads and IEC material (leaflets).

## Efforts for Anaemia & Poshan Abhiyan

Received Poorna Potli (menstrual pads and IEC materials on anaemia awareness and menstrual hygiene) 100%	Conducting Anaemia camp (poorna tithi) 100%	Improvement in women safety, gender sensitivity post Tushti 100%	Celebration of Poshan Abhiyan on all Tuesdays post Tushti 100%
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Figure 19 Efforts for Anaemia & Poshan Abhiyan

Awareness sessions have been conducted with adolescent girls on menstrual hygiene management and importance-usage-disposal of sanitary pads. 100 percent of adolescent girl respondents reported receiving menstrual pads and IEC materials on anaemia awareness and menstrual hygiene under *Poorna Potli*. All respondents indicated that specific Anaemia checkup camps known *Poorna Tithi* have conducted in their area.

100 percent of respondents reported that there has been improvement in **women safety and gender sensitivity** post implementation of Tushti program.

All respondents reported that there has been strengthening of Poshan Abhiyan and it is being regularly conducted in their villages on all Tuesday's post implementation of Tushti program.

## Efficiency, Convergence and Sustainability of the program

The efficiency of a program is usually gauged through Cost-Benefit ratio analysis or Social Returns on Investment analysis, that are separate exercises in themselves. The efficiency in program can be achieved at two levels – one at programming and financing level, and second at delivery level.

The on-ground efficiency of Tushti can be gauged by impact it is creating in the lives of people and community as whole. When respondents were asked about overall experience of Tushti program, nearly 90 percent of respondents indicated that Tushti has brought positive change in quality of life of mothers, adolescent girls and children in the village. More than 70 percent (73%) of respondents indicated that there involvement of Panchayat / Government / NGO in the Tushti program.

*"The program is creating awareness and parents understand the issues better now"*

*"Now, we can go to school, colleges comfortably and without any hesitation"*

*"Women safety and gender awareness are the most important thing to be get noticed and to be implemented in our society. That are provided by Tushti which is very good and appreciable"*

*"How to reuse cloth sanitary napkins, importance of sanitary napkins etc. we understand only because Poorna Potli"*

*"There are so many things improved after Tushti project like maternal and childcare facilities, women safety, health awareness. It is a very good project"*



### 3.3 GRAM SHIKSHA

The Gram Shiksha program was implemented by Centre for Environment Education in the area of operations of Devbhumi Dwarka & Jamnagar district. The thematic area of program is Education. The overall Goal of the program is 'Education for All in Dev-Bhoomi Dwarka'. The program was initiated in 2016 and concluded in March 2020.

The objectives of the program are:

- ▶ To ensure inclusive, equitable quality education
- ▶ To promote lifelong learning opportunities for all
- ▶ To bring the drop-out students back into the education system

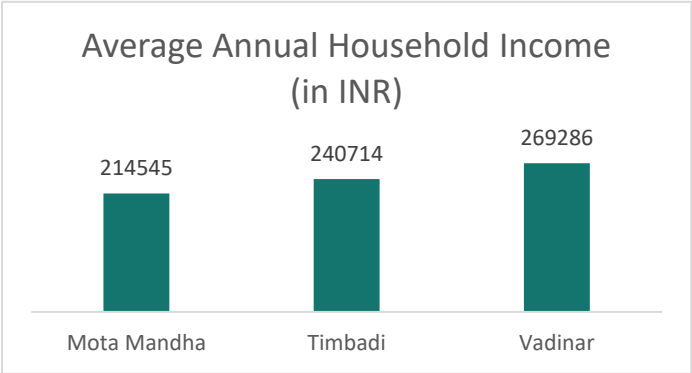


The implementation of program at three levels:

- a) Provisioning of Smart Class: It includes provision of smartboard, programor and a PC for a classroom for better lessons access using digital means. The smart classes are installed with 'Learning Delight' software.
- b) Training of teachers and Principals- The teachers were provided training in their respective subjects in order to improve on their knowledge and the quality of delivery.
- c) Events and other activities like 'Bharat Ek Khoj' (for personality and creative development of students), summer camps, Shala Pravesh Utsav, Bal mela and others for improving the education levels.
- d) Setting up of Library- Nayara has also supported 16 Libraries. The library has been set up in the premises provided by the gram panchayat and has been further developed under the intervention.
- e) Linking drop-out students to secondary education through NIOS. The program is an attempt to bring the drop-out students back into the education system. More than 500 students across 15 villages been connected to secondary education, post the programme is in place.

# Demographic details of respondents

The respondents for Education thematic area were collected from Mota Mandha, Timbadi and Vadinar villages. Majority of the respondents belong to general category and half of the respondents live in semi-pucca houses. 96 percent of respondents belong to BPL category.



One-fifth of the respondents indicated that they are involved in agricultural practices and nearly one-tenth are involved in salaried jobs. More than half of the respondents indicated that they are involved in daily wage type of jobs/ temporary jobs.

The average annual household income reported by respondents is INR 2,37,200.

Figure 20 Annual Average Household Income (in INR)

# Inclusiveness: Equitable access to all community members

The primary aim of the Gramshiksha program was equitable access to all community members.

100 percent of respondents reported that the program initiatives and activities were:

- Accessible for all social groups (caste, class, race, religion, others)
- Accessible for all genders (Male, Female, Others)
- Accessible for all social groups (Differently abled, mentally challenged, others).

# Relevance – Responsive to the felt needs of community

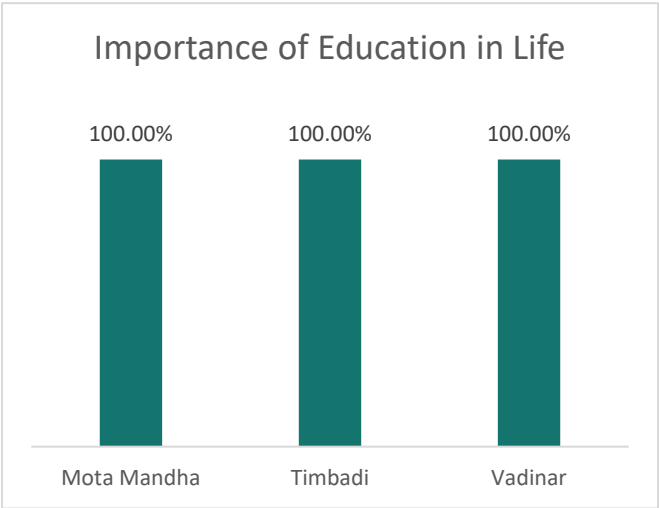


Figure 22 Importance of Education

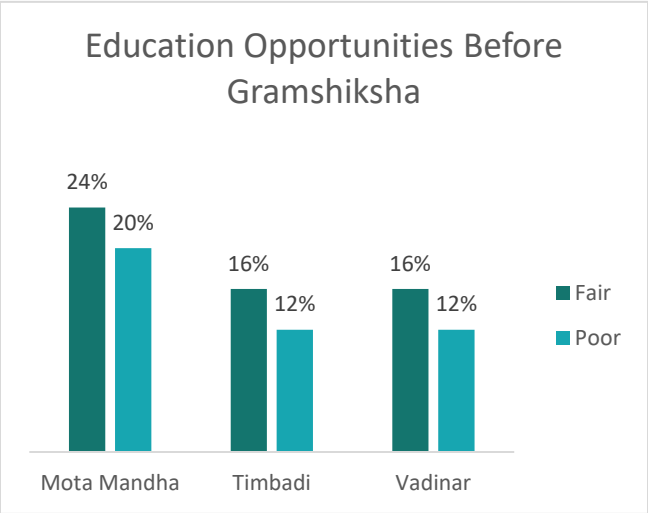
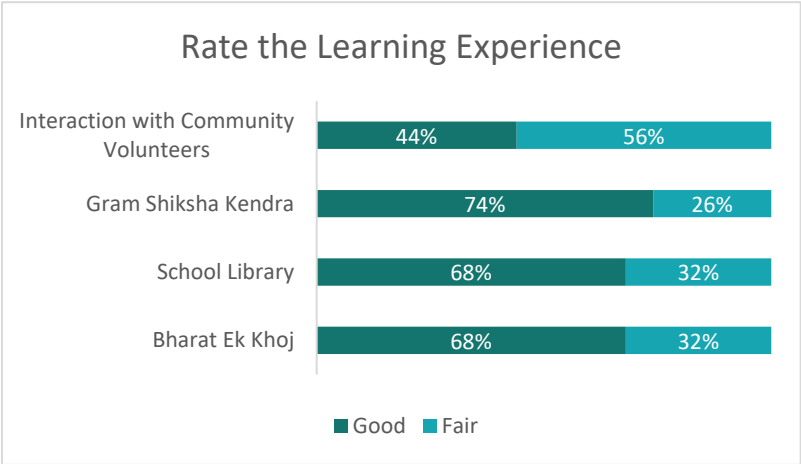


Figure 21 Educational opportunities Before program

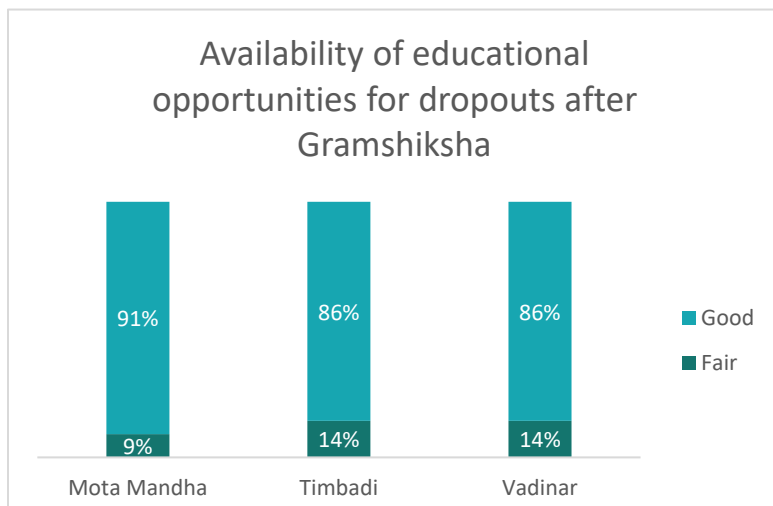
When asked about importance of education in their life, all respondents indicated that education is very important in their lives. Nearly half of the respondents indicated that the educational opportunities before the Gramshiksha program was poor in the village and the rest of them indicated it to be fair.



The respondents were asked to rate their experience with learning post the implementation of Gramshiksha program. Nearly seven-tenth of respondents indicated good learning experience with ‘Bharat Ek Khoj’, school library and Gram Shiksha Kendra, and rest of them indicated fair learning experience. Nearly equal number of respondents indicated good and fair learning experience on their interactions with community volunteers.

Figure 23 Rate the Learning Experience





More than four-fifths of respondents reported that there have been good educational opportunities for dropouts post implementation of Gramshiksha program. The comparison of educational opportunities pre and post implementation of Gramshiksha program (as reported by respondents), it was noticed that the improvement is statistically significant. Thus, the program was able to cater to the needs of educational requirements of the community in its implementation area.

Figure 24 Educational opportunities for dropouts after Gramshiksha

## Effectiveness – Effective in fulfilling the objectives of program

To gauge the effectiveness, the respondents were asked to rate various aspects of the Gramshiksha program like outreach, enrollment, support received and their value of education in their daily life.

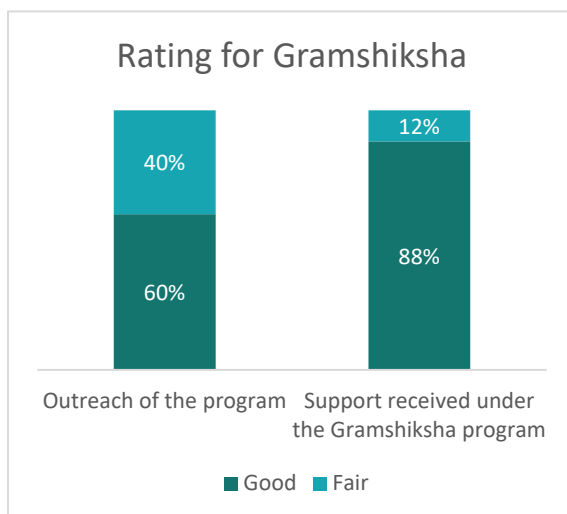


Figure 26 Rating for Gramshiksha program

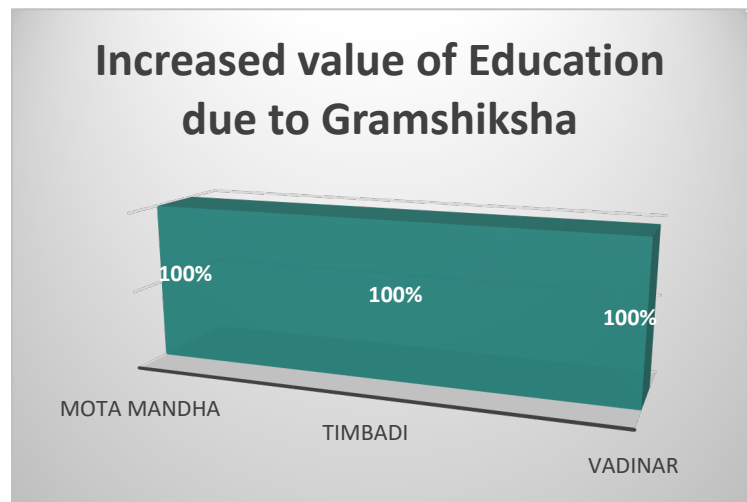


Figure 25 Value of Education post Gramshiksha

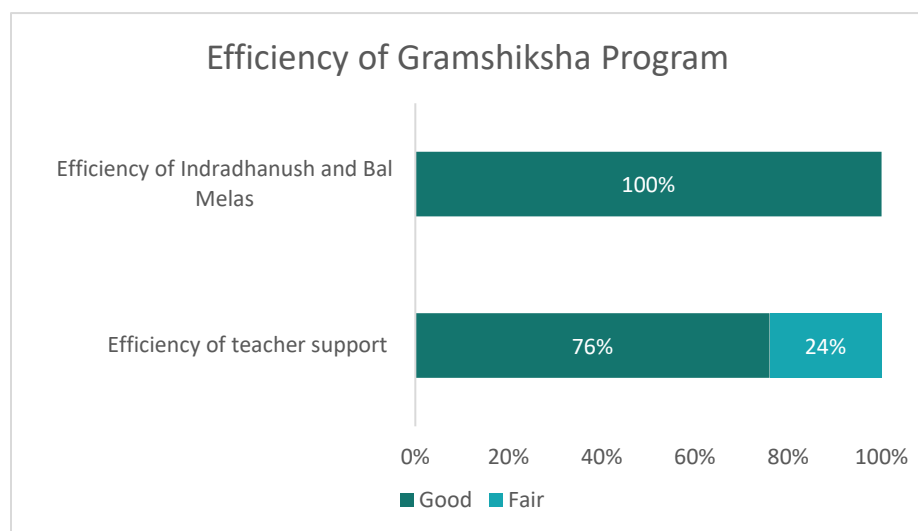
60 percent of respondents rated the outreach of Gramshiksha as good and rest of them as fair. Nearly 90 percent of respondents rated the support under Gramshiksha program as good. When respondents were asked about future plans, majority of them indicated that they want to study further like going to Arts college, going for bachelor's degree, going for ITI/Diploma, and rest of them want to find a job. All the respondents reported that there has been increased value of education in their lives due to Gramshiksha program, and motivated them to aim for better quality of life.





## Efficiency – Degree of efficiency in utilization of resources for fulfilling the objectives of the program

The efficiency of a program is usually gauged through Cost-Benefit ratio analysis or Social Returns on Investment analysis, that are separate exercises in themselves. As Gramshiksha was concluded two years back, in this assessment, respondents were directly enquired about efficiency of the program.



With respect to the events conducted under the program (Indradhanush and Bal Melas), 100 percent of respondents indicated them to be efficient in promoting education level in the community. More than three-fourths of respondents indicated that the efficiency of teacher support was good and rest of them indicated it to be fair, leading to augmentation of learning levels of students .

Figure 27 Gauging Efficiency of Gramshiksha

# Convergence, Impact and Sustainability

All the respondents indicated that currently the Gram Shiksha Kendra`s are inactive while there are community education volunteers who assist community members with their educational queries and help them (specifically for NIOS).

“Gram Shiksha Kendra is not operational. Only NIOS program for drop out students is working. We all want Gram Shiksha Program to start again. So much awareness spread due to this program. Everyone was enjoying and learning the activities under this program like Bharat Ek Khoj, Idradhanush etc.”

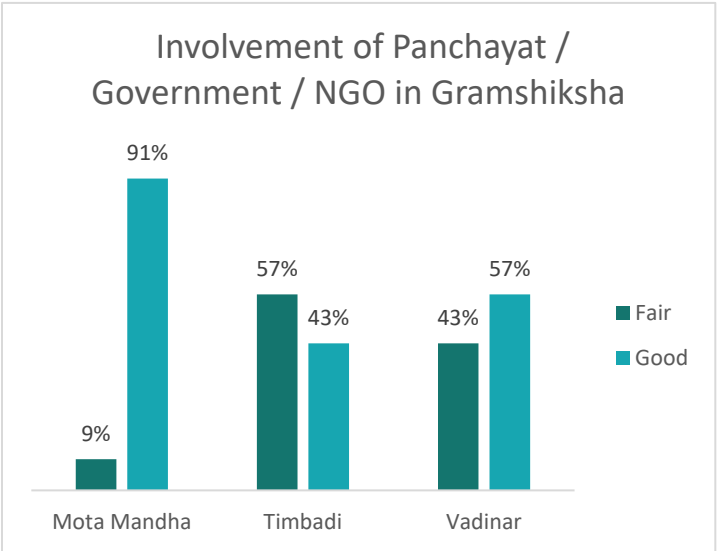


Figure 28 Convergence element in Gramshiksha

All the respondents indicated that there has been substantial involvement of panchayat or government or NGOs in Gramshiksha program, with 68 percent of them indicating it to be good and the rest as fair. The respondents indicated that the program elements can be sustained only through active involvement of panchayat members and local community participation. 100 percent of respondents indicated that the overall experience of Gramshiksha program was excellent in bringing about positive change in accessing education to all.

## 3.4 Gram Samruddhi

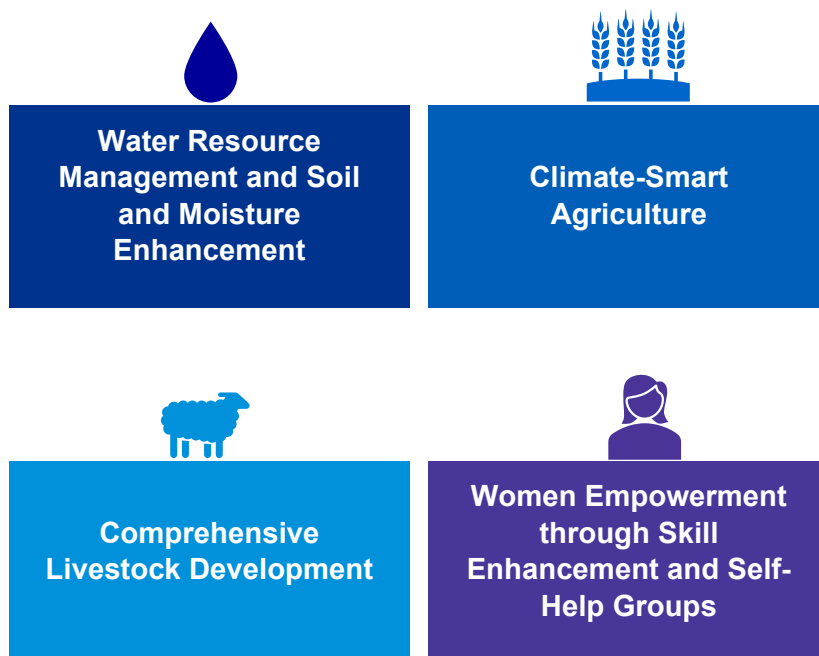
The livelihood programs are inclusive of Agriculture development, Animal Husbandry development, Water resource development, and Women Empowerment. The purpose is to implement and disseminate innovative practices in Agriculture, animal husbandry, water harvesting, women empowerment and provide technical/capacity building support to the community. The program has reached out to more than 5000 direct beneficiaries annually. The program is being implemented by BISLD (BAIF Institute for Sustainable Livelihoods And Development).

The objectives of the program are:

- 1) Doubling the income of the participant household through holistic development in agriculture development, water resource development, livestock development and women empowerment
- 2) Enhancing the agricultural productivity through enhanced capacities, improved farming practices, source of irrigation and strong backward and forward linkages
- 3) Promoting integrated approach of water resources development for conserving natural resources and map the increase in water availability due to the interventions
- 4) Enhancing livestock productivity through breed improvement and better management
- 5) Increase women participation in productive activities and empowering women through SHGs bridging their socio-economic gap and integrating them actively in the development process.

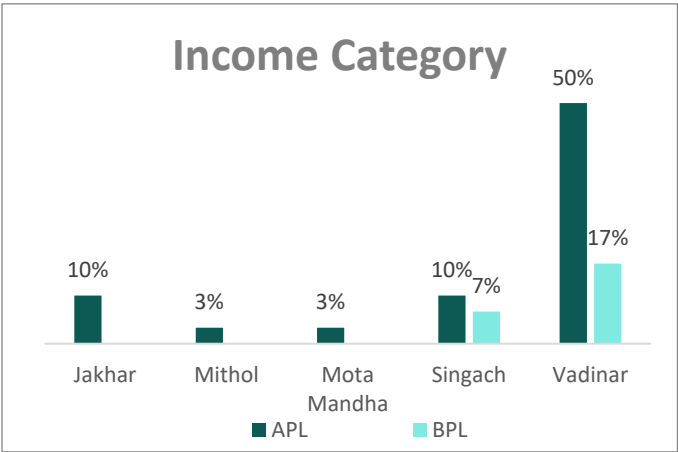
The main activities under the Sustainable livelihood program are:

- a) Water Resource Development: Farm bund, Farm Pond, Field Outlet, Check dam (new and repairing), desilting, borewell recharge, small group water management system, drip and sprinkler irrigation, mulching.
- b) Agriculture Development: Promoting horticulture plantation, Promoting various creepers as well as non-creepers vegetables/pulses/other crops, promotion of improved package of practices.
- c) Livestock Development: Breed improvement through AI, Mobile Veterinary Clinic, Integrated livestock management practices (Mineral mixture, deworming, vaccination, etc. along with convergence).
- d) Women Empowerment: Formation of SHGs, skill building trainings, linkage with market.



# Demographic details of respondents

The program ensured that it is inclusive to all groups irrespective of their socio-economic status. The respondents interviewed had different caste profile. Most of the respondents were (47%) were from OBC caste category followed by 23% of the respondents from general category, 16% from Schedule caste category and remaining 13% were belonging to other caste categories. Two-thirds of the respondents were Hindu by religion and remaining one-third were Muslims.

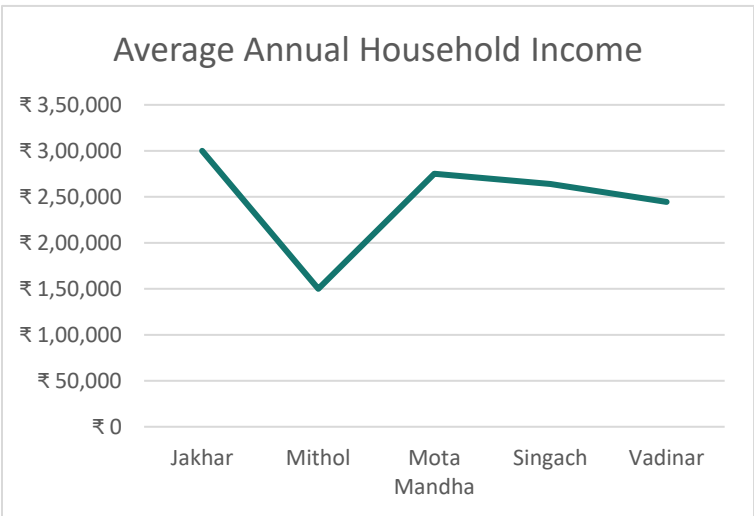


It was observed that more than three-fourths (76%) of the respondents belonged to APL category while the remaining (24%) belonged to BPL category.

66 percent of the respondents have semi-Pucca houses followed by 17 percent of respondents who have Pucca houses and 16 percent of respondents who have Kutcha houses. As per census of India, a 'pucca' house as one whose walls are made of either stones (packed with lime or cement mortar) or G.I (galvanised iron) /metal/asbestos sheets or burnt bricks or cement bricks or concrete; and whose roof is made of

Figure 29 Income category of respondents

either machine-made tiles or cement tiles or burnt bricks or cement bricks or stones or slate or G.I./Metal/Asbestos sheets or concrete. A 'Semi-pucca' house is the one that has fixed walls made up of pucca material but the roof is made up of the material other than those used for pucca houses. A 'Kutcha' house is the one that has fixed walls made up of pucca material but the roof is made up of the material other than those used for pucca houses.



The mean annual household income of the respondents came out to be INR 2,51,167 and the median household income came out to be INR 2,75,000. The lowest annual income was reported from Mithol village where all respondents belong to SC category, while highest annual income was reported from Jakhar village where all respondents belonged to general category.

Figure 30 Annual average household income (in INR)



## Animal Husbandry

### Relevance

Animal husbandry in semi-arid regions have been proven to be major source of earning for households and Gujarat being milk producer of the country, it was envisaged to be a resilient strategy. As part of Animal husbandry, the activities conducted were introduction and sustaining a better quality of breeds, strengthening veterinary services, delivering quality feed and fodder, and training of farmers on husbandry practices.



### Effectiveness:

Table 3 Milk production pre-post program

Location	Milk production from cattle BEFORE the program	Milk production from cattle AFTER the program
Jakhar	22.5	38
Singach	25	65
Vadinar	24.5	43
Average	24	49

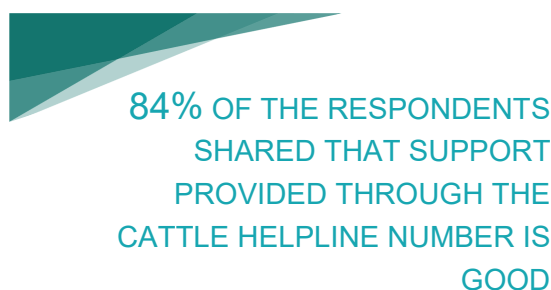
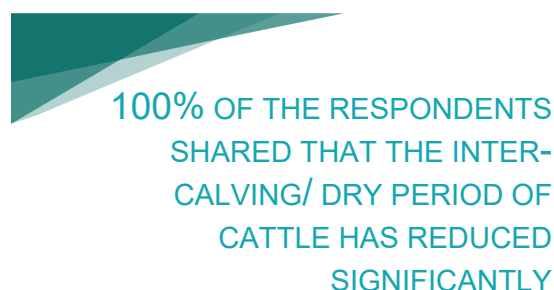
When respondents were asked about milk production from cattle before and after the implementation of program, it was observed that their reported milk production has doubled. A t-test was carried out to understand the change in milk production from cattle. The results of paired t test shows that there is significant difference in the mil production after the implementation of the program. 100 percent of the respondents reported that the health of cattle has been improved due to program implementation.

Table 4 Cost incurred for cattle health

Location	Average expenses for maintaining the cattle health BEFORE the program (Rs)	Average expenses for maintaining the cattle health AFTER the program (Rs)
Jakhar	156000	128000
Singach	82000	71000
Vadinar	33000	25000

<b>Grand Total</b>	<b>90333</b>	<b>74666</b>
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Respondents from all the 3 locations reported that average annual expenses incurred for maintaining the health of cattle has reduced by 17% (INR 15,667) due to the implementation of the program. A t-test was carried out to understand the expenses for maintaining the health of cattle. The results of paired t test shows that there is significant difference in the average expenses for maintaining the



health of the cattle after the implementation of the program.



Table 5 Average annual income pre-post program

Location	Average income from livestock BEFORE the program (Annual)	Average income from livestock AFTER the program? (Annual)
Jakhar	270000	375000
Singach	217500	410000
Vadinar	100000	195000
<b>Grand Total</b>	<b>195833</b>	<b>326666</b>

100 percent of respondents reported major increase in their annual income from livestock. Their income from livestock has been doubled after the program implementation, from INR 1,95,833 to INR 3,26,666. The t-test was carried out to understand the change in average income from livestock due to the



program. The results of paired t test shows that there is significant difference in the average income from livestock after the implementation of the program.

### **Efficiency:**

100 percent of the respondents rated program good for efficiency of utilization of resources in animal husbandry project. The respondents rated good on increase in capacity/ knowledge/ awareness post-training on livestock and health camp conducted.

### **Convergence, Sustainability and Impact:**

Half of the respondents indicated that there was good amount of involvement of panchayat or government or NGOs in animal husbandry projects while remaining half found it to be fair. 100 percent of respondents were convinced that animal husbandry program has brought about positive change in their quality of life.

*“Helping, coordination with other community members and cultivating better quality of animal feed like ground nuts, carrots, grasses etc. can help in sustainability of the program”*



## **Climate-Smart Agriculture**

### **Relevance**

The dependency on monsoons for farming has posed major challenges for agriculture in the area. The traditional knowledge of farmers along with modern climate-smart practices were adopted to mitigate the risks and increase the income of farmers. All respondents indicated that they have farming land and used to cultivate mostly in Kharif season. 80 percent of the farmers are small and marginal farmers having land holding of less than 2 acres. All respondents indicated that agriculture is extremely important in their lives for sustenance.

## Inclusiveness

All respondents indicated that the program was accessible to all groups irrespective of their caste, class, race, religion, specially abled, elderly and others.

## Effectiveness

The respondents were asked to rate availability of seeds and irrigation water pre and post the implementation of agriculture development project in their area.

Table 6 Availability of seed and irrigation pre-post program

Location	BEFORE		AFTER	
	Fair	Poor	Fair	Good
Jakhar	20%	-	-	20%
Mithol	-	20%	-	20%
Mota Mandha	-	20%	20%	-
Singach	-	20%	-	20%
Vadinar	20%	-	-	20%
Grand Total	40%	60%	20%	80%

Before the implementation of program, the respondents indicated poor (60%) and fair (40%) availability of seeds and irrigation. While post implementation of program, 80 percent respondents indicated them to be good and 20 percent to be fair.

The respondents were enquired about support received as part of Gramsamruddhi program. All respondents indicated that they received support for Demonstration of *dashparni ark*, *jeevamrut*, waste decomposer production, Vegetable cultivation/watermelon/muskmelon, Trellis farming, Drumstick/acid lime, Date Palm cultivation, Farmers training (FFS), Farmer Exposure visits and Demo farm. 80 percent of respondent farmers reported demonstration of salinity tolerant crop variety and 60 percent of them indicated receiving support for Trellis farming. Few respondents indicated receiving support for Date Palm cultivation, High-tech vegetable cultivation on an exploratory basis, Farmers training (FFS) and digital training.

80 percent of respondent farmers rated the support received under Gramsamruddhi as good and rest of them as fair.



100% OF THE  
RESPONDENTS SHARED  
THAT THE TRAINING IS  
EXTREMELY IMPORTANT IN  
AGRICULTURAL PRACTICES

100% OF THE RESPONDENTS  
SHARED THAT THEY HAVE  
NOT RECEIVED SUPPORT  
FROM ANY GOVERNMENT  
SCHEME



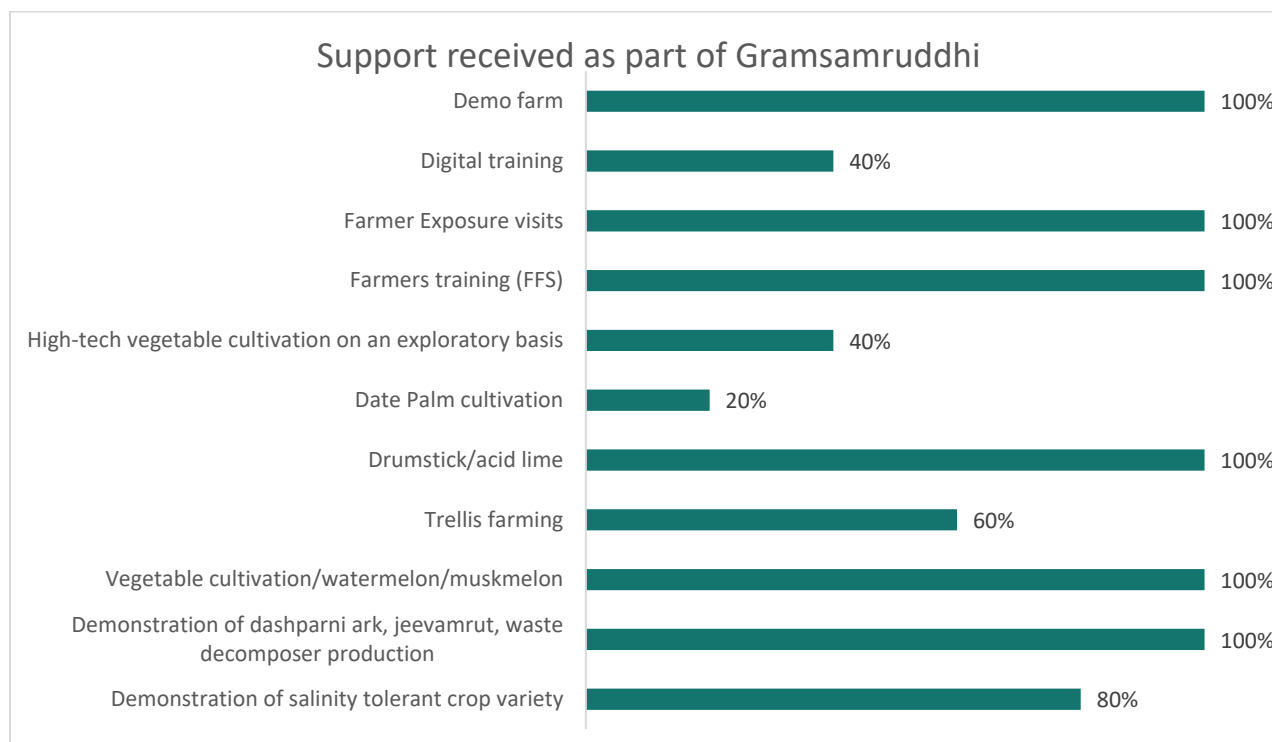


Figure 31 Support received from Gramsamruddhi program

### Organic cultivation

Soil testing is the preliminary step for initiation of organic cultivation. All respondents indicated that soil testing is extremely important for agriculture. 100 percent of respondents shared that they have seen reduction in input cost after organic farming. 80 percent of the respondents shared that they do not provide any financial contribution for organic farming support while rest 20 percent indicated giving financial contribution (from Singach village).

### Drip irrigation

100 percent of the respondents from all 5 locations shared that they have seen increment in productivity of the farm after adopting the drip irrigation technique. All respondents from Jakhar, Mithol, Mota Mandha and Vadinar villages shared that they have received financial aid for drip irrigation. Whereas all respondents from Singach village shared that they did not receive the financial support.

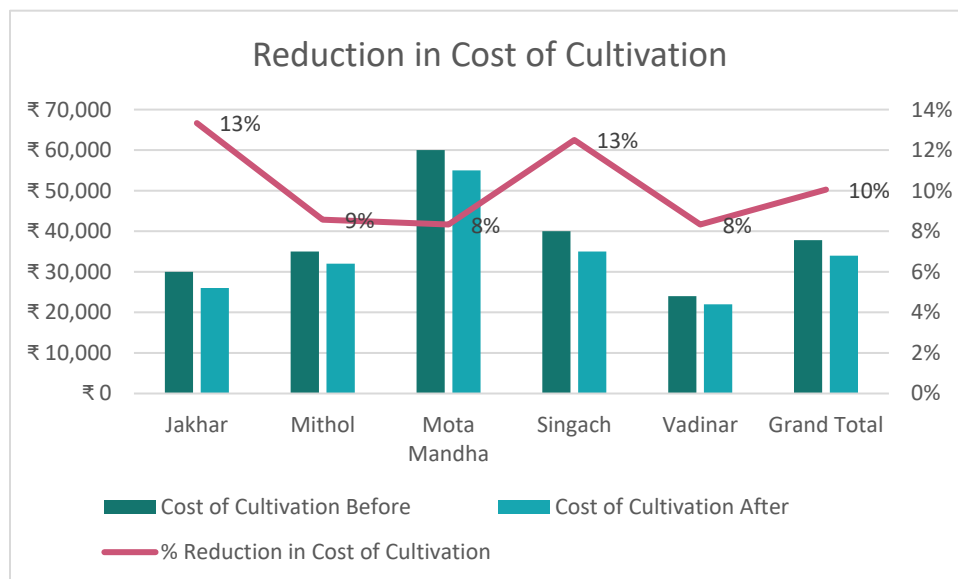
### Effectiveness

100 percent of respondents reported that the training (FFS) & exposure visit in agricultural practices provided under the program are good and they have tried to adopt the agricultural practices learnt through them. 80 percent of respondents have rated the availability of seeds and water for irrigation 'on time' as good and rest of them rated as fair.

When respondents were enquired about productivity before and after the program, they reported an increase of 40 percent in the productivity post implementation of program.

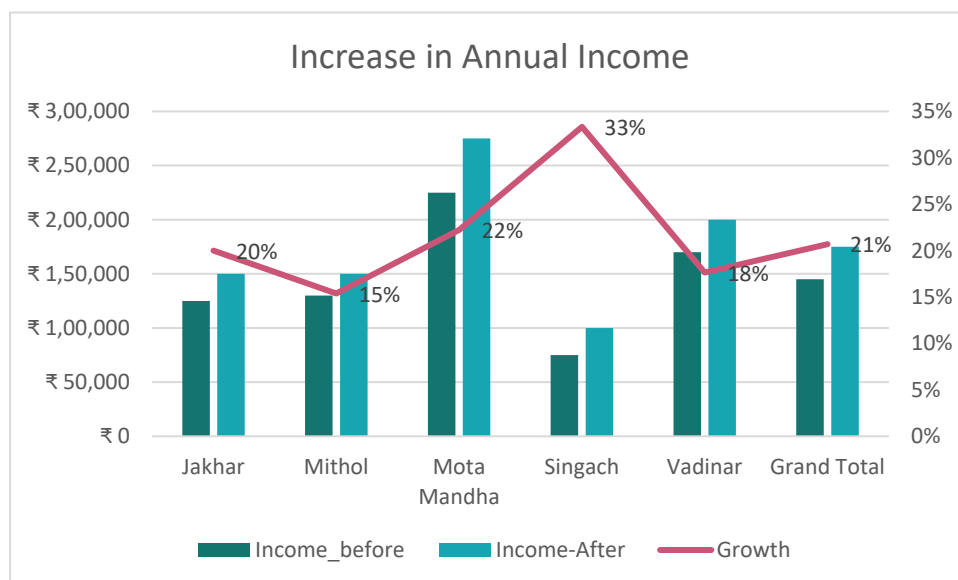
Table 7 Growth in productivity pre-post program

Location	Average farm produce BEFORE the program (Quintal)	Average of farm produce AFTER the program (Quintal)	Growth in Productivity
Jakhar	8	11	38%
Mithol	9	14	56%
Mota Mandha	30	40	33%
Singach	10	15	50%
Vadinar	5	7	40%
Grand Total	12.4	17.4	40%



The reduction in cost of cultivation can be observed across all locations and the reduction in cost varies from 13 percent to 8 percent, with average reduction being 10 percent. The average annual cost of cultivation before the program was INR 1,89,000 and that after the program was reported to be INR 1,70,000.

Figure 32 Cost of Cultivation



The increase in average annual income has been observed across all locations with average increase reported to be 21 percent (highest being 33% and lowest being 15%). The average annual income from agriculture as reported by respondent farmers rose from INR 1,45,000 pre-program to INR 1,75,000 post the implementation of program.

Figure 33 Average Annual Income

## Efficiency

All respondents indicated that there was good efficiency of utilization of resources in an agriculture development program.

## Convergence, Sustainability and Impact:

More than half of the respondents (60%) indicated that there was good amount of involvement of Panchayat / Government / NGO in the agriculture development program and the rest of respondents rated it as fair involvement. 100 percent of respondents were convinced that climate smart agriculture program has brought about positive change in their quality of life.

*“Mapping the entire value chain of agriculture products after such interventions and more involvement of local government (panchayat) can aide in sustainability of such projects”*



## Water Resource Development (WRD)

### Relevance

Water resources in the project region is impacted by salinity. Depleting groundwater and intrusion of saline water is key challenge in the region. At the beginning of 2014-2015 as per calculation of water deficiency total 44 MCM water is required to meet the demand. End objective of the project is to achieve water neutrality. The supply side interventions mainly included farm bunds, field outlets,



construction of new check dams, repair of old water harvesting structures etc. At the same time the interventions were planned to minimize the water consumption through efficient use of water. All respondents indicated that the effect on water resource development and water management activities are done by the Nayara project team.

**Inclusiveness**

100 percent of respondents indicated that the program ensured access to all members of community irrespective of caste, religion, specially abled, age and others.



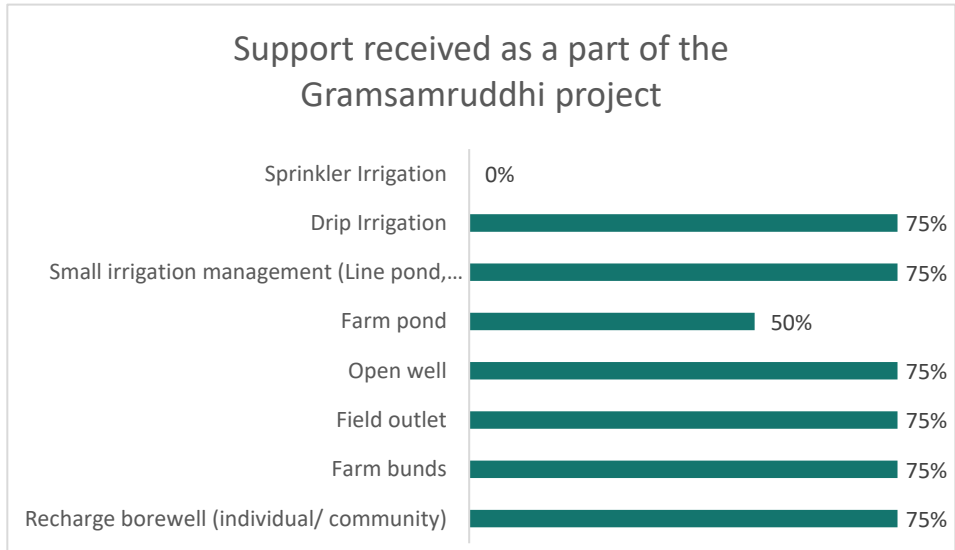
**Effectiveness**

Table 8 Pre-post program on water parameters

Key parameters	BEFORE the program	AFTER the program
Availability of water	50% Poor   50% Fair	75% Good   25% Fair
Quality of drinking water	50% Poor   50% Fair	100% Good



The respondents indicated that there is huge improvement in availability of water and quality of water post the implementation of a water resource development project in the area. 75 percent of



respondents indicated that there is increase in productivity due to increased availability of water.

Three-fourths of the respondents indicated that they have received support for recharge borewell, farm bunds, filed outlets, open well, small irrigation management and drip irrigation as part of the WRD initiative. Half of the respondents have reported to have dug farm ponds.

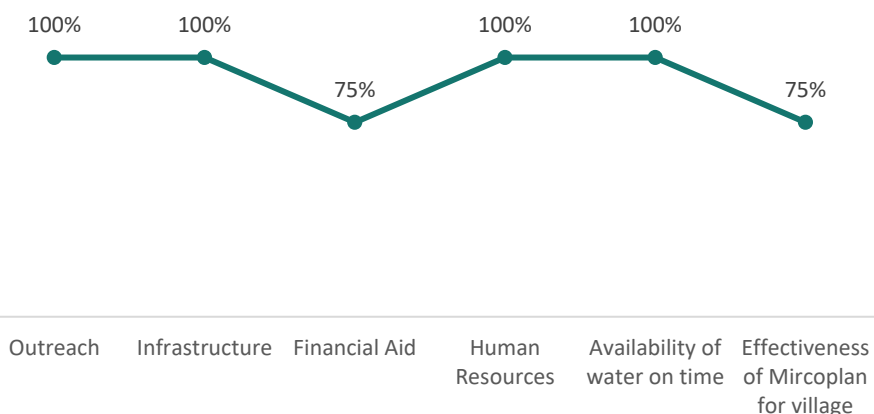
Figure 34 Support received under WRD



The respondents rated the support under the WRD program to be good (75%) or fair (25%). All respondents indicated that a Water User Association (WUA) has been formed in their villages.



### Rating the components of WRD program (Good/Improved)



All respondents indicated good outreach of the program, improved infrastructure and good staff. All respondents reported improved availability of water on-time because of the program and three-fourths indicated that the micro plan prepared for villages is effective.

Figure 35 Components of WRD



## **Efficiency**

All respondents indicated that the WRD program was efficient in utilization of resources for water development structures and planning.

## **Convergence, Sustainability and Impact**

Only one-fourth of the respondents indicated that there was good amount of involvement of Panchayat / Government / NGO in the agriculture development program and the majority rest of them rated it as fair involvement. 100 percent of respondents were convinced that WRD program has brought about positive change in their quality of life. The sustainability of the project can be achieved by creating awareness in community, taking all community stakeholders together for water harvesting, understanding the needs of the community, involvement of WAUs in equitable distribution of water.

## **Women Empowerment**

### **Relevance**

It is imperative to support the participation of women in activities outside the household for their empowerment. Through the SHG development, the women are introduced to various micro-financing options of savings and internal loaning (financial inclusion) and market-linked activities. These groups play a critical role in empowering women to achieve economic independence by strengthening their voices in their families and communities.

### **Inclusiveness**

100 percent of respondents shared that they have accessibility for all social groups (such as caste, class, race, religion) in the ambit of the program of women empowerment. 87 percent of the respondents shared that they have accessibility for all social groups (such as differently abled, elderly, others).

### **Effectiveness**



93% OF THE RESPONDENTS  
SHARED THAT SHG IS  
EXTREMELY IMPORTANT IN  
THEIR DAILY LIFE



100% OF THE RESPONDENTS  
HAVE ATTENDED THE TRAINING  
FOR MANAGING SHGs



100% OF THE RESPONDENTS SHARED THAT THEIR CONFIDENCE  
WAS LOW BEFORE JOINING THE SHG WHEREAS AFTER JOINING THE  
SHG THEIR CONFIDENCE HAS INCREASED



93% OF THE RESPONDENTS  
SHARED THAT THE TRAINING  
CONDUCTED ON THE ADVANCED  
STITCHING COURSE (MASTER G)  
WAS GOOD



100% OF THE RESPONDENTS  
SHARED THAT THE MICRO-  
ENTERPRISE DEVELOPMENT  
WAS EXTREMELY IMPORTANT



80% OF THE RESPONDENTS  
SHARED THAT SUPPORT  
PROVIDED UNDER SHG  
PROJECT WAS GOOD



100% OF THE RESPONDENTS  
SHARED THAT THE GENDER  
SENSITIVITY HAS IMPROVED



SHG Formation

Nayara Energy has facilitated formation of SHGs to utilize it as a medium to promote self-sufficiency amongst women. Culture of savings and independence amongst women have been promoted. A series



of trainings and orientations were organized to enable them to conduct their own saving and credit operations. These groups were also connected to banks and government organizations at the district level. A total of 15 women were interacted to understand the impact of SHGs on their self-sufficiency.

All women respondents indicated that there has been an amplitude of increase in their income after joining SHG and involved in economic activities (stitching centre and paper recycling centre). Before the implementation of program, the average monthly income was INR 747 with the total income of all respondents to be INR 11,200.

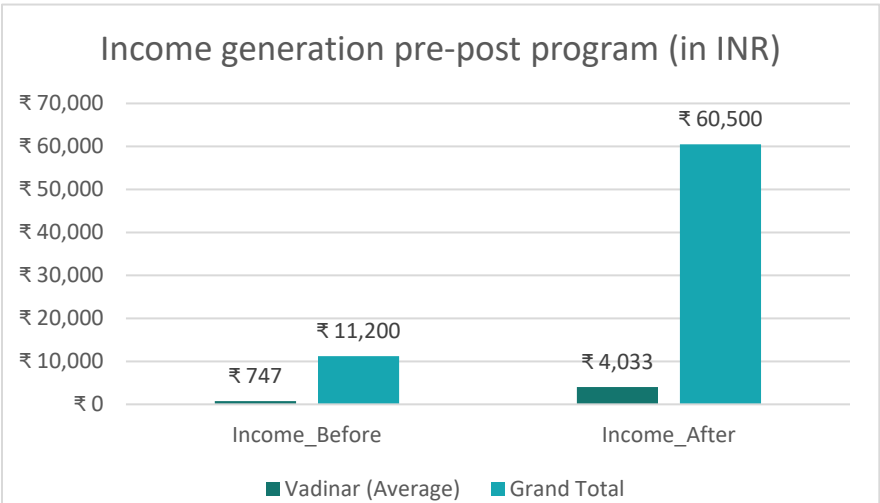


Figure 36 Average monthly income pre-post program

Post the implementation of SHG and women empowerment program, the average monthly income of respondents rose to INR 4,033 and the total monthly income of the group was INR 60,500. There is an increase of 440% in the average monthly income of the women respondents.

100 percent of respondents rated good on self-sufficiency and independence post implementation of program.

## Efficiency

87 percent of the respondent women rated good on efficiency of utilization of resources in the program on women empowerment.

## Convergence, Impact and Sustainability

Only two-third of the respondents indicated that there was good amount of involvement of Panchayat / Government / NGO in the agriculture development program and the rest of them rated it as fair involvement. 100 percent of respondents had good experience with the SHG program in their empowerment and program has brought about positive change in their quality of life.

Some of the sustainability measures suggested by SHG members:

- “Playing active role for creating opportunities for unemployed youth of the village.”
- “Training of non-SHG members.”
- “Focus on holistic development of village through various activities.”
- “They are improving our skills and increasing our Income.”
- “Running more self-employment programs.”
- “Improving participation of women in gram panchayat.”
- “Involvement of SHGs in other initiatives of the State Govt.”
- “Training for other livelihood activities needed”

*“Before the intervention of this project I was not employed at all. But I am now happy that I am earning something for my family and giving support.”*

*“In my personal experience, I was the one who was getting training under SHG program. Today I am the trainer in the same program. I also helped women to join this program.”*

*“I am helping my family before marriage is a very proud thing for me”*

*“This project has given me self-dependency.*

*“I'm living here with my elder brother. We lost our parents in 2018. After that Nayara project staff supported us in all way. Recently I availed loan of Rs 10000. They also help us to understand governments different schemes and how to apply for it.”*

*“I am partially disable person. Project people help me to avail one government scheme for handicapped and under that scheme I got one stitching machine.”*

*“I can feel extreme change in myself. Recently I availed loan of Rs. 50000. Now I'm repaying it in installments.”*

*“Importance of women in the household in improving post this intervention.”*

## Testimonials- Government Stakeholders

“

*With the support of Nayara Energy, we reached today here where all the medical facilities are very near. Project Tushti has launched Health-Kiosk machines that is enabled with e-clinic software which collects and stores demographic details, complaints and associated with lab reports. It provides primary health screening which promotes early diagnosis, treatment or timely referral.*

”

**-PHC Verad staff and ANM**

“

*The important highlight of Nayara program was its mobilization strategy which stressed upon door-to-door mobilization of the stakeholders which in turned ensure greater outreach and thus the impact. Moreover, the focus on girl students and adult literacy was commendable. They (Program staff) have convinced the girls individually to join in Gram Shiksha project and resume the education to fulfill their dreams left behind. Overall, the Gram Shiksha project has played a vital role in holistic development of schools and communities of 15 intervention villages. Nayara aimed to prepare a model of a literate village and it went beyond that. Having felt its effectiveness, the community members want this project to be re-initiated with full-fledged activities.*

”

**-Block Education Officer, Khambaliya**



“

*After Nayara Energy's interventions farmers' lives improved on many fronts. As I understand they have provided artificial insemination at a very low cost, also give free or token base treatments to livestock. They have also provided vaccination for viral diseases like Foot & Mouth Disease (FMD), brucellosis. Recently during the lumpi virus period they did a remarkable job giving free vaccination to the villagers. My overall opinion for Nayara's animal husbandry intervention If this project continues, farmers' lifestyle will be improved gradually but significantly. And I will say Nayara should explore scaling up this to more villages so that more poor farmers can get the benefits.*

”

**District Panchayat, DevBhumi Dwarka**





# 4 Way Forward

This chapter focuses on way forward and recommendations

## 4.1 Health

Components	Could do	Should do	Must Do
<b>Program</b>	<p>Program could focus to develop a model in specific villages in high-touch mode for showcasing as 'ideal village'.</p> <p>Given the government's focus on digitalization, for the effective and efficient use of technology at ground, a training of AWWs can be organized on effective usage of mobile)</p> <p>In case of teenage pregnancy, child marriage, appropriate process shall be followed as per laid down guidelines of the government</p> <p>While considering operational challenges, it can be explored to extend ambulance service for 24-hours, as suggested by respondents.</p>	<p>In order to ensure effective communication with pregnant women and lactating mothers, it is advisable to deploy female CRPs. This would also help to create quicker rapport with the beneficiaries.</p> <p>In addition to the current efforts by Nayara, the program may explore a possibility of utilizing training and IEC resources published by Govt. of Gujarat, this would ensure consistency of the message going into community.</p> <p>In order to maximise the impact and efficient tracking of the beneficiaries, steps may be taken towards improving data collection processes and drawing actionable insights from the same.</p>	<p>In the view of sustainability, it is suggested that community led approach to nutrition can be adopted wherein community members can be trained in the aspects related to MCNH+ and awareness can be created on the utilization of the easily available resources for securing the nutrition needs of the beneficiaries.</p> <p>Aligning with the global efforts towards nutrition improvement, millets and its products can be promoted for anaemic women, adolescents and children.</p> <p>With the intent of scaling up the impact and outreach, strategies such training of FLW at block and district level can be adopted. It would aide in bringing FLWs of whole district/block at-par with updated trainings and would impact the larger population.</p> <p>Nukkad Naatak to be conducted in nearby blocks/districts as they have been acknowledged to be an effective medium of awareness and behaviour change communication.</p> <p>Conducting combined sessions of pregnant women, their husband and family members to acclimatize them on need and support required during ANC and PNC.</p>

			More involvement of PRI members and influential stakeholders for awareness on WASH, contraception, ANC and PNC.
<b>Enablers</b>		<p>Conducting combined sessions of pregnant women, their husband and family members to acclimatize them on need and support required during ANC and PNC.</p> <p>More involvement of PRI members and influential stakeholders for awareness on WASH, contraception, ANC and PNC.</p>	
<b>Sustainability</b>	1-minute IEC videos can be created and circulated with the beneficiaries and their care givers.	<p>For creating a team of health enablers in villages, training of Anganwadi helpers/active adolescent/ active SHG members can be conducted by the team (10-day training) to develop on-ground network of health enablers.</p> <p>With respect to Nukkad Naatak, below mentioned points can be considered:</p> <ul style="list-style-type: none"> <li>• Formal feedback can be collected/documented post every play.</li> <li>• A video series of the plays enacted can be developed so that the same can be used post completion of program.</li> <li>• More involvement of AWW and ASHA (on-stage) during the event to strengthen the messaging on the topic covered.</li> </ul>	

## 4.2 Education

Though program has been concluded in 2020, there is a strong demand from community to re-initiate the Education (Gramshiksha) program.

Components	Could do	Should do	Must Do
<b>Program</b>	<p>Introduction of adult literacy classes in each of the 15 villages</p> <p>Career counselling session to be taken up for NIOS students and adult literacy classes.</p> <p>Self-defense can be included as a part of curriculum of life skill, especially for girl child.</p>	<p>Introduction and innovativeness in LSE sessions to be regularized as part of regular curriculum.</p> <p>Introduction of grade-appropriate curriculum-based learning engagement sessions (English, Science and Mathematics) at senior level (grade 8 and 9).</p> <p>The program can envision towards empowerment of school by helping in preparation of School Development Plan (SDP) and facilitate mobilization of resources at school level. The focus of this engagement should be towards facilitating enablers that add to improvement in learning levels of children (like drinking water facility, functional and separate toilets, library, science lab).</p>	<p>Inclusion of career guidance sessions to students from senior level (grade 8 and 9) onwards to impart awareness on opportunities to explore and prepare for the same. Career Counselling support covers aptitude test (that provides individual key skills) and corresponding counseling sessions that direct them towards relevant professions.</p> <p>Inclusion of WASH and menstrual hygiene management sessions.</p> <p>Life skill education (LSE) sessions to be conducted by female coordinators for more free-flowing and effective interaction with adolescent girls.</p>
<b>Enablers</b>	<p>Provision of books and stationery to children from BPL and AAY families.</p> <p>Provision of free sanitary pads to adolescent girls in school</p>	<p>Conducting combined sessions of parents and their ward to increase effectiveness of sensitization of parents with regards to education</p> <p>Provision of after-school sessions/support to students</p>	



<b>Sustainability</b>	<p>Provision of sports equipment to school for creating required infrastructure requirements for LSE sessions.</p>	<p>Graded assessments may enhance visibility of progress of students. For progression, students could be broadly divided in three groups ---</p> <ul style="list-style-type: none"> <li>o <i>Pratiksha</i> (in Waiting) Grades -- C, C+</li> <li>o <i>Prerana</i> (Motivated) Grades -- B, B+</li> <li>o <i>Prabhutva</i> (Mastery) Grades -- A, A+.</li> </ul>	<p>Conducting capacity building of teachers through ToT (Training of Teachers) and refresher course for creating in-school pool of resources that are capacitated to continue the sessions after exit of program.</p> <p>Creating a pool of community-based change agents at village/cluster level. They can be capacitated to carry out sessions on their own and can be transformed into a self-sustaining model. This would ensure sustaining outcomes post completion of program.</p> <p>The meetings with government stakeholder need to be regularized so as to apprise them of program progress as well as scouting for opportunities for acting as catalyst in change makers at school.</p>
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## 4.3 Livelihood and WRD

Components	Could do	Should do	Must Do
Program	<p>It is advisable to initiate the module of skilling under the ambit of the programme. A skill gap study may be undertaken for gauging the current status of skill sets available at village level, assessing the market relevant skills required and exploring opportunities for linkage with institutions that can provide training for youth.</p>	<p>The community needs to be capacitated on importance of schemes to ensure envisaged realisation of outcomes through the same eg: importance of millets</p> <p>For creating a pool of entrepreneurs at the village level, skill trainings can be facilitated at cluster level for those interested in papad making, achar making, embroidery, candle making, mushroom cultivation and others.</p> <p>The process of documentation of water level in wells shall be strengthened and closely monitored in the coming summer season.</p>	<p>Special focus on women skill development needs to be in-built in the programme moving forward. Some of the new women-focused skills can be:</p> <ul style="list-style-type: none"> <li>o Banking Correspondents – stronger network of Bank Sakhis is likely to ensure easier access to credit for women and last-mile banking of the under-banked and unbanked, especially in rural areas with strong SHG networks.</li> <li>o Training women agricultural workers on utilising agricultural technology, whereby they can make productive use of their labour for farm work through the network of NGOs working in this domain.</li> <li>o More linkages with Gujarat State Livelihood Mission and NRLM departments can be explored for training on trades that are in-demand.</li> </ul> <p>Repairing of constructed water harvesting structures that are damaged because of rainfall or general weathering shall be planned.</p> <p>In order to establish water stewardship, community driven by-laws shall be drafted which would ensure optimum utilisation of water from common resources by all villagers. To enable the same, activities like crop-water budgeting exercise shall be carried out at habitation level.</p> <p>It is advisable to establish greater convergence with the</p>

			government programs (such as MGNREGA) and enhanced coordination with line departments.
<b>Enablers</b>	Dormant SHGs/ Farmers' Groups need to be revived and capacity building conducted on subjects such as financial literacy, digital literacy and basic business modules.	<p>Regular program progress related information sharing with leaders of community and relevant government officials is essential to maintain trust of the community and ensure transparency.</p> <p>The program may expand the other set of watershed activities in the same geography. It could be around treating other drainage lines, fodder grass seeding, strengthening rural livelihoods, decreasing anthropogenic pressure and others.</p>	<p>Farmer's Field School approach through Agriculture university (Junagadh University) and Krishi Vigyan Kendras (KVKs) can be explored to sensitize farmers groups on the improved agriculture practices.</p> <p>Capacity building of PRI members is essential for promoting sustainable livelihoods in villages.</p>

<b>Sustainability</b>	<p>It is advisable for setting-up of a Career Lab at cluster level which can act as one-point stop for all skill related queries and solutions. The beneficiaries can take up skill gap assessments, get information on market relevant skills and apply to different institutions for skills training.</p>	<p>A pool of community-based last-mile volunteers can be developed to support application services for the community in the long-term. They can be capacitated on application filling modules and requirements and can be transformed into a self-sustaining model. This would ensure addressing gaps post completion of programme.</p> <p>An additional linkage of beneficiaries to schemes like PSL lending, Mudra, EDEG, PMEGP and SRLM can be explored for entrepreneurship development.</p> <p>Through presence in convergence meetings, Government officials need to be sensitized on the on-challenges and requirements to ensure simplification of procedures and enhanced outreach to the neediest by the system.</p> <p>Involvement of women in community institutions, program implementation and decision making in future course of action</p>	<p>With the view of sustainability, Low External Input for Sustainable Agriculture (LEISA) model can be promoted which would seek to optimize the use of locally available resources.</p> <p>For sustainability of agriculture production and entrepreneurship, backward and forward linkages need to be developed through collaborations with multiple stakeholders and leveraging technology. Such a strategic approach would aid in attaining self-reliance of farmers and SHGs in the targeted villages.</p> <p>To ensure the sustainability of the interventions, local governance mechanisms must be further strengthened. This could be achieved through enabling strong community institutions and their acceptance by PRI members. Community institutions may be formed at habitation level to ensure reaching out to the last mile. These institutions shall draft their byelaws and their capacity building can be done to make them self-reliant over a period of time.</p>
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