

*Vedanta Aluminium Limited -
Jharsuguda*

**Baseline cum Needs
Assessment, Impact
Assessment and Perception
Study**

March 2023



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Executive Summary

VAL in Jharsuguda through its sustained CSR efforts has focused on bringing about a change in the lives of people in by improving their living standards and ensuring the holistic development of the district. VALJ started working in 64 villages around the plant location for the holistic development of the villages. Because a community can't be developed without the development of the women of the community, VALJ started its first flagship program called Subhalaxmi cooperative for empowering the women of the community. VALJ further initiated programs on community infrastructure, Mobile Health Vans, Sustainability Livelihood and Environment for the holistic and sustainable development of the communities in the villages.

In fact, without having a formal structure for CSR, within VALJ or even as a compliance requirement in the country, VALJ had already embraced the importance of maintaining, harnessing, and improving social relations through such development projects and has been continuously working towards improving the quality of the life of the communities since 2007.

Today, it is strongly supporting communities through its vision to improve the quality-of-life well-being of those that live and work around their plants (as well as in its peripheries) and ensures that it holds up its license to operate.

Since the last impact assessment, VALJ has continued as well as inaugurated programmes that are both foundational as well as aspirational in nature. To understand the impact of their programmes, the current needs of the communities as well as the perception around their CSR activities and business unit, VALJ appointed KPMG Assurance and Consulting Services LLP to carry out their Baseline cum Needs Assessment, Impact Assessment and Perception Study.

Key Highlights from Baseline Findings (2022)

Thematic Area

Key Highlights from Baseline Findings (2022)



Health

- The access to the health institutions remains high amongst the respondent households. 100% of the households have accessed public health institutions. 93% of the respondent households have accessed MHUs and 97% of respondent households have accessed Anganwadi centers.
- Despite having high access to public health institutions, respondent households claim that access to health services remains low.
- Institutional deliveries remain low amongst the respondent households as compared to the district average. Only 80% of the respondent household adopted institutional delivery and the method of birth for their children.
- Access to immunization at Anganwadi Centers remains extremely low amongst the respondent households, where only 37% reported having access to immunization at Anganwadi centres.



Sustainable Livelihood

- There has been an increase in the income of the population from the previous baseline. Though, the female members who are working are earning less than the male members of the population
- 95% of the farmers are marginal and small farmers.
- Only 19% of the farmers have the accessibility to mechanized equipment.
- On average only 20% of the respondent household received any form of assistance from the government for agriculture.

Education



- Illiteracy has been reduced by 60% (compared to the baseline conducted in 2019)
- 36 % more of the population have completed class 5th, 10 % more have completed class 8th. Similarly, over 96% per cent more have completed class 12.
- Access to basic infrastructure facilities across the schools remains a persistent challenge

Thematic Area

WASH/Community Infrastructure

Key Highlights from Baseline Findings (2022)

- Only 10% of households have a source of drinking water in their homes.
- The availability of toilets in homes have improved by 19% amongst the respondent households.
- There has been an improvement in access to piped drinking water amongst the respondent households and it has increased by 17.4% from the previous baseline.

Women Empowerment



- On an average 50% of the women were making their own decisions. However, only 22% of the women always make their own decisions on education, finances, family planning etc.
- There has been a decrease of 26% in the association of women (SHGs) from previous baseline

Skilling



- Only 11% of the male and 3% of the female were found to be skilled workers amongst the respondent households and only 3% of the males and 2% of the females were having the salaried jobs.
- 45% of the respondents stated to learn IT skills, while 42% of them stated to learn finance and management. 31% of the respondents reported to learn on-farm skills, while 27% of the respondent households reported to require enterprise development trainings. 26% of the respondents reported to learn mining skills while 22% respondents reported to learn Animal Husbandry Skills.

Environment



- In 2019 Jharsuguda received 27% less monsoon rains as compared to the India's average the most prevalent environmental issue is water and air pollution as stated by 90% of the respondents, followed by lack of green cover and soil erosion..



Key Programmatic Impacts and Business Drivers (2022)

Programme	Key Programmatic Impacts (2022)	Business Drivers
Mobile Health Units	<ul style="list-style-type: none">71.1% of the respondent households reported having improved timely accessibility and availability of quality health care services in their vicinity due to Mobile Health Units23% of the respondent households reported having a decrease in their out-of-pocket health expenditure. On average there is a reduction of INR 2352 annually.	<ul style="list-style-type: none">The project Mobile Health Unit, by providing access to healthcare at the doorstep of the beneficiaries, has become a partner in healthcare development in the village it operates. Not only is it one of the goals of VALJ to ensure the overall well-being of the communities it works with, but the focus on healthcare also paves the way to ensure that the population's other basic needs such as livelihood and education do not suffer during days lost to sickness. Moreover, investing in health not only saves lives, but it is also a crucial investment in the wider economy. This is because ill health impairs productivity, hinders job prospects and adversely affects human capital development.This further ensures a healthy workforce which has incremental effects on a thriving economy, and further reduces the pressure on the business unit to provide direct employment.
Subhalaxmi Cooperative Society	<ul style="list-style-type: none">53% of the women of the respondent households reported to have improved access to financial services.The project led to a household saving of on an average INR 2280/month.37% of the women from the respondent household reported to have improved participation in the public institution of decision making	<ul style="list-style-type: none">Through the Subhalaxmi Cooperative Society, the business can enhance the economic empowerment of women in the community where VALJ operates which in turn has an impact on their decision-making, seen through the impact assessment.It must be noted that there is a growing interest of companies to invest in women's empowerment due to the heightened awareness that "empowering women yields a high return on investment". According to a pre-conference during Women Deliver 2016, private sector leaders agreed that "by investing in women, business drives growth, productivity, and innovation—and creates a better world". This is since the business is recognized to follow an integrated approach wherein not only are their internal practices in alignment with such principles, but they are equally invested in supporting



Programme	Key Programmatic Impacts (2022)	Business Drivers
		<p>the community in inculcating the same principles of equality.</p>
<p>Jeevika Samridhi</p>	<ul style="list-style-type: none"> 53% of the respondent involved in agriculture activities reported having increased in yield due to their association from the program 	<ul style="list-style-type: none"> For any business, investments into the livelihood of communities that are marginalized or have lower incomes, support in the growth of the communities they work in, which in turn improves the landscape for carrying out business operations. A community that is satisfied with the support they are receiving from the business to improve their living conditions is more likely to support the business in its own growth. A community that is satisfied with the support they are receiving from the business to improve their living conditions is more likely to support the business in its own growth and further reduces the expectation of the community for employment from the business unit.
<p>WASH/ Community Infrastructure</p>	<ul style="list-style-type: none"> 52% of the respondent households reported to have improved access to clean drinking water, while 32% of the respondent households reported to have enhanced security amongst girls and women of the community. 15% of the respondent households reported to have decrease in water borne diseases while, 38% of the respondent reported to have improvement in the 	<ul style="list-style-type: none"> Investment in the WASH facilities of the communities can ensure a thriving and healthy workforce. Investment in the WASH can increase productivity, reduce absenteeism, and improves punctuality amongst the workforce of the community. The investment in WASH ensures a high return on investment and further bolsters the economy of the region. A thriving workforce will further reduce the burden on the business unit to provide direct employment. WASH interventions offer short wins for the business whereby, it is directly linked with building partnerships with external stakeholders, in supporting their mandate to improve the living conditions of the community; supports communities in ensuring essential infrastructure and thus gain trust among them. Through the myriad of projects that are being undertaken by VALJ, tackling multiple levels of required



Programme	Key Programmatic Impacts (2022)	Business Drivers
	<ul style="list-style-type: none">sanitation and hygiene of the village.	<p>social development investments along with community development projects, VALJ is ensuring a combined and multiplied impact on the overall living conditions of the community.</p>
Vedanta DAV Scholarship Program and Digital Education Program	<ul style="list-style-type: none">38% of the respondent reported to have reduction in the monthly educational expenditure because of the program.52% of the respondent households stated an improvement in the passing percentage of their children.41% of the respondent household stated to have increase in the access to digital education for their children in schools	<ul style="list-style-type: none">Focus on education, not only aligns with the national and international goals on universalizing quality access but has the capability to make a real and lasting difference in the lives of the beneficiaries. VALJ has generated shared values between its internal and external stakeholders, incorporating the interest of a wide range of stakeholders and enhancing the trust between the company and its external stakeholders.An educated population further signifies greater rational thinking thereby reducing non-objective thinking. This is supportive to the business in the long run given that the educated population will see greater value in the industrial output of the company and appreciate the social and environmental actions undertaken by the business unit to advance society

Key Areas of Improvement and Recommendations

Health

Public health institutions in and around the periphery of the community lack access to medical facilities. As per the secondary data, the infrastructural gaps have been persistent in public health institutions. There is a shortage of manpower at these institutions as reported by the Rural health statistics (2020-2021).

Thus, it is recommended to

- **Develop Digital Infrastructure to Expand the Scale of Quality Healthcare Access (telemedicine):** Accessing MHU facilities is often a challenge for people residing in the interiors. The concept of telemedicine has grown in the last few years. Telemedicine can tackle inequity and lack of healthcare access. Where required, teleconsultation can ensure availing telemedicine services on-the-go and enhance healthcare. This can be done by creating a hub and spoke model. The model can work in tandem with the Mobile Health Units, where the doctors can identify the cases who require specialized attention. They can be referred to the telemedicine centres for the specialized consultation from the doctors at the hub.
- **There is a need of strengthening Public Health Infrastructure:** . As per the secondary data, the infrastructural gaps have been persistent in public health institutions. The BU needs to fill the infrastructural gaps by providing infrastructural support and installing required health equipment and paraphernalia. BU can also facilitate the provision of WASH facilities in public health institutions. As there has been a lack of labour rooms and OTs in public health institutions, VALJ may work on renovating/ constructing the required infrastructure. This, in turn, will strengthen the accessibility of health facilities in the community and will reduce the reliance on private hospitals thus reducing the out-of-pocket health expenditure.
- **There is a need for involvement of PRI institution for the ensuring quality health care:** The BU can liaison with the District Health Department to leverage the funds for infrastructure development in Public Health Institutions. It can also leverage its relationship with the district health department for the deployment of the medical staff at PHCs and CHCs. For the operation and maintenance of the infrastructure, the BU can train the staff by creating operation and maintenance SOPs for the created infrastructure. It can strengthen the Village Health and Sanitation Committee to keep a check on the created infrastructure.

Thematic
Area

Key Areas of Improvement and Recommendations

- **Work in collaboration with department of Health in these districts to ensure that tertiary healthcare, at least at the level of CHCs, which can be more accessible, are maintained.**

**Sustainable
Livelihood**

The access to assistance on agriculture remains lows amongst the households involved in agriculture. Still, 25% of the population is earning less than INR 5000/month

Thus, it is recommended to:

- **Increase Association of Farmers with FPOs:** As found, only 3% of the respondents were associated with FPOs, there is a need to assimilate more farmers in FPOs to further enhance their income.
- **There is a need to introduce and promote mechanized farm equipment:** The access to mechanized farm equipment remains very low in amongst the respondent households. Mechanized farm equipment is necessary for increasing the yield of the crop, reduction in the labor cost and crop loss. In the absence of mechanized farm equipment the productivity of the crop goes down. There is a need to introduce mechanized equipment for the beneficiaries.
- **There is a need to integrate advisory services for further enhancing the household income:**

94% of the respondent households were involved in single cropping. Growing single crop results in the soil degradation and hence reduces the soil fertility. The single crops are more prone to the pest attacks.

To enhance the farmers income, which has also become the central agenda of the government of India, there is a need to introduce the multiple cropping to the farmers.

To achieve this, there is need to provide advisory services and capacity building of the farmers. From weather to pest control, weather multifaceted advisory can be provided to the farmers through various mediums, like SMSs, WhatsApp and phone calls. The in tum will provide impetus to multiple cropping and will reduce the input cost of the farmers.

**Women
Empowerment**

Despite the incremental increase in regular savings of members, improvement in the decision making and improvement in participation in the Gram Sabha remain low.

As observed on the ground, more women want to be involved in the entrepreneurial activities through the Cooperatives

Thus, it is recommended that:

Thematic
Area

Key Areas of Improvement and Recommendations

- **There is a need to assimilate more women in the entrepreneurial activities through the cooperatives:** VALJ has supported women significantly in mobilizing women into Cooperative that has become the benchmark across the state, self-entrepreneurship has been limited to conventional areas such as poultry, farming etc. There is a need for better entrepreneurial models as well as market linkage to empower more women. The business unit should augment the impact created and ensure its sustainability through linkages and collaboration. Exploring opportunities for convergence and partnership, it can work towards providing better opportunities to the beneficiaries for example for market linkage of women associated with Cooperative
- **The BU can use the cooperative for behavior change initiatives on gender in order to tackle the gender bias:** The cooperative has already created intangible impact for making the women to come forth as strong and empowered individual, yet the decision making and participation in the decision-making bodies at village level is still low. The BU can use the cooperative for behavior change initiatives on gender in order to tackle the gender bias. With greater allies within the community, women will be able to make bigger strides, further improving overall development indicators within each household.

Community
Development /
WASH

The availability and accessibility of the basic infrastructure in villages remain low. Only 69% of the respondent households in the Jharsuguda district have toilet facility available in their household. Only 40% of the respondent households had drinking water facility within their house or around the periphery of the house.

Thus, it is recommended to:

- **Water Infrastructure:** To fill the gap of access to clean drinking water, there is need to establish clean drinking water infrastructure. This can be done through creating SHG based water entrepreneurs.
- **Behavioural Change for WASH:** Emphasis on the WASH education in schools will lead the foundation of WASH practices amongst the children from an early age.
- **Strengthening of PRI institutions:** Strengthening of the Village Sanitation and Health Committee to spearhead the behavioral change amongst the community members and to act as a pressure group on the administration to create WASH infrastructure in the villages.

Thematic
Area

Key Areas of Improvement and Recommendations

Culture

The support from the government in the promotion of art remains low amongst the respondent households who are involved in the artisanal work.

Thus, it is recommended to:

- Promote Artists through Shubhalaxmi Cooperative: The BU can leverage Subhalaxmi Cooperative to promote artisans. The BU can establish tailor-made entrepreneurship program for the artisans and build their capacity. The BU can channelize financial assistance from the government for the artisans to establish their entrepreneurial avenues. Through the strong forward linkages of Shubhalaxmi cooperative, the BU can link the artists to the market.

Environment

Environmental challenges like air and pollution, deforestation and draught remain persistent

Thus, it is recommended to:

- **Convergence with District Environment Plan:** If VALJ wishes to work on the environment, there is an opportunity to ensure convergence and thus collaborate with the district administration on Environment Action Plans created by different districts.
- **Promotion of Climate-resilient Agriculture (CRA):** Through their existing sustainable livelihood program, CRA can be promoted which is an approach that includes sustainably using existing natural resources through crop and livestock production systems to achieve long-term higher productivity and farm incomes under climate variabilities.

Education

Despite of having significant improvement in educational attainment from the previous baseline of 2019, education attainment amongst the population still remains low;

Thus, it is recommended to:

- Improve school infrastructure and functioning through community involvement:

Develop formal linkages between existing projects and scale to support a holistic program focused on a continuum from early childhood education to higher education.

- **Enhancement of Infrastructure:** The proper maintenance of existing infrastructure facilities within schools (including proper functionality and usability) is necessary to ensure the proper learning environments. This in turn supports to ensure that children stay in school, enrolments for all increase, drop outs decrease and learning outcomes improve. To achieve the same, community involvement through the revival (where required) as well as proper functioning of School Management Committees (SMCs)¹ could be ensured. Meetings of SMCs must be carried out regularly and suggestions from SMC members regarding the improvement of the school should be adopted. Furthermore, including periodic social audits would ensure accountability.
- **To provide quality education like the DAV schools, VALJ can work with the district education department on multiple levels.**
 - It can provide training to the schoolteachers on English led content delivery mechanism. This will enhance better reading and communication skills amongst students.
 - VALJ can also extend ICT based learning through establishing digital classrooms in the schools.
 - VALJ may work on improving the school infrastructure to create a parallel education eco-system alike DAV school, which will benefit a larger segment of students by making similar facilities available and accessible to the students.

Community and Stakeholder Perception

83% of the beneficiaries and 81% of the stakeholder were found satisfied with the work done by the VALJ CSR. Moreover, the community believed that support must be provided for skilling of youth, community development of the youths and hospitals.

Proposed Overall CSR Strategy

Holistic Programmatic Approach: The present system of thematic area divisions breaks up the impact across projects, not allowing to see the overall change brought in within the community. A continuum approach allows for the last mile delivery of each beneficiary, supporting them with a

¹ School Management Committees (SMCs) are mandated by the Right to Education Act (2009) and the composition must include 75 % of parents/guardians from which half must be women, the rest of the 25 % must include local authorities, school teachers, academicians/students. In Rajasthan, the number of members that have been suggested is 15.



range of opportunities, having spill over impacts from one project to the other and thus enhancing the overall impact as well as positive perception in the community.

Effective use of Technology: To ensure the above, a significant investment both in terms of human resources as well as financial resources, which may not be sustainable. Hence, we need to bring in technology to ensure scale, quality, standardization, cost effectiveness and sustainability.

Partnership for Sustainability -The present interventions are converging with the state/district administration for the implementation of the project. However, there is a need to strengthen the convergence to fill the structural gaps and improving the sustainability of the interventions.

Capacity Building for Governance and Operational Excellence - VALJhas been involved with community institutions/organizations and myriad stakeholders for the on-ground implementation and operation of its project. To increase the impact and enhance the operation and sustainability, there lies a requirement to further build the capacity of community organization and government stakeholders.

Monitoring: A focus on monitoring mechanism is further required. Presently the monitoring mechanism though facilitates capturing output data last mile traceability, and outcome and impact integration need to be strengthened. This can be done through developing an MIS which captures and documents beneficiary wise services-delivered and integrates outcome and impact KPIs in the overall monitoring process. This would help in review and course correction





1. Introduction to Studies

India, where 67 percent² of its population live in villages and are largely dependent on agriculture for their livelihood, has been making strides to become one of the largest economies of the world. In the backdrop of social development, schemes and policies of central and state governments have focused on the rural population and economy in last few decades. This has led to rural communities, across India, see a paradigm shift in their socio-economic status. Over the past few years, the rural ecosystem has evolved at an exponential rate driven by government interventions with the help of varied stakeholders. Continuous advancement has been observed in the physical and digital infrastructure in the rural sector across the country. The growth in the rural GDP has been catapulting India towards its ambitious target of becoming a 5 trillion-dollar economy. In 2019-20, the rural economy contributed to half of India's GDP with an assimilation of around 68 percent of the total workforce.³

Despite the Covid-19 pandemic paralyzing the supply chain across the world and negatively impacting the economy in its whirlwinds, the agriculture sector expanded by 3.9 percent in India.⁴ The economy of Odisha also observed a sharp increase in the last 10 years and it has become one of the fastest growing States in the country and has registered a growth rate much higher than India's Gross Domestic Product growth rate of 8.8%. In the last 10 years the per-capita income of Odisha grew by 10.3% against 9.15% growth rate of India and reached from INR 48,499 in 2011-12 to INR 1,27,383 in 2021-22.⁵

Similar trends were observed in the rural health sector. The number of Public Health Centers (PHCs) in rural areas increased by 1619 during the period 2005-2019, from a total institutional figure of 23,236 to 24,855, whereas the number of Community Health Centers (CHCs) increased by 1989 in the same period. Along with that, there was an increase of around 38.1 percent from 2007 to 2020 in the Anganwadi Centers in India.⁶ The growth led to a drastic improvement in the health indicators amongst rural children. Infant mortality rate dropped down to 38.4 in 2020-21 from 57 in 2005-06, while immunization amongst children between 12-23 months of age improved

² Census of India 2011

³ <https://www.financialexpress.com/economy/indias-rural-urban-divide-village-worker-earns-less-than-half-of-city-peer/1792245/>

⁴ <https://www.thehindubusinessline.com/data-stories/deep-dive/rural-india-is-struggling-with-shortage-of-doctors-paramedical-staff/article65623110.ece>

⁵ <https://www.thehindu.com/news/national/other-states/odisha-economy-grows-by-101-says-economic-survey-report/article65270663.ece>

⁶ <https://www.epw.in/engage/article/covid-19-opportunity-engage-urban-malnutrition>



from 39% in 2005-06 to 76.8% 2020-21 in rural areas.⁷ In last 10 years Odisha observed the establishment of 761 Subcenters and 146 Community Health Centers(CHCs). Infant Mortality Rate dropped from 65 Deaths per 1,000 live births in 2005-2006 to 36.3 in 2019-2021 in Odisha, while immunization amongst children between 12-23 months of age improved from 52% in 2005-06 to 97.2% 2020-21 in rural areas.⁸

India made advancement in her quest for gender equality. Over the years, India has focused on improving its development indicators pertaining to gender, given that the country has been largely a male dominated society. Over the years, several constitutional and legal amendments have been made to promote gender equality. Today, 83.3% of legal frameworks that promote, enforce and monitor gender equality under the Sustainable Development Goals (SDGs), with a focus on violence against women, are in place in the country. This has resulted in many positive impacts on the development front. The adolescent birth rate was found to be 12.2 per 1,000 women aged 15–19 as of 2018, up from 10.7 per 1,000 in 2016. In 2016, 72.8% of women of reproductive age (15-49 years) had their need for family planning satisfied with modern methods. In the context on rural sector, women participation in household decision making process increased from 33% in 2005-06 to 87.5% in 2020-21.[6] In fact, in contrast, rural women at 45.7 % own more land than urban women, which is essential considering rural women are mostly employed in agriculture, and owning land, apart from being a right, ensures autonomy over agri-production thus ensuring better livelihood outcomes. In addition to being a major contributor to the rural economy, women have set benchmarks for the evolution of micro enterprises through various economic engagements through Self-help Groups (SHGs). There has been a massive 54.6% increase in the number of SHGs from 2010 to 2021-22, bolstering the income of the rural women. Several policies and schemes have been implemented by the state to ensure smooth facilitation of women centric entrepreneurial activities in the remotest locations of the country. This is further assisted by numerous development agencies that have leveraged on the state sponsored policies to provide women with various facilities like trainings, skill development, market linkages, etc. In Odisha the number of SHGs increased from 24689 to 314646 in 2017.

Social development has been a key concern in India since before Independence, with monumental reformist movements during the independence struggle forming the bedrock of

⁷ <https://indianexpress.com/article/education/foundational-learning-took-a-hit-amid-covid-only-19-schools-have-access-to-internet-unseco-report-7553799/>

⁸ <http://rchiips.org/nfhs/>



Independent India's social welfare policies. The efforts undertaken through various legislatures, policies, and programmes since 1947 have had an impact in improving economic outputs as well as reducing poverty. In fact, between 1990 and 2021, India's HDI⁹ value increased by 45.9 %¹⁰. However, the country still stands at rank 132 out of 191 countries as of 2021, with an HDI value of 0.633 (medium human development category)¹¹.

In 2010, UNDP introduced the Inequality Adjusted HDI which measures the human development of each country by adjusting the measure of inequality. Essentially, the IHDI and HDI figures amount to the same when no inequality is found, however the former falls below the latter when there is any form of inequality against the dimension's measures in the HDI¹². India's loss due to inequality is 25 %, which lowers the HDI to 0.475 in 2021¹³. The HDI for Indian states is available for the year of 2017¹⁴ wherein India itself ranked 130 across countries with a score of 0.640. In this year, Odisha had a score of 0.649 (ranking 26th in the country)

The country measures HDI basis three dimensions viz. Long and Healthy Life (Life expectancy), Knowledge (expected years of schooling¹⁵ and mean years of schooling¹⁶) as well as decent standard of living (per capita gross state domestic product¹⁷). Across all these indicators, Odisha scored below the national average whereas Uttarakhand scored better.

Persistent poverty and the increasing inequalities in the country remain a concern, especially when the difference within the state contexts is reviewed. In fact, despite India's per capita increasing by over 5 times between 2000 and 2019, the income of the entire population has not

⁹ HDI or Human Development Index, developed by UNDP, is a summary measure to assess long term progress in three basic areas viz. a long and healthy life, access to knowledge and a decent standard of living.

¹⁰ <https://hdr.undp.org/data-center/specific-country-data#/countries/IND>

¹¹ Ibid

¹² [https://ms.indianeconomy.net/glossary/inequality-adjusted-hdi-ihdi/#:~:text=The%20Inequality%2Dadjusted%20HDI%20\(IHDI,health%2C%20education%20and%20income\).](https://ms.indianeconomy.net/glossary/inequality-adjusted-hdi-ihdi/#:~:text=The%20Inequality%2Dadjusted%20HDI%20(IHDI,health%2C%20education%20and%20income).)

¹³ <https://hdr.undp.org/data-center/specific-country-data#/countries/IND>

¹⁴

[https://mospi.gov.in/documents/213904/301563//Report%20on%20Gendering%20Human%20Development%20\(1\)1617270984176.pdf/ab88fd0a-d5ee-77f9-a493-4238dfb3838c](https://mospi.gov.in/documents/213904/301563//Report%20on%20Gendering%20Human%20Development%20(1)1617270984176.pdf/ab88fd0a-d5ee-77f9-a493-4238dfb3838c)

¹⁵ As per Human Development Report, UNDP, Expected Years of Schooling is defined as number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life.

¹⁶ As per Human Development Report, UNDP, Average number of years of education received by people ages 25 and older, converted from educational attainment levels using official durations of each level

¹⁷ Per Capita Net State Domestic Product is the total value of goods and services produced during any financial year within the geographical boundaries of a state divided by midyear projected population of the state

increased. The top 10 % earned 56 % of the country’s total income in 2019; the bottom 10 % earned only 3.5 %¹⁸. In fact, it has been suggested that villages are the hub of poverty¹⁹. As per Census 2011, 68.8 %²⁰ of India’s population lived in villages and 72.4 % of the workforce resided in rural areas²¹. Moreover 51 % of the working age population (engaged as main workers) were involved in agriculture and allied activities in the country²². Despite the rural economy contributing to half of India’s GDP in 2019-2020²³ and agriculture forming the major avenue for livelihood in rural India, there exists around 3.76 million landless agricultural labourers and over 120 million small and marginal farmers.

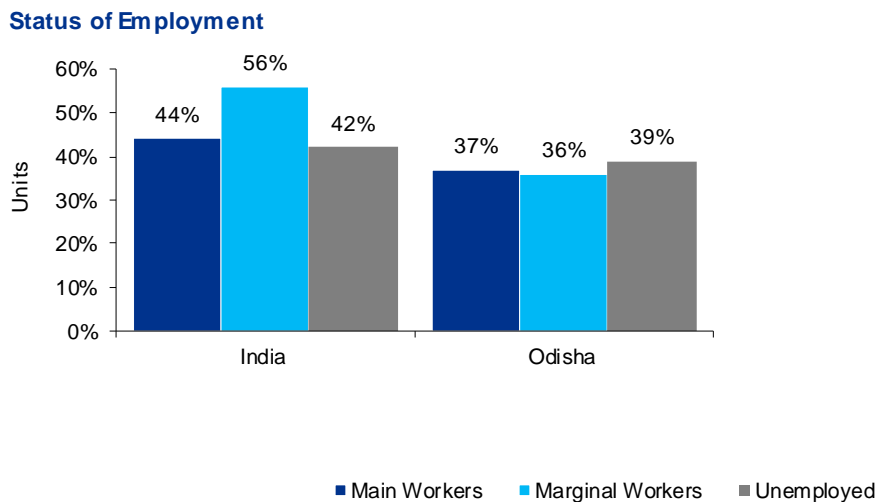


Figure 1: Status of Employment in India and Odisha

In Odisha, 37% the working age population (15-60 years) are main workers and 39% are unemployed. Of the main workers, 51 % are engaged in agriculture and allied activities. average as well (51 % of main workers).

¹⁸ <https://www.downtoearth.org.in/blog/economy/why-inequality-is-india-s-worst-enemy-75778>

¹⁹ Ibid

²⁰ Census of India 2011

²¹ India remains a predominant rural country (https://www.niti.gov.in/sites/default/files/2021-08/11_Rural_Economy_Discussion_Paper_0.pdf)

²² Census of India 2011

²³ [Rural India | Food Price : Rural India, a cause no one worries about: fall in real wages, unemployment, food price rise hit hard \(indiatimes.com\)](https://www.indiatimes.com/News/Rural-India-Food-Price-Rise-Hit-Hard)



Owing to rural development interventions, rural communities observed a paradigm shift in socio-economic indicators. It not only pulled out millions of people living in rural areas from poverty, but also provided merit and non-merit goods to create a safety net to avoid slippage in the poverty trap. Notwithstanding the development, rural communities have still missed the bus of the development. Per-capita income of the communities living in the rural areas is almost half their counterparts living in urban spaces.²⁴ The health care infrastructure in rural areas still remains in shambles. The healthcare facilities in rural areas are yet to show the progress seen in urban areas. In 2021, 28.3% PHCs and Sub Centers were functioning without doctors, while half of the CHCs were devoid of any specialist doctors.²⁵ Malnourishment amongst rural children between 0-5 age group is almost 10% higher than urban children.²⁶ The penetration of the vocational training amongst rural youth remains abysmal, wherein 93.7% of the rural youth don't have any vocational training. 89% of the rural schools in India only have one teacher. There are only 14% of the schools in India having access to Internet.²⁷ Around 23% schools in rural areas have unusable toilets and 11.5% of the schools don't have separate toilets for boys and girls.²⁸ Around 40.9% of the households in rural areas still lack access to piped drinking water.²⁹ Due to lack of access to clean drinking water, water borne diseases like diarrhea and cholera still remains prevalent in rural areas. Despite of rapid electrification in villages, the access to reliable electricity still remains a challenge. Only half of the Villages in India get more than 12 hours of power supply and 47% schools, and 25% health centres still remain un-electrified.³⁰ Advent of COVID-19 pandemic has made the life of rural India more precarious. The COVID-19 pandemic removed the veil from the naked realities of rural India and further exacerbated the living condition of rural communities. It pushed millions living in rural below the poverty line, resulted in higher dropout rates amongst rural children and fractured the already dilapidated rural health infrastructure.

²⁴ <https://www.financialexpress.com/economy/indias-rural-urban-divide-village-worker-earns-less-than-half-of-city-peer/1792245/>

²⁵ <https://www.thehindubusinessline.com/data-stories/deep-dive/rural-india-is-struggling-with-shortage-of-doctors-paramedical-staff/article65623110.ece>

²⁶ <https://www.epw.in/engage/article/covid-19-opportunity-engage-urban-malnutrition>

²⁷ <https://indianexpress.com/article/education/foundational-learning-took-a-hit-amid-covid-19-schools-have-access-to-internet-unseco-report-7553799/>

²⁸ <https://www.downtoearth.org.in/news/waste/building-toilets-in-rural-schools-is-not-enough-they-have-to-be-usable-too-63017>

²⁹ <https://www.indiawaterportal.org/articles/nearly-40-percent-rural-households-do-not-have-drinking-water-news>

³⁰ <https://www.thehindubusinessline.com/opinion/100-rural-electrification-is-not-enough/article26645721.ece>



When it comes to Odisha, there is a lack of 36% doctors at PHC ,84% of doctors in CHC and 51% of doctors in District Hospital in Odisha.³¹ 29.7% of the children in Odisha suffer from malnourishment in Odisha.³² When it comes to Odisha, almost 50% of the rural households don't have access to latrine. 10.2% of the households in rural Odisha are still devoid of improved drinking water sources. In Jharsuguda, 11.6% of the households do not have access of improved drinking water sources.³³ Only 89% of the schools in Odisha have functional toilets for girls as compared to Indian average, which is 93% and only 7% of the schools in Odisha have access to internet facility.³⁴

Jharsuguda has a literacy rate of 78.86%. The male literacy rate is 86.6 % while the female literacy is a only 70.73%. The percentage of children suffering from Moderate Acute Malnutrition is 25% and those suffering from SAM (Severe Acute Malnutrition) is 7%³⁵. 97% of the population has been immunized. However, around 67.8 % of the women aged 15-49 are anaemic.³⁶ When it comes to WASH facilities, only 70% of the household in Jharsuguda have improved sanitation facilities.

Why VALJ Intervened?

VAL in Jharsuguda through its sustained CSR efforts since 2007 has focused on bringing about a change in the lives of people in by improving their living standards and ensuring holistic development of the district. VALJ started working in 64 villages nearby the plant location for the holistic development of the villages. Because a community can't be developed without the development of the women of community, VALJ started its first flagship program called Subhalaxmi cooperative for empowering the women of the community. VALJ further initiated programs on community infrastructure, Mobile Health Vans, Sustainability Livelihood and Environment for the holistic and sustainable development of the communities in the villages.

³¹ <https://hmis.nhp.gov.in/downloadfile?filepath=publications/Rural-Health-Statistics/RHS%202019-20.pdf>

³² <https://www.prameyanews.com/child-malnutrition-scenario-in-odisha-worrisome/#:~:text=According%20to%20the%20released%20data,higher%20than%20the%20national%20average.>

³³ <https://mospi.gov.in/web/nss>

³⁴ <https://src.udiseplus.gov.in/School/DataDashboard>

³⁵ <http://odishafoodcommission.nic.in/jharsuguda/#jharsuguda3>

³⁶ http://rchiips.org/nfhs/Factsheet_Compndium_NFHS-5.shtml



VAL in Jharsuguda through its sustained CSR efforts since 2007 has focused on bringing about a change in the lives of people in by improving their living standards and ensuring holistic development of the district. The company has upheld the belief of working together with the community and encouraging their participation in the growth process of the organization as well as considering the community as facilitators to bring about socio-economic transformation of rural parts of Orissa.

Rationale for Undertaking the Studies

In order to remain unbiased and strategic, it is pertinent for any organization undertaking philanthropic endeavours to develop projects that are need based and factually sound. This is done through carrying out frequent baseline and need assessments. Moreover, to ensure that the projects being run remain impact-driven, frequent impact assessments are also pertinent, and now also a compliance requirement under Companies Act 2013³⁷.

This third-party impact assessment not only helps to assess the significance of the project, including effectiveness of design and project interventions, and sustainability of results and impact of the intervention on the target community, but further assists the company to undertake course correction and provide direction to scale up or replicate the successful initiatives, and at the same time, re-model or discontinue the projects/ initiatives which have not been able to create the desired impact.

While frequent baseline and impact assessments allow the company to design, implement, and monitor projects in a strategic manner, another study, known as the perception study, can support a company understand the overall attitude and perception of the community, different external stakeholders as well as internal management and CSR team regarding the company's operations and specific perception on CSR itself. Such a study gives credence to the social license to operate and highlights the business drivers that can be strengthened by the company to operate more smoothly in a particular area.

The study thus delves into analysing the impacts and values created by the development initiatives by VALJ in areas where it is intervening. It also provides a benchmark against which

³⁷ It must further be noted that Impact Assessments are mandatory for “every company having an average CSR obligation of INR 10 crores or more in the three immediately preceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of one crore rupees or more, and which have been completed not less than one year before undertaking the impact study” [Section 8 (3) of Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021].



the future progress can be tracked through baseline assessment. Through the perception assessment it draws the general sentiments of the myriad stakeholders towards the CSR activities of VALJ. Finally, drawing gaps, challenges and recommendation through primary/secondary data analysis and stakeholder interviews, this study lays out a long-term CSR strategy to make VALJ's intervention more sustainable and resilient.

1.1. Methodology and Approach

1.1.1. Methodology

Vedanta Aluminium Limited (VAL) at Jharsuguda (VALJ) has been carrying out impactful CSR programs based on the needs of the community since more than a decade. The company focuses on promoting living standards as well as cultural development in Jharsuguda. The exercise of conducting the three studies viz. Baseline cum Needs Assessment, Impact Assessment and Perception Study, was carried out with an intent to provide an understanding of what has been done right and what more can be done by the company to further improve the lives of people in Jharsuguda.

The study aimed at capturing answers to the following key questions:

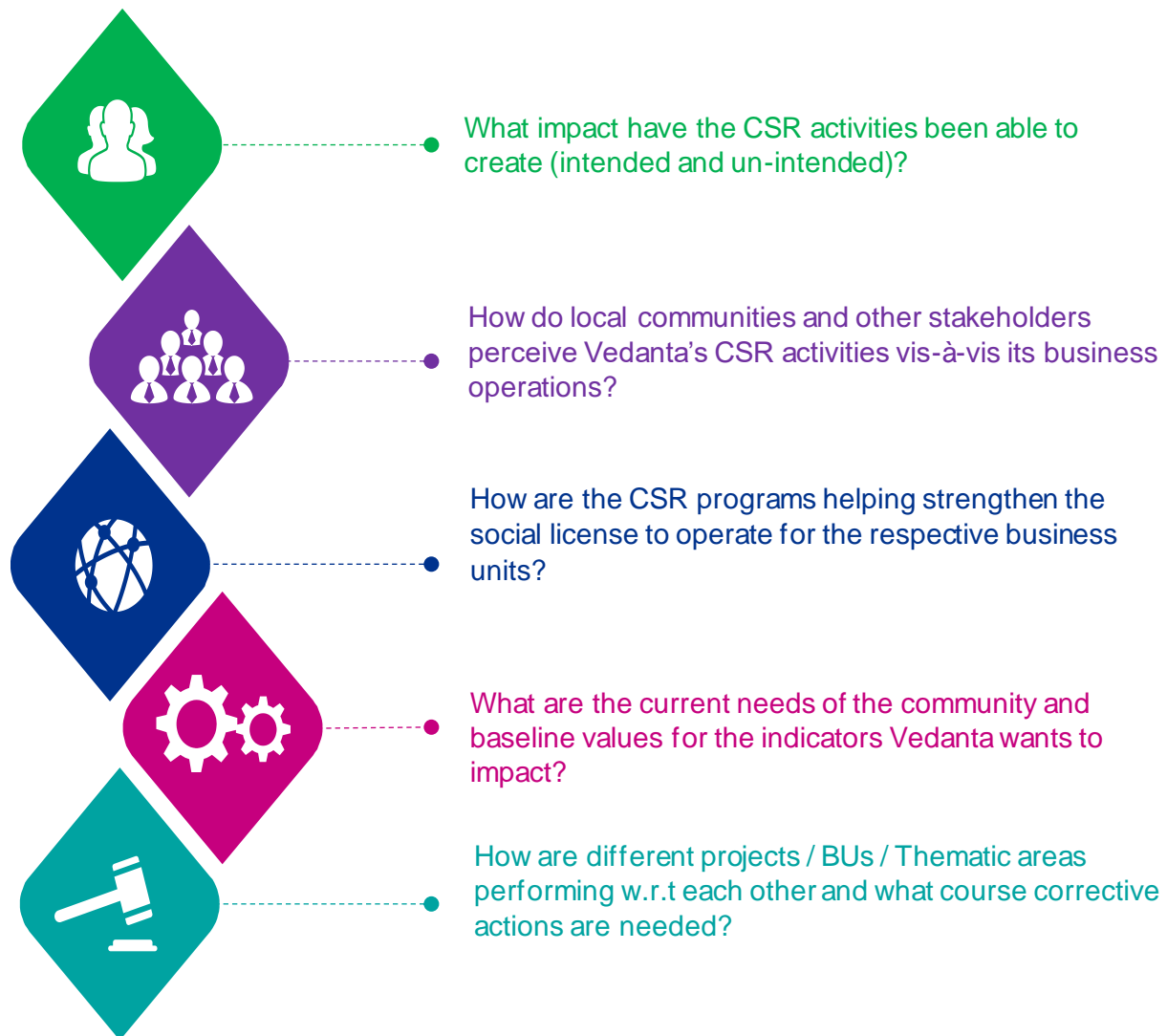


Figure 2: Research Questions



The key objective of this exercise was to support the business unit strategize their CSR activities in the future. The study used mixed methods including both qualitative and quantitative data collection tools. These included surveys and interviews with beneficiaries, block/village stakeholders, State/district stakeholders as well as companies' internal stakeholders.

1.1.2. Methodology for OECD-DAC

Evaluation Framework

OECD DAC criteria will be used for impact evaluation. The framework has been described in the below sections

Impact assessment is a structured process for assessing the effects of an intervention on the intended beneficiaries. Impact evaluation, on the other hand, is a broader term that encompasses a range of issues such as appropriateness of the intervention design, the cost and efficiency of the intervention, its unintended effects and guidance on future course of the intervention in terms of design and implementation (OECD).

Impact assessment has often been described as a theory-based activity since it is designed based on a 'theory of change'. This relates to establishing a chain of causation from intervention to impact and has the advantage of being specific and focused on the identified impacts. The impact assessment may, however, tend to overlook some of the unexpected and undesired results of the intervention

Regarding the overall approach for undertaking an impact study, the widely acclaimed framework for evaluating the effectiveness of development projects is the one established by the OECD-DAC (Development Assistance Committee) Evaluation Network. In response to the need for having a mechanism by which bilateral development agencies could monitor the funding provided to multilateral organizations for various development projects, the DAC Evaluation Network devised a set of evaluative criteria for assessing the effectiveness of any development project (UNICEF, 2012). The OECD DAC first developed the criteria in 1991 for evaluating international development co-operation. They have since become a cornerstone of evaluation practice and are widely used, beyond the DAC. These criteria have often been applied for international donors such as UN agencies (OECD, 2020).

The OECD DAC Network has defined five evaluation criteria – relevance, effectiveness, efficiency, impact, and sustainability – and two principles for their use. These criteria are intended to guide evaluations. They were refined in 2019 to improve the quality and usefulness of



evaluation and strengthen the contribution of evaluation to sustainable development (OECD, 2020).

OECD DAC: Evaluation Criteria

This study has used OECD DAC framework as it helps in gaining qualitative understanding of the impact created, stakeholder perception, and sustenance of the change through the following parameters:

- **Relevance:** Assesses the extent to which project responds to the felt needs of all the communities.
 - To what extent are the objectives of the program still valid?
 - Are the activities and outputs of the program consistent with the overall goal?
 - Are the activities and outputs of the program consistent with the intended impacts and effects?
- **Coherence:** The compatibility of the intervention with other interventions in a country, sector or institution.
 - The extent to which other interventions (particularly policies) support or undermine the intervention, and vice versa
- **Effectiveness:** Assesses the extent to which objectives of developmental interventions are being achieved.
 - To what extent were the objectives achieved / are likely to be achieved?
 - What were the major factors influencing the achievement or non-achievement of the objectives?
- **Efficiency:** Assesses the extent to which project uses the least costly resources possible to achieve the results.
 - Were activities cost-efficient?
 - Were objectives achieved on time?
- **Impact:** Assesses the extent to which positive or negative changes are produced by the development intervention, directly or indirectly, intended, or unintended, or externally or internally.
 - What has happened as a result of the program?
 - What real difference has the activity made to the beneficiaries? How many people have been affected?
- **Sustainability:** Assesses the extent of continuation of benefits from a development

intervention after major assistance has been completed.

- To what extent did the benefits of a program continue after donor funding ceased?
- What were the major factors which influenced the achievement or non-achievement of sustainability of the program?

To evaluate CSR programs on the OECD criteria, KPMG developed its own Scorecard based



upon the information and documents shared by VALJ.

The scoring framework is defined below:

Relevance: The relevance of the project is defined on the two paradigms-

- Baseline: If the baseline was conducted for the project, a weightage of 50% is assigned to the project.
- Alignment: If the project is aligned with the findings of the baseline, a weightage of 50% is assigned to the project.

Coherence: The relevance of the project is defined on the two paradigms-



- Alignment of the project with government policies/schemes: If the project is aligned with the national/states scheme, a weightage of 50% is assigned to the project.
- Alignment of the project with SDG: If the project is aligned with SDGs, a weightage of 50% is assigned to the project.

Effectiveness: The relevance of the project is defined on the two paradigms-

- Targets Defined – A weightage of 50% was assigned if the project had clearly defined targets
- Targets Achieved – A weightage of 50% is assigned if the project has successfully achieved the target defined .

Efficiency: The relevance of the project is defined on the five paradigms.

- Alignment with Vedanta CSR policy- A weightage of 20% is assigned if the objective of the project is aligned with Vedanta's CSR policy of improving the quality of life of the communities living in the operational geographies of Vedanta.
- Availability of the MoUs: A weightage of 10% is defined if the project had MoUs.
- Start and End Date: A weightage of 10% is defined if the MoUs had clearly defined Start and End date.
- Timeline: A weightage of 20% is defined if the defined timeline in MoU was followed properly.
- Budget for Project: A 20% of the weightage is provided if the budgets were clearly mentioned in the MoUs.
- Budget Utilization: A weightage of 30% was assigned, if the budget was utilized properly.
- Margin of Overspent and Underspent: A weightage of -10% was assigned if the budget was underspent or overspent.

Sustainability: A weightage of 100% was assigned if the project has well defined sustainability mechanism at place.

OECD Parameters	Indicators	Guidelines	Weightage
Relevance	Baseline conducted or not	A baseline assessment was conducted and document provided	50%
	Alignment of project with baseline	Information from baseline used to develop projects	50%
	Relevance Score		
Coherence	Alignment of project with government scheme/policy	National alignment	50%
	Alignment of project with SDGs	International alignment	50%
	Coherence Score		
Effectiveness	Targets clearly identified	Availability of targets	10%
	Target achievement (planned vs actuals)	Completion rate: 80-100% -> 90% 60-80% -> 70% 40-60% -> 50% Less than 40% -> 0%	90%
	Effectiveness Score		
Effeciency	Alignment with Vedanta CSR policy	Coherence with internal requirements	20%
	Availability of MoUs	MoUs available and provided	10%
	Clearly articulated start and end date	Availability of start and end dates in MoUs	10%
	Delay in Timeline	Yes/No Information - 0, No-20	20%
	Budget for Project provided	Clear Budget included in project documents	20%
	Budget Utilisation	If utilisation as per budget	30%



	Margin of Underspent or Overspent	Up to 5%: (-) 2 5%- 10%: (-) 4 10%-20%: (-) 8 More than 20%: (-) 10	-10%
Effeciency Score			
OECD Parameters	Indicators	Guidelines	Weightage
Sustainability	Sustainability Convergence	Mechanism, Stakeholder led governance (2) Local capacity building for operational sustainability and (3) Financial sustainability through user fee, linkages, collaboration, etc)	100%
Sustainability Score			



1.1.3. Sample Selection

The sample size was selected developed basis a scientific method of taking 95% confidence level and 5% margin of error using the population coverage of each business unit. Post this, multiple consultations were undertaken with the Vedanta Group and key stakeholders within it after which a sample size of 3700 (3913) was decided specific studies. This was further divided proportionately across the business unit's basis the quantum of their outreach, while maintaining at least the minimum sample reach as per the scientific method. For VALJ a sample size of 250 was targeted.

An actual sample size of 264 was covered across the operational villages. The sample is divided amongst beneficiaries, district level stakeholders, block village level stakeholders and VALJs internal stakeholders

Table 1: Total Coverage of the study.

Data Source	Total
CSR/BU Management	10
District Level Stakeholders	4
Block/Village Level Stakeholders	16
Beneficiaries	234
Villages Covered	17

1.1.4. Sample Villages

The number of villages were selected basis discussion with the business units and leadership wherein 30% of core villages, 15% of periphery villages and 20% of outreach villages were selected.

The table below lists the villages covered under the study in Jharsuguda.

Table 2: Villages Covered Under the Study

Core Village	Periphery Village	Outreach/Outer Periphery Village
Bhagipali	Kelendamal	Rengalpali
Bhurkamunda	Parmanpur	Samasingha
Brundamal	Sripura	Debadihi
Dalki	Purna	Kolabira
Kumudapali	Badmal	
Maa Samaleswari Nagar		
Gudigaon		
Siriapali		

Table 2: Total number of Villages covered

1.1.5. Data Collection and Analysis

Data was collected with the support of a third-party empanelled by KPMG.

The process included:

- Conducting a pilot testing of research tools under the supervision of KPMG team along with sharing feedback as required.
- Translation of the questionnaires as per requirement



- Training of investigators and enumerators with the support of KPMG team
- Collection of data as per sampling design under the supervision of KPMG Team.

Further, post collection of data, the same was cleaned and analysed and the findings have been used to develop a smart dashboard designed specifically for the purpose. The BUs, in addition to the report can further review the analysed information on the dashboard for further insights and comparison.

KPMG onboarded a third party to support with the data collection exercise. They were supervised by KPMG as well as VALJ's CSR SPOCs across locations. District-level and business unit level stakeholder interviews were conducted by KPMG team.

Below steps were taken during the data collection and analysis:

- Conducting a pilot testing of research tools under the supervision of KPMG team along with sharing feedback as required.
- Translation of the questionnaires as per requirement
- Training of investigators and enumerators with the support of KPMG team
- Collection of data as per sampling design under the supervision of KPMG Team.

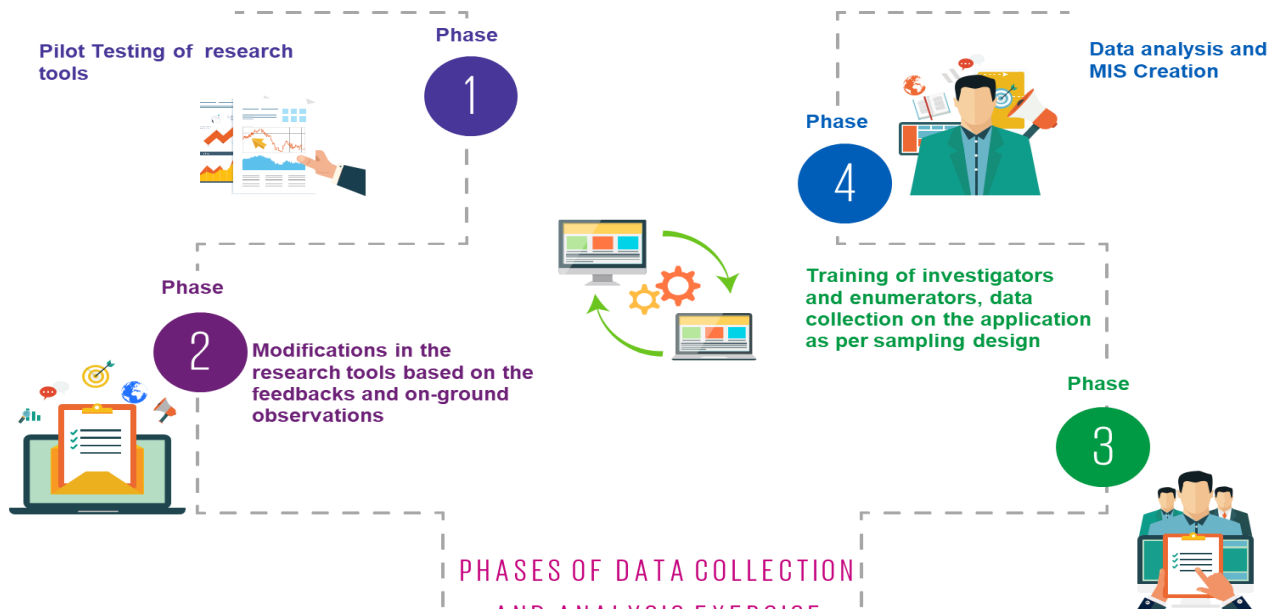


Figure 3: Phasis of the Study



Data was collected through an app-based solution and regular updates on the status of data collection was provided to the BUs. In areas where the internet networks were intermittent, Pen- and Paper interviews were conducted through KPMG and data collection team. Later, the data was transformed and updated into the app.

Further, post collection, data was analysed, and the findings was used to develop a smart dashboard designed specifically for the purpose.

1.1.6. Stakeholder Map

Stakeholder for this study is defined as individuals, organizations, institutions (Public & Private), government authorities, Gram Sabha representatives and frontline workers that have a direct interest and provides certain influence over Vedanta's CSR projects and outcomes. These stakeholders play an integral role in implementing socio-economic policies/programs on the ground. Under this study a myriad stakeholder, from Anganwadi workers, School teachers, Block officers to District Magistrate were interviewed. Involvement of such stakeholders provided valuable insights that can further add value while making important decisions about the organization. They have also provided their recommendations to enhance the efforts of the company that can help the business unit strategize their activities better in the future.

Below, one can see a mapping of the selected stakeholders for the study as a whole and their relative position. It must be noted, however, that the position and number of stakeholders vary from business unit to business unit and were interviewed based on the list shared by the respective business units.

Stakeholders and institutions involved in the exercise were:

Table 3: Institution and Stakeholders Covered in the Exercise

Thematic Area	Institutions Covered	Stakeholders Covered	Government Administrators
Educational	Primary School Upper Primary School Higher Education Institutions	School Principals Gram Pradhan PRI Members NGO Partners	District social welfare officer Child development program officer- ICDS Urban Jharsuguda



Health	Aganwadi Centers APHC PHC CHC District Hospitals Private Hospitals	ANM ASHA AWW MOIC Gram Pradhan PRI Members NGO Partners	Additional District Magistrate Chief District Medical Officer
Livelihood and Women Empowerment	Cooperative Society	Managers of training centers Gram Pradhan PRI Members SHG Leaders	
Thematic Area	Institutions Covered	Stakeholders Covered	Government Administrators
Community Assets		Gram Pradhan PRI Members NGO Partners	
Environment		Gram Pradhan PRI Members SHG Leaders NGO Partners	
Sports and Culture		Gram Pradhan PRI Members NGO Partners	

About the District

Jharsuguda is a district in northwestern Odisha, bordering the Raigarh district of Chhattisgarh. For administrative purposes, the district is divided into one sub-division, five Tehsils and five blocks. The district is rich in coal, quartzite, and other mineral reserves which have led to the emergence of many small and medium-scale iron and steel units in the vicinity, giving impetus to the industrial growth of the district. The district has a large tribal population, with STs accounting



for about 31% of the district population³⁸. The major tribes present in the area are Sabara, Kisan, Kurukh, Bhuiyan, Munda, and Santal. Over 30% of the population is below the national poverty line. The overall literacy rate of the district is 78.36% with the male literacy rate being 86.3% and that for females being around 70%. Girls' enrolment at all levels is only 49% indicating a lack of gender parity in education. All the schools have access to drinking water and over 98% of them have separate toilet facilities for girls.

The major contribution in the economy of the districts comes from Industries and mining, followed by agriculture.³⁹ The industries set up provide support to the hitherto shattered economy of the district by providing employment to a large section of the population.

With respect to the community infrastructure, only about 26% of the households have access to a drinking water source in their houses. However, 98% of households now have access to electricity. Additionally, over 70% of the households reported using an improved sanitation facility as compared to only 41% in 2015⁴⁰

The percentage of households with a member covered under a health insurance/financing scheme was around 43% in 2015. The NFHS-5 data suggests that the figure has marginally reduced to around 38% as of 2019. This is a peculiar trend indicating the lack of awareness and accessibility to such schemes.

The percentage of children suffering from Moderate Acute Malnutrition is 27% and those suffering from SAM (Severe Acute Malnutrition) is 4%. Around 98 % % of the population has been immunized. However, around 68% of the women aged 15-49 are anemic⁴¹. 98.6% of the deliveries in the district are institutional births indicating a deeper penetration of basic healthcare services. The district also witnesses a high out-of-pocket expenditure per delivery of Rs 5720 in public health facilities, suggesting the unaffordability of such institutions. While 50% of the couples utilize modern family planning methods, around 29% of them go for female sterilization methods, considered harmful for females. Less intrusive methods like pills (9.1%) and condoms (8.4%) are also prevalent.

³⁸ Census 2011

³⁹ https://finance.odisha.gov.in/sites/default/files/2021-02/Economic_Survey.pdf

⁴⁰ NFHS 5

⁴¹ rchiips.org



The district has a tree cover of 14.9% of the total geographical area and 48.8% of its population uses clean fuel for cooking. Only about 0.2% of the total installed power generating capacity is renewable. However, due to favourable geography, renewable energy sources like solar and wind can be tapped to foster a green transition.

About the Business Unit and CSR Activities

The district observed rapid industrialization in the last decades. The advent of large industries has transformed Jharsuguda into the industrial hub of Odisha. The rapid industrialization facilitated employment opportunities and infrastructure development. However, the rural communities missed the bus of development. Due to establishment of large industries, many villages got displaced and it impacted the lives of the inhabitants drastically.

VALJ, which was established in the Jharsuguda district, is one of the world's leading producers of aluminum. The company operates the world's largest single-location aluminum plant ex-China at Jharsuguda, Odisha. The plant has 1.6 MTPA aluminum smelting capacity and associated 3615 MW thermal power generation facility. The only Indian smelter in the global '1 Million Tonne' production and export club, Vedanta Jharsuguda is a leader in value-added aluminium products that find critical applications across core industries.

Even before its inception in 2008, VALJ started working in Jharsuguda with a commitment to conduct its business in a socially responsible, ethical and environment friendly manner and to continuously work towards improving quality of life of the communities in its operational areas. VALJ believes that sustainable development of its businesses is dependent on sustainable, long lasting, and mutually beneficial relationships with its stakeholders, especially the communities VALJ works with.

VAL in Jharsuguda through its sustained CSR efforts since 2007 has focused on bringing about a change in the lives of people in by improving their living standards and ensuring holistic development of the district. VALJ started working in 64 villages nearby the plant location for the holistic development of the villages. Because a community can't be developed without the development of the women of community, VALJ started its first flagship program called Subhalaxmi cooperative for empowering the women of the community. VALJ further initiated programs on community infrastructure, Mobile Health Vans, Sustainability Livelihood and Environment for the holistic and sustainable development of the communities in the villages.

VAL in Jharsuguda through its sustained CSR efforts since 2007 has focused on bringing about a change in the lives of people in by improving their living standards and ensuring holistic



development of the district. The company has upheld the belief of working together with the community and encouraging their participation in the growth process of the organization as well as considering the community as facilitators to bring about socio-economic transformation of rural parts of Orissa.

After the inception of Corporate Social Responsibility Under Section 135 of Companies Act 2013 VALJ developed a well-defined and comprehensive CSR Policy that describes Vedanta's philosophy, thematic focus areas of CSR work, monitoring mechanism, review process and overall responsibility of execution of the policy. It further describes the approach of Vedanta in execution of CSR functions i.e., *Inclusive Development and Partnering with stakeholders*. The ultimate responsibility to ensure effective implementation of CSR policy lies with CSR committee of the organisation.

The Company Focuses on the following thematic areas under its CSR policy.

Environment:

As part of its green initiative, the CSR wing started '**Project Green Jharsuguda**', a first of its kind initiative at corporate level for plantation in the region under Public Private Partnership mode to increase the Green Coverage in periphery areas and Jharsuguda.

The objective of this initiative is:

- 1) To increase the green canopy to control pollution.
- 2) To conserve water, soil, and climate.
- 3) To reclaim wastelands through afforestation.
- 4) To produce timber for cooking, fodder, and minor forest products for community.

The CSR wing actively conducted plantation drive that included the parents of their employees under the program called "**Proud parents**". The effort of Vedanta towards nurturing the environment constitutes an integral part of their efforts towards developing Jharsuguda.

Health & Sanitation

Health Initiatives

To improve the overall health of the community at large, VALJ conducts regular awareness campaigns, health camps and runs mobile health units (MHU's) across 24 villages. The CSR wing



also supports the district hospital by providing medical equipment's and other necessary support. The interventions focus on preventive and curative healthcare mitigating the challenge of affordability and accessibility of quality healthcare services.

- A. Mobile Health Unit:** The MHU's run in and around 24 villages and two special schools in periphery providing free health check-up, consultation, treatment, and medicine to the community. As per its schedule, it runs through every village equipped with a Doctor and Para-medical staffs wherein primary Health check-ups are conducted and medicines are distributed to the patients without any cost. MHUs have been able to effectively provide affordable, accessible, reliable, and quality preventive healthcare services to beneficiaries at their doorstep.
- B. Awareness Camps:** The BU regularly conducts awareness camps on prominent days like, World health day, World Malaria Day, World AIDS day etc. The camps are organized with the aim to sensitize the community and spread awareness amongst them regarding various health issues and ways to prevent illnesses. So far more than 70,000 people have benefitted through these health awareness camps including. The CSR department through its efforts also enabled immunization of 26,000 children under the vaccination program in partnership district health department

Sanitation

To address the shortage of safe drinking water, VALJ has been providing drinking water during May-June. Further they have also undertaken the task of renovating ponds in 4 Gram panchayats covering about 3500 beneficiaries. Further with the objective to provide safe drinking water, during summer around 65000 liter /day Safe Drinking water was supplied in 11 Wards at Jharsuguda Municipality for 2 months from May to June 2019. The BU also conducted Hand washing awareness programs at 3 Govt. Schools. More than 250 students participated in this program.⁴²

Education

- **Vedanta DAV Education Support Project:** The project aims at supporting education of the children from project displaced families. As per the data shared by the CSR team, 114 students studying in grade 8th-12th enrolled in DAV Public School, Jharsuguda availed the benefits of this project in FY 2021-22.

⁴² CSR ANNUAL UPDATE – (FY 2019-2020)



- **Vedanta Village Computer Literacy Centre:** The company is implementing a basic computer literacy project to improve learner's basic understanding and skills required to be computer literate through classroom learning. Implemented by Vedanta Foundation, 129 students and youths enrolled in 3 computer centers achieved course completion certificate in FY 2021-22.
- **Vedanta Mini Science Centre:** To enhance inclination and aptitude of students in science and mathematics Vedanta Limited initiated the Vedanta Mini Science Centers. In this project theoretical learning is facilitated through working models of science and mathematics in laboratories set-up in 5 schools. School teachers utilized these science centers to simplify the concepts of science and mathematics to 1,255 students from 5th-10th standard.
- **Mo School Abhiyan:** To transform the infrastructure of rural government schools Vedanta Limited partnered with Government of Odisha and funded Rs 2.2 crores for 14 schools under the state government's Mo School Abhiyan initiative for which twice match grant was sanctioned by the government.
- **Vedanta Vidyagraha:** A digital education project was launched in March 2022 to supplement the educational efforts of the District Education Department. Under this a web-based application with pre-recorded sessions of English, Mathematics and Science shall be available students of 8th-10th standard. With this project children will have 24-hour access to the learning materials, encourage self-paced learning and track progress of learners on real time basis.

Community Infrastructure

VALJ is committed to improve the quality of life of the people within the plant periphery. They provide basic to advance infrastructure facilities to the community through construction of Road, culvert, Drain, tube well, pond, community center, temple, electrification, installation of CCTV camera etc. In FY 22, community infrastructures like community center, Sanskruti bhavan, installation of tube well, pond renovation & cleaning etc. were constructed. At present more than 575 key infrastructure assets have been created for the community.

Sports and Culture:

Vedanta supported local sports and cultural events to encourage and promote local art and culture. Various sports events have been conducted and cultural programs were supported by Vedanta Limited, Jharsuguda. Under the recent initiative, National level footballer Ms. Tanuja Bag is giving coaching to 50+ youth and children of Maa Smaleswari Nagar (R & R Colony).



A targeted Program based on providing football training at the grassroots level to the beneficiaries of the peripheral villages of the plant has also been initiated by VALJ. As a pilot project, the program proposes to provide an experienced Football Coach to train 20-30 players for the next 6 months. The Players will be scouted through a trial process conducted for the participating villages. The Players will take part in various District/State level tournaments to receive valuable match exposure

Apart from this, Vedanta observes local festivals and rituals like Namgyagan, Ram Navmi, Nuakhai, Nagin Chouthi for community involvement.

Women Empowerment

Subhalaxmi Cooperative has emerged as a model community-based organisation in Jharsuguda district of Odisha. A member-owned and member managed women's institution, it is designed to create a landmark for the underprivileged people of the locality by uplifting their socio-economic conditions and ensuring livelihood security of their family. The cooperative is one of the largest women cooperatives of western regions of Odisha with more than 4,100 women in 339 SHGs. It is a self-sustained and self-managed community institution.⁴³

Sustainable Livelihood

A farm-based livelihood initiative in the name of 'Jeevika Samriddhi' was launched in October 2019 by the District Collector, Jharsuguda in presence of the CEO of Vedanta, Jharsuguda. The major components and focus of the project are: 1) Community Mobilisation - Development of Agriculture Production Cluster, formation of Farmer Producer Organisation (FPO); 2) Development of irrigation infrastructure in collaboration with government schemes; 3) Promotion of Cash Crops with advanced Package of Practices (PoP); 4) Technology integration to enhance productivity; 5) Facilitation for post-harvest management and marketing; 6) Mobilisation of government schemes through convergence and 7) Training to farmers to enhance their skills .

Thematic Wise Government Schemes

Sustainable development of the communities is only palpable by ensuring convergence of myriad stakeholders and institutions across the spectrum. To build synergies for sustainable development, it is pivotal for CSRs, NGOs, CSO to align and coverage with government schemes/policies and institution to fulfill the resource gap in a sustainable fashion. It helps in

⁴³ [Vedanta-Annual-CSR-Report-20-21.pdf \(vedantalimited.com\)](#)



strengthening in the service deliveries across various levels, helps in building robust and resilient village level institutions and ensures sustainability to development programs.

Often, the social development programs fail in the absence of convergence with government schemes and policies. These schemes not only provide resources help for the programs, but also catapults programs towards scalability and replicability. Sometimes, government adopts social development programs as the best practice and implement and scale it under its policy umbrella in other geographies. The convergence helps the CSRs and organization to lessen the financial burdens, sharing the responsibilities and providing the administrative support in the implementation. Moreover, the convergence helps in chalking out an exit strategy, where organizations and CSRs can handover their projects to government and its institutions.

The sections delve into identifying potential government policies across thematic areas which can be leverages by VALJ for resource convergence to fill the gaps.

EDUCATION

State	Central Scheme	State Scheme
ODISHA	<ul style="list-style-type: none"> — Rashtriya Madhyamik Shiksha Abhiyan — Mid-Day Meal Scheme — Sarva Shiksha Abhiyan 	<ul style="list-style-type: none"> — Anwasha scheme — Utthan Scheme — Utkarsh Scheme

SUSTAINABLE LIVELIHOOD

State	Central Scheme	State Scheme
ODISHA	<ul style="list-style-type: none"> ▪ Rashtriya Krishi Vikas Yojana ▪ National Agricultural Insurance Scheme ▪ National Horticulture Mission 	<ul style="list-style-type: none"> ▪ Kalia Yojana ▪ Mukhyamantri Adibandha Yojana ▪ Mukhyamantri Krishi Udyog Yojana

HEALTH AND WASH

State	Central Scheme	State Scheme
ODISHA	<ul style="list-style-type: none"> ▪ PMJAY (Ayushman Bharat: Pradhan Mantri Jan Arogya Yojana), ▪ NDHM (National Digital Health Mission), ▪ Pradhan Mantri Atma Nirbhar Swasth Bharat Yojana, ▪ Pradhan Mantru Swasthya Suraksha Nidhi, ▪ Pradhan Mantri Swasthya Suraksha Yojana, 	<ul style="list-style-type: none"> ▪ AMA Clinic Yojana ▪ Odisha Sahaya Scheme ▪ Odisha Nidan Scheme ▪ Anmol Yojana ▪ Khushi Scheme ▪ Shishu Abond Matru Mrutyuhara Purna Nirakaran Abhiyan ▪ Buxi Jagabandhu Assured Water Supply to Habitations ▪ Mukhyamantri Swasthya Seva Mission ▪ Ahar Yojana ▪ Mamata scheme

WOMEN EMPOWERMENT

State	Central Scheme	State Scheme
ODISHA	<ul style="list-style-type: none"> ▪ Beti Bachao Beti Padhao ▪ Sukanya Samridhi Yojana ▪ Shelter Home for Women 	<ul style="list-style-type: none"> ▪ Biju Kanya Ratna Yojana

ENVIRONMENT

State	Central Scheme	State Scheme
ODISHA	<ul style="list-style-type: none"> ▪ New & Renewable Sources of Energy ▪ Integrated Rural Energy Program 	

SPORTS AND CULTURE

State	Central Scheme	State Scheme



ODISHA	<ul style="list-style-type: none">▪ National Service Scheme▪ Rashtriya Yuva Sashaktikaran Karyakram▪ National Youth Festiva▪ Khelo India Scheme▪ National Sports Talent Contest Scheme▪ Global_Engagement_Scheme	<ul style="list-style-type: none">▪ Sports Association▪ Sports Person Welfare Scheme
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1.1.7. Theory of Change

The theory of change below (or an impact map) was created based on the documents shared by VALJ in the beginning of the engagement and provides a snapshot of the KPIs that were then used to develop the questionnaires. These do not reflect the actual change on the ground but a guidance document used for tool development. Furthermore, the tools then were finalised with the support of the business unit and have been provided in the Annexure

Thematic Area	Project Name	Key Activities	Key Outputs	Key Outcomes	Impact
Education	Vedanta DAV School Fee Program	To Provide quality education to children from the project-affected and displaced families in DAV School	No of Students Covered	% Increase in learning outcomes Improved enrolment and attendance in schools % Decrease in dropout rate of girls % Decrease in dropout rates Percentage households reporting reduction in education expenditure	Improvement in the learning outcomes Improvement in the enrollment rate
Education	Project Vedanta Village Computer Literacy Centre (VCLP)	(a)Basic computer literacy among young students in the peripheral villages	No of Students Covered No of Labs	Improved enrolment and attendance in schools % Decrease in dropout rate of girls % Decrease in dropout rates % Reporting holistic development of children Improvement in digital literacy of students	Improvement in the learning outcomes Improvement in the enrollment rate
Education	Vedanta BUDHHI Kit	(a)To bridge the gap between theoretical and practical aspects of AI for end-users	No of Schools Covered No of Kits distributed No of Students Covered	% Increase in learning outcomes Improved enrolment and attendance in schools % Decrease in dropout rate of girls % Decrease in dropout rates	Improvement in the learning outcomes Improvement in the enrollment rate

Thematic Area	Project Name	Key Activities	Key Outputs	Key Outcomes	Impact
Education	Vedanta Mini Science Centre (VMSC)	(a) To enhance the aptitude capacity and skills of students to learn science and mathematics more effectively	No of the Schools Covered No of the Students Covered	% Increase in learning outcomes Improved enrolment and attendance in schools % Decrease in dropout rate of girls % Decrease in dropout rates % Reporting holistic development of children Improvement in digital literacy of students	
Education	Supported Govt School under Govt's Mo School Abhiyan	(a) Revamping of the schools	No of the Schools Covered No of the Students Covered	Improvement in the school infrastructure % Increase in learning outcomes Improved enrolment and attendance in schools	
Health & WASH	Mobile Health Unit Services	(a) To provide doorstep primary health services to the community	No. of MHUs No. of villages covered No. of beneficiaries covered	% Decrease in medical expenditure % Beneficiaries experiencing timely availability of treatment % Beneficiaries reporting improved health Beneficiaries reporting increase in income due to improved health	To improve the health services and to make the lives healthier



Thematic Area	Project Name	Key Activities	Key Outputs	Key Outcomes	Impact
Community Infrastructure		Sanitation Activities Drinking Water Facility Installation of Solar Lights Renovation of Ponds Construction of toilets	No of Beneficiaries Improvement in the accessibility of water Improvement in the quality of water	% of beneficiaries reporting improved access to clean drinking water % Beneficiaries reporting reduction in water borne diseases increase in access to household toilets Improved safety of women Improved awareness on sanitation and hygiene Improved usage of toilets constructed Decrease in open defecation practice	Improvement in the learning outcomes Improvement in the enrollment rate
Sustainable Livelihoods	Project Jeevika Samridhhi	Community mobilisation (Develop into Agriculture Production Cluster, formation of FPO)	No of HHs covered	% increase in agricultural yield	To improve the health services and to make the lives healthier

Thematic Area	Project Name	Key Activities	Key Outputs	Key Outcomes	Impact
		Development of irrigation infrastructure in collaboration with government schemes, Promotion of cash crops with advanced PoP, Technology integration to enhance productivity Facilitation for post-harvest management and marketing Training to farmers to boost up their skills.	No of Beneficiaries Covered	% Increase in agricultural yield Improved adoption of sustainable agricultural practices Improved capacity of farmers Improved market linkages for farmers % Increase in income % Increase in income due to allied activities/alternate livelihood % Increase in crop prices due to market linkages and other project interventions Farmer Producer Organizations established	Improvement in the learning outcomes Improvement in the enrollment rate
Women Empowerment and Inclusion	Subhalaxmi Co-op	()A member-owned and managed women institution designed to create a landmark for the underprivileged women of the locality in uplifting their socio-economic conditions and ensuring the livelihood security of their families	No. of SHGs Covered No. of Women covered No of Entrepreneurs Total Loan Disbursed	Financial Independence % Increase in the Savings Improvement in the decision-making power Improvement in the financial literacy	Women Empowerment
Environment	Tree plantation	Plantation along with parents of employees under the program called "Proud parents". Maintenance of plants have been done on regular basis through a register contractor.	No of Awareness Sessions No. of trees planted	% increase in the community regarding the awareness on tree plantation	Awareness on environmental concerns increase in green canopy to control pollution.



Thematic Area	Project Name	Key Activities	Key Outputs	Key Outcomes	Impact
Sports and Culture	Sports	Football training for Children Organizing Football tournaments Participation in Football tournaments	No. of Community Football No. of Children/youths Covered	Percentage beneficiaries developing their sports habit and interest. Percentage beneficiaries reporting increased participation in regular sports and sports related competitions in villages Percentage beneficiaries reporting improved health and physical fitness after getting involved in sports activities	To promote football amongst rural children
Sanitation	Sanitation	Provide safe drinking water Awareness camps	No. of RO's provided No. of awareness camps organised No. of wards covered	% increase in people having access to safe drinking water % increase in awareness amongst community members regarding WASH	Acceded to safe drinking water, during summer

1.1.8. Demographic Profile of the Beneficiaries

In any baseline study, the analysis of the socio-economic background of the respondents is pivotal as it facilitates an understanding of the social and economic conditions of the respondents and helps to analyse their needs. The section primarily deals with the personal and social characteristics of the respondents, such as caste, educational qualification, occupation, monthly income, type of dwelling, assets ownership, loan availed etc. of the respondents.

Average Family Size:

Family Size, especially in the rural scenarios is related to the socio-economic outcomes of the households. Family size impacts myriad socio-economic indicators such as class, attainment of children education, household expenditure and savings, nutrition, and the social mobility of the household.⁴⁴ While creating a baseline of any intervention, it becomes palpable to understand the

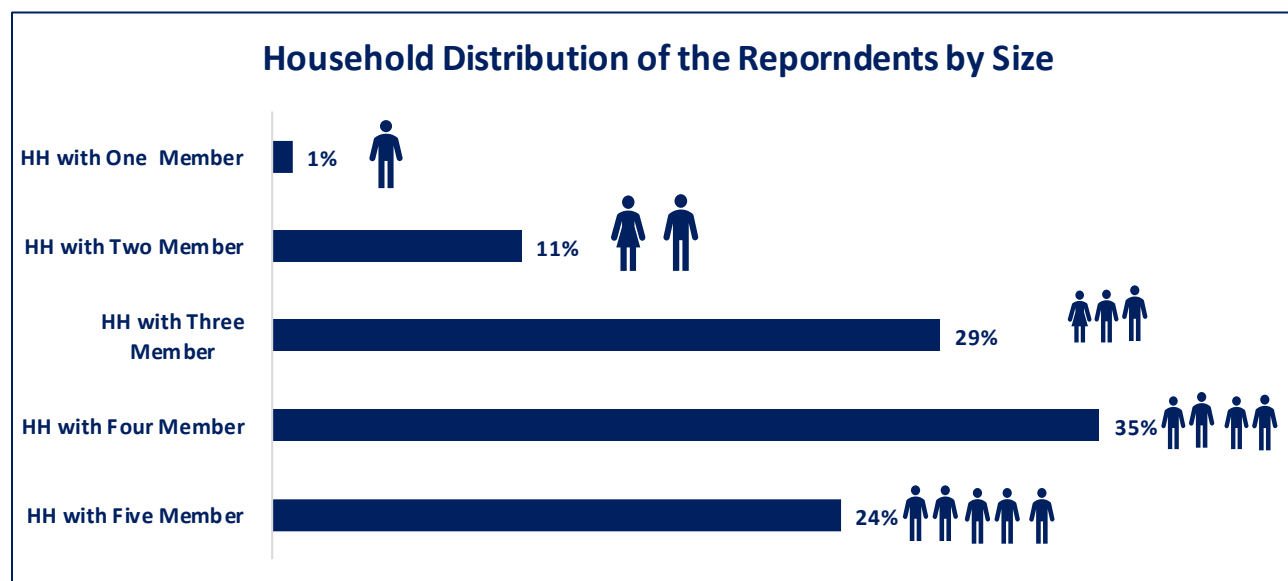


Figure 4: Household Distribution by Size

family size of the respondent household. It helps in establishing the socio-economic profile of the geography under the study.

The average household size of Odisha was 4.6 in 2011 and the average household size of Jharsuguda was 4.26 in 2011.⁴⁵

⁴⁴ <https://european-science.com/eojnss/article/view/5874>

⁴⁵ <https://censusindia.gov.in/census.website/>

As per the primary data received, average family size of the respondents was found out to be 3.7. As per the findings, 45% of the household members surveyed were women.

Economic Category and the Type of House of the Respondents:

As per the NITI Aayog's National Multidimensional Poverty Index (MPI) 2021 report, 29% of the population of Odisha is multidimensional poor, while 18% of the population in Jharsuguda is multidimensional poor.⁴⁶

In Jharsuguda district, 64% of the respondent households were from APL category, while 36% belonged to BPL.

Apart from the income levels, the physical condition of a household and the assets which it holds can also ascertain the socio-economic standing of the household.⁴⁷ This section delves into analysing the type of house and ownership of the assets in the respondent households.

As per the data received from the ground, 59% of the respondents stated that they own a Kuchha house whereas 37 percent of the respondents shared that they own a pucca house. The remaining four percent lived in rented houses.

⁴⁶ <https://www.newindianexpress.com/states/odisha/2021/nov/27/30-per-centof-odisha-population-is-poor-niti-aayog-report-2388739.html>

⁴⁷ https://www.researchgate.net/figure/Distribution-of-asset-ownership-in-each-socio-economic-quartile-Total-number-of_tbl3_8987913

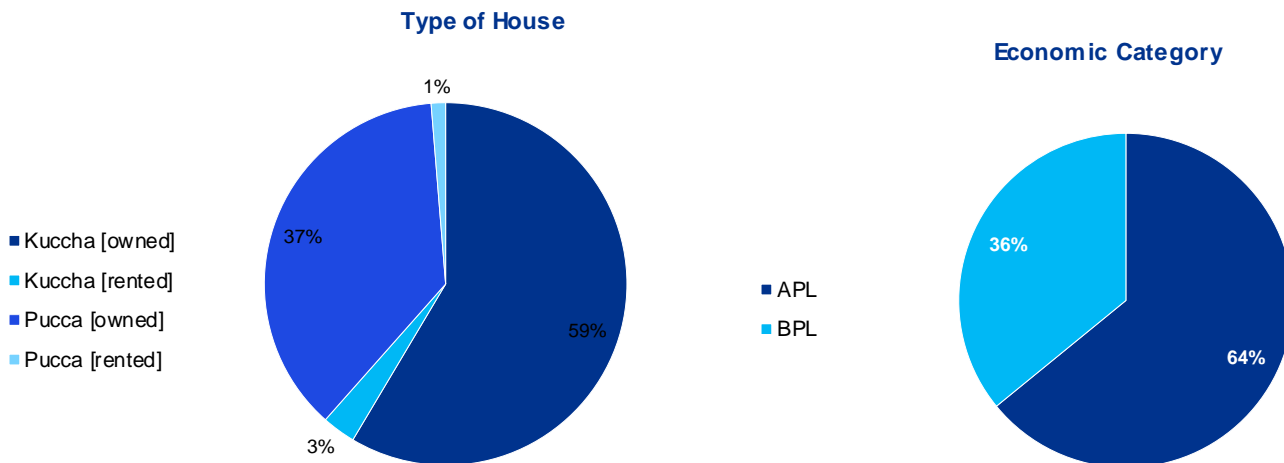


Figure 5: Type of House

Figure 6: Economic Category

Caste Composition of the Respondent Households

Caste has a direct implication on the personal and household characteristic. Several socio-economic indicators like education attainment of children, income and consumption level, access to health care services is related to caste. To establish the socio-economic and demographic profile of a geography, it is necessary to understand the caste composition.⁴⁸

As per the Socio Economic and Caste Survey (SECC) -2011, 39.68% of the households belonged to Schedule Tribes, 39% of the household were from Schedule caste while remaining 20.90% of the households belonged to other caste category.⁴⁹

As per the primary data collected from the respondent households, 38% of the respondent household belonged to OBC classes, while 20% of the respondents were from SC category. 34% of the respondent households were from Scheduled Tribes, while 8% of the respondents belonged to General Castes.

⁴⁸ <https://www.tandfonline.com/doi/full/10.1080/21665095.2014.967877>

⁴⁹ <https://secc.gov.in/getCasteProfileRuralDistrictReport.htm/21/02>

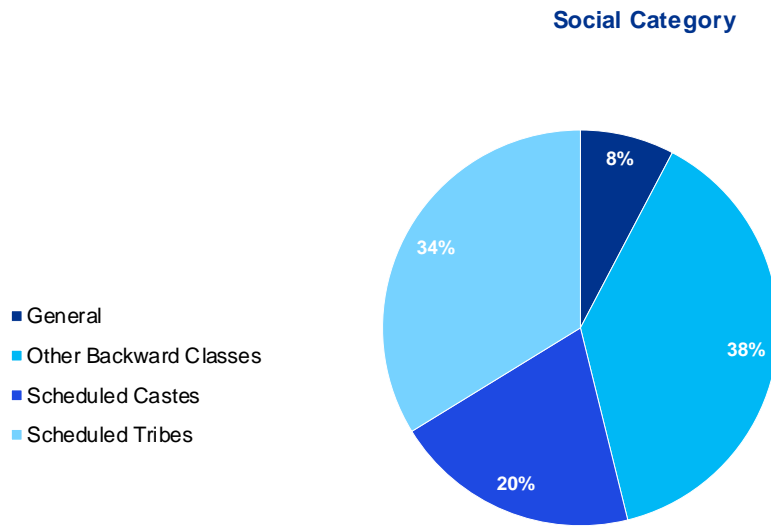


Figure 7: Caste Category of the Respondent Households

Asset Ownership Amongst the Respondent Households

This section analyses the ownership of the assets in the respondent Households amongst respondent households in Jharsuguda district.

Assets Ownership

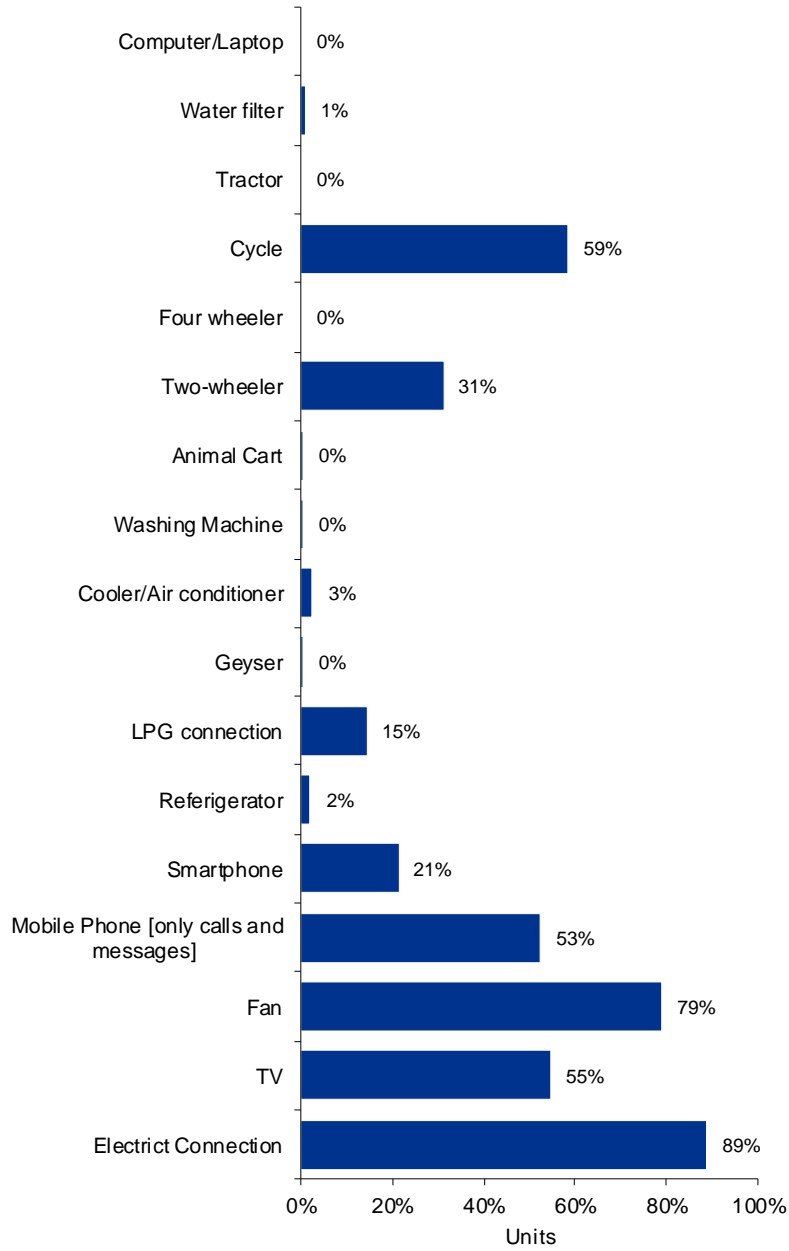


Figure 8: Assets Ownership of the Respondent Households

As per the Census 2011, 63% of the households in Jharsuguda owned mobile phone, while it was only 36% in Odisha. 2% of the households owned two-wheelers in the Jharsuguda district, while 15% of the households had two wheelers in Jharsuguda. Only 2% of the households in Odisha and Jharsuguda owned 4-wheelers.

As per the primary data, 21% of the respondent households reported owning smart phones, while 53% of the households owned a mobile phone with only call functions. No respondent household owned a four-wheeler. When it comes to owning a computer or laptop, no respondent household owned the asset.

It can be inferred that the asset ownership of the respondent household is lower than the residents of the district.

Loan Status

Credit facilities, like loans have been significant to push people out of poverty traps. However, in the absence of formal credit facilities, rural households get entangled in debt poverty by paying huge interest rates.⁵⁰ It necessitates an understanding of the loan status and the source of loans of households of the community.

⁵⁰ <https://www.indiaspend.com/economy/debt-burden-on-rural-households-up-84-in-6-years-urban-poor-hit-too-782065>

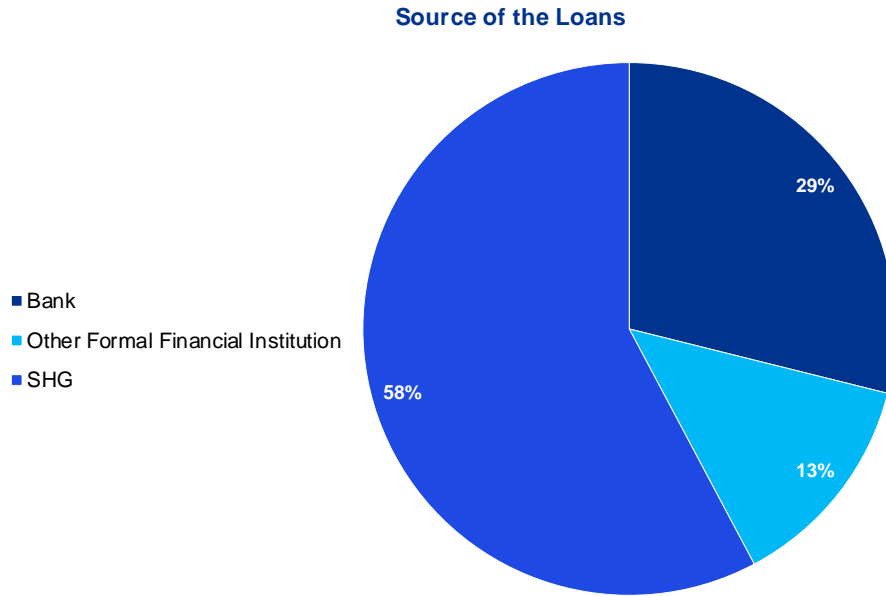


Figure 9: Source of the Loan

Amongst the respondent households, only 19% of the respondent households availed loans in the last three years. 58% of them availed loans through SHGs, while 29% and 13% of the respondents' households availed loans through Banks and Other Financial Institutions respectively. It ascertains the fact that most households who required loans had access to formal credit institutions

18% of the respondent HHs availed loans for business related activities, while 22% of the HHs availed loans for household expenses. 9% of the respondent HHs availed loans for asset purchase and 4% of the respondent households revealed to avail loans for medical expenditure.

Purpose of Loan

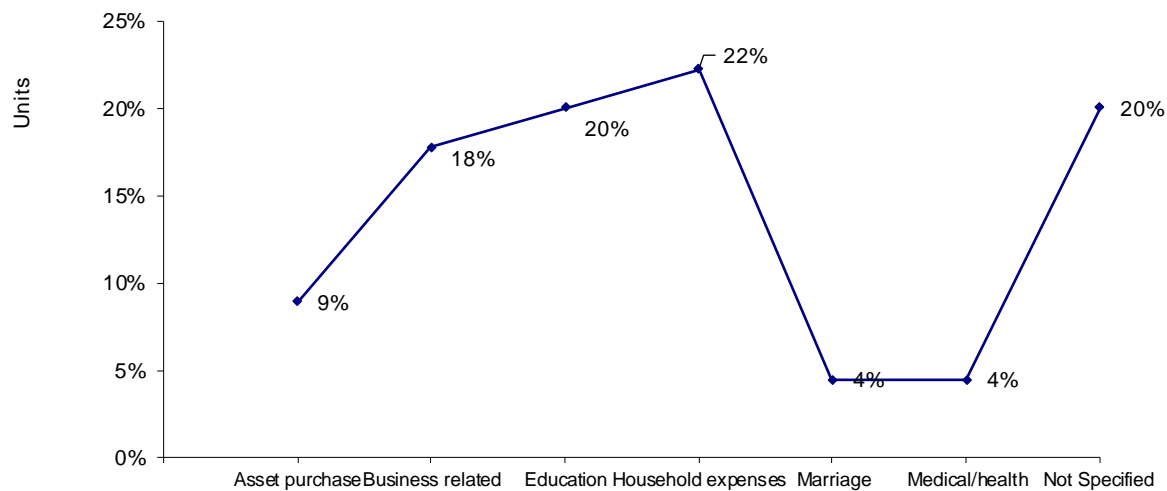


Figure 10: Purpose of the Loan

2. Thematic Area Health

2.1. Executive Summary

Vedanta Aluminium Limited- Jharsuguda (VALJ) has been carrying out significant efforts in the field of healthcare, with a strong community and stakeholder connect. They have been ensuring last mile delivery to the communities to ensure that the population is healthy.

This is in recognition of the Sustainable Development Goals (Goal 3) and an understanding that the health of a population is an integral concern for all, whether it be policy makers, corporates, communities, or the individual itself. Good health is thus a foundational need to achieve any other positive development outcomes. Despite health in the country seeing positive advances in the decades after independence, the COVID-19 pandemic revealed the lack of the ability of the public health infrastructure to take on a burden of ensuring universal healthcare. In states such as Odisha, there continues structural gaps in the health care delivery. Public health institutions continue to suffer from lack of medical personnel's, infrastructure, and equipment.

Key Highlights of the Baseline Assessment

- The access to the health institutions remains high amongst the respondent households. 93% of the respondent households have access to MHUs and 97% of the population has access to Anganwadi centres.
- Despite of having access to public health institutions amongst the respondent households, the access to health services remains low.
- 93% of the children from the respondent households were found to be healthy.
- Institutional deliveries remain low amongst the respondent households as compared to the district average. Only 80% of the respondent household adopted institutional delivery and the method of birth for their children.
- Access to immunization remains extremely low amongst the respondent households, where only 37% reported to have access to immunization at Anganwadi centers.

Key Highlights of the Impact Assessment

Mobile Health Units: As per the previous baseline, 60% of the respondent would travel more than 5Km to access health care facilities and 19% of them would travel 3-5Km to access health

care facilities. Because of the program, 71.1% of the beneficiary reported to have improved timely accessibility and availability of the quality health care services in their vicinity due to Mobile Health Units. Because of the program, there is an average reduction of INR 2352 annually in the out-of-pocket health expenditure amongst the beneficiary households.

Key Recommendations

- **Strengthening of Public Health Infrastructure:** The infrastructural gaps have been persistent in public health institutions. The BU needs to fill the infrastructural gaps by providing infrastructural support and installing required health equipment and paraphernalia.
- **Support the Public Health Institution with Technology Enablement and Creating a Tandem Mode:** Through digital technology integration, the BU can create a hub and spoke model. A patient side tele medicine unit, enabled by clean energy, can be placed at the PHC and CHC level and that can be connected to a hub-a public or private hospital with specialized doctors.
- **Strengthening the Anganwadi Services :** With the help of the District Health Department, the BU can train the AAWs for the real-time monitoring of Children, Adolescents, Pregnant and Lactating mother. The BU can work towards filling the service delivery gap in liaison with the ICDS District Program Officer by building the capacity of SHGs to provide quality and nutritious food at Anganwadi Centers.

2.2. Baseline Assessment

Since its Independence, India has made significant progress in the sphere of healthcare. Against the backdrop of various government interventions and policies, India achieved substantial improvement in the public health care delivery. From eradicating the epidemic in the first two five-year plans to strengthening the public health delivery systems, and establishment of public health institutions under the consecutive five-year plans, India has achieved a robust public health delivery system.⁵¹ Government policies like National TB Control Program, Universal immunization Program, National Cancer Control Program, National Health Policy, Integrated Child Development Scheme, National Health Mission etc. played a pivotal role in fulfilling and providing the healthcare needs of the country.⁵²

The life expectancy in the country improved from 32 years in 1947 to 70.19 years in 2022. Similarly, the infant mortality rate came down from 145.6/1000 live births⁵³ to 27.6/live births in 2022.⁵⁴ India had also progressed in controlling diseases like Malaria, Tuberculosis, Polio, Leprosy, Filaria which were major life-threatening diseases in the early years of Independence.⁵⁵ To provide financial risk protection against catastrophic health expenditure, Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) was launched in 2018 by Government of India, which is the largest Government funded health assurance/insurance scheme in the world. Moreover, the government launched several other schemes like Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) that enhanced the quality of medical education in the country. India has witnessed extensive improvement in healthcare infrastructure since independence. With over 92,000 seats, there are now 612 medical colleges in India as compared to 28 in the 1950s⁵⁶

Odisha has also made notable improvements in health status in recent years. Infant mortality rate (IMR) in Odisha has reduced dramatically, from 112 deaths per 1,000 live births in 1992–93 to 36 in 2019–21. The state also achieved one of the faster declines in maternal mortality compared to India's seven other EAG (Empowered Action Groups) states, with a decrease in maternal mortality rate (MMR) from 235 deaths per 100,000 live births in 2010–12 to 168 in 2015–17. Although Odisha has the highest incidence of malaria in the country, the state has seen a steep

⁵¹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7122919/>

⁵² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7122919/>

⁵³ <https://www.ijph.in/article.asp?issn=0019-557X%3Byear%3D2018%3Bvolume%3D62%3Bissue%3D1%3Bpage%3D1%3Bpage%3D3%3Baulast%3DZodpey#:~:text=The%20overall%20life%20expectancy%20was,to%201000%20in%20the%201950s.>

⁵⁴ <https://www.financialexpress.com/healthcare/news-healthcare/india-at-75-important-healthcare-achievement-of-the-country-since-gaining-independence/2621945/>

⁵⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7122919/>

⁵⁶ <https://www.financialexpress.com/healthcare/news-healthcare/india-at-75-important-healthcare-achievement-of-the-country-since-gaining-independence/2621945/>

decline—of more than 80%—in malaria cases between 2017 and 2019.⁵⁷ Between 2005-2019, 1619 new PHCs, 1989 CHCs, 11385 Subcentres were established in rural areas. At the same time, 761 new Subcentres, 146 CHCs, and 6 PHCs were established across rural areas of Odisha.⁵⁸

When it comes to Jharsuguda, it is at the par with the state averages on health indicators. Despite that, 67.8% of the women between age 15-49 years are still anemic. 2.4% of the children between 12-23 months are still not fully immunized. 16.9% of the children are wasted and 27.1 % of the children are stunted in Jharsuguda. The scenarios depict further intervention in the domain of

Health Indicators of Odisha and Jharsuguda

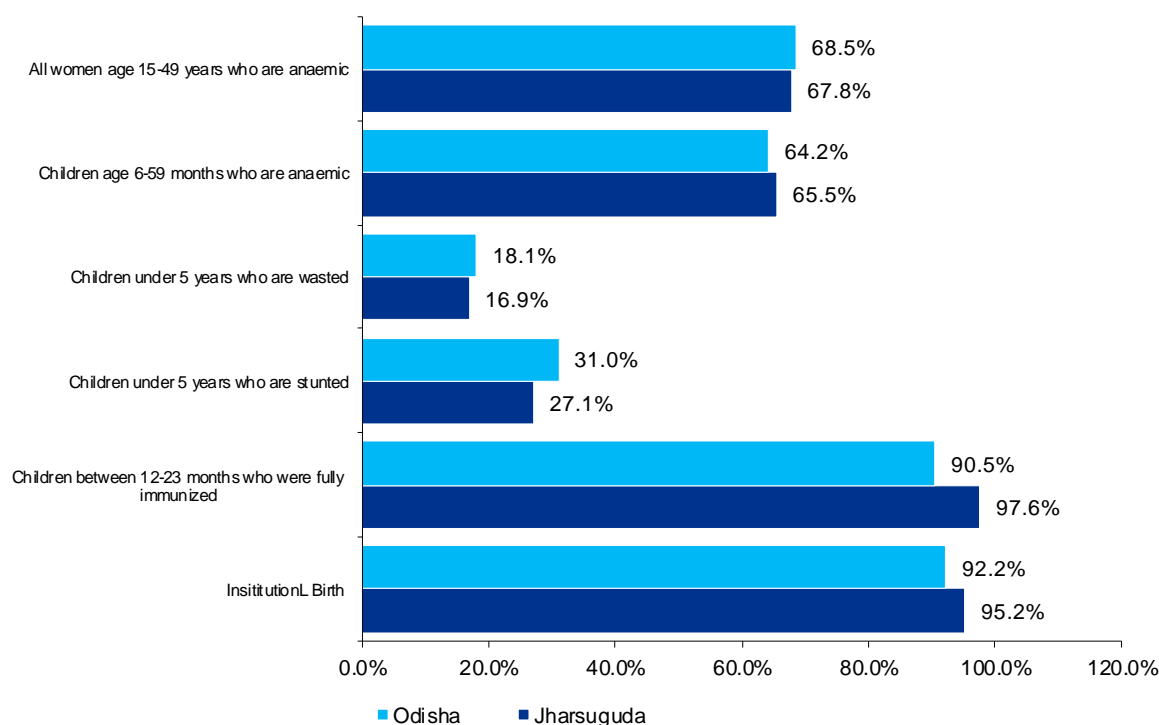


Figure 11: Health Indicator of Odisha and Jharsuguda

public health care in the district.

Access to Health Institutions and Medical Facilities

⁵⁷ <https://www.tandfonline.com/doi/full/10.1080/23288604.2022.2132366>

⁵⁸ https://main.mohfw.gov.in/sites/default/files/Final%20RHS%202018-19_0.pdf

75.1% of all the hospitals in rural areas of Odisha are government/public hospitals. As Per the NSSO 75Th Report, Key Indicators of Social Indicators in India: Health, only 55.2% of the ailing persons received care in government/public hospitals in Odisha.⁵⁹

When it comes to public health institutions, Jharsuguda has 19 PHCs and 6 CHCs. As per the Indian Public Health Standards (IPHS) norms, a PHC shall cover an average population of 20000-30000 and CHC shall cover an average population of 80000-120000⁶⁰. PHCs and CHCs in Jharsuguda (with a population of 579505)⁶¹ have the coverage as per the IPHS norms and hence are functional as per the norms of IPHS.

Odisha has 1 doctor per 1864 people. When it comes to Jharsuguda, the district has a doctor population ration of 1:8915 which is much lower than the WHO standards of 1:1000. There is a lack of 36% doctors at PHC ,84% of doctors in CHC and 51% of doctors in District Hospital in Odisha. Despite of having the unburdened public health institutions, lack of doctors can impact the access to public health care access severely. When it comes to the infrastructure, only 41% of the Subcentres in the Odisha have access to electricity. Only 44.6% of the Subcentres and 65% of the PHCs have separate toilets for male and female.⁶²

Access to Health Institutions

Access to health care institutions and facilities impacts every aspect of a human being. Access to health care institutions and facilities leads to better health outcomes of a community, yet rural

Accessibility to Health Insitituions and MHU

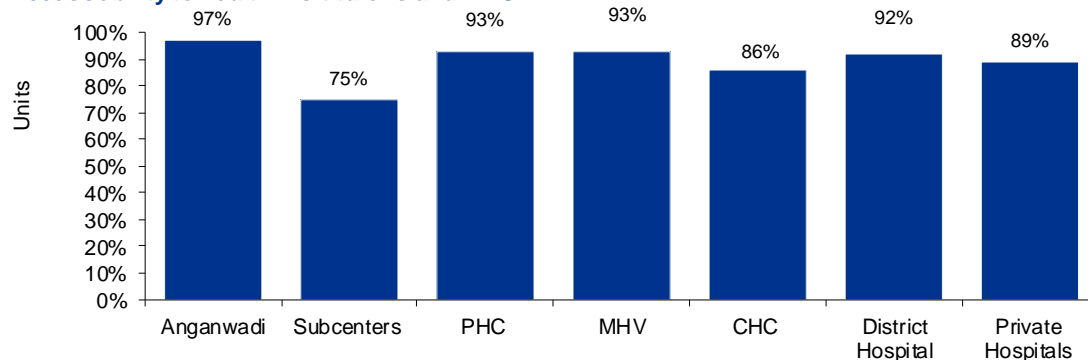


Figure 12: Access to Health Institutions

⁵⁹ <https://mospi.gov.in/web/nss>

⁶⁰ https://main.mohfw.gov.in/sites/default/files/Final%20RHS%202018-19_0.pdf

⁶¹ <https://www.census2011.co.in/census/district/395-jharsuguda.html>

⁶² https://main.mohfw.gov.in/sites/default/files/Final%20RHS%202018-19_0.pdf

communities face various challenges in accessing the facilities. The following section will analyze the access to health care services in Jharsuguda.

As per the primary data, the access to healthcare institution was found out high amongst the respondent households. 97% of the respondents reported to have access to Anganwadi centres, while 75% of the respondents reported to have access to Sub-Centres in Jharsuguda. 93% of respondents reported to have access to Mobile Health Vans. 93% of the respondents reported to have access to PHC while 86% of the respondent reported to have access to CHCs. 92% of the respondents reported to have access to District Hospitals while 89% of the respondents reported to have access to Private Hospitals.

As per the previous year baseline in 2019, 60% of the households would travel more than 5KMs for health care Services. 16% of the Households would travel 1-3Kms to avail health care services and 19% of them would travel 3-5 Kms to avail health care services. 55% of the respondent household reported to have access to district hospital for their health care needs.

The primary data shows that the rural public health institutions were accessible to majority of the respondent households.

Access to Medical Facilities

Access to health care services is important for maintaining health, preventing disease, reducing disability and premature death amongst children, and achieving health equity. When it comes to access to health care services, there lies a disparity between urban and rural areas.⁶³ Rural population often relies on the public health infrastructure on access to medical health facilities, while urban population have an option to choose between private health institutions. Public health infrastructure in rural areas lack health care facilities and suffers from shortage of staff leading to inaccessibility of the health care facilities.⁶⁴

As discussed previously, Odisha has 1 doctor per 1864 people. When it comes to Jharsuguda, the district has a doctor population ration of 1:8915⁶⁵ which is much lower than the WHO standards of 1:1000⁶⁶. In terms of hospital beds, Jharsuguda has 3 beds per 4139, which is again

⁶³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6522336/>

⁶⁴ <https://www.thehindubusinessline.com/data-stories/deep-dive/rural-india-is-struggling-with-shortage-of-doctors-paramedical-staff/article65623110.ece>

⁶⁵ [http://www.desorissa.nic.in/pdf/dshb-jharsuguda-2020\(merged\).pdf](http://www.desorissa.nic.in/pdf/dshb-jharsuguda-2020(merged).pdf)

⁶⁶ <https://scroll.in/article/1029766/how-true-is-the-health-ministers-claim-that-indias-doctor-population-ratio-exceeds-who->

much lower than the WHO norms of 3 beds per 1000⁶⁷. These scenarios hamper the accessibility of the inhabitants of the district to access health care facilities. Moreover, the public health institutions in rural Odisha are plagued with lack of the doctors.

Hence it becomes necessary to analyze the gaps in accessing the health care facilities in Jharsuguda. This will help in understanding the health care needs of the community.

[guidelines#:~:text=Assuming%2080%25%20availability%20of%20registered,standard%20of%201%3A1000.%E2%80%9D](#)

⁶⁷ <https://health.economictimes.indiatimes.com/news/industry/the-new-healthcare-policy-mandates-a-minimum-of-2-beds-per-1000-sumeet-aggarwal/62992210#:~:text=According%20to%20WHO%20standards%2C%20a,beds%20per%201000%20is%20required.>

Access to Medical Facilities

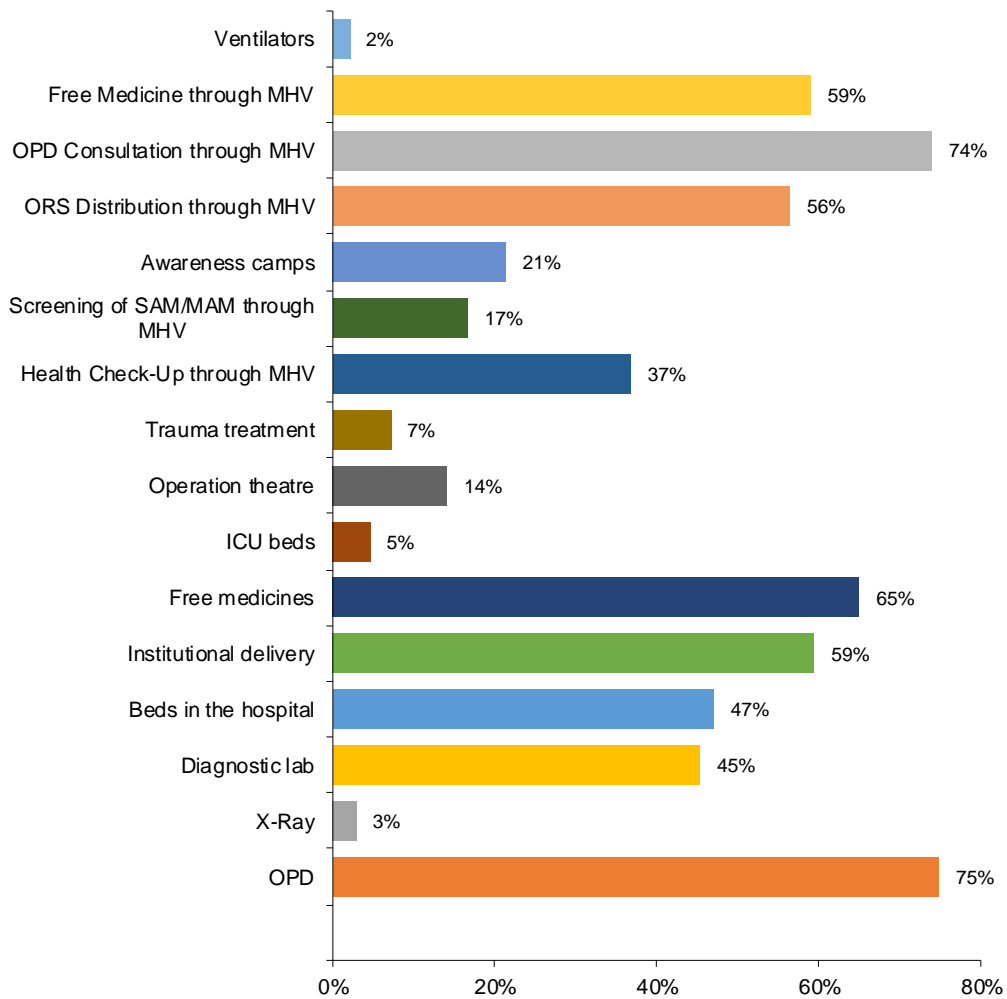


Figure 13: Access to Medical Facilities

As per the data received, 75% of the respondents stated to have access to OPD, while 74% of the respondents reported to have access to OPD service through MHU in their nearby vicinity, while 45% of the respondents reported to have access to diagnostic labs. 65% of the respondents reported to have access to free medicine facilities, while 59% of the respondents reported to have access to free medicines through MHUs. Only 5% of the respondents stated to have access to ICU beds in their vicinity. When it comes to institutional deliveries only, 59% of the respondents have the accessibility to institutional delivery in their nearby vicinity

Despite of having access to public health institutions amongst the respondent households, the access to health services remains low. Based upon the secondary data, it can be inferred that due to low doctor population ratio in the district, the access to health care facilities remain s low.

Institutional Deliveries

Institutional deliveries as the method adopted for birth has improves drastically across states. In the last few years, the government has taken several initiatives such as Janani Suraksha Yojna where a mother gets a cash assistance of INR 1400 from the government for the institutional delivery.⁶⁸ The scheme also provides an incentivization of INR 600 for ASHA in facilitating institutional delivery.⁶⁹Moreover in Odisha, the government has provisioned referral ambulances and Janani Express, an ambulance service for providing 24*7 referral services to the rural patients, especially pregnant women.⁷⁰ Better connectivity of the villages through proper road infrastructure has also improved the institutional deliveries in rural communities.

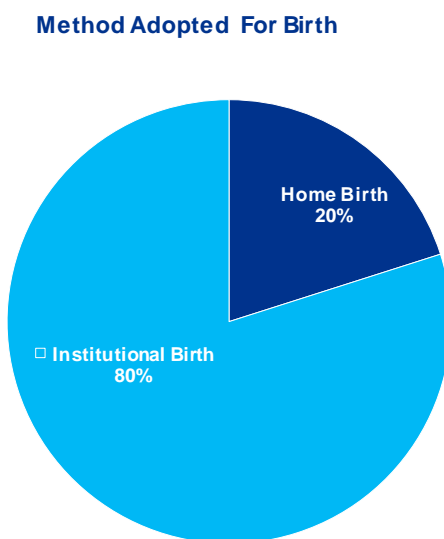


Figure 14: Mode Adopted for The Birth

Despite of 59% of the respondents reporting on having the access to institutional delivery, 80% of the respondent household chose institution delivery as method adopted for birth of their child.

⁶⁸ <https://nhm.gov.in/index1.php?lang=1&level=3&lid=309&sublinkid=841>

⁶⁹ <https://nhm.gov.in/index1.php?lang=1&level=3&lid=309&sublinkid=841>

⁷⁰ <http://www.nrhmorissa.gov.in/frm108services.aspx>

The figure remains still very low when compared to the district average of 95.2% for institutional deliveries. It has also dropped down to the previous baseline figures here 97.6% of the households opted for institutional deliveries, however, only 83.3% of the births were live birth.

Frequency of Accessing Health Care Services

As Per the NSSO 75Th Report, Key Indicators of Social Indicators in India: Health, 8.7% of the person reported to have ailing in a 15-day period in rural Odisha.⁷¹

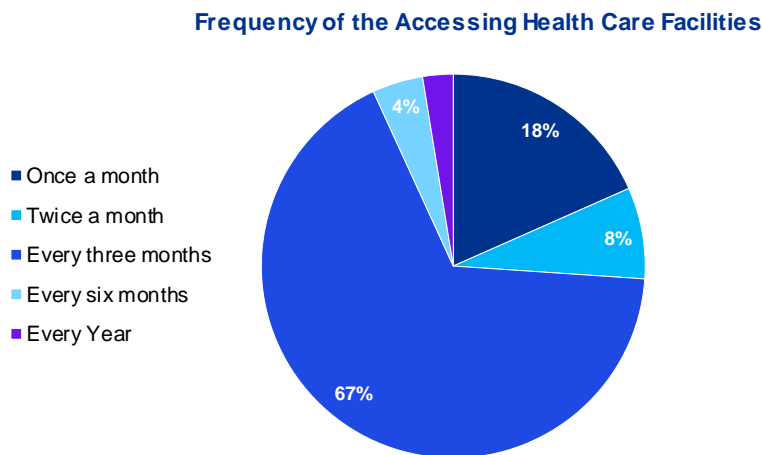


Figure 15: Frequency of the Accessing Health Care Facilities

Frequency of accessing health care facilities can be the determinant of the health and health seeking behavior of the community. Frequency of accessing health care can be attributed on determining the overall health of the community and whether they have the access to required health care facilities.

As per the primary data, only 3% of the respondent reported to access healthcare once in a month.67% of the respondent reported to access healthcare facilities every three months.18% of the respondents reported to access medical health facilities every year.

Out of Pocket Health Expenditure

⁷¹ <https://mospi.gov.in/web/nss>

Health expenditure often results into increasing financial burden on rural communities. Increase in medical expenditures can push households towards the poverty trap. High expenditure on healthcare leads to create ‘medical poverty trap’ especially in communities living only on sustenance level.

Per-Capita out of pocket health expenditure in India stood at INR 2097 in 2021. There has been a drop of 10% from 2017 in out-of-pocket expenditure.⁷²

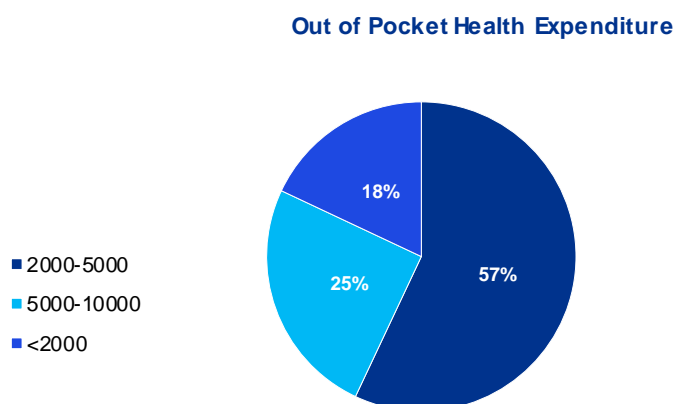


Figure 16: Out-of-Pocket Expenditure

As per the National Health Account Estimates of India for 2018-19, the per capita out-of-pocket expenditure (OOPE) - direct payment made by households to healthcare providers at the point of receiving service - has significantly declined from Rs 2,693 in 2015-16 to Rs 1,750 in 2018-19.⁷³ However, the out-of-pocket health expenditure remains 53.2% of the total health expenditure in the state which is much higher than the global average of 18.1 % as of 2019, according to the World Bank.⁷⁴ Out-of-pocket health spending can force people to choose between spending on health and spending on other necessities . WHO has stated that out-of-pocket expenditure on health is a key driver for economic disadvantage compared to other factors, pushing people into

⁷² <https://www.thehindu.com/news/national/per-capita-out-of-pocket-health-expenditure-declines-from-2336-to-2097-says-report/article37747876.ece>

⁷³ <https://www.newindianexpress.com/states/odisha/2022/sep/13/odishas-out-of-pocket-spend-on-health-drops-to-53-per-cent-says-nha-report-2497715.html#:~:text=Home%20States%20Odisha-,Odisha%27s%20out%2Dof%2Dpocket%20spend%20on%20health%20drops%20to%2053,71.5%20pc%20to%2053.2%20pc.>

⁷⁴ <https://www.downtoearth.org.in/news/health/india-s-persistently-high-out-of-pocket-health-expenditure-continues-to-push-people-into-poverty-85070#:~:text=High%20OOPE%20on%20health%20is,report%20from%20March%202022%20estimated.>

poverty. Respondents provided annual expenditures on healthcare in the ranges of <2000 INR, 2000 INR - 5000 INR and 5000 INR - 10000 INR. It must be noted that the majority of the respondents across the field locations fall under the category of less than 2000 annual expenditure on healthcare.

This section analyses the out-of-pocket health expenditure amongst the respondents in Jharsuguda district.

As per the data received from the ground, 18% of the respondent household reported to spend less than INR 2000 on health annually. 57% of the respondent reported to spend between INR 2000-5000 annually in Jharsuguda. 25% of the respondents reported to spend between INR 5000- 10000 annually.

As per the previous baseline, 41.5% spent up to INR 2000 on healthcare, 17% spent between INR 2000- INR 5000, 12.5% spent between INR 5000-INR 10000 and 29% spent more than INR 10000 on health care.

It can be observed that there has been an increase in the out-of-pocket health expenditure amongst the respondent household from the previous year baseline.

Alternatives for Institutional Healthcare

As Per the NSSO 75Th Report , Key Indicators of Social Indicators in India: Health, 96.2 % of the persons in rural Odisha reported to avail allopathic treatment and only 3.7% reported to have AYUSH treatment.⁷⁵

Despite of having improved access and availability to health care facilities, rural HHs still depend on traditional healers and traditional medicines/home remedies owing to lack of knowledge. Access to such methods may have placebo effect, but it can also exacerbate the health condition of the patient. Hence, it is important to establish a baseline amongst respondents, to help VALJ in identifying the key alternative a respondent use as the alternative of accessing and availing health facilities. It will also depict the behavioral aspects of the respondents towards health institutions.

⁷⁵ <https://nss.gov.in/>

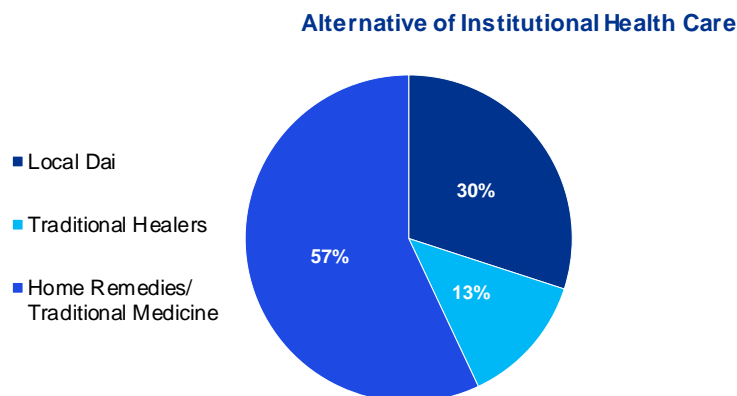


Figure 17: Alternative of Health Care Institutions

57% of the respondent households stated to use traditional medicine/home remedies as an alternative of institutional health care. 13% of the respondents reported to rely upon traditional healers as an alternative for institutional health care, while 30% of the respondent households were relying on the local 'Dai'.

Nutrition Status Amongst Children

As per the National Family Health Survey-5, there are 18% wasted children in Odisha, while 31% children in Odisha are stunted and 64% of them are anemic. Meanwhile in Jharsuguda, there were 17% wasted children, 27% stunted children and 66% were anemic children.⁷⁶

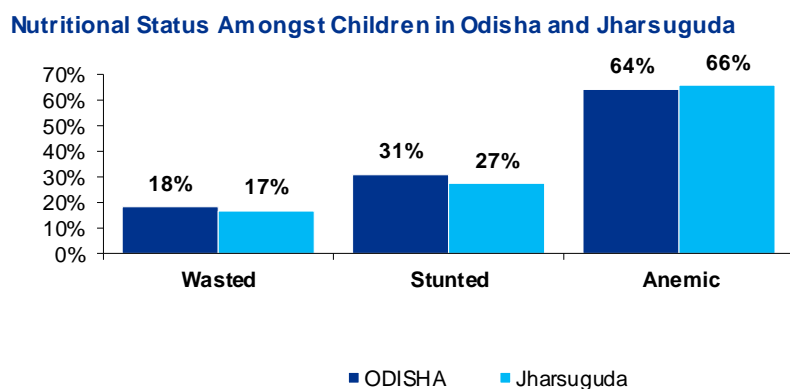


Figure 18: National Status Amongst Children in Odisha

⁷⁶ http://rchiips.org/nfhs/factsheet_NFHS-5.shtml#

As per the data received from the ground, 93% of the children from the respondent households were well nourished. Only 6% of the children from the respondent households were at the risk of acute malnourishment and only 1% Severely or Moderately Acute Malnourished.

Nutritional Status Amongst Children from Respondent Household

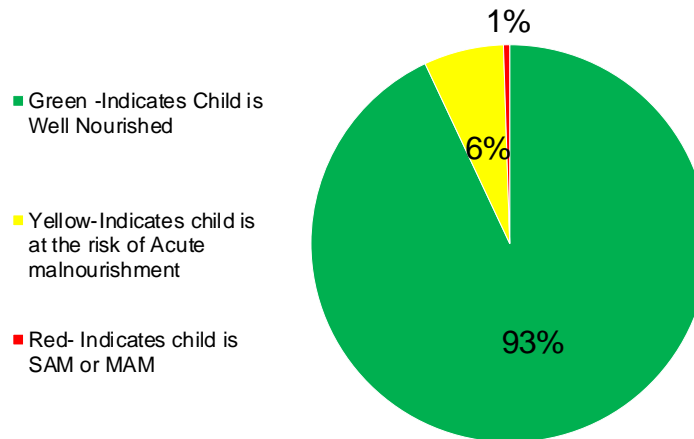


Figure 19: Nutritional Status Amongst Children from Respondent Household

It can be inferred from the data that the nutritional level amongst the children of the respondent households is better when compared to the district and state averages.

Anganwadi Services

Established under the central government’s Integrated Child Development Services scheme, rural and urban Anganwadi centers have been at the heart of India’s efforts to tackle child malnutrition for the past 45 years. Apart from providing nutritional needs to mother and child and pre-school education to children, one of the key roles of an Anganwadi is to provide immunization to children.⁷⁷

Pre-primary education remains low in Odisha, where 10% of the children of 5-year age attended pre-primary education. When it comes to Jharsuguda, only 8.1% of the children of 5-year age attended pre-primary education.⁷⁸ 65% of the children between age 6-59 months are anaemic in

⁷⁷ <https://scroll.in/article/965808/with-anganwadis-locked-down-across-india-children-are-missing-out-on-vaccines-and-nutrition>

⁷⁸ http://rchiips.org/nfhs/factsheet_NFHS-5.shtml

Jharsuguda district. In 2016, 51.5% of the pregnant women between 15-49 years of age were anaemic in the district.⁷⁹

Anganwadi centres, as a part of Integrated Child Development Services (ICDS) play a crucial role in supporting low-income families by ensuring early childhood care. Under the umbrella of Integrated Child Development Services (ICDS) programme, Anganwadi centers caters to the nutrition, health and pre-education needs of children till six years of age as well as the health and nutrition of women and adolescent girls is one such scheme. Moreover, being the part of the India health care system, Anganwadi centers act as an entry point to health care by providing basic health care facilities to children in the age group of 0-6, to pregnant/lactating women and adolescent girl. Role of Anganwadi centre is palpable in meeting and ensuring the nutritional, health, and educational need of children from 0-6 age group. 66.5% of the children in rural Odisha received immunization through Anganwadi centres.

Facilities in Anganwadi Centers

To impart smooth health services to mother and child, proper infrastructure at the Anganwadi centers becomes palpable. Presence of proper infrastructure at Anganwadi Centers ensure high enrolment rate of children, pregnant and lactating mothers. Secondary studies suggest that the Anganwadi Centres with quality infrastructure have better influence on the overall development of pre-school children than the Anganwadi Centres that lack proper infrastructure.⁸⁰ Moreover, Health Indices like – Neo-natal mortality rate, child mortality rate, stunted growth, underweight, etc. have a direct correlation to the various services extended by Anganwadis under the ICDS scheme.

⁷⁹ When it comes to Jharsuguda, only 8.1% of the children of 5-year age attended pre-primary education. 65% of the children between age 6-59 months are anemic in Jharsuguda district.

⁸⁰https://www.researchgate.net/publication/265490695_Influence_of_Infrastructural_Facilities_in_Anganwadis_on_Promoting_the_Allround_Development_of_Preschool_Children

Facilities in Anganwadi

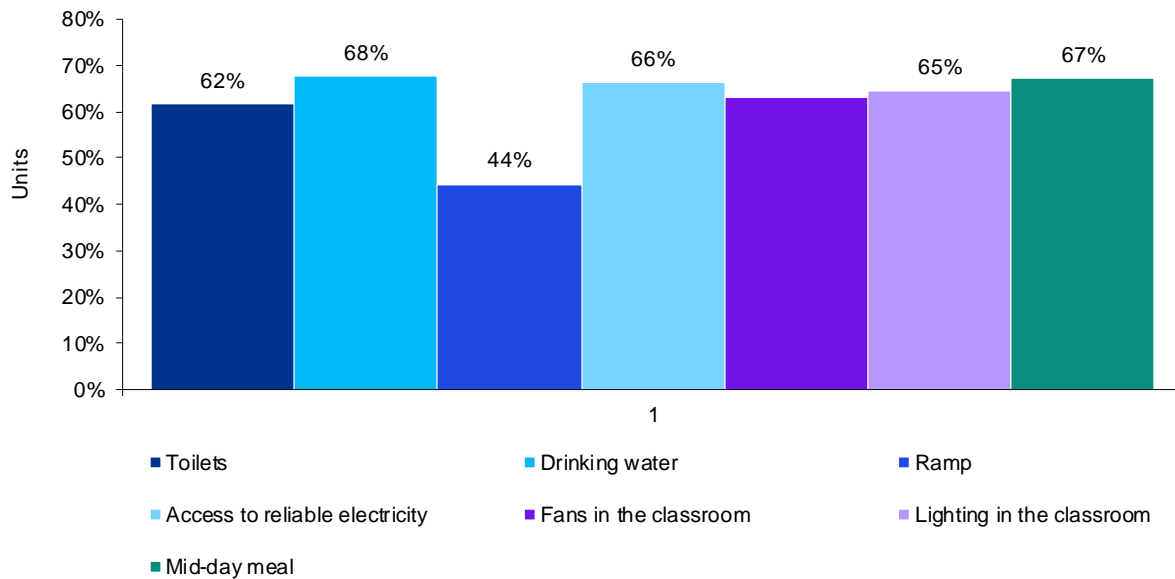


Figure 20:Facilities in Anganwadi

As per the primary data, 62% of the respondent stated to have availability of the toilets in Anganwadi centres, while 68% of the respondents reported to have availability of the drinking water. Only, 67% of the respondents reported to have the availability of Mid-Day meals in Anganwadi Centres. When it comes to electricity infrastructure in Anganwadi Centres, 66% of the respondents reported to have access to reliable electricity at Anganwadi Centres. It can be observed from the primary data that on an average 32% of the respondent households did not have access to basic facilities in the Anganwadi centres.

Access to Services Through Anganwadi Centers

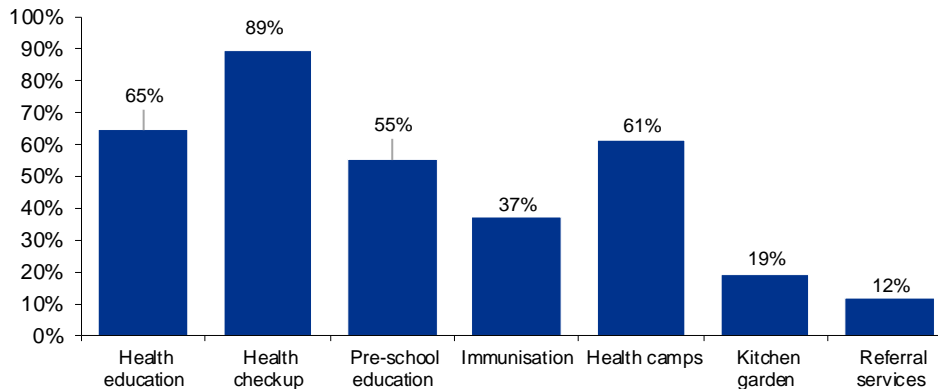


Figure 21: Access to Services Through Anganwadi Services

As per the data received from the ground, 86% of the respondents reported to have access to health check-ups at Anganwadi Centers, while only 37% of the respondents reported to have access to immunization services for children at the Centers. Only 55% of the respondents reported to have access to pre-school education for children at Anganwadi Centres.

Apart from health check-ups the access to other services remains low. The most important aspects of the Anganwadi services- pre-school education and immunization were not accessible to 45% and 63% of the respondent respectively. The scenarios clearly depict the service delivery **gap in the Anganwadi centres**.

Analysis and Way Forward

- The respondent households have better access to health institutions.
- The access to medical health facilities were found out low amongst the respondent households. Apart from OPD services(where 74% of the respondent households reported to have OPD consultation through MHU), access to all other medical facilities were low.
- Institutional Deliveries has decreased amongst respondent households as compared to the previous year baseline. It remains low in comparison to the district average.
- The out-of-pocket expenditure on health has increased amongst the respondent households from the previous year baseline and it has been higher than the state average.
- The nutritional status amongst children were found satisfactory amongst the respondent households.

- When it comes to facilities in Anganwadi centers, on an average 38% of the respondent did not have the availability and accessibility of the infrastructure in the Anganwadi centers.
- The access to Anganwadi services amongst the respondent households were low. Only 37% reported to have access to immunization in Anganwadi Centers. It may be due to the fact that the respondent households were seeking the immunization services at PHC, CHC and private hospitals.

Challenges

Accessibility and Availability of the public health institutions was found to be satisfactory amongst the respondent households. Moreover, coverage of the public institutions was found as per the government norms and hence it can be attributed that the public health institutions are not overburdened.

When, it comes to the accessibility and availability of the services, 25% of the household did not have the accessibility to OPD consultation. It may be attributed to the low doctor population ratio in Jharsuguda district. When it comes to intensive medical care, the accessibility remains extremely low in Jharsuguda district. Still, for 41% of the respondent household, institutional delivery facility was not accessible in their nearby vicinity. 67% of the respondent households were accessing healthcare facilities in every three months. It establishes the fact that need of the community for the health care services remains very high. The annual out-of-pocket expenditure on the health care services was found out higher than the national and state average.

57% of the respondent household rely on traditional medicines as the alternative for healthcare. This depicts the lack of sensitization and behavioral change amongst respondent households.

When it comes to the Anganwadi Centre, which act as the entry point of healthcare services for mother and child in rural scenarios, the lack of basic amenities was found in the Anganwadi centers in the villages of the respondent households. 33% of the children from the respondent households were devoid of mid-day meals in Anganwadi centers. Lack of infrastructural facilities and mid-day meals can have drastic implication on the mother and child health, especially on the poor families, that remain devoid of resources to fulfill the nutritional need of women and children. Service delivery gap lies in the Anganwadi Centers and majority of the respondent households reported to lack the access to crucial services like immunization and pre-school education for their children.

Way Forward

Strengthening of Public Health Infrastructure

Public health institutions in and around the periphery of the community lack access to medical facilities. As per the secondary data, the infrastructural gaps have been persistent in public health institutions. The BU needs to fill the infrastructural gaps by providing infrastructural support and installing required health equipment and paraphernalia. BU can also facilitate the provision of WASH facilities in public health institutions. As there has been a lack of labour rooms and OTs in public health institutions, VALJ may work on renovating/ constructing the required infrastructure. This, in turn, will strengthen the accessibility of health facilities in the community and will reduce the reliance on private hospitals thus reducing the out-of-pocket health expenditure.

Government Alignment

National Health Mission provides financial support to states to strengthen the public health system including upgradation of existing or construction of new infrastructure. Under NHM high focus states can spend up to 33% and other States up to 25% of their NHM funds on infrastructure.

Source: <https://nhm.gov.in/>

Liaison with District Health Department and PRI institutions

The BU can liaison with the District Health Department to leverage the funds for infrastructure development in Public Health Institutions. It can also leverage its relationship with the district health department for the deployment of the medical staff at PHCs and CHCs. For the operation and maintenance of the infrastructure, the BU can train the staff by creating operation and maintenance SOPs for the created infrastructure. It can strengthen the Village Health and Sanitation Committee to keep a check on the created infrastructure.

Strengthening the Anganwadi Services

Infrastructure deployment and capacity building for Anganwadi workers are the two crucial aspects of strengthening the service delivery of Anganwadi services. While the BU has already worked on strengthening the Infrastructure of the Anganwadi Centre through the implementation of the group-level Nand Ghar program, where the required infrastructure is being provided to the Anganwadi centres.

The BU can train the Anganwadi workers (AWWs) on the use of digital technologies which are provisioned under the Poshan Abhiyan.⁸¹With the help of the District Health Department, the BU can train the AAWs for the real-time monitoring of Children, Adolescents, Pregnant and Lactating mother. The BU can work towards filling the service delivery gap in liaison with the ICDS District Program Officer by building the capacity of SHGs to provide quality and nutritious food at Anganwadi Centers. It can work towards strengthening the PDS with government liaison to provide food security to the targeted households.

It can mobilize Village Health and Sanitation committees at the Gram Panchayat Level to mobilize the community to send their children and pregnant and lactating mother to the Anganwadi Centres. The committee can also act as a pressure point on the District Health Department for strengthening the services at Anganwadi Centers.

Support the Public Health Institution with Technology Enablement and Creating a Tandem Model

As established earlier, the main deterrent for the access to preventive and curative health care in the rural Odisha and amongst respondent household is the lack of medical facilities and lack of doctors in the public health institutions. To fulfil the health care needs of the community, there is need to fulfil the structural gap of the unavailability of doctors. This can be done by creating a hub and spoke model. A patient side tele medicine unit, enabled by clean energy, can be place at the PHC and CHC level and that can be connected to a hub-a public or private hospital with specialized doctors.

The model can work in tandem with the Mobile Health Units, where the doctors can identify the cases who require specialized attention. They can be referred to the telemedicine centers for the specialized consultation from the doctors at the hub.

⁸¹ <http://poshanabhiyaan.gov.in/#/>

Government Alignment: eSanjeevani is the first-ever online OPD (outpatient) consultation service offered by the government of India to citizens. According to the government, this is the first time the government of a country is offering a service of this kind to its citizens. A few states like Jharkhand, Kerala, Punjab and Tamil Nadu, etc. have started offering specialized doctor consultation services also. It is also present on mobile phones.

However, a [study](#) conducted by Columbia University showed that there are access issues faced by remote populations due to unavailability of internet or devices to access internet. Furthermore, there remains a shortage of doctors and specialists, leading to long waiting time.

In order to ensure that telemedicine remains sustainable, it is essential to align with existing government services. However, given the challenges that persist, VALJ may work alongside the Government in order to provide sufficient equipment as well as training to doctors at central locations to enhance availability of first-level of care.

2.3. Impact Assessment

2.3.1. Mobile Health Units

Carrying forward the philosophy of Vedanta's CSR of improving quality of life of communities in the operational areas, VALJ initiated Mobile Health Unit program to provide preventive and curative health services to the communities living in far-flung villages of Jharsuguda. Till now MHU has served around 80000 people in 27 villages.

VALJ has been working in complete synergy and cognizance of the myriad stakeholders and going shoulder to shoulder to improve the quality of healthcare amongst the beneficiary households in the district. The CSR team has been implementing the program in the district and providing the health care services in the district which has the average population density almost half of India.⁸² They have been able to build the social license to operate not only in the core villages but also in far-flung periphery and outer villages with tethered roads and limited accessibility. It was observed during the data collection exercise that the CSR has built synergies with myriad government/non-government actors, community leaders and myriad stakeholders in PRI institutions working towards ensuring education to the children of communities. At the district level, VALJ has been working in liaison with the department of education for ensuring sustainability and efficient implementation of the Mobile Health Unit program.

Due to the unwavering efforts by the CSR team, the health indicators have seen a tremendous improvement.

The following section will analyse the impact created by VALJ's MHU program by using OECD framework.

Evaluation Criteria 1: Relevance

As discussed in previous section, Jharsuguda has 19 PHCs and 6 CHCs. As per the Indian Public Health Standards (IPHS) norms, a PHC shall cover an average population of 20000-30000 and

Indicator	Scoring
Relevance	Extremely Satisfactory
Coherence	Extremely Satisfactory
Efficiency	Satisfactory
Effectiveness	Extremely Satisfactory
Sustainability	Satisfactory

⁸² <https://www.census2011.co.in/census/district/395-jharsuguda.html>

CHC shall cover an average population of 80000-120000⁸³. PHCs and CHCs in Jharsuguda (with a population of 579505)⁸⁴ have the coverage as per the IPHS norms and hence are not overburdened.

Jharsuguda, has a doctor population ration of 1:8915 which is much lower than the WHO standards of 1:1000. There is a lack of 36% doctors at PHC ,84% of doctors in CHC and 51% of doctors in District Hospital in Odisha. Despite of having the unburdened public health institutions, lack of doctors can impact the access to public health care access severely. As per the data received from the ground, despite of having the high access to the public health institutions, the access to medical health services remains low amongst the respondent household. This depicts the lack of accessibility and availability of health care services in their nearby vicinity.

Through the MHU program VALJ has been fulfilling the structural public health care gap by bringing MHU services to the doorsteps of the community. The program is targeting the people from marginalized sections from far-flung villages where accessibility and affordability of the Health Care Services is still a challenge. The program specifically aims in fulling the need of the quality healthcare of the households from marginalized sections and living in far-flung geographies.

It establishes the relevance of the Vedanta's MHU programs and based upon the defined paradigms it was found to be extremely satisfactory.

Evaluation Criteria 2: Coherence

A program's relevance is determined by how well it aligns with the goals and policies of the national and state governments as well as Sustainable Development Goas. It can also be defined whether the project is pertinent to the beneficiaries' requirements. The project's relevance is understood in terms of both linkages to existent government programmers and community needs. The project aligns with the goals and policies of the national and state governments as well as SDG Goals.


The project is well aligned to government policies and schemes. National Health Mission, now encompassing both National Rural Health Mission and National Urban Health Mission has provision to Mobile Health Units, to meet the health care needs of the communities living in far-

⁸³ https://main.mohfw.gov.in/sites/default/files/Final%20RHS%202018-19_0.pdf

⁸⁴ <https://www.census2011.co.in/census/district/395-jharsuguda.html>

flung areas and rugged terrains. The government envisages to meet the technical and services quality standards of Public Health Centers through these MHU.⁸⁵ Moreover, in 2015-15 the government of India under National Health Mission initiated NHM Free Drugs Service Initiative to move towards “Health for All”.⁸⁶ In 2015 Health and Welfare Department of Government of Odisha, launched “NIRAMAYA” scheme to provide free medicines to the patients who are registered in government hospitals.

The project is well aligned to SDG 3, that envisions to ensure healthy lives and promote well-being for all at all ages.⁸⁷

SDG	SDGs target	How is it aligned?
	<p>- Target 4.1 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.⁸⁸</p>	<p>- The project provision to provide quality health services to the doorsteps of the community free of cost.</p>

Evaluation Criteria 3: Effectiveness

The program's effectiveness has been measured by examining how successfully the project's targets were defined as well as the achievement of the targets. The program has well defined target and project outputs. The program has successfully achieved the target defined. The MHU has been providing free medical services in 16 villages. As per the previous impact assessment report, the MHU benefitted the lower income groups in the community the most, where 52.7%

⁸⁵ <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=1221&lid=188>

⁸⁶ <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=1218&lid=192>

⁸⁷ <https://unric.org/en/sdg-3/>

⁸⁸ <https://unric.org/en/sdg-3/>

households received medium level of benefits while 35% households availed high level of benefits from the program. It establishes the effectiveness of the program, and it was found extremely satisfactory.

Evaluation Criteria 4: Efficiency

The efficiency of the intervention was considered vis-à-vis the documents provided on the project including the agreements with the implementing partners, whether the intervention had adhered to its timelines, whether utilization was undertaken through the budget and whether the intervention aligned with the CSR policy of VALJ.

The efficiency of the project was found out to be satisfactory. The project is well aligned with Vedanta's CSR policy of continuously working towards improving quality of life of the communities in its operational areas. The project has MoUs with clear definition of starting and end dates, timelines, and budget provisions. However, there is an underspent of 8% of project budget.

Sustainability

The program has been ensuring curative as well as preventive needs of the community. MHUs are significant not only in improving the accessibility of healthcare services to the doorsteps of the community but also ensuring the behavioral change amongst the community through health and awareness camps. However, due to financial constraints owing to the high operational cost the model remains unsustainable.

Impact

As per the last baseline conducted by VALJ, 60% of the respondent would travel more than 5Km to access health care facilities and 19% of them would travel 3-5Km to access health care facilities. The utilization of medical health was also low in the plant area. Around 60% of the households reported to spend more than INR 5000 per episode of the illness. The MHU project has been pivotal in addressing the healthcare gaps by bringing health care services to the doorsteps of the beneficiaries.

71.1% of the respondent reported to have improved timely accessibility and availability of the quality health care services in their vicinity due to Mobile Health Units. As the MHU is providing free medicine and consultation to the beneficiaries, it has substantially helped in reducing out of -pocket health expenditure amongst the beneficiary households. 23% of the respondent households reported to have a decrease in their out of -pocket health expenditure. On an average

there is a reduction of INR 2352 annually. By providing quality health care services at the doorsteps of the beneficiaries, MHU has been reducing the number of days of sickness amongst beneficiaries. Decrease in the number of sickness day can be attributed to the improvement in the days of economic activities. 43% of the respondent stated to have improved in number of days of economic activities due to reduction in number of days due to sickness.

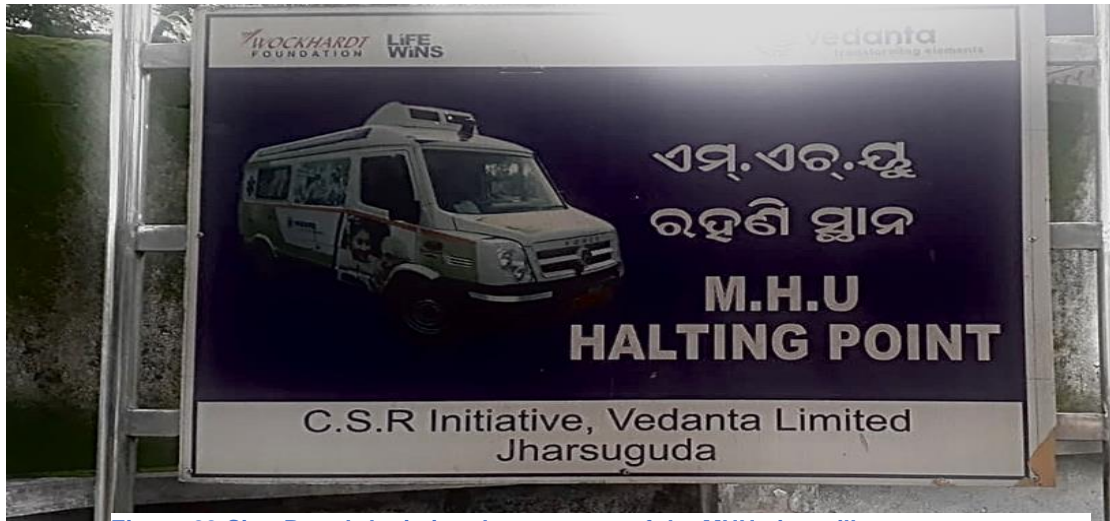


Figure 22: Sign Board depicting the stoppage of the MHUs in a village

COVID-19

During the COVID-19 pandemic, VALJ carried out significant interventions to support the communities cope better during a time of uncertainty, large scale migration and job loss as well as a significantly over-burdened healthcare system. Myriad needs that arose during the pandemic for businesses as well as individuals to support the government systems with additional inputs. During the COVID-19 Pandemic, VALJ supported the district administration with 130 hospital beds, including 30 ICU beds. It provided 30 ventilators, 20 defibrillators, electrical infrastructure support and oxygen cylinders. Moreover, VALJ facilitated 16000 COVID-19 vaccines and distributed more than 2 lakhs mask through Subhalaxmi co-operative.

Impact

During the COVID-19 Pandemic, VALJ supported the district administration with 130 hospital beds, including 30 ICU beds. It provided 30 ventilators, 20 defibrillators, electrical infrastructure support and oxygen cylinders. Moreover, VALJ facilitated 16000 COVID-19 vaccines and distributed more than 2 lakhs mask through Subhalaxmi co-operative.

Support Provided During COVID-19 Pandemic

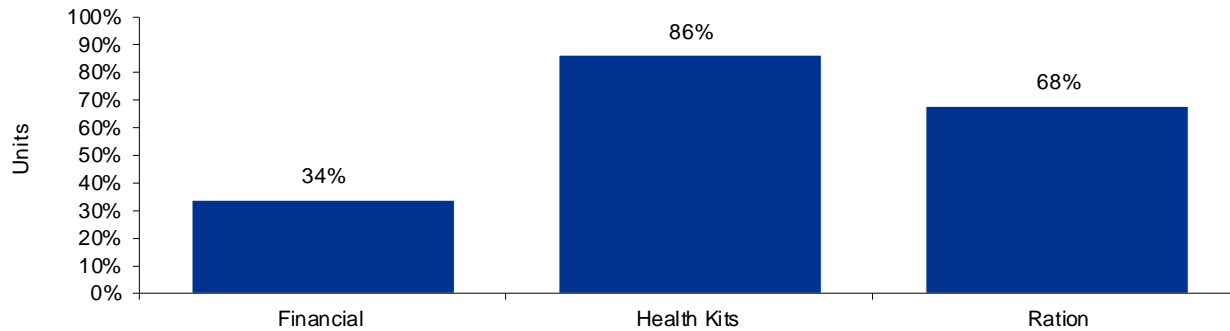


Figure 23: Support Provided by VALJ During COVID-19 Pandemic

During the COVID-19 pandemic, VALJ ensured food security by providing free ration to the beneficiary households. 68% of the respondent households reported to have received rations during the COVID-19 pandemic. 87%

Conclusion

Increased accessibility to health care services:

The project has been providing healthcare services to the doorsteps of the beneficiaries. Despite of having high accessibility and a standard population load on the public health institutions, Jharsuguda district suffers extremely low doctor population ratio. MHUs with a provision of doctor on board are fulfilling the structural healthcare gap. Moreover, it has considerably brought down the out-of-pocket expenditure of the beneficiaries.

Challenges

The challenge with the project lies in its financial and operational sustainability of the MHUs. The project has been dependent on the financial management of the VALJ, without it the project pertains to become unsustainable.

Recommendations and Way-Forward

As the program is relevant to the needs of the educational needs, the continuation of the program will be fulfilling the needs of the health of the community. To overcome the financial and operational challenges of the project, VALJ may handover the MHUs to the District Health Department. It can train the district health department on the efficient management of the MHUs. VALJ can organize health camps with specialized doctors in the intervention villages.

Way Forward

- 1. Digital Infrastructure to Expand Scale of Quality Healthcare Access and Creating a Tandem Model:** Accessing MHU facilities is often a challenge for people residing in the interiors. The concept of telemedicine has grown in the last few years, especially due to the physical-distancing measures that were put into place due to the pandemic. Fast exchange of patient information, timely advice, and last-mile connectivity with patients are some of the reasons for its growing demand. Telemedicine can tackle inequity and lack of healthcare access. Where required, teleconsultation can ensure availing telemedicine services on-the-go and enhance healthcare . This can be done by creating a hub and spoke model. A patient side tele medicine unit, enabled by clean energy, can be place at the PHC and CHC level and that can be connected to a hub-a public or private hospital with specialized doctors. The model can work in tandem with the Mobile Health Units, where the doctors can identify the cases who require specialized attention. They can be referred to the telemedicine centres for the specialized consultation from the doctors at the hub.
- 2. Health Behavior Change:** While distribution of medicine remains a key target for MHUs, more work is being carried out by MHU partners to reduce the reliance of the community on unnecessary medicines. For example, Deepak Foundation is taking a more holistic wellness approach and raising awareness on lifestyle changes. Further work would be required to raise awareness among the community in order to reduce the reliance on unnecessary medication which leads to addictions as well as weakening of the immune system.

Government Alignment: eSanjeevani is the first-ever online OPD (outpatient) consultation service offered by the government of India to citizens. According to the government, this is the first time the government of a country is offering a service of this kind to its citizens. A few states like Jharkhand, Kerala, Punjab and Tamil Nadu, etc. have started offering specialised doctor consultation services also. It is also present on mobile phones.

However, a study conducted by Columbia University showed that there are access issues faced by remote populations due to unavailability of internet or devices to access internet. Furthermore, there remains a shortage of doctors and specialists, leading to long waiting time.

To ensure that telemedicine remains sustainable, it is essential to align with existing government services. However, given the challenges that persist, VALJ may work alongside the Government in order to provide sufficient equipment as well as training to doctors at central locations to enhance availability of first level of care.

2.4. Business Drivers for Health Programmes

CSR is a pivotal management concern given that in order to expand their wealth creation role in society, businesses must proactively manage risks and take advantage of opportunities vis-à-vis reputation and engagement with stakeholders. Based on the perception survey, the internal stakeholders of VALJ believe that companies having a focus on key business drivers focused on sustainability have a greater chance of success and further believe that such companies are more attractive to investors.

The CSR did believe that the focus on certain key drivers for business have improved community relations. In fact, the focus on these business drivers has a direct relation to improving relationships with local communities, increasing trust, improving the reputation of VALJ as well as contributing to the national and international social development goals. Therefore, VALJ leadership's perception on such benefits is both inward and outward looking and encompassing a varied group of stakeholders. Specifically, according to the study 100% cent of the VALJ's internal stakeholders considered "supporting social development of the local community" and "providing equal economic opportunities to the local community" are the twin key business drivers for their CSR. Specifically, within the area of social developed, 44 % of the internal stakeholders considered that the introduction of MHUs for door-to-door access of health services is the strongest business driver for health programmes run under CSR.

Business Case for Mobile Health units : Health is a global agenda which demands a large amount of technical as well as financial focus from all governments. In the backdrop of COVID-19, provision of preventive, curative as well as promotive healthcare has become one of the top priorities across the world. Not only is it necessary to ensure that a country has a healthy population for its economy, but a population which has access to adequate, affordable and quality healthcare can invest in its own development and wellbeing. The project Mobile Health Unit, by providing access to healthcare at the doorstep of the beneficiaries, has become a partner in healthcare development in the field locations it operates in. Not only is it one of the goals of VALJ to ensure the overall wellbeing of the communities it works with, the focus on healthcare paves the way to ensure that the population's other basic needs such as livelihood and education do not suffer during to days lost to sickness. A healthy and content community recognizes the value of the business unit in complementing the efforts of the public healthcare system. It further reduces the stress on the government health systems, as a partner to the local stakeholders of the area to meet the goals of ensuring a healthy population. The programme is widely appreciated and is one of the most popular ones run by VALJ and has been ranked no. project run by the business unit.

3. WASH and Community Infrastructure Development

3.1. Executive Summary

VALJ has shown significant concern regarding the WASH needs of the communities by providing infrastructure support around the communities where they carry out their business operations.

The country has been making strides in providing WASH facilities to the people of the country. This is in recognition of the Sustainable Development Goals (Goal 6) and an understanding that the WASH needs of a population is an integral concern for all, whether it be policy makers, corporates, communities, or the individual itself. Access to safe water, sanitation and hygiene is the most basic human need for health and well-being. Yet the gaps persist in WASH in India, where only 71.3% of the households in the rural and about 96.2% in the urban areas had access to latrine.⁸⁹

Key Highlights of the Baseline Assessment:

- 80% of the respondent are still using handpumps as the source of drinking water.
- Only 10% of the households have the source of the drinking water in their homes.
- The availability of the toilets in homes have been improved by 19% amongst the respondent households.
- 36% of the respondent stated to have availability and accessibility of banks.
- There has been an improvement in access to pipe drinking water amongst the respondent households and it has increased by 17.4%

Key Highlights of Impact Assessment

- 52% of the respondent households reported to have improved access to clean drinking water, while 32% of the respondent households reported to have enhanced security amongst girls and women of the community.

⁸⁹ <https://pib.gov.in/>

- 15% of the respondent households reported to have decrease in water borne diseases while, 38% of the respondent reported to have improvement in the sanitation and hygiene of the village.

Strategy and Way Forward

- **Water Infrastructure:** To fill the gap of access to clean drinking water, there is need to establish clean drinking water infrastructure with the access to the community. This can be done through creating SHG based water entrepreneurs
- **Construction of Toilets:** Individual households can be helped to leverage funds under the Swachh Bharat Mission for the construction of Individual Household Latrines.
- **Behavioral Change for WASH:** It is a well-established fact that by providing mere access to the WASH facilities to communities can't change their behaviour towards WASH practices. Tailormade intervention shall be designed for the behavioural change of the community.
- Emphasis on the WASH education in schools will lead the foundation of WASH practices amongst the children from an early age.
- **Strengthening of PRI institutions:** Strengthening of the Village Sanitation and Health Committee to spearhead the behavioural change amongst the community members and to act as pressure group on the administration to create WASH infrastructure in the villages.

3.2. Baseline Assessment

In 2010, United Nations General Assembly adopted a historical resolution recognizing “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights”. Furthermore in 2015, General Assembly and the Human Rights Council recognized both the right to safe drinking water and the right to sanitation as closely related but distinct human right. Moreover, International human rights laws also oblige states to work towards providing access to water and sanitation to all without any discrimination.⁹⁰ Even since the independence, WASH programs have been at the centre of the public health agenda and had been incorporated in consecutive 5 years plans. In the 10th 5 years plan in 2002, the role of sanitation and hygiene had been linked to reducing the Infant Mortality Rate and Maternal Mortality Rate.⁹¹ In the backdrop of various schemes and policies like Jawaharlal Nehru National Urban Renewal Mission (JNNURM), National Water Policy 2012, Swachh Bharat Mission, Jal Jeevan Mission, India has observed significant improvements in providing WASH facilities to its citizen, especially in rural areas.⁹²

Despite of the developments, as per the NSS report on Drinking Water, Sanitation, Hygiene and Housing Condition, only 58.2% of the household in rural India had drinking water facility within the premises of the households and only 71.3% of the household in rural India had access to latrines.⁹³

When it comes to Odisha, almost 50% of the rural households don't have access to latrine . 10.2% of the households in rural Odisha are still devoid of improved drinking water sources. In Jharsuguda, 11.6% of the households do not have access of improved drinking water sources. As per the NFHS-5 report, only 58% of the household in rural areas of Odisha use improved sanitation facilities, while 70% of the household in Jharsuguda have improved sanitation facilities.⁹⁴

The following section will analyze the access to WASH facilities amongst respondent households in the district.

⁹⁰ <https://www.ohchr.org/en/water-and-sanitation/about-water-and-sanitation#:~:text=On%2028%20July%202010%2C%20the,RES%2F64%2F292>).

⁹¹ <https://www.dailypioneer.com/2021/columnists/poor-hygiene-brings-the-economy-down.html>

⁹² <https://www.ohchr.org/en/water-and-sanitation/about-water-and-sanitation#:~:text=On%2028%20July%202010%2C%20the,RES%2F64%2F292>).

⁹³ <https://nss.gov.in/>

⁹⁴ http://rchiips.org/nfhs/factsheet_NFHS-5.shtml

Source of Drinking Water

As per the NSS report on Drinking Water, Sanitation, Hygiene and Housing Condition, only 2.7% of the households in Odisha were dependent on the piped drinking water in homes for drinking water and 10.2% of the households were dependent on public tap/standing tap. 63% of the households in Odisha were dependent on hand pumps and 11.6% were using wells as source of water in Odisha.⁹⁵ As per the previous year baseline, 80% of the respondent households were depended upon community water post and hand pumps and only 11.3% had piped drinking water supply as source of the drinking water.

Source of Drinking Water

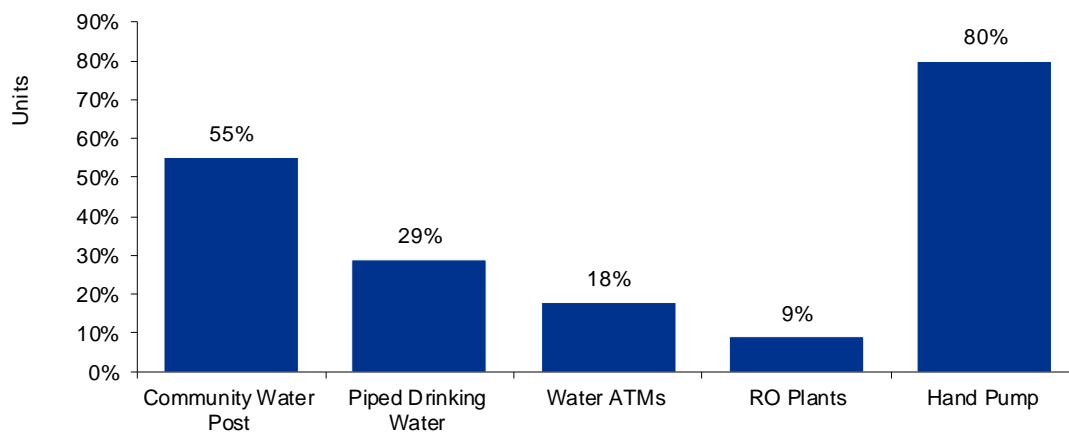


Figure 24: Source of Drinking Water

As per the data received from the ground, 80% of the respondent household still use handpumps for drinking water, while 55% of the respondent are dependent on the community water post in the absence of other drinking water facilities. Only 29% of the respondent households have access to piped drinking water facilities, while 18% of the respondent household use water ATMs for drinking water.

It can be observed that there is an improvement of 17.7% point in access to piped drinking water from the previous baseline. Yet, 80% of the population is still dependent on the handpumps for the drinking water purpose.

⁹⁵ <https://nss.gov.in/>

Distance of the Water Source from Household

The distance to the water source from the Household affects the quality and quantity of the water for drinking and sanitation purpose. Long distance of the water source from the households negatively impacts the health of the inhabitants especially the children of the households and often puts the economic burden on the household.

As per the NSS report on Drinking Water, Sanitation, Hygiene and Housing Condition, only 30.4% of the households in Odisha had source of drinking water within the 100 meters reach from their household. For 8.4% of the households, the drinking water source was available within one Km, and it was within the reach of 0.5 Kms for 0.4% of the households. Only 0.5% of the household had the source of the water within the house. 27.% of the households had the source of the water within the periphery of household.⁹⁶

As per the previous baseline, nearly 68% of the households in the location had to travel distances for collection of water from the source and spent about less than 30 minutes per day for collection of water from source. Another 17.3% had to spend about 30 minutes to 1 hour per day for water collection. There were also households (7.5%) that spent more than 2.5 hours for water collection.

The following section will analyse the distance of water source amongst the respondent households in Jharsuguda district.

Distance of the Water Source From the Household

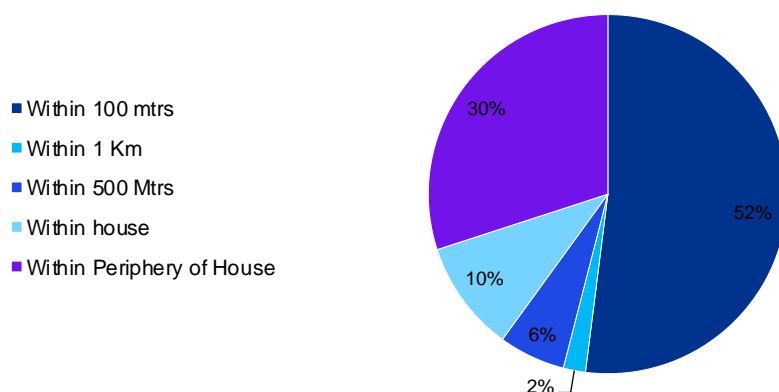


Figure 25: Distance of Water Source from the Households

Only 2% of the respondent household sated to have water source within 1Km from household.52% of the respondent household sated to have water source within 100 meters from

⁹⁶ <https://nss.gov.in/>

household. 30% of the respondent household have the source of drinking water within the periphery of the house.

It can be observed that only 40% of the respondent households had drinking water facility within or within the periphery of house.

Availability of the Toilets

As per the previous baseline in 2019, only 50% of the respondent households reported to have the toilets in their homes.

As per the data received, only 69% of the respondent households in the Jharsuguda district have toilet facility available in their household. 98% of the respondent households who have availability of the toilets use the facility on daily basis.

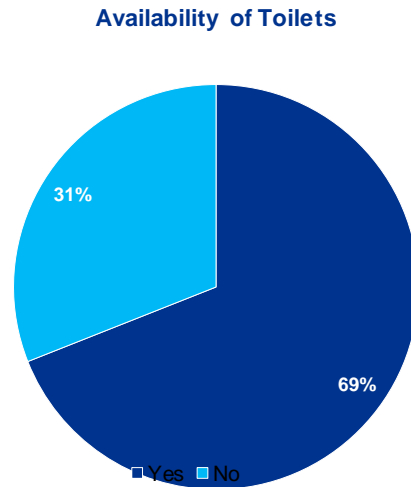


Figure 26: Availability of Toilets

It can be observed from that there has been an improvement amongst the household in the availability of the toilets from the previous baseline.

Access Community Infrastructure

The following table shows the community infrastructure present in the district

Table 4: Infrastructure Available in Jharsuguda: Source-District Statistical Handbook 2018

% Of the Villages Electrified	100%
Inter-village road	1024.64 kms
Intra-village road	1025.57 kms
Village roads	290.30 Kms
Forest roads	23.00Kms
No. Bank Branches in Rural Areas	41
No. of Post Offices in Rural Areas	69
No. of Primary Agriculture Co-operative Society	32
No. of Villages Covered Under Piped Drinking Water Project	43
No. of Piped Drinking Water Projects	205
% of the population with electricity	98.1%

The following section will analyse the availability and accessibility of community infrastructure

Availability and Accessibility of Community Infrastructure

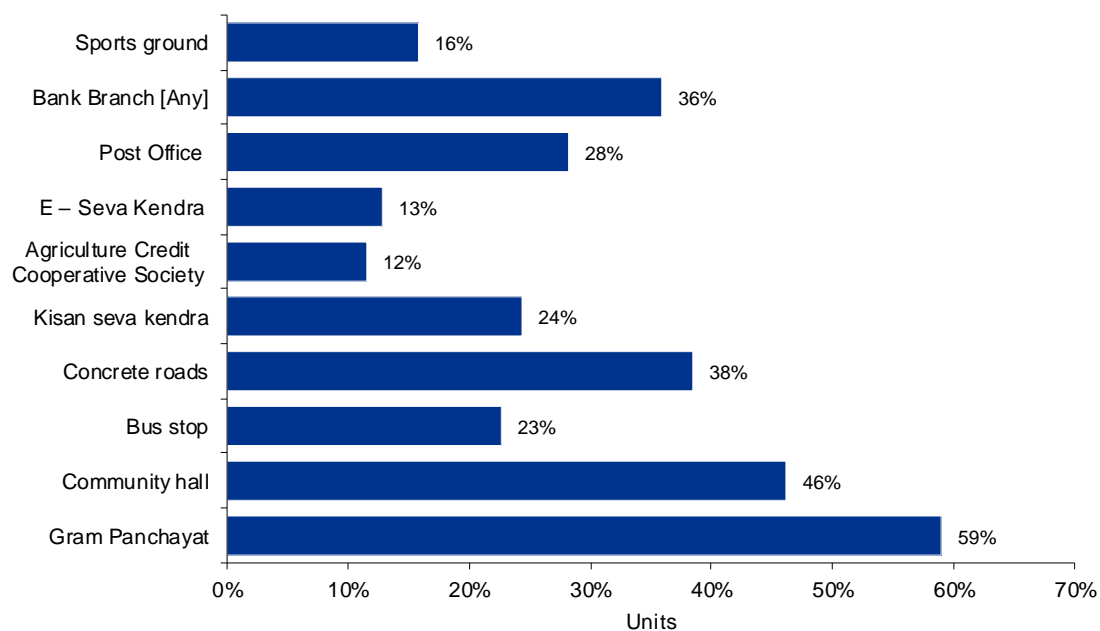


Figure 27: Availability and Accessibility of Community Infrastructure

36% of the respondent reported to have access to bus-stops, only 12% of the respondent household reported to have availability and accessibility to Agriculture Credit Cooperative society. 38% of the respondent household reported to have availability of concrete roads. 36% of the respondent stated to have availability and accessibility of banks. 16% of the respondent households reported to have availability of sports ground in the community.

As we can see that there is a lack of availability and accessibility of the required infrastructure amongst the respondent households, there is a dire need of community infrastructure in the community.

Analysis and Way Forward

Access to clean drinking water was found unsatisfactory in the Jharsuguda district, only 29% of the respondent household were having piped drinking water. 80% of the respondent households are still dependent on the handpumps for drinking water. Jharsuguda district, having the greatest number of the contaminated sites, can cause high contamination of the ground water bodies also.

It can be established from the findings that majority of the respondent households don't have the access to treated clean drinking water. Access to toilet facilities remains a challenge amongst the respondent households in the Jharsuguda district. 31% of the respondent households are still devoid of latrine facilities in their households.

Challenges

1. As the household lie in the district with high concentration of heavy industry, the discharge of untreated industrial water directly into the surface water bodies can result into serious surface and ground water pollution.⁹⁷
2. There has been an improvement in access to pipe drinking water amongst the respondent households and it has increased by 17.4% from the previous baseline, yet majority of the respondent house is still dependent on the Handpumps for the drinking water purposes and consuming untreated water. The consumption of untreated water in this scenario can

⁹⁷https://www.researchgate.net/publication/347380969_Evaluation_of_Ground_and_Surface_water_Quality_in_and_around_Vedanta_Aluminium_Company_at_Jharsuguda_Odisha_India

jeopardize the health of the community and can further increase the health expenditure of the community. As per the NSS, 17.4% of the members rural households reported to face water related diseases like diarrhea, dysentery, and cholera.⁹⁸

3. On an average only 20% of the households had drinking water within or within the periphery of household.
4. There has been an improvement in the availability of the toilets amongst the respondent households as compared to the previous baseline and it has increase by 19%. Yet, 31% of the respondent households are devoid of toilet facility in their homes.

Way Forward

Water Infrastructure

To fill the gap of access to clean drinking water, there is need to establish clean drinking water infrastructure with the access to the community. There are multiple ways by doing so-

- A business model-based RO plant can be set by training the SHG in each village. The SHG can sell water to the households at a price which can be affordable to them.
- A community water post can be established in each village, which can provide treated ground water to the community members every morning and every evening.
- In liaison with the Public Health Department, overhead water tanks can be constructed for the cluster of adjacent villages.
- To preserve the level of ground water, watershed can be created through MGNREGA in villages.

Liquid Waste Management

As per the NSS report, only 31% of the rural households have proper drainage system of disposal of household wastewater attached to household.⁹⁹ In the absence of proper drainage system, most of the household dispose and discharge the water in open areas, streets, and nearby water bodies. This leads to contamination of surface water and aggravates the water born disease.

It can be tackled by constructing individual soak pits. Moreover, the community soak pits can be created though MGNREGA.

Solid Waste Management

⁹⁸ <https://nss.gov.in/>

⁹⁹ <https://nss.gov.in/>

Most of the waste generated in the rural households are organic in nature and eco-friendly. The organic waste can be collected and decompose in individual composite pits. The decomposed waste can in turn be used a fertilizer in fields.

Construction of Toilets

Individual households can be helped to leverage funds under the Swachh Bharat Mission for the construction of Individual Household Latrines.

Behavioural Change for WASH

It is a well-established fact that by providing mere access to the WASH facilities to communities their behaviour can't be changed toward WASH practices.¹⁰⁰

For behavioural change amongst the household, it is necessary to understand the knowledge of the community members about the WASH. The knowledge of communities shall be assessed through on-ground research.

After accessing the knowledge of the communities, tailormade behavioural change programs shall be implemented on the ground. The intervention should be surprising and disruptive in order to maximize the effect on the target behaviour – otherwise, the old behaviour will simply persist.¹⁰¹

Emphasis on the WASH the schools. It will lead the foundation of WASH practices amongst the children from an early age.

Strengthening of PRI institutions

Strengthening of the Village Sanitation and Health Committee to spearhead the behavioural change amongst the community members and to act as pressure group on the administration to create WASH infrastructure in the villages.

Development of Community Infrastructure

¹⁰⁰

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiCuvGd4r_7AhU08HMBHRk8BkYQFnoECBQQAQ&url=https%3A%2F%2Fcore.ac.uk%2Fdownload%2Fpdf%2F288362772.pdf&usg=AOvVaw3hE_PuPn5QHFWoLjcMwPIO

¹⁰¹ <https://www.idhsustainabletrade.com/uploaded/2020/04/Behaviour-change-for-WASH-Policy-Brief-Final.pdf>

As per the FFC (Fourteenth Finance Commission), MoPR (Ministry of Panchayat Raj) has introduced the concept of GPDP (Gram Panchayat Development Plan) which is a participatory approach of developing a development plan for individual gram panchayats through the Plan Plus Application. Strengthening Gram Panchayats to develop a holistic plan by system strengthening and capacity of ward members. This can enable a self-sustainable model where key priorities of the community are identified and addressed.

Best Practices

Community Action Plan for Social & Physical Infrastructure Development through GPDP has been successfully replicated in different parts of the country. HCL Foundation in Hardoi district of Uttar Pradesh in association with implementing partner SSK has successfully transformed several gram panchayats in Kacchauna district. Initiatives of training on Plan Plus, providing infrastructure support to Panchayat Bhawans and introducing Jan Seva Kendra has been a model of Public Private Partnership.

Janaagraha Centre for Citizenship and Democracy is an organization that has worked towards catalysing active citizenship in cities, especially in slums by enhancing participation of citizens in civic matters in their neighborhoods. This is carried out through educating citizens on their roles as well as that of the government.

Janaagraha has been working in Urban Slums with Slum Developer Association to convert the existing slums in Bhubaneshwar into Biju Adarsh Colonies. The organization is also working extensively in Bengaluru. This is being done by empowering and capacity building slum dwellers to participate in identifying the existing infrastructural gaps and planning of infrastructural work in their neighborhood. Janaagraha has adopted a three-pronged approach to transform the slumps into livable habitats. The strategy involves **Community Collation, Tools and Data**. It collaborates with slum dweller for identifying the infrastructural needs in the locality. Afterwards, it mobilizes the community to participate in the budget preparation of the infrastructural work and the requirement and budget gets uploaded on an online portal ([My City My Budget](#)) which data is accessible by the government officials.

VALJ can adopt the same strategy. It can empower PRI members and community leaders in social auditing the existing infrastructure and identification of the infrastructural gaps. It can further build the capacity of the community for preparing the budget for the work in their locality.

It can facilitate in creation of an online portal for uploading the infrastructural requirement and corresponding budget. Further, leveraging its relationship with district administration, VALJ can integrate with the Rural Development Department which be accessed by

IMPACT of WASH Programs

Vedanta Limited focuses on holistic development of the community through its interventions in almost all areas of concern. To develop the district, the CSR team led activities to develop the district. Community Development and infrastructure development for WASH is a strong focal area for VAL which supports them in working with the local stakeholders and providing the communities with the immediate infrastructural and asset support they need. Through their efforts, they've supported construction of Road, culvert, Drain, tube well, pond, community centre, temple, electrification, installation of CCTV camera etc

Through its community development program, VALJ has undertaken sanitation drives in villages and at strategic locations. VALJ has also hosted water kiosk and provided water to Jharsuguda municipality. In last few years VALJ has renovated 25 ponds, installed tube wells for providing drinking water and constructed more than 480 toilets constructed under PPP mode in three villages.

The following section will analyze impact created by VALJ's community development projects by using OECD framework.

Evaluation Criteria 1: Relevance of Intervention

As established earlier only 58.2% of the household in rural India had drinking water facility within the premises of the households and only 71.3% of the household in rural India had access to latrines. When it comes to Odisha, almost 50% of the rural households don't have access to latrine. 10.2% of the households in rural Odisha are still devoid of improved drinking water sources. In Jharsuguda, 11.6% of the households do not have access of improved drinking water sources. As per the NFHS-5 report, only 58% of the household in rural areas of Odisha use improved sanitation facilities, while 70% of the household in Jharsuguda have improved sanitation facilities. Through their concentrated efforts, VALJ has been working on providing infrastructure support to communities to fill the infrastructural WASH Gaps.

Evaluation Criteria 2: Coherence of Intervention

WASH Interventions are not programme based but need based activities that are undertaken for the well-being of the community and play an integral role in building the social capital of a business in the areas that they operate. Thus, this thematic area as a whole has not been analysed vis-à-vis coherence.

Evaluation Criteria 3: Effectiveness of Intervention

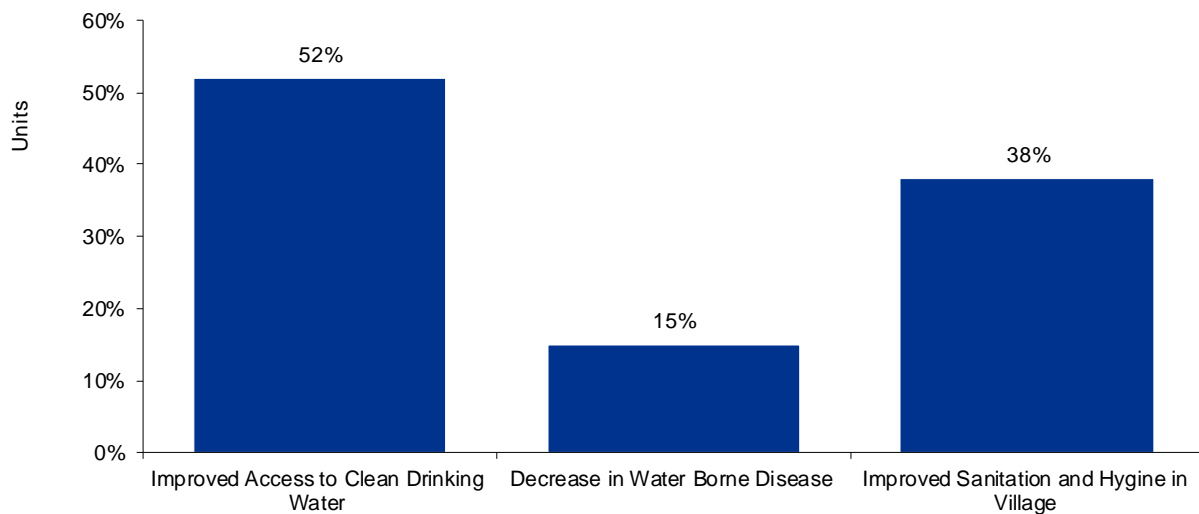
WASH are not programme based but need based activities that are undertaken for the well-being of the community and play an integral role in building the social capital of a business in the areas that they operate. Thus, this thematic area as a whole has not been analysed vis-à-vis effectiveness.

Evaluation Criteria 4: Efficiency of Intervention

WASH Interventions are not programme based but need based activities that are undertaken for the well-being of the community and play an integral role in building the social capital of a business in the areas that they operate. Thus, this thematic area as a whole has not been analysed vis-à-vis efficiency.

Impact of the Intervention

Impact of the WASH Intervention



Due to the community infrastructure development intervention by VALJ, 52% of the respondent households reported to have improved access to clean drinking water, while 32% of the respondent households reported to have enhanced security amongst girls and women of the community. 15% of the respondent households reported to have decrease in water borne diseases while, 38% of the respondent reported to have improvement in the sanitation and hygiene of the village.

Sustainability of Intervention

While the long-term programmes run by VALJ will provide designed outcomes and clear exit and sustainability plans may have been developed, initiatives under community development are equally importance from the point of view of securing short wins within the community and increase the social license to operate vis-à-vis the business drivers. Thus, it is not a sustainability-focused intervention but rather a sustainability of business-focused intervention. Therefore, from that point of view, the intervention is **extremely satisfactory** as it will continue to give positive short-term results for VALJ to maintain relations within the community.

Conclusion Recommendations

The biggest impact made by the community development interventions has been the improvement in the access to WASH facilities. As the business unit is already carrying out a myriad of community development activities for maintaining positive relations with the community and stakeholders, there is no specific recommendation to enhance or change the current system. Furthermore, the stakeholders put the community infrastructure development as second requirement which shall be the focus of the CSR.

Impact of Community Infrastructure Development Program

Community infrastructure development interventions are not program based but need based activities and hence can not be analysed through OECD criteria.

Community Activities Conducted by the Business Unit

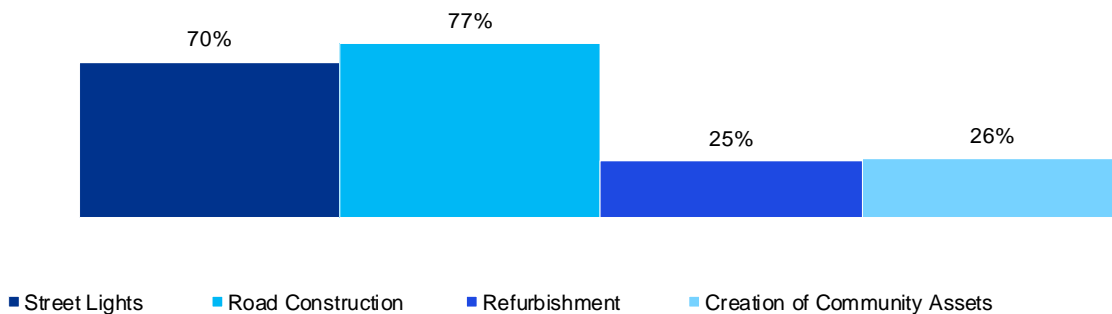


Figure 28: Community Infrastructure Development Activities Conducted by the Business Unit

70% of the respondents reported that installation of solar lights were installed by VAL-J in the villages, while 77% of the respondents reported that VAL-J constructed roads in their vicinity. 25% of the respondents reported that refurbishment of the community institutions was done by

the business unit. 26% of the respondents reported that VAL-J created community assets in their villages.

3.3. Business Drivers for WASH/Community Infrastructure Development Interventions

CSR is a pivotal management concern given that in order to expand their wealth creation role in society, businesses must proactively manage risks and take advantage of opportunities vis-à-vis reputation and engagement with stakeholders¹⁰². Based on the perception survey, the internal stakeholders of VALJ believe that companies having a focus on key business drivers focused on sustainability have a greater chance of success and further believe that such companies are more attractive to investors.

“CSR is essentially a strategic approach for firms to take to anticipate and address issues associated with their interactions with others and, through those interactions, succeed in their business endeavours”.

- Hohnen, Paul (2007). Corporate Social Responsibility: An Implementation Guide for Business. International institute for Sustainable Development Source: https://www.iisd.org/system/files?file=publications/csr_guide.pdf

The majority of the stakeholders did believe that the focus on certain key drivers for business have improved community relations. In fact, the focus on these business drivers has a direct relation to improving relationships with local communities, increasing trust, improving the reputation of VALJ as well as contributing to the national and international social development goals. Therefore, VALJ leadership’s perception on such benefits are both inward and outward looking and encompassing a varied group of stakeholders. 56% of the internal stakeholder believe that for the social development of the community, WASH infrastructure is the crucial aspect for providing VALJ social license to operate.

Business Case for WASH Interventions: WASH interventions offer short wins for the business whereby, it is directly linked with building partnerships with external stakeholders, in supporting

¹⁰² https://www.iisd.org/system/files?file=publications/csr_guide.pdf

their mandate to improve the living conditions of the community; supports communities in ensuring essential infrastructure and thus gain trust among them. Furthermore, according to ADB, there is empirical evidence to suggest that investments into infrastructure have the greatest impact in the presence of other, supportive actions. “For instance, rural roads, irrigation systems, and rural electrification programs are more successful at reducing poverty when there are also strong programs in education or health”¹⁰³. Through the myriad of projects that are being undertaken by VALJ, tackling multiple levels of required social development investments along with community development projects, VALJ is ensuring a combined and multiplied impact on the overall living conditions of the community.

¹⁰³ <https://www.adb.org/sites/default/files/publication/29823/infrastructure-supporting-inclusive-growth.pdf>

4. Sustainable Livelihood

4.1. Executive Summary

VALJ has shown significant concern regarding the sustainable livelihood of the communities around which they carry out their business operations.

In a country such as India which is one of the world's fastest growing economies, it is often assumed that there is a direct correlation between growth in the economy and in the job sector. However, it has been noted that "a 10 % increase in GDP now results in less than 1 % increase in employment"¹⁰⁴. Thus, there is a clear need to focus on the meaningful livelihood generation for the population in the country. Furthermore, given that most of the population continues to be engaged in the agricultural sector, support is required to be focused there.

Key Highlights of the Baseline Assessment:

- There has been an improvement in the income levels of the population. 42.7% more households are earning more than INR 5000 from previous baseline.
- The share of population engaged in agriculture has been reduced from the previous year baseline.
- The access to mechanized equipment was found to be low. Only 19% of the respondent households had access to mechanized farming equipment.
- 94% of the respondent households were involved in single cropping.
- On an average only 20% of the respondent households were receiving any form of assistance from the government..

Key Highlights from Impact Assessment

¹⁰⁴ https://cse.azimpremiuniversity.edu.in/wp-content/uploads/2019/02/State_of_Working_India_2018-1.pdf

Jeevika Samiridhi: 53% reported an increase in crop yield. 56% of the beneficiary reported an increase in the land under irrigation and 52% of the respondent households reported to have an increase in the food security due to the project.

Key Recommendations

- **Access to Mechanized Farm Equipment:** As the access to mechanized farming equipment remains low amongst the household, there is a need to introduce the mechanized farming equipment for the beneficiaries, it can be done through FPOs.
- **Advisory through Digital Means:** There is also a need to introduce the advisory services to the farmers to further enhance their income. The farmers can be provided advisory through digital means.
- **Capacity Building of Farmers:** FPO can spearhead the capacity building of farmers through various ways.
- **Assimilation of Farmers in FPOs:** As found, only 3% of the respondents were associated with FPOs, there is a need to assimilate more farmers in FPOs to further enhance their income.

4.2. Baseline Assessment

India is considered to be one of the world's fastest growing economies. Stability in such growth can only be achieved through ensuring meaningful, secure and remunerative employment viz. sustainable livelihood. According to a State of Working India report 2018, economic growth in the country is not accounting for a growth in jobs. In fact, "a 10 % increase in GDP now results in less than 1 % increase in employment"¹⁰⁵. Furthermore, while real wages have grown between 3 to 4 % in most sectors (other than agriculture where growth happens only once every two decades), wage adjusted for inflation has grown at 2 % per annum for organized manufacturing, 4 % for unorganised manufacturing, 5 % for unorganised services, and 7 % for agriculture (for the last, growth has collapsed since 2015)¹⁰⁶.

India is the 7th largest country geographically in the world with 328 Mha area and has about 160 Mha of arable land that is second largest in the world. About 50% of its total geographical area is cultivated which ranks it among the top user of the land for agriculture. Agriculture has been central to the economy for the sustainable and inclusive economic growth of the country. The sector engages 49.6% of the workforce and accounts for about 17% share in India's Gross Domestic Product (GDP).¹⁰⁷

Since the independence there has been an improvement in the overall crop production and overall food grain production increased from 51 Mt in 1950-51 to over 314 Mt in 2021-22. From being food scarce till 1950 to transforming itself into food shortage by 1960, food sufficient by 2000, food secured by 2010, India became food surplus by 2010 onwards. A blend of science, technology, extension, and policy has contributed to this journey of transforming the country from food scarce to food surplus nation.¹⁰⁸

¹⁰⁵ https://cse.azimpremjiuniversity.edu.in/wp-content/uploads/2019/02/State_of_Working_India_2018-1.pdf

¹⁰⁶ ibid

¹⁰⁷ <https://icar.org.in/Indian-Agriculture-after-Independence.pdf>

¹⁰⁸ <https://icar.org.in/Indian-Agriculture-after-Independence.pdf>

Livestock sector has also witnessed all round growth after Independence. With the launching of Operation Flood in 1970, one of the largest rural development programmes of the world, the milk production grew steadily at 6.4%, well above the global annual growth rate of 2.2%.

Many institutions were established for the promotion of agriculture in India post-independence. Commission for Agricultural Costs & Prices (CACP) and the Food Corporation of India (FCI) were established to assist the farmers with price support operations and ensure the productivity gains reaching the consuming sector through the Public Distribution System (PDS). In the year 1982, the National Bank for Agriculture and Rural Development (NABARD) was established to undertake the agricultural credit related functions of the Reserve Bank of India. Further to provide support to farmers financially, government of India launched Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme.¹⁰⁹

India has now several national priorities such as enhancing farmers income (200%), reducing fertilizer use (25%) and water use (20%), increasing renewable energy use (50%), reducing GHG emission intensity (45%) and rehabilitating degraded land (26 Mha) to achieve.¹¹⁰

With the expected population of over 1.6 billion and annual food demand of 400 Mt by 2050, the country requires minimum 4% annual growth in agriculture. The challenges of environment Indian Agriculture tremendous pressure. From rising temperature to extreme climatic events are impacting the production of food grains.¹¹¹

Hence it becomes inevitable to have sustainable agricultural practices for ensuring food security to increasing population. India has 121 Mha i.e., 36% of the geographical area degraded with soil erosion, salinity, alkalinity, acidity, water logging and other edaphic stresses. With 4% of world's renewable water resources, the country has only 43 Mha fully irrigated, 23 Mha partially irrigated and 74 Mha rainfed land. In the recent past, both drought and floods have been seen to be stress factors in farming. Fertilizers are being leaked into the environment through volatilization, leaching or emissions resulting in multiple adverse effects on terrestrial and aquatic systems and on human health.¹¹²

¹⁰⁹ <https://icar.org.in/Indian-Agriculture-after-Independence.pdf>

¹¹⁰ <https://icar.org.in/Indian-Agriculture-after-Independence.pdf>

¹¹¹ <https://icar.org.in/Indian-Agriculture-after-Independence.pdf>

¹¹² <https://icar.org.in/Indian-Agriculture-after-Independence.pdf>

The way forward for Indian agriculture, therefore, should focus on precision agriculture, reducing chemical footprints, nature-friendly farming; use of nano-fertilizers, with more synergy in crop, weather and water cycles and crop planning using ecosystem approaches.

Income Levels

According to the Socio-Economic Caste Census (SECC) data, 86% of the highest earning members of the Jharsuguda district were earning less than INR 5000 monthly, 6% of them were earning between INR 5000- INR 10000 and only 8% of the highest members of the households were earning more than INR 10000.¹¹³As per the previous baseline study in 2019, 55.7% of the respondents were earning less than INR 5000/ months. 34% of the respondents were earning in between INR 5000-INR 10000, 9% of them were earning in between NR 10000-20000 and only 1% were earning more than INR 2000.

As per the primary data, only 13% of the members of the respondent households were earning less than INR 5000. 48% of the members from the respondent households were earning in between INR 5000-10000 while 29% of them were earning in between INR 20000-INR 30000. 4% of the members from the respondent households were earning in between INR 10000 -INR 15000.

There has been an increase in the income levels of amongst the households from the last baseline and SECC. There has been an increase in the income capacity of the households from previous baseline where of 42.7% more are earning more than INR 5000 from previous baseline.

¹¹³ <https://secc.gov.in/getTypeOfHHdNationalReport.htm>

Income Levels of the Respondents

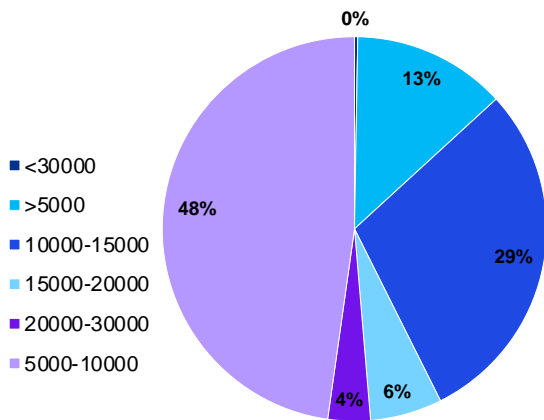


Figure 30: Income Levels

Monthly Income- Gender Wise

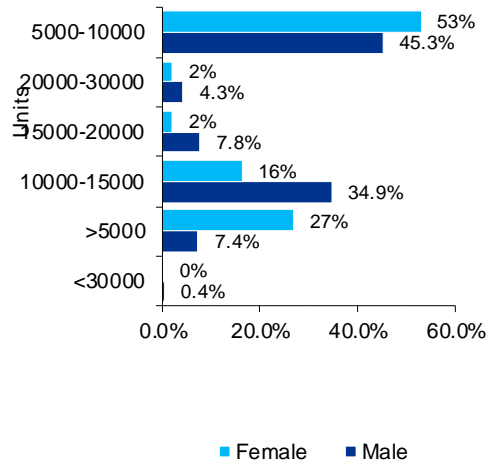


Figure 29: Income Levels- Gender Wise

Income Level- Gender Wise

53% of the male and 45.3% of female members were earning between INR 5000 -10000 monthly. 34.9% of the male and 16% of the female members of the earning between INR 10000-15000.27% of the female members from the respondent households were earning less than INR 5000.Only 0.4% of the male members from the respondent households were earning more than INR 30000. It can be observed from the data that the income levels of the working females are lower than the income level of the working males of the community.

Occupation

As per the previous baseline, 29.2% were engaged in agriculture activities. As per the Census-2011 figures 51% of the households were involved in agriculture.¹¹⁴

As per the data received from the ground,22% of the male and 53% of the women members between age group of 19-50 yrs. from the respondent households were found out to be unemployed. Only 3% of male and 2% women from the respondent households were having

¹¹⁴ <https://censusindia.gov.in/census.website/data/census-tables>

salaried government jobs. 34% of the male members and 23% of the women in the working age group were involved in agriculture. 9% of the male members and 1% of the female members from the respondent households were working in VALJ.

It can be observed that the share of the population in agriculture has been reducing amongst the respondent households.

Occupation of the Respondents

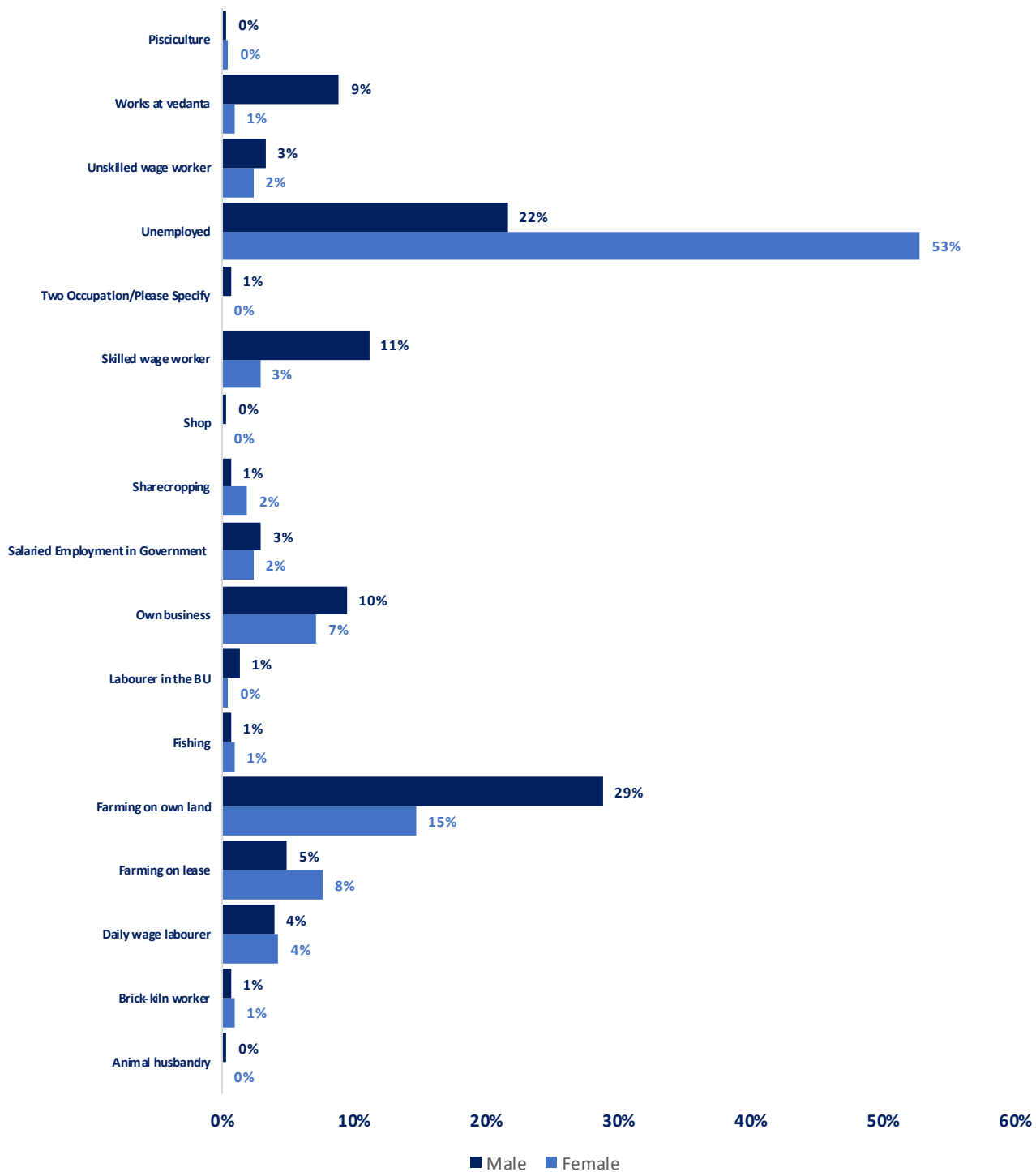


Figure 31: Occupation of the Members of the Respondent Households- Gender Wise

Land Holding Pattern of Farmers

The Gross cropped are in Jharsuguda district is 36% of the total geographical area of the district with 88.1% cropping intensity.¹¹⁵

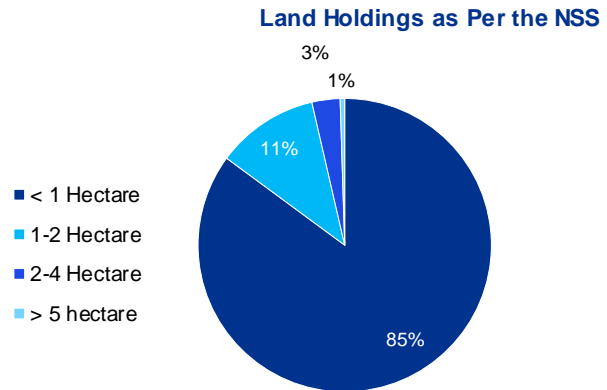
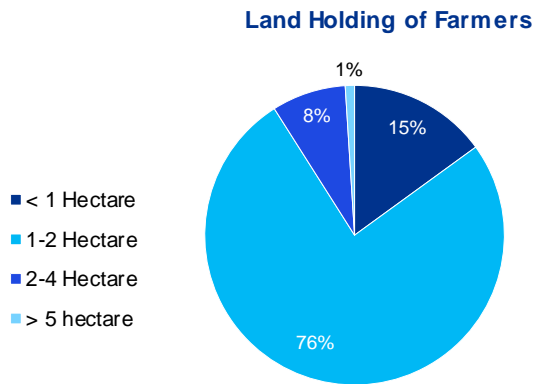


Figure 32: Land Holdings of the Farmers as Per the Baseline

Figure 33: Land Holdings of the Farmers as NSS

Source: <https://nss.gov.in/>

According to Socio Economic Caste Census 2011, 50% of the households in Jharsuguda districts owns land¹¹⁶, while as per the data received from the ground, 61% of the respondent households were found to own agriculture land.

As per the NSS, 85% of the farmers in Odisha own less than 1 hectare of land, only 11% of the farmers own in between 1-2 hectare of land and 3 % of then own 2-4 hectare of land. The land holding of only 1 % of farmers are more than 5 hectares.¹¹⁷ 85% of the famers were marginal famers.

As compared to the average landholding of Odisha, the landholding patter of respondent households found to be high.

¹¹⁵ <http://www.dowrodisa.gov.in/DIP/2015-20/JHARSUGUDA.pdf>

¹¹⁶ <https://secc.gov.in/homepage.htm>

¹¹⁷ <https://nss.gov.in/>

Cropping

The respondent household spend on an average INR 9793 on agriculture. Mechanized farm equipment were accessible to only 19% of the respondent households and only 3% of the respondent household stated to be the part of Farmer Producer Organization.

94% of the respondent households sated to grow only single crop, while only 6% of the respondent households reported to grow double crops in a year. All of the respondent household who were repoted to involve in agriculture were into paddy cultivation. Respondent households involved in the double cropping were cultivavting vegetables and paddy.

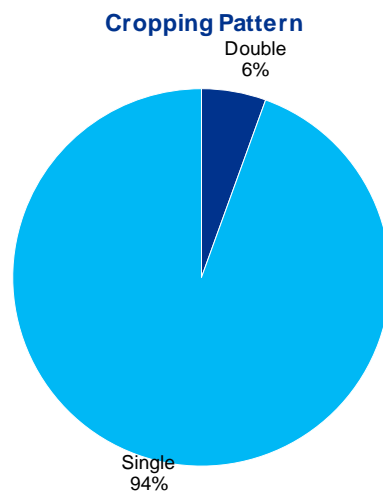


Figure 34: Cropping Pattern

Irrigation

Odisha remains the most rain fed agriculture dependent state in the country, where 74% of its cropped area being rainfed.¹¹⁸ When it comes to Jharsuguda district only 32% of the total cultivated area is under irrigation and rest of the area is rainfed. In the past few years, extreme weather events have become rampant in Odisha and 25 district of the Odisha have become climate event hotspots. Jharsuguda lies in the climate event hotspot, and drought has become more frequent in the district. In 2019 Jharsuguda received 27% less monsoon rains as compared to the India's average. Due to the lesser rains, Keloj and Mahanadi River almost dried causing challenges to the farmers. In 2021, Jharsuguda received deficient rainfalls.

¹¹⁸ <https://odishavikash.org/rainfed-agriculture/>

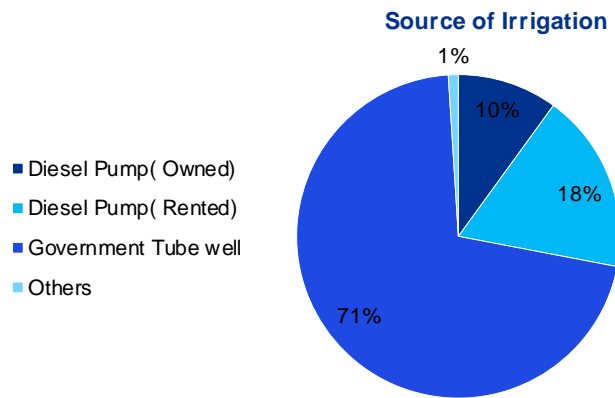


Figure 35: Source of Irrigation

As per the SECC data, only 4% of the households owned Irrigation equipment (including diesel/kerosene/electric pumpset, sprinkler/drip irrigation system, etc.).¹¹⁹

When it comes to primary data, only 10% of the respondent households which were involved in the agriculture practices owned diesel pumps, while 18% of the respondent household relied upon the rented diesel pumps. 71% of the respondent households, relied upon the government tube well for irrigation purposes.

10% of the respondent households involved in the agriculture did surface irrigation, while 7% of the respondent households were dependent on the rainfall for the irrigation. 66% of the respondent households were doing drip irrigation.

Only 10% of the households were found to own irrigation equipment.

Support from the Government in Agriculture

Agriculture contributes significantly to India's GDP and more than 60% of the population of India still depends on the agriculture, agriculture has been the focus area of the Government of India. Government has taken several measures from subsidies from market linkages to provide impetus to the agriculture sector. The following section will analyse the support provided from the government to the respondent household in Jharsuguda.

25% of the respondent households received assistance in crop insurance, while only 18% of the respondent received subsidies on irrigation. 11% of the respondent household received

¹¹⁹ <https://secc.gov.in/homepage.htm>

assistance in the form of subsidies for purchasing mechanized farm equipment. 21% of the respondent household received assistance in organic farming from the government.

Assistance From the Government for Agriculture

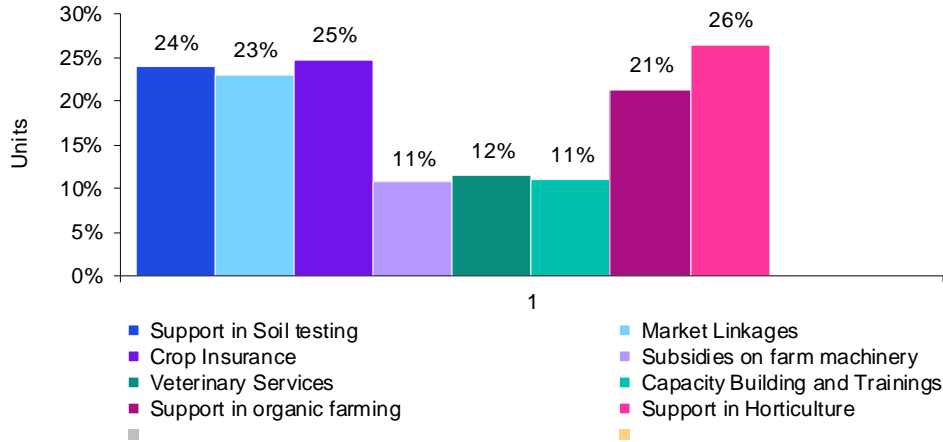


Figure 36: Assistance from Government

On an average only 20% of the respondent household received any form of assistance from the government for the agriculture.

Analysis and Way forward

Unemployment remains a pertinent issue amongst the respondent households. Only 67% of the women from the respondent households in the age group of 19-50 years were devoid of any form of employment. 27% of the households were living on a monthly income of less than INR 5000.

Agricultural activities in the region, were not efficient and productive. 94% of the households were involved in single crop and only 19% of them had access to mechanized farm equipment. The presence and on-ground execution of government schemes from the ground was found out extremely low amongst the respondent household in Odisha. On an average only 25% of the respondent households received any assistance from the government in agriculture.

Challenges

- There has been an increase in the income level of the households as compared to the SECC and previous baseline data. 42.7% more are earning more than INR 5000 from previous baseline. When it come to working women from the respondent households, the income level of women is lower than the male members from the respondent households.

- The share of population in agriculture has been reduced from the previous baseline.
- The land holdings amongst the respondent households are higher than the state average.
- When it comes to the access to mechanized farm equipment, only 19% of the respondent households reported to have access to the mechanized farm equipment.
- 94% of the respondent households who were involved in the cropping reported to grow single crop.
- Only 10% of the respondent households were found to own irrigation equipment.
- On an average only 20% of the farmers received any form of assistance from the government.
- The droughts have become more frequent in the district and presents grave challenge to the agriculture.

Way Forward

Mechanization of Agriculture

The access to mechanized farm equipment remains very low in amongst the respondent households. Mechanized farm equipment is necessary for increasing the yield of the crop, reduction in the labor cost and crop loss. In the absence of the mechanized farm equipment the productivity of the crop goes down. There is a need of introduction of mechanized equipment for the beneficiaries.

Advisory Services

- 94% of the respondent households involved in the single cropping. Growing single crop results in the soil degradation and hence reduces the soil fertility. The single crops are more prone to the pest attacks.
- To enhance the farmers income, which has also become the central agenda of the government of India, there is a need to introduce the multiple cropping to the farmers.
- To achieve this, there is need to provide advisory services and capacity building of the farmers. From weather to pest control, weather multifaceted advisory can be provided to the farmers through various mediums, like SMSs, WhatsApp and phone calls. The in turn will provide impetus to multiple cropping and will reduce the input cost of the farmers.

Capacity building

There has been a need of building the capacity of the farmers on multiple fronts. Farmers shall be capacitated on seed selection, Integrated Nutrition management of Soil, Integrated Pest Management, use of mechanized tools, pre- and post-harvest management. This can be done

through building demo farms, by organizing regular Kisan Chaupals in the area and through online medium.

Introduction of the Efficient Irrigation Method

As only 10% of the respondent household's own irrigation equipment, there is need to introduce water and cost-efficient environment friendly irrigation techniques.

Strengthening of the FPOs

- The FPOs can be central for delivering the advisory, mechanized farm equipment and capacity building of the farmers. The FPOs can further strengthening the backward and forward linkages for the farmers and provide them greater negotiation power which will further enhance their income.
- FPOs can also help in leveraging government schemes and assistance for farming by acting as an advocacy group at the district level.

4.3. Impact Assessment

The farm-based livelihood initiative “Jeevika Samriddhi” was conceptualized by NABARD and VEDANTA limited Jharsuguda to promote sustainable livelihoods of farming households through intervention in agriculture and allied activities. The relevance of Jeevika Samriddhi project is based on the need to augment irrigation infrastructure, promotion of advanced agriculture, application of bio-fertilizer and pesticides and making farming as a remunerative profession. 330 households have been covered under the project and the project aims towards enhancing the income of these households by 50%.

Relevance	Extremely Satisfactory
Coherence	Extremely Satisfactory
Efficiency	Extremely Satisfactory
Effectiveness	Extremely Satisfactory
Sustainability	Extremely Satisfactory

The project component of “Jeevika Samiridhi” project is as follows:

- Development of Irrigation infrastructure.
- Promotion of Cash Crops
- Technology Integration
- Post-Harvest and Marketing.

The following section will analyse impact created by VALJ’s educational intervention by using OECD framework.

Evaluation Criteria 1: Relevance

In the backdrop of the discovery of minerals Jharsuguda, the district has witnessed rapid industrialization in last couple of years. As per the primary data, 50% of the respondent households have agriculture as their primary occupation in Jharsuguda. However, the agriculture sector has been plagued with many challenges in Jharsuguda. 64% of the total irrigated land in the district is rain-fed. Jharsuguda is one of the draughts affected district hot spot of India. Water scarcity, erratic and uncertain rains pose a sever challenge to agriculture in the district . Moreover,

Jharsuguda district has low nutritional intake as compared to other districts of Odisha. The growth in food production in the district is also very low as compared to other districts in Odisha.¹²⁰


As per the data received from the respondent households, 96% of them are involved in single crop. Water scarcity, climatic condition and low soil quality pose a grave challenge for the farmers of Jharsuguda. The dependence of farmers on the use of technology and sustainable agricultural methods was found to be low. In the absence of proper support in agriculture their food security, income and sustenance of the farmers get hampered. From ensuring water availability to technology intervention, the agriculture sector in the region requires multifaceted interventions. The program is designed to support the farmers to fill these gaps through technology integration in agriculture, development of sustainable irrigation infrastructure and marketing of the agricultural produce.

It establishes the relevance of the “Jeevika Samridhi” Program extremely satisfactory

Evaluation Criteria 2: Coherence

The project is well aligned to government policies and schemes. The government of Odisha has been running various schemes and policies like Mukhyamantri Krishi Udyog Yojana, Mukhyamantri Abhinav Krishi Yantirpati Samman Yojana, Bhoochetna, Deep Borewell Secha Karyakrama and Kalia Yojana for the promotion of agriculture, promotion of technology in agricultural activities, capacity building of farmers, financial assistance to farmers and providing irrigation facilities.

The project is well aligned to SDG 1¹²¹, that envisions to end poverty in all its manifestations and SDG 8 that envisions for promoting inclusive and sustainable economic growth, employment, and decent work for all.¹²²

SDG	SDGs target	How is it aligned?
	<ul style="list-style-type: none"> Target 1.1 <p>By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day</p>	<p>- The project benefits the household in ensuring enhanced income through agriculture. It helps in ensuring food security, employment, promotion of technology in agriculture and</p>

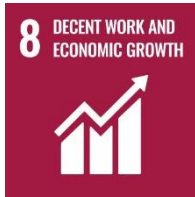
¹²⁰ <http://phdma.odisha.gov.in/sites/default/files/2021-01/PHDMA-Report-FSnN-Odisha-min.pdf>

¹²¹ <https://unric.org/en/sdg-1/>

¹²² <https://unric.org/en/sdg-8/>

	<ul style="list-style-type: none"> • Target 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions • Target 1.31 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance • Target 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.¹²³ 	<p>promotion of environmentally friendly irrigation.</p>
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¹²³ <https://www.sdg4education2030.org/the-goal>



- Target 8.2
Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors

- Target 8.4
Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

- Target 8.5
By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

- The program promotes the use of technology for agriculture to improve efficiency and improving the yield of the product. The program covers and provides decent employment to the men and women of the beneficiary households .

Evaluation Criteria 3: Effectiveness

The program's effectiveness has been measured by examining how successfully the project's targets were defined as well as the achievement of the targets.

The program has well defined target and project outputs. The program envisioned to enhance the income of 250 households by 50% and to establish the FPOs. As per the last impact assessment, there was an increase in income of those within the band of over INR 40,000 per annum by 43.47% .The program has successfully achieved the target defined. This establishes the relevance of the program.

Evaluation Criteria 4: Efficiency

The efficiency of the intervention was considered vis-à-vis the documents provided on the project including the agreements with the implementing partners, whether the intervention had adhered to its timelines, whether utilization was undertaken through the budget and whether the intervention aligned with the CSR policy of VALJ.

The project is well aligned with Vedanta's CSR policy of continuously working towards improving quality of life of the communities in its operational areas. The project has MoUs with clear definition of starting and end dates, timelines, and budget provisions. However, there is an underspent of 2% of the project budget.

Sustainability:

The program has a robust mechanism for ensuring operational and financial suitability. The program is ensuring operational sustainability through capacity building of the farmers on irrigation and technology use. When it comes to financial sustainability, the program is ensuring financial sustainability by creating FPOs, providing market linkages and convergence with the government.

Impact

Jharsuguda district has low nutritional intake as compared to other districts of Odisha. The growth in food production in the district is also very low as compared to other districts in Odisha.¹²⁴

¹²⁴ <http://phdma.odisha.gov.in/sites/default/files/2021-01/PHDMA-Report-FSnN-Odisha-min.pdf>

Implementation of the sustainable agricultural activities under the project resulted to increase in the yield of crops. 53% of the respondent involved in the agriculture activities reported to have increase in the yield due to their association from the program.

The project has created significant impact on incomes of the beneficiaries. As per the latest NSO data, in absolute terms, the nominal income from crop production or cultivation per agricultural household was increased by 23% from 2012-13. However, in real terms it has declined by 8.9%. COVID-19 further exacerbated the economic condition of the rural households. Due to Covid 19 Pandemic, the income of rural households dropped significantly. COVID-19 further pushed rural households into debt trap.

Due to the program the increase in yield helped in enhancing the income of the beneficiaries and there was an increase of INR 4600 in the income of beneficiary households. As the project focuses on the bio-inputs and sustainable irrigation, it helped in the reduction of the input cost of the agriculture.

Notwithstanding, an increase in the farms out-put in the recent years, the purchasing power of the farmers remains low in India. The main reason behind this paradox is the substantial rise in the farm input costs.¹²⁵ With a supply chain disruption around the industries, COVID-19 pandemic further aggravated the situation in India. The COVID-19 pandemic resulted in the shortage of fertilizers, pesticides and other farm inputs in the country, which further resulted in the price rise of farm inputs in India. Odisha has also observed a sharp increase in the prices of fertilizers, pesticides and on rents of agriculture machinery due to COVID-19 pandemic.¹²⁶

On contrary to the national and state scenarios, the beneficiaries of the project reported to have decrease in the input cost of agriculture. The project resulted in the reduction of on an average INR 2700 in the respondent households involved in the agriculture.

¹²⁵ <https://economictimes.indiatimes.com/news/economy/agriculture/farm-input-cost-set-to-rise-with-increase-in-fertiliser-prices/articleshow/81971698.cms?from=mdr>

¹²⁶ <https://www.nabard.org/auth/writereaddata/tender/1211203145Impact%20Assessment%20of%20COVID.pdf>

Improvement in Agriculture

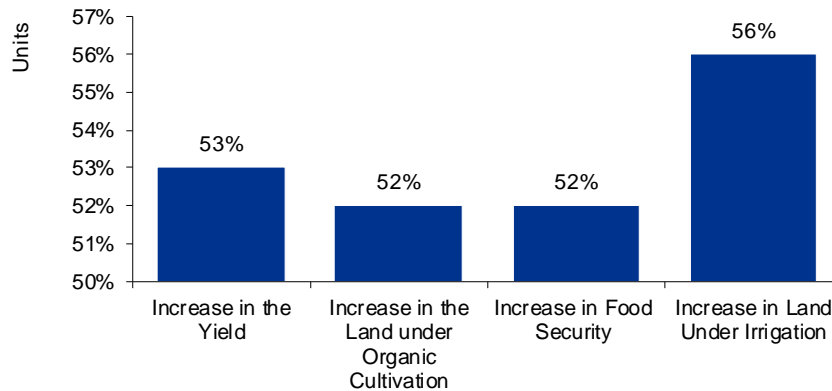


Figure 37: Impact of the Program

52% of the respondent households involved with the project reported to have an improvement in the food-security. 56% of the beneficiaries reported an increase in the land under agriculture.

Strength

Increased in Land Under irrigation and Crop Yield: Most of the respondent households in the Jharsuguda which are involved in agriculture are small or marginal farmers. They remain dependent on agriculture activities for their sustenance. Jharsuguda, being in the climate hotspot, is plagued with drought like situation in last few years. Drought causes unavailability of the water for irrigation and erode soil moisture resulting in the reduction of the yield of the crop.

Despite of facing climatic challenges, the project has resulted in increase in the land under irrigation and ensured high yield and income enhancement.

Challenges

The only daunting challenge that the program face are environment and climate challenges. Jharsuguda, being in the climate extreme hotspot has observed unexpected weather conditions in the past few years.

Way Forward

- As the project is only involved with 300 farmers, there is need to scale the project to assimilate more farmers.
- In the hindsight of climatic shocks, VALJ shall promote and train its beneficiaries on climate resilient agriculture techniques.
- VALJ may work towards Natural Resource Management in the intervention villages to mitigate the challenges posed by droughts. It may work towards watershed development to rejuvenate ground water bodies to ensure ample water for irrigation.
- **Access to financial services-** As per All India Rural Financial Inclusion Survey conducted by NABARD (2016-17), only 29 % of agricultural households reported savings in their previous year from banks, post offices or SHGs while 52.5 % stated having debts. Further, only 29 % of these households have any type of crop insurance and 1.7 percent had livestock insurance.
 - It is crucial for the farming communities to have access to financial services which would help them financially and educate them about better saving practices that would eventually increase their household income and create economic stability. These savings can further support them diversify their agriculture activities. In order to create sustainable livelihood options for farmers, the establishment and accessibility of Kisan Seva Kendras and Agriculture Credit Cooperative Societies is also necessary.
 - Convergence with various stakeholders to improve market linkage and reduce input costs: Convergence with the government and their policies like Rashtriya Krishi Vikas Yojana, National Agricultural Insurance Scheme, National Horticulture Mission, while aligning to the integrated rural department and regional rural banks is one step towards collaboration.

Best Practice: Digital Green has developed low-cost digital platforms such as community radio, interactive voice response (IVR) systems, text messages, radio to provide information on agronomic practices, nutrition etc by working across different media channels. Further, Digital Green created 'Loop', a mobile app that enables farmers to more efficiently access markets by helping them aggregate their perishable produce.

- The BU can also work towards enhancing the nutritional security of the community. It can be done through 'biofortification' which refers to nutritionally enhancing food crops. It increases the micronutrient content of commonly consumed staple crops, which comprise the backbone of all food systems, and it provides an important safety net for vulnerable populations in low and middle-income countries whose sustenance relies on these relatively inexpensive staples for much of their diet.^f

Best Practice: HarvestPlus is an organization that is working towards improving nutrition and health of vulnerable populations through its crop portfolio. The cornerstone of this effort is scaled-up delivery of staple crops that have been conventionally bred to contain higher amounts of vitamin A, iron, or zinc—three nutrients that together are associated with the largest global nutritional disease burden.

In 2019, HarvestPlus and the World Food Programme (WFP) signed a 4-year agreement to increase the production and consumption of biofortified crops in Zambia. One of the main goals was to increase the **quantity** of biofortified crops available for the home-grown school meals programme, including vitamin A maize and orange sweet potato, and iron beans. HarvestPlus is providing **training to farmers** and WFP staff on production, postharvest handling, and marketing of biofortified crops; **link farmers and processors** with the WFP-supported **aggregator system** to ensure quality and traceability of biofortified crops; and together with WFP, provide **technical advice and support to relevant government ministries on biofortification**.

4.4. Business Drivers for Sustainable Livelihood Programme

CSR is a pivotal management concern given that in order to expand their wealth creation role in society, businesses must proactively manage risks and take advantage of opportunities vis-à-vis reputation and engagement with stakeholders¹²⁷. Based on the perception survey, the internal stakeholders of VALJ believe that companies having a focus on key business drivers focused on sustainability have a greater chance of success and further believe that such companies are more attractive to investors.

¹²⁷ https://www.iisd.org/system/files?file=publications/csr_guide.pdf

“CSR is essentially a strategic approach for firms to take to anticipate and address issues associated with their interactions with others and, through those interactions, succeed in their business endeavours”.

- Hohnen, Paul (2007). Corporate Social Responsibility: An Implementation Guide for Business. International institute for Sustainable Development Source: https://www.iisd.org/system/files?file=publications/csr_guide.pdf

Best Practice: In a pioneering move, ITC set up village internet kiosks - e-Choupals - which made real-time, up-to-date, relevant information on weather, price discovery, agri know-how and best practices, etc readily available. The kiosks are managed by trained local farmers who help the local agricultural community to access the information in their local language. With appropriate knowledge and services available virtually at the farm gate, farmers have been able to raise productivity, improve quality, manage risk and earn better prices ([ITC e-Choupal - Empowering Indian Farmers \(itcportal.com\)](http://itcportal.com))

The focus on these business drivers has a direct relation to improving relationships with local communities, increasing trust, improving the reputation of VALJ as well as contributing to the national and international social development goals. Therefore, VALJ leadership’s perception on such benefits is both inward and outward looking and encompassing a varied group of stakeholders. Specifically, according to the study 100% of the VALJ’s internal stakeholders considered “supporting social development of the local community” and “providing equal economic opportunities to the local community” are the twin key business drivers for their CSR. Specifically, within the area of providing equal economic opportunities, 22% of the internal stakeholders considered that supporting existing farmers with inputs, introduction of new technologies and trainings for their income enhancement, is the strongest business driver for sustainable livelihood programmes run under CSR.

Business Case for Jeevika Samiridhi: Businesses are seen as engines for “growth and development” and therefore in order to underpin their license to innovate, operate and grow the business, they have a critical role to play in accelerating progress towards development overall¹²⁸. In fact, the World Business Council for Sustainable Development (WBCSD) believes that the

¹²⁸ <https://journals.openedition.org/factsreports/840>

leading companies of the future will be those that align profitable business ventures with the needs of society¹²⁹. For any business, investments into the livelihood of communities that are marginalized or have lower incomes, supports in the growth of the communities they work in, which in turn improves the landscape for carrying out business operations. A community that is satisfied with the support they are receiving from the business to improve their livelihood conditions is more likely to support the business in its own growth.

¹²⁹ *ibid*

5. Thematic Area Education

5.1. Executive Summary

VALJ has been carrying out significant efforts in the field of education, with a strong community and stakeholder connect. They have worked with complete synergy and cognizance with the stakeholders to develop and carry forward such projects through education indicators have seen a tremendous improvement as compared to 2019 baseline and other secondary state and district level trends.

Following the National Education Policy (NEP) 2020, the country has affirmed the right to universal and quality education to ensure economic growth, advancement, wellbeing and development. Additionally, since the Right to Education Act, there have been tremendous improvements in enrolment as well as ensuring efforts towards reducing the number of out of school children. However, the improvement in the overall educational status does not imply that all children in the country are receiving equitable education. In fact, not only there remains a need to improve the status of education within the country, but special focus also further needs to be provided to states that are lagging behind, such as Odisha.

Key Highlights of the Baseline Assessment:

- Illiteracy has been reduced by 60% (compared to the baseline conducted in 2019)
- 36 % more of the population have completed class 5th, 10 % more have completed class 8th. Similarly, over 96% % more have completed class 12.
- Access to basic infrastructure facilities across the schools remains a persistent challenge

Key Highlights of the Impact Assessment:

Vedanta DAV Scholarship Program: 38% of the respondent beneficiaries stated to get impacted in term of reduction in their monthly expenditure on education of their children. The beneficiaries reported a reduction of average INR 1893 monthly on their expenses on education. Apart from providing free quality education to the children, it has been reducing the financial burden on the households.

Computer Literacy Program: Due to the computer literacy program, 41% of the respondent household stated to have increase in the access to digital education for their children in schools

Key Recommendations:

VALJ wishes to ensure that they reach the last mile through providing support to those lagging behind in their educational levels. Towards this, the following has been recommended:

1. Improve school infrastructure and functioning through community involvement.

VALJ has already shown success in fostering community connect not only through their projects but also through building strong community organizations such as Subhalaxmi Cooperatives, FPOs etc. Such organizations play one of the most important roles in increasing community participation and inculcating ownership over programmes. It is recommended that such organizations are fostered to increase participation within school management committees and drive demand towards proper functioning of school infrastructure and development.

2. Technology Integration for Quality Learning.

The development of a structured digital component within the thematic area of education will support children not only currently enrolled in the government schools that are benefitted under existing programmes but other children across the state through access to quality education (with standardised and interactive modules) as well as access to repository of scholarships. This further supports economy of scale, sustainability, greater reach and scale along with increasing interest in education and aspirations for higher learning.

5.2. Baseline Assessment

Education Level

Education is a basic human right of all children. As per the Declaration of Human Rights (Article 26)¹³⁰, everyone has the right to education and education shall be free, at least at the elementary/foundational levels. Elementary education is further meant to be compulsory while higher education shall be made accessible in an equal manner on the basis of merit. The aim of education is to ensure the full development of the human personality and further strengthen other human rights and fundamental freedoms. This is further bolstered in the Convention of the Rights of the Child (Article 28 and 29)¹³¹. It further expands the concept of the right to education from the Declaration of Human Rights. It includes obligations on the State to encourage regular school

¹³⁰ <https://www.un.org/en/about-us/universal-declaration-of-human-rights#:~:text=Everyone%20has%20the%20right%20to%20education,.on%20the%20basis%20of%20merit.>

¹³¹ <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>

attendance and the reduction of dropouts. It further directs states to ensure the child's dignity within educational institutions. India ratified the Convention of the Rights of the Child (UNCRC) in 1992.

The National Education Policy 2020¹³² affirms that the provision of universal access to quality education as a key to ensure India's economic growth, scientific advancement, national integration, cultural preservation as well as ensuring social justice and equality within the country. It has been acknowledged that India will have the highest population of young people in the world within the next decade and thus high-quality educational opportunities will play a key role in determining the future of not only the youth of the country but the country itself.

The Right of Children to Free and Compulsory Education Act (2009) is what guarantees the right to education to all children in the country. It operationalizes the constitutional guarantee offered under Article 21 of the Indian Constitution.

Over the years, especially after the Right to Education Act 2009 came into place, India has made strides in education through improving the quality of education, increasing elementary school enrolment as well as ensuring efforts towards reducing the number of out of school children. However, the improvement in the overall educational status does not imply that all children in the country are receiving equitable education. The literacy rate in India is still at 78%, with literate males at 85% and literate females at 70%, according to the National Family Health Survey (NFHS-5) and National Statistical Office: NSO (2021 and 2022). There has been a marginal improvement in the Gross Enrolment ratio across all levels of schooling. Gross Enrolment Ratio increased to 89 % in 2019-20 (from 87%) at Upper Primary level; 99% (from 96%) at Elementary Level; 78% (from 77%) at Secondary Level; and 51% (from 50%) at Higher Secondary Level.¹³³

In fact, not only there remains a need to improve the status of education within the country, but special focus also further needs to be provided to states that are lagging behind.

The following section will analyze the education attainment of the members of the respondent households and the current status from the previous baseline.

¹³² https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

¹³³ <https://www.thehindubusinessline.com/news/national/gross-enrolment-ratio-up-at-all-levels-of-school-education-report/article35077594.ece>

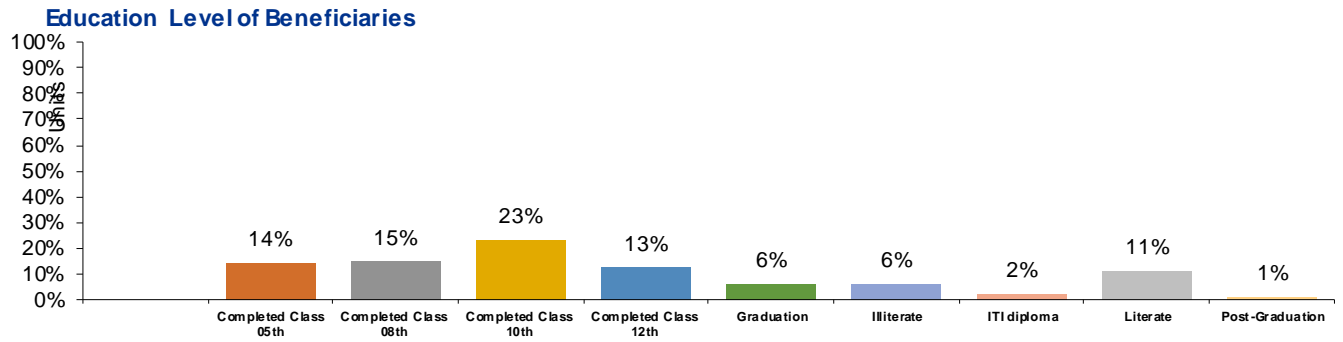


Figure 38: Education Level of Beneficiaries

6% of the interviewed population remains illiterates, faring better than the district average, where 24.6% of the population was found to be illiterate during Census-2011¹³⁴. There has been an improvement from the previous baseline and the illeteracy has been reduced by 60% amongst the respondent households. Since the previous baseline (in 2019), there has been an overall improvement of the levels of education amongst the respondent households in Jharsuguda. 36 % more of the population have completed class 5th, 10 % more have completed class 8th. There has been a jump of almost 248 % of completion of class 10 and over 96% % more have completed class 12. A similar trend is further seen in completion of graduation and post-graduation which observed a jump of 100%.

¹³⁴ <https://www.census2011.co.in/census/district/395-jharsuguda.html>

Education Level Amongst Respondent Households- Gender Wise

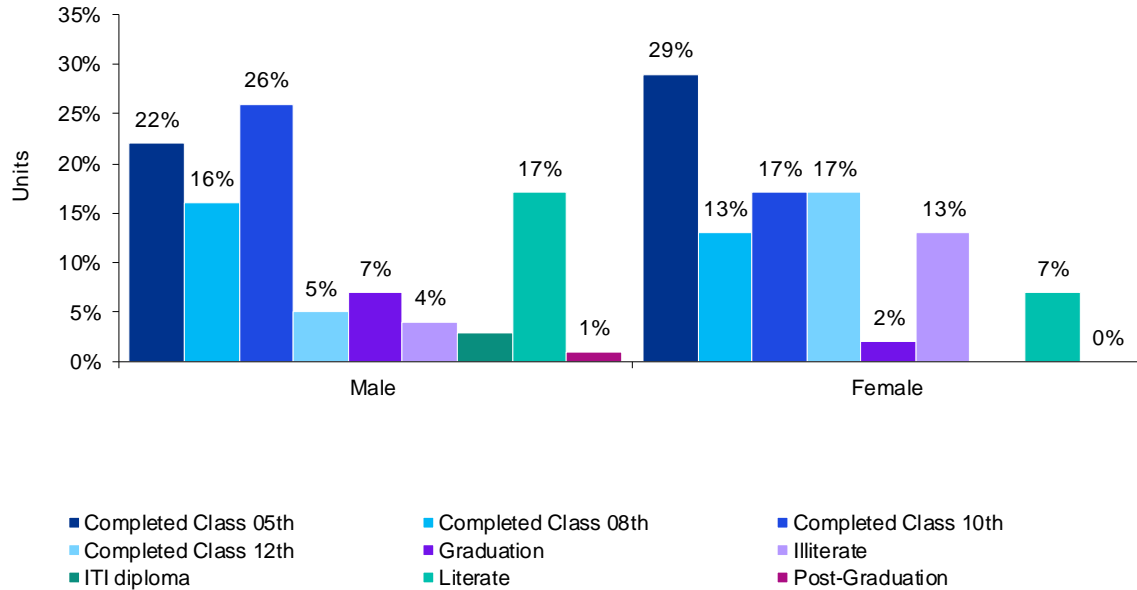


Figure 39: Education Level Amongst Respondent Households- Gender Wise

Despite of observing an improvement in the educational attainment, the females of the respondent households lag behinds the male of the respondent households in attaining education. The females of the respondent households only fared than the males in completing primary education. Only 13% of the females of the respondent households reported to complete secondary education as compared to 16% of the males. When it comes to completing senior secondary education, only 17% of the females from the respondent households reported to complete senior secondary education, as compared to 26% of the males. Only 2% of the females completed graduation, while 7% of the males from the respondent household received a graduation degree. None of the female member amongst the respondent household reported to attain a post-graduation degree in the respondent households.

Facilities in Educational Institution

It has been a well-established fact that schools with good infrastructure facilitate higher attendance and enrolment rates. School infrastructure plays a pivotal role in motivating students in attending the schools regularly. According to the World Bank, physical infrastructure plays a significant role in children's enrolment, attendance, completion rates as well as learning outcomes¹³⁵. Furthermore, ensuring adequate water, sanitation, and hygiene (WASH) facilities in schools 'improve access to education and learning outcomes, particularly for girls, by providing a safe, inclusive and equitable learning environment for all'¹³⁶. It also helps in increasing the interest of students and teachers in learning activities.¹³⁷ Schools having separate toilets for girls improves gender parity in education by facilitating higher enrolment and retention rates of girl students.

In the backdrop of various government policies and schemes, India has taken a holistic approach in improving the academic performance of students. Infrastructure facilities have improved across India in the last few years.

The below table gives a comprehensive analysis on the crucial infrastructure facilities across India, Odisha and Jharsuguda.¹³⁸

	India	Odisha	Jharsuguda
Total schools	1509136	64185	761
% Of the total government schools	68%	78%	75%
% Of Schools Having Functional Boys Toilet	90%	89%	92%
% Of Schools Having Functional Girls Toilet	93%	89%	97%
% Of Schools with Functional Drinking Water	95%	96%	97%
% Of Schools with Functional Electricity	84%	71%	79%
% Of Primary Schools to Total Schools	51%	47%	38%
% Of Upper Primary Schools to Total Schools	29%	34%	39%

¹³⁵ <https://policytoolbox.iiep.unesco.org/policy-option/school-infrastructure/>

¹³⁶ <file:///C:/Users/sakshijerath/Downloads/JMP-WASH-in-Schools-WEB.pdf>

¹³⁷ <https://files.eric.ed.gov/fulltext/ED604388.pdf>

¹³⁸ <https://udiseplus.gov.in/#/home>

% Of Secondary Schools to Total School	10%	15%	17%
% Of Higher Secondary Schools to Total Schools	9%	4%	4%
% Of Schools with Internet	24%	7%	15%
% Of Schools with Ramp	71%	81%	87%

Table 5: Infrastructure in Schools Across India, Odisha and Jharsuguda

Odisha has also observed a significant improvement in school infrastructure facilities. Yet, it still lags the national average when it comes to infrastructure development in schools. Only 89% of the schools in Odisha have functional toilets for girls as compared to Indian average, which is 93%¹³⁹.

As per the UDISE, Jharsuguda, outperforms the national and state average on most of the infrastructural facilities in the schools. Though, access to electricity and internet in the schools is still below the national average.

In 2016 in Odisha, only 50.3% of the schools were complying to teacher pupil ration and only 72.8% of the schools were complying with teacher class-room ratio.¹⁴⁰ Quality of teaching and teachers' education are central to delivering quality education for all. They enable education to achieve its transformative potential for individuals, communities and for overall national development¹⁴¹. Quality education is chiefly determined by teaching pedagogy and thus is not simply the process of acquiring knowledge and skills but assessing such knowledge, understanding its significance and value and constructively use the same for the emergence of the learner as a knowledgeable being. This thus requires the presence of adequate number of teachers, their ability to bring forth equal attention towards the learning outcomes of the children, contextualize the same and not simply the provision of education.

¹³⁹ <https://src.udiseplus.gov.in/School/DataDashboard>

¹⁴⁰ https://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202016/aser_2016.pdf

¹⁴¹ <https://unesdoc.unesco.org/ark:/48223/pf0000379115>

Facilities in Primary Schools

Facilities in Primary Schools

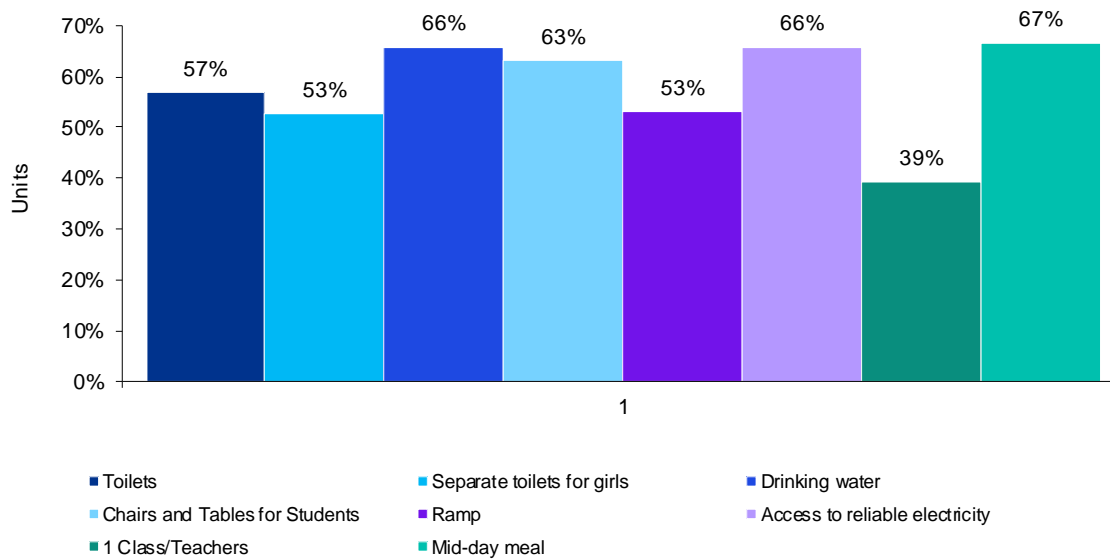


Figure 40: Facilities in Primary Schools

According to the previous baseline, 93% of the primary schools surveyed had the drinking water facilities and 88% of the primary schools were found to have the sanitation facilities. As per the UDISE data, 100% of the primary schools in Jharsuguda have drinking water facility, while 100% of the schools in Jharsuguda have functional toilets for the boys and 98% of schools have functional toilets available for girls.¹⁴² On contrary, when it comes to functionality and operations of the aforementioned infrastructure, it must be noted that a CAG report on toilets¹⁴³ has stated that despite presence of the same, they are not hygienically maintained. Therefore, reporting of existing toilets within schools does not signify that there are available or comfortable to use by children. While interacting with the stakeholders, only 57% of the respondent household reported to have availability of toilets for their children in primary schools. 53% of the respondent households reported to have access to have separate toilets for their children in primary schools

¹⁴² <https://udiseplus.gov.in/#/home>

¹⁴³ <https://cag.gov.in/en/audit-report/details/111816>

and only 66% of the respondent households reported to have access to drinking water facilities in primary schools for their children.

When it comes to the access of electricity in the schools, despite of the secondary data revealing to have electricity connection in 99 %¹⁴⁴ of the schools in the schools, only 66% of the respondent households reported to have availability of electricity in the primary schools. The UDISE data reveals that no primary school in the district¹⁴⁵ have availability of furniture in the schools, however 63% of the respondent households reported to have availability of furniture in the primary schools. As per the secondary data, 100% of the primary schools were found to have the facility of the ramps¹⁴⁶, while only 53% of the respondent households reported to have the availability of the ramps in the primary schools. Only 38% of the respondent households reported to have the availability of 1 teacher per class in primary schools.

In rural areas, mid-day meal serves as an enticing incentive for parents to take their children to school and it acts a medium to fulfil the nutritional needs of the children.¹⁴⁷ As per the NSS, only 50% of the students in rural areas in India reported to receive free mid-day meals in schools, this percentage stood 61.4% in Odisha.¹⁴⁸ Meanwhile, 67% of the respondent households reported to have access to mid-day meals for their children in the schools.

Facilities in Secondary Schools

Similar trends were also observed in the secondary schools much like the primary schools.

As per the UDISE district data of secondary schools in Jharsuguda, all the secondary schools in Jharsuguda have the facility of the drinking water and have functional toilets for girls and boys. 99% of the secondary schools have the provision of electricity and 100% of the secondary schools have ramp facilities.¹⁴⁹ When it comes to the availability and accessibility of the toilets in the secondary household, only 63% of the respondent households reported to have the availability of the toilets for their children while only 62% of the respondent reported to have availability of separate toilets for girls. 67% of the respondent households reported to have availability of drinking water facility in secondary schools.

¹⁴⁴ <https://udiseplus.gov.in/#/home>

¹⁴⁵ <https://udiseplus.gov.in/#/home>

¹⁴⁶ <https://udiseplus.gov.in/#/home>

¹⁴⁷ <https://www.smilefoundationindia.org/blog/mid-day-meals-and-their-role-in-the-education-of-children/>

¹⁴⁸ <https://mospi.gov.in/web/nss>

¹⁴⁹ <https://udiseplus.gov.in/#/home>

Facilities in Secondary Schools

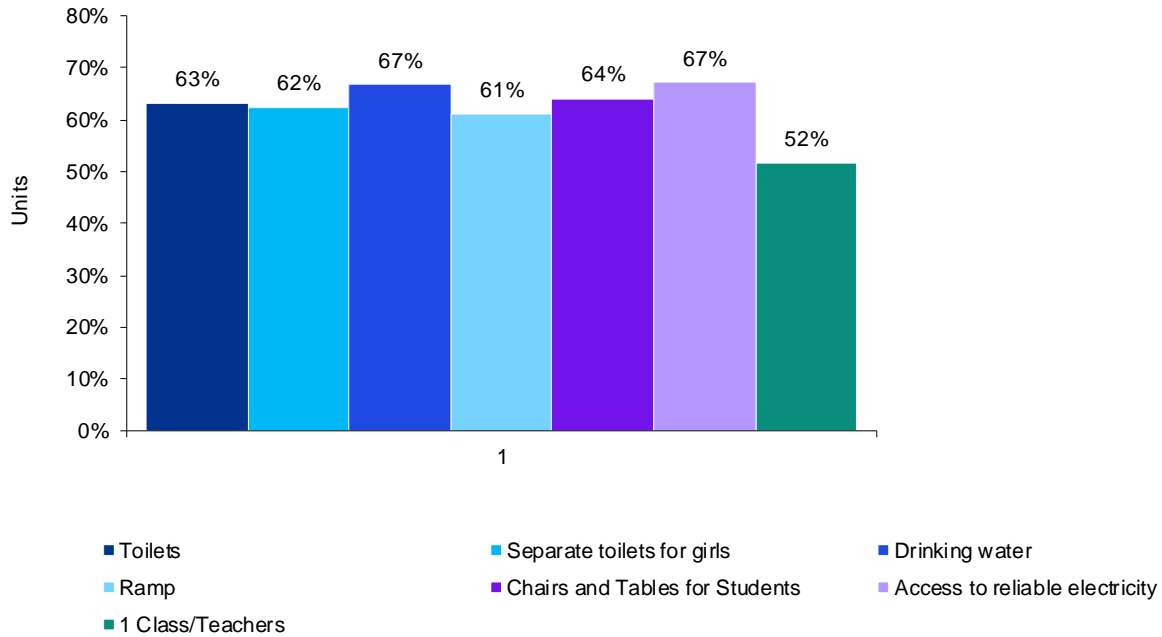


Figure 41: Facilities in Secondary Schools

As per the secondary data, only 17% of the secondary schools in Jharsuguda district have the availability of furniture for students. On contrary, 64% of the respondent households reported to have availability of furniture in secondary schools. It was reported by 67% of respondent households to have availability of reliable electricity in the secondary schools, however as per the secondary data 100% of the secondary schools were found to have electricity. As per UDISE, 100% of the secondary schools in the district have the availability of ramps, while only 61% of the respondent households reported to have availability of ramps in the secondary schools.¹⁵⁰ Similarly, only 52% of the respondent households reported to have the availability of 1 Class/Teacher. It has already been stated that the mere presence of these facilities does not

¹⁵⁰ <https://udisplus.gov.in/#/home>

indicate their actual usability. While in WASH facilities, this may indicate lack of maintenance, for other indicators such as electricity, it is indicative that there may be access but not regularly and within the classrooms themselves.

Facilities in Higher Secondary Schools

As per the UDISE district data of higher secondary schools in Jharsuguda, all the schools in Jharsuguda have the facility of the drinking water and have functional toilets for girls and boys. 100% of the higher secondary schools have the provision of electricity and ramp facilities.¹⁵¹ When it comes to the availability and accessibility of the toilets in the higher secondary schools for children from respondent households, only 68% of them reported to have the availability of the toilets for their children while 67% of the respondent reported to have availability of separate toilets for girls. 67% of the respondent reported to have availability of drinking water facility in higher secondary schools. Only 56% of the respondent households reported to have availability of ramp facilities in higher secondary schools

Facilities in Higher Secondary Schools

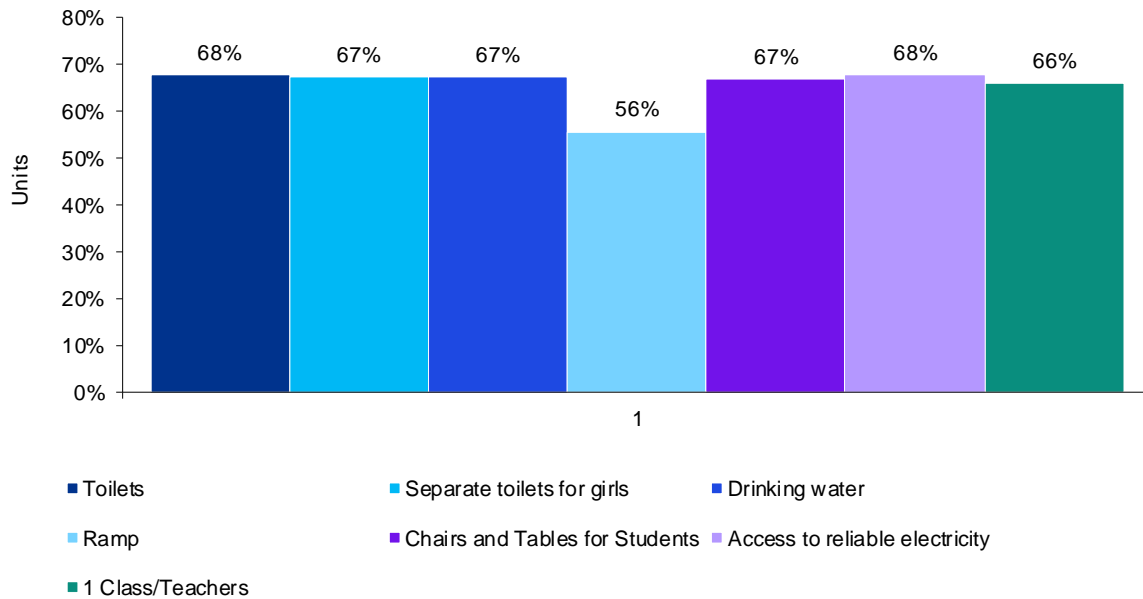


Figure 42: Facilities in Higher Secondary Schools

¹⁵¹ <https://udiseplus.gov.in/#/home>

As per the secondary data, 100% of the higher secondary schools in Jharsuguda district have the availability of furniture for students. On contrary, 67% of the respondent households reported to have availability of furniture in secondary schools. It was reported by 68% of respondent households to have availability of reliable electricity in the secondary schools. Similarly, only 66% of the respondent households reported to have the availability of 1 Class/Teacher.

School Dropouts

According to UNICEF¹⁵², in 2014 there were 6.1 million children out of school in India, a figure that had reduced from 13.46 million in 2006. However, **29 % of children drop out of school before completing their elementary education and 50 % of adolescents do not complete secondary education in the country**¹⁵³.

Moreover, as per the **NSSO Key Indicators of Household Social Consumption of Education 75th Report**-15% of the persons between 3-35 year of age never enrolled in the education, only 37.8% of the people between age group of 3-35 were found to attend the education in Odisha.

According to the previous baseline, the average dropout rates was 27% amongst the respondent households in Jharsuguda. Based on the current baseline, the average dropout rate is 11 %, and is lower than the state average.¹⁵⁴

It is further to be noted, when compared by gender, the dropout rates amongst girls were higher than the boys of respondent households. The dropout rate was 13% amongst the girls, while it was 8% amongst the boys of the respondent households.

¹⁵² <https://www.unicef.org/india/what-we-do/education>

¹⁵³ <https://www.unicef.org/india/what-we-do/education>

¹⁵⁴ <https://udiseplus.gov.in/#/home>

Dropout Amongst the Respondent Households

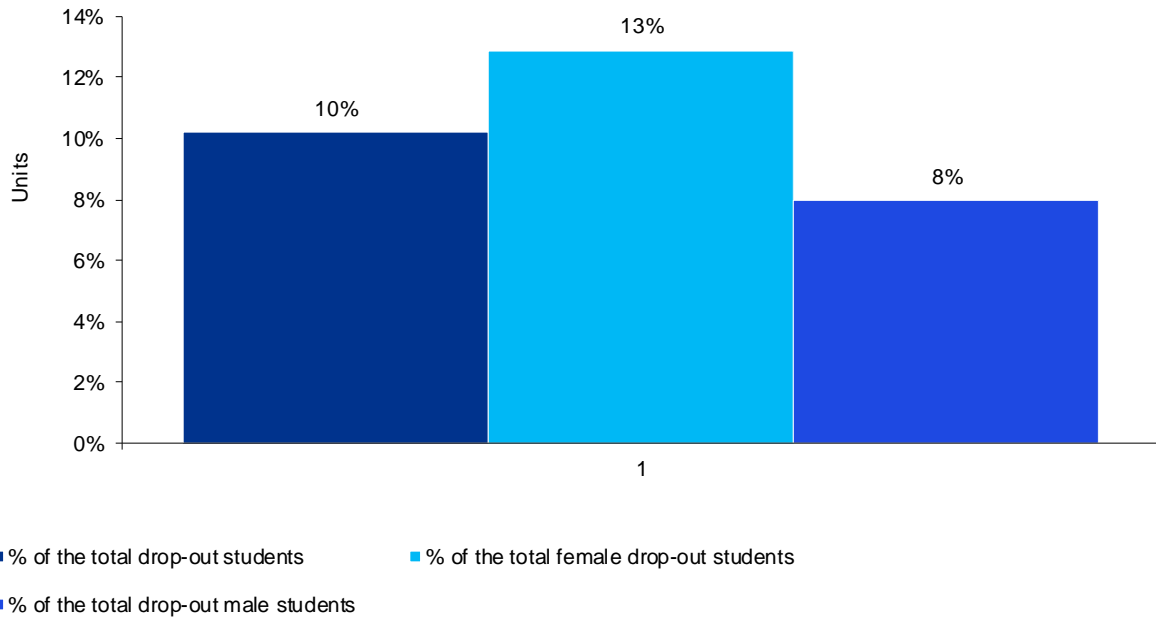


Figure 43: School Dropouts

Reason for School Dropouts

Despite the efforts taken for the infrastructure upgradation in the schools, the usability and accessibility to the infrastructure remains a challenge, especially in the rural areas.

From schools being far away to cost of education, there are myriad reasons that emerge with respect to drop-out rates amongst students of school going age within the business unit’s operational areas.

Reason for Drop-Out

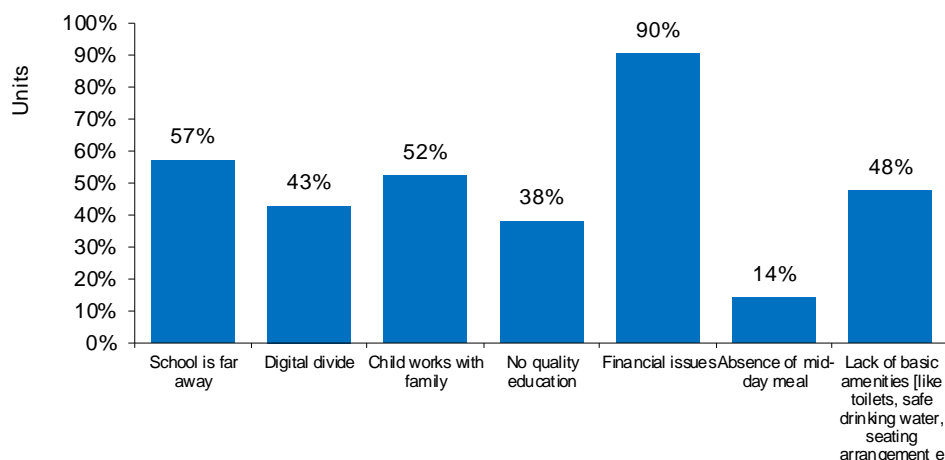


Figure 44: Reason for School Dropouts

The respondent households were asked about the reasons of children not attending the schools regularly for the baseline. 90% of the respondent households reported financial issues as the reason for children not attending schools regularly. 57% of the respondents interviewed reported the distance of the schools as the reason for children not attending the schools regularly, while 43% of them stated the digital divide as the reason for children not attending the schools regularly. 14% of the respondent household stated the absence of midday meal as the reason, while 52% of the respondent households reported, as the child was working with the family and hence was not attending the schools regularly.

Poverty impacts the attainment of quality education of children and is one of the major reasons for school dropouts in India.¹⁵⁵ It was found out that 90% of the children from the respondent households were not regular to the schools due to financial issues. However, as per the data received, 64% of the respondent households were from APL category. When it comes to defining the poverty levels of a household, APL and BPL entitlement and the consumption criteria becomes confounding and asset-based indicator of poverty becomes more relevant.¹⁵⁶ Around 59% of the respondents are stilling living in the Kuccha houses. Apart from basic electric appliance, on an average, 60% of the households are devoid of assets. Moreover, as per the secondary data, the per-capita income of Jharsuguda is almost half of the per-capita income of Odisha¹⁵⁷ which is amongst one of the poorest states of India with a poverty level of 29.4%.

¹⁵⁵ <https://jstrust.in/2020/09/14/poverty-induced-dropouts-in-india-2/>

¹⁵⁶ <https://journals.sagepub.com/doi/10.1177/0973703020933740?icid=int.sj-full-text.similar-articles.2>

¹⁵⁷ https://finance.odisha.gov.in/sites/default/files/2021-02/Economic_Survey.pdf

Hence, it may be inferred APL or BPL entitlement can't be considered as the only paradigm to gauge the poverty levels of a household, which can be observed amongst the respondent households. And hence, lack of finances was one of the major reasons given by the respondent households for their children not going to schools regularly.

Moreover, as per the International Labour Organization, poverty is one of the single greatest forces to drive children into workforce. Due to the prevailing poverty in the household, children often leave the school and support the family by working in the labour force.¹⁵⁸

57% of the respondent stated the distance of the schools as the reason for not attending the schools regularly by their children. As per the findings of the last baseline conducted by VALJ, the average distance of the schools from the villages was found out to be 2.8Kms and thus can be an obstacle for the children to access the schools.

As per the UNESCO 2021 State of the Education Report for India: '*There are no teachers and no classes*', the use of technology for ensuring quality education has emerged as important.¹⁵⁹ However, schools across India lack digital infrastructure. Only 24% of the schools in India have internet connectivity.¹⁶⁰ When it comes to the internet connectivity in Jharsuguda, as per the UDISE+ latest data, only 15% of the schools in Jharsuguda have internet connections and hence it may be said that due to the absence of internet, the student lacks access to quality education. 48% of the respondent households reported lack of digital infrastructure as the reason behind their children of school going age not attending the schools regularly.

As per the primary data, 48% of the respondent households stated the lack of the basic amenities as the reason for their children for not attending the schools regularly. As observed previously, this can be corroborated with the fact 40% of the children from the respondent households didn't have the accessibility to the basic infrastructure and facilities in the schools.

¹⁵⁸ https://www.ilo.org/moscow/areas-of-work/child-labour/WCMS_248984/lang--en/index.htm

¹⁵⁹ <https://thepolicytimes.com/only-19-of-schools-in-india-have-internet-connectivity-unesco-report/>

¹⁶⁰ <https://udiseplus.gov.in/#/home>

Access to Digital Education

The COVID-19 pandemic highlighted the necessary changes required in the Indian educational system with greater number of schools needing to adopt digital learning as part of their mainstream educational practices. The lack of this led to the discontinuation of education for scores of children across the country, where Odisha suffered as well. This led to greater number of dropouts, child marriage as well as child labour.

According to UNESCO, digital technology has the power to not only complement but to enrich and transform education as is practiced currently. It further has the potential to speed up progress towards Sustainable Development Goal 4 (SDG 4) for education through transforming the modes of learning and accelerating access to learning. India too is pushing towards the same in its national agenda. As per the National Education Policy 2020, “Schools will develop smart classrooms, in a phased manner, for using digital pedagogy and thereby enriching the teaching-learning process with online resources and collaborations”¹⁶¹.

However, the significant scope of digital education cannot be met until the digital divide in the country is reduced. Only 20 % of school-age children in India had access to remote education during the pandemic, of whom only half participated in live online lessons. Further, 38 % of households stated that at least one child had dropped out of school due to the pandemic¹⁶². Furthermore, according to a study by Azim Premji Foundation¹⁶³, only 32 % of children had easy access to Smartphones for online classes and around 60 % were not attending online classes at all during the pandemic. It must also be noted that only 30 % of schools in the state have internet access¹⁶⁴.

As per the NSS report on Key Indicators of Household Social Consumption on Education in India, only 1.8% of the rural household in Odisha have computers in their home and only 5.8% of the rural households have access to internet.¹⁶⁵

U-DISE developed a performance grading index for districts in India which captures the status of school education in India. One of the 12 parameters that they capture is digital learning . The COVID-19 pandemic highlighted the necessary changes required in the Indian educational system with greater number of schools needing to adopt digital learning as part of their

¹⁶¹ https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

¹⁶² <https://timesofindia.indiatimes.com/world/rest-of-world/digital-divide-still-a-challenge-in-remote-teaching-learning-say-experts/articleshow/87700565.cms>

¹⁶³ <https://azimpremjiuniversity.edu.in/field-studies-in-education/myths-of-online-education>

¹⁶⁴ <https://unesdoc.unesco.org/ark:/48223/pf0000379115>

¹⁶⁵ <https://nss.gov.in/>

mainstream educational practices. The lack of this led to the discontinuation of education for scores of children across the country, where Odisha suffered as well. This led to greater number of dropouts, child marriage as well as child labour, reflective also in the respondent data of the proportion of children who are not in school in the field locations surveyed. The indicators deployed by U-DISE to provide the scoring which has been listed per field unit below include:

The percentage of schools with internet facility for pedagogical purposes

- Percentage of schools with computer/ laptop used for pedagogical purposes
- Percentage of schools having computer-assisted teaching learning facility (e.g., smart classrooms)
- Student-to-Computer Ratio
- Percentage of teachers trained in use of computer and teaching through computer

Jharsuguda scored 5 out of 50 on the digital learning scale by U-DISE, which depicts the poor state of digital education in the district.¹⁶⁶

Amongst the respondent household, access to digital education was found better than the Jharsuguda district. 21% of the children from the respondent households were accessing the online education through digital classrooms and 16% of the children from the respondent household were accessing the digital education through mobile phones.

Analysis and Way Forward

- The baseline data affirms that the educational attainment levels have improved since the last baseline, further showing significant progress over the district level data.
- In fact, not only has illiteracy reduced, but the proportion of the population that are completing up to each grade within schools has also increased, and a far greater proportion is now completing graduation.
- Despite the success that has been achieved through the increase in the educational attainment still it remains low amongst the community members
- The lack of access to basic amenities in schools remains persistent amongst the children of respondent households.
- There has been low teacher-pupil ratio in schools across various level of schools.

¹⁶⁶ <https://pgi.udiseplus.gov.in/DISTRICT-PGI-ENGLISH.pdf>

According to UNESCO, the dominant pedagogy followed in the country is ‘teacher and textbook centric’ which signifies that the teacher and the text are the primary authorities on knowledge. Herein, dialogue and interactive learning are not prioritized but rather teacher-transmission, lecture mode, following the prescribed syllabus and textbook based tasks are some of the activities followed. However, it is seen as useful to shift pedagogical practices to a more positive-student focused practice which is communicative and allows to create a safe and conducive learning environment¹⁶⁷. The study further states that ‘improving working conditions of teachers in schools – beginning with better infrastructure along with more supervision and engagement by school supervisor – can have an overall positive effect on school ethos, making teachers feel that their professional commitment to students is supported by the system and that they are valued as professionals’¹⁶⁸. This in turn has positive impacts on learning outcomes of children.

Way Forward

- **Enhancement of Infrastructure-** The proper maintenance of existing infrastructure facilities within schools (including proper functionality and usability) is necessary to ensure the proper learning environments. This in turn supports to ensure that children stay in school, enrolments for all increase, drop outs decrease and learning outcomes improve. To achieve the same, community involvement through the revival (where required) as well as proper functioning of School Management Committees (SMCs)¹⁶⁹ could be ensured. Meetings of SMCs must be carried out regularly and suggestions of SMC members regarding improvement of school should be adopted. Furthermore, including periodic social audits would ensure accountability.
- **Quality of Education:**

¹⁶⁷ <https://unesdoc.unesco.org/ark:/48223/pf0000379115>

¹⁶⁸ *ibid*

¹⁶⁹ School Management Committees (SMCs) are mandated by the Right to Education Act (2009) and the composition must include 75 % of parents/guardians from which half must be women, the rest of the 25 % must include local authorities, school teachers, academicians/students. In Rajasthan, the number of members that have been suggested is 15.

- a. Increase Pupil-Teacher Ratio:** Based on the National Educational Policy 2020, the ideal pupil teacher ratio should be 30:1. Moreover, it is not simply ensuring that the ideal number of students per teacher, but the quality of teaching maintains the standards required to ensure universal education. Only 52% of the respondent reported to have 1 teacher/ Classroom in Jharsuguda. It is recommended to work with the state department of education on curriculum development and train teachers accordingly. This can be done on a pilot basis to integrate further based

Best Practice: Azim Premji Foundation is working with the District Institute of Education and Training (DIET) in Jharkhand to build model schools wherein principals and teachers at these schools will receive 10-months training to develop them as “changemakers”. As changemakers, these teachers and principals will become master trainers on specific subjects such as Science, English, Hindi, Social Science and Mathematics.

on success..

- b. Support Government Schools with New Technologies:** The Government of India has laid emphasis on digital education to reverse learning losses caused by the pandemic¹⁷⁰. Furthermore, digital education offers opportunities to children to supplement any gaps in learning resources (such as teachers, text books and infrastructure) by offering learning at their fingertips¹⁷¹. However, due to the digital divide in the country, as well as in the state of Odisha, it is necessary to ensure that digital learning is also made available in government schools. This allows children to access individualised learning programmes that can further impact their aspirations for higher education as well as attainment of the same¹⁷². Furthermore, digital education allows for standardisation and quality of teaching. There is thus a need to support government schools to carry out digital learning through in-house

¹⁷⁰ <https://www.ndtv.com/education/govt-push-digital-education-through-new-university-200-tv-channels-for-classes-1-12>

¹⁷¹ <https://www.educationworld.in/impact-of-online-learning-on-school-education/>

¹⁷² <https://www.educationworld.in/impact-of-online-learning-on-school-education/>

computer labs where currently computers and/or internet do not exist in most schools.

Best Practice: Pratham, through their *Pratham Digital* initiative is supporting the community with different digital devices and platforms for open learning. They have created core content groups within their organization and have produced over 2500 videos, 300 learning games in 11 regional languages.

- **Equity in Access to Education:** The enrolment in primary, secondary and higher secondary have increased on average, however, the enrolment figures of the government indicate the proportion of girls being enrolled into these institutions is often 90 percentage points lesser than boys on a yearly basis. Furthermore, drop outs among girls is higher than boys. A key need here is to carry out behaviour change campaigns in order to ensure gender parity in enrolment and continuance of education. Furthermore, linkage with existing government policies on scholarships can be made. Further details provided below.

Best Practice: Vodafone-Idea, as part of their CSR has developed India's largest multi-lingual scholarship discovery and assistance platform (www.learningwithvodafoneidea.in). This platform has curated information of scholarships worth more than INR 15,000 crore. The platform lists the minimum criteria required for each scholarship and further maps beneficiaries against the same.

5.3. Impact Assessment

Vedanta is committed to improve the quality of education in schools of Jharsuguda. It recognizes education as one of the building blocks of the nation and thus considers it a priority area for its CSR initiatives. To ensure this VALJ partners with the Government of Orissa and ensure inclusive development. Their educational initiatives are based on the belief that learning is an on-going life process, and thus focus on a wide range of ages and activities. The key initiatives of VALJ are

- ***Vedanta DAV Scholarship Program***
- ***Digital Literacy Programs***

The following section will analyze impact created by VALJ's educational intervention by using OECD framework.

5.3.1. Vedanta DAV Scholarship Program

Since 2009, VALJ has been providing 100% fee support to more than 200 students yearly from **Project affected and Project Displaced** villages to access quality English medium education at DAV Public School. Vedanta is supporting students on admission fees, school fee, bus fee and other study material like books, school bags, uniforms etc.

Evaluation Criteria 1: Relevance

As Per the NSSO Key Indicators of Household Social Consumption of Education 75th Report- 15% of the persons between 3-35 year of age never enrolled in the education , Only 37.8% of the people between age group of 3-35 were found to attend the education in Odisha. These scenario puts Odisha in the bottom three states in India when it comes to secondary education.

As per the previous baseline, there has been an improvement in the education attainment of the children from the respondent households from the previous year baseline. However, the education attainment remains low when compared to the secondary data. This scenario depicts a state of poor attainment of education in the district.

From poverty to lack of quality education and lack of teachers in schools, there are myriad reason amongst the student to drop-out from schools and not complete the education. The country has around 120,000 single-teacher schools, of which nearly nine in 10 are in rural areas, according to a 2021 UNESCO report. There are 28816 vacant positions for teachers in schools in Rajasthan.

Poverty remains a major constraint amongst the students to obtain education in private schools. The per-capita income in Odisha, observed a growth of 16% % from in 2021-22, though it is still 18% less than the per-capita income of India. Moreover, the per-capita income in the rural areas remains half of the per-capita income of urban areas in the country. From FY-12 to FY-19, India observed an increase of 16% in the education expenditure. Lack of teacher, quality infrastructure, poverty remains the deterrent of quality education amongst the children. The program specifically aims in fulling the need of the quality education for the children of the households from marginalized sections.


It establishes the relevance of the Vedanta DAV Scholarship Program, and it was found out extremely satisfactory.

Evaluation Criteria 2: Coherence

A program's relevance is determined by how well it aligns with the goals and policies of the national and state governments as well as Sustainable Development Goas. It also aims to ascertain whether the project is pertinent to the beneficiaries' requirements. The project's relevance is understood in terms of both linkages to existing government programs and community needs. The project aligns with the goals and policies of the national and state governments as well as SDG Goals .

The project is well aligned to government policies and schemes. The government of Odisha launched Odisha Scholarship portal by bringing 21 scholarship schemes from 6 departments, to provide financial assistance for students from marginalized communities to access quality education.¹⁷³

The project is well aligned to SDG 4, that envisions to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

SDG	SDGs target	How is it aligned?
	<p>– Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education</p>	<p>– The project benefits the students in primary and secondary education through the scholarship program, aimed at providing financial support for accessing quality education.</p>

¹⁷³ <https://scholarship.odisha.gov.in/website/content/about-us>

	<p>leading to relevant and effective learning outcomes.¹⁷⁴</p>	
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Evaluation Criteria 3: Effectiveness

The program's effectiveness has been measured by examining how successfully the project's targets were defined, as well as the achievement of the targets.

The program has well defined target and project outputs. The program has successfully achieved the targets defined. It establishes the effectiveness of the program extremely effective.

Evaluation Criteria 4: Efficiency

The efficiency of the intervention was considered vis-à-vis the documents provided on the project including the agreements with the implementing partners, whether the intervention had adhered to its timelines, whether utilization was undertaken through the budget and whether the intervention aligned with the CSR policy of VALJ.

The efficiency of the project found out moderately satisfactory. The project is well aligned with Vedanta's CSR policy of continuously working towards improving quality of life of the communities in its operational areas. The project has MoUs with clear definition of starting and end dates, timelines, and budget provisions. However, there is an underspent of 8% of project budget.

Sustainability

The governance mechanism of the scholarship program is well sustained in terms of the robust system and procedure at place for the selection of the target beneficiaries under the purview of the program. When it comes to individual beneficiaries of the program, the impact created by the scholarship program can be gauged as sustainable. Moreover, the program is enabling an individual for a sustained livelihood and employment besides unburdening the guardians of the targeted beneficiaries by providing sustainable assistance for the higher education. The program

¹⁷⁴ <https://www.sdg4education2030.org/the-goal>

helps in enabling responsible individuals who would again be helping their families and society in a persistent and sustainable way.

When it comes to the financial sustainability, however, the nature of the program is such that it should not be judged with a lens of sustainability. Though, to ensure financial sustainability, VALJ can leverage and channelize government policies and schemes with scholarship provision to make the program financial sustainability.

Impact

In Jharsuguda, where the per capita income is only INR 53193, the program has multifaceted impacts on the beneficiary households in Jharsuguda. 38% of the respondent beneficiaries stated to get impacted in term of reduction in their monthly expenditure on education of their children. The beneficiaries reported a reduction of average INR 1893 monthly on their expenses on education. Apart from providing free quality education to the children, it has been reducing the financial burden on the households. The reduction in expenditure can lead to improvement in nutrition of the household, food security, asset creation and social mobility.

The impact of the program has been found out extremely satisfactory.

Impact of Digital Education Intervention

Jharsuguda district scored 5 out of 50 in the UDISE digital literacy index. It depicts the poor condition of digital literacy in the district. However, around 21% of the students from the respondent households were accessing the digital education through digital classrooms. VALJ has been at the forefront in providing digital education through the introduction of Artificial Intelligence, establishing Computer Literacy centers, mini-science center for improving the access to digital literacy, improving the enrollment rates and improvement in the passing percentages in the schools.

Due to the efforts of VALJ, 52% of the respondent households stated to improve in the passing percentage of their children. 41% of the respondent household stated to have increase in the access to digital education for their children in schools. As per the stakeholder, VALJ intervention has helped in improving the attendance of students in schools.

Conclusion

- **Increased accessibility to education for underserved communities and reduction in the out of -pocket expenditure on education:** The project support has been able to impact socio-economically disadvantaged groups. The project has been able to reduce out-of-pocket expenditure of the beneficiary household, which remains a reason for the students to drop-out from the schools.
- **Access to quality education and exposure:** The project has ensured that students receive an uninterrupted and unfettered quality education. The project activities have ensured increased accessibility as the scholarship is utilized by the beneficiaries to make educational services more affordable and accessible.

Challenges

Despite of imparting substantial impact, the only challenge pertaining to the program is its outreach. Due to limited seats in the schools and limited budget of the program, the program can only benefit a few students from the marginalized community.

Recommendations and Way-Forward:

As the program is relevant to the educational needs, the continuation of the program will be fulfilling the needs of the quality education of the children of the community.

- To overcome the limited out-reach of the program, VALJ can facilitate the enrolment of the children of other households in the intervention area in the Odisha Scholarship Portal. It can also work towards helping the beneficiaries for availing the scholarship in liaison with government.
- To provide quality education like the DAV schools, VALJ can work with the district education department on multiple levels.
 - It can provide training to the schoolteachers on English led content delivery mechanism. This will enhance better reading and communication skills amongst students.
 - VALJ can also extend ICT based learning through establishing digital classrooms in the schools.
 - VALJ may work on improving the school infrastructure to create a parallel education eco-system alike DAV school, which will benefit a larger segment of students by making similar facilities available and accessible to the students.

5.4. Business Drivers for Educational Programmes

CSR is a pivotal management concern given that in order to expand their wealth creation role in society, businesses must proactively manage risks and take advantage of opportunities vis-à-vis reputation and engagement with stakeholders¹⁷⁵. Based on the perception survey, the internal stakeholders of VALJ believe that companies having a focus on key business drivers focused on sustainability have a greater chance of success and further believe that such companies are more attractive to investors.

“CSR is essentially a strategic approach for firms to take to anticipate and address issues associated with their interactions with others and, through those interactions, succeed in their business endeavours”.

- Hohnen, Paul (2007). Corporate Social Responsibility: An Implementation Guide for Business. International institute for Sustainable Development Source: https://www.iisd.org/system/files?file=publications/csr_guide.pdf

The

internal stakeholders did believe that the focus on certain key drivers for business have improved community relations. In fact, the focus on these business drivers has a direct relation to improving relationships with local communities, increasing trust, improving the reputation of VALJ as well as contributing to the national and international social development goals. Therefore, VALJ leadership’s perception on such benefits are both inward and outward looking and encompassing a varied group of stakeholders. Specifically, according to the study 100% of the VALJ’s internal stakeholders considered “supporting social development of the local community” is the key business drivers for their CSR. Specifically, within the area of social developed, 22%cent of the internal stakeholders considered that making education accessible to vulnerable communities is the strongest business driver for educational programmes run under CSR.

Business Case for Vedanta DAV Scholarship Program: The programme has successfully supported in increasing the pass percentage and reduction in the expenditure for the education. Through this intervention, they directly work towards enhancing the social development of the local community and specifically focus on making quality education more accessible. Focus on education, not only aligns with the national and international goals on universalising quality access but has the capability to make a real and lasting difference in the lives of the beneficiaries. VALJ has generated shared values¹⁷⁶ between its internal and external stakeholders, incorporating the

¹⁷⁵ https://www.iisd.org/system/files?file=publications/csr_guide.pdf

¹⁷⁶ <https://www.sciencedirect.com/science/article/pii/S0148296322000613>

interest of a wide range of stakeholders and enhancing the trust between the company and its external stakeholders. An educated population further signifies greater rational thinking thereby reducing emotional outbursts whereby the population is swayed by non-objective thinking. This is supportive to the business in the long run given that the educated population will see more value in the industrial output of the company and understand the social and environmental actions undertaken by the business unit to advance society.

5.5. Skilling

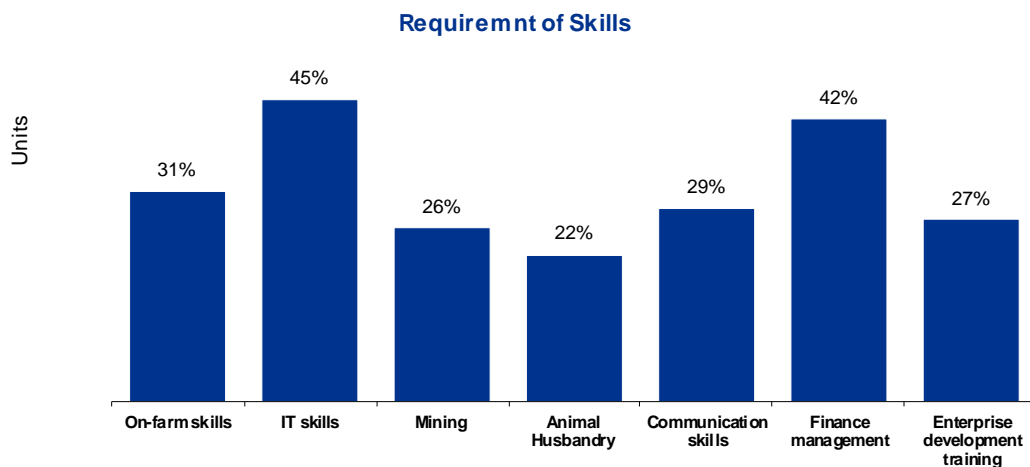
Jharsuguda is emerging as the economic hub of Odisha. Jharsuguda houses many small, medium and large Industries. Jharsuguda has 7999 registered industrial units, which provides employment to 31915 individuals.¹⁷⁷

Micro and Small Industries in Jharsuguda			
Category Name	No. of MSME unit setup	Investment in Lakhs	Employment
FOOD AND ALLIED	184	1659.88	925
CHEMICAL & ALLIED	14	1410.13	132
ELECTRICAL & ELECTRONICS	7	46.22	61
ENGINEERING & METAL BASED	157	1590.68	815
FOREST & WOOD BASED	23	67.73	104
GLASS & CERAMICS	59	3740.22	1273
LIVESTOCK & LEATHER	1	0.18	3
PAPER & PAPER PRODUCT	33	79.87	129
RUBBER & PLASTICS	1	45	18
TEXTILES	117	86.82	344
MISC. MANUFACTURING	38	425.6	289

¹⁷⁷ <http://www.msmedicuttack.gov.in/press-release/ls1yLh9tBIPS-Jharsuguda-2019-20.pdf>

REPAIRING & SERVICING	1160	8684.26	3521
	1794	17836.59	7614

The government of India has ambitious plans to transform India into a competitive, high-growth, high productivity middle-income country. The economy has been transitioning from being largely agro-based to a manufacturing and service-based economy. However, these plans depend on the availability of jobs in the market and the quality of the labor force. More than 12 million youth between 15 and 29 years of age are expected to enter India’s working age population every year for the next two decades. The government’s recent skill gap analysis concludes in next few years, another 109 million or so skilled workers will be needed in the 24 keys sectors of the economy.¹⁷⁸ Though, there has been a huge skill gap in India to full the job requirement of the economy. According to the Global Business Coalition for Education (GBC-Education), United Nations Children’s Fund (UNICEF) and the Education Commission, more than 50% of Indian youth is not on track to have the education and skills necessary for employment by 2030.¹⁷⁹ 35% of the youth in Odisha require skilling for the employment, even youth who are the part of the labor force are engaged in unorganized and informal sector.



¹⁷⁸ [Skilling India \(worldbank.org\)](https://www.worldbank.org/)

¹⁷⁹ <https://timesofindia.indiatimes.com/blogs/voices/the-aspiring-youth-and-the-skill-gap/>

Only 11% of the male and 3% of the female were found to be skilled workers amongst the respondent households and only 3% of the males and 2% of the females were having the salaried jobs. Most of the members of the respondent households did not receive any skilling training in past few years. 45% of the respondents stated to learn IT skills, while 42% of them stated to learn finance and management. 31% of the respondents reported to learn on-farm skills, while 27% of the respondent households reported to require enterprise development trainings. 26% of the respondents reported to learn mining skills while 22% respondents reported to learn Animal Husbandry Skills.

Analysis and Way forward

Challenges

Only 11% of the male and 3% of the female were found to be skilled workers amongst the respondent households.

Hardly any members of the respondent household received any form of skill training in last few years.

Way-Forward

Jharsuguda houses 7999 industries. This scenario can be leveraged to provide skilled labour from the beneficiary household.

As there is the absence of skills amongst the respondent households. The business unit can provide skills to the beneficiary household which is required for getting the employment in the industries in the district.

The BU can leverage its competency of being an industry leader in mining and power to establish tailor made skill development program for skilling the community members. As there has been a boom in the modern technologies across the industries, the BU can establish the skill development program on automation, data management, IT and energy technologies for the community members. They can partner with other industries in the district and the district employment department in the district to provide job opportunities to the community members. This will serve two purposes- It will help in reducing the migration amongst the respondent household and will enhance the income for the households of the community.

6. Women Empowerment

Gender development is a critical issue which requires substantive attention in order to support not only the wellbeing of women but further of the larger community. Evidence suggests that the focus on women empowerment further has intergenerational positive impacts on the community. VALJ has not only focused on the same internally but has established women led Subhalaxmi Cooperative that has become the benchmark for women empowerment.

Key Baseline Findings

- On an average 50% of the women were making their own decisions.
- The use of Sanitary Napkins was higher than the state average, amongst the women of the respondent households.

Key Highlights from Impact Assessment

Subhalaxmi Cooperative Society: The cooperative has emerged as the model cooperative for the country and empowering around 4000 women in and around the community where VALJ operates. The project led to improvement of decision making amongst 52% of the women at the

household level. It helped in the women participation in the Gram Sabha's and other village level institutions. 37% of the women from the respondent household reported to have improved participation in the public institution of decision making. When it comes to the household saving, the project led to a saving of on an average INR 2280/month.

Key Recommendations

Expansion of Entrepreneurship Development: There is demanded to assimilate more women in the entrepreneurial activities through the cooperatives. The BU shall assimilate more women in the entrepreneurial activities.

Gender Sensitization: . The BU can use the cooperative as a platform for behavior change initiatives on gender in order to tackle the gender bias. With greater allies within the community, women will be able to make bigger strides, further improving overall development indicators within each household.

6.1. Baseline Assessment

The Gender Development Index (GDI) measures gender inequality in three basic dimensions of human development¹⁸⁰. In India, the GDI value is 0.849¹⁸¹ while the global GDI is 0.958. The Gender Inequality Index (GII) provides insights into gender disparities in health, empowerment, and the labour market. Unlike the GDI, higher values in the GII indicate worse achievements wherein India currently stands at 0.462. These provide standalone indicators for the existing gender disparity in the country. In fact, according to the World Economic Forum's Global Gender Gap Report 2022¹⁸², India ranked 135 out of 146 countries indicating high gender disparities across all indicators.

State	GDI	GII
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¹⁸⁰ This includes female and male life expectancy at birth; education, measured by female and male expected years of schooling for children and female and male mean years of schooling for adults ages 25 years and older; and command over economic resources, measured by female and male estimated earned income.

¹⁸¹ <https://hdr.undp.org/gender-development-index#/indicies/GDI>

¹⁸² https://www3.weforum.org/docs/WEF_GGGR_2022.pdf

India	0.876	0.462
Odisha	0.796	0.483

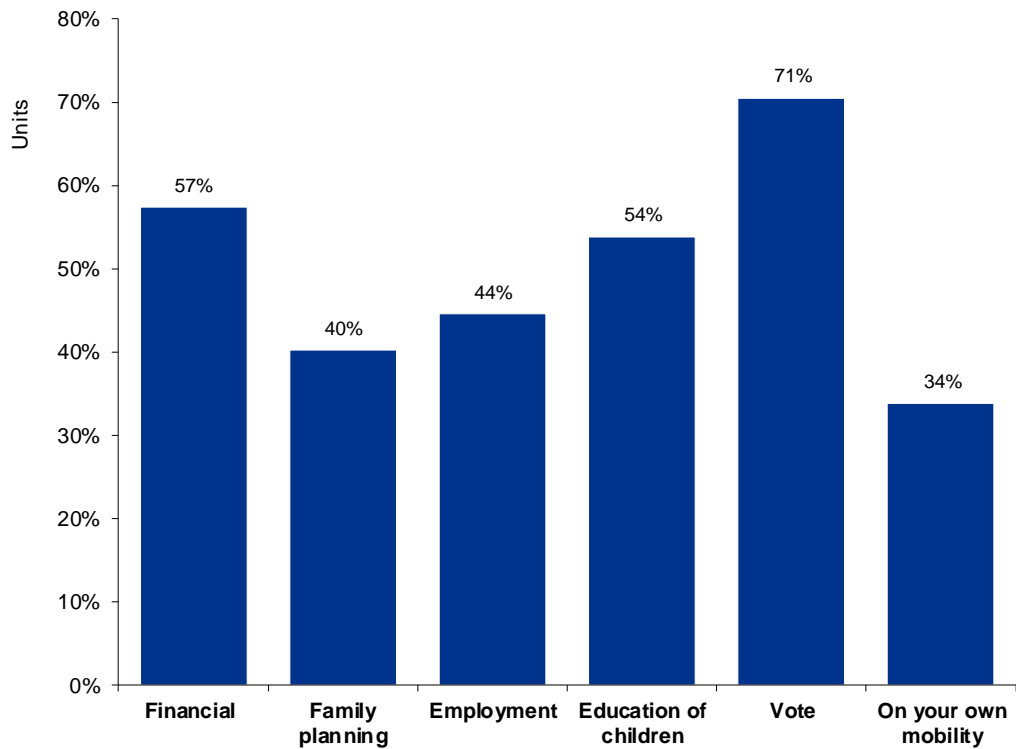
The state of Odisha ranked lower than the country vis-a-vis GDI i.e., the gender parity in Odisha is worse with respect to life expectancy of girls at birth, the expected years of schooling for girls as well as the mean years of schooling. There is an absolute deviation from gender parity of over 10 % in Odisha, and it has been characterized as a low equality state.¹⁸³ Given that GII measures the human development cost for gender inequality, a higher GII indicates more disparities between females and males and thus a greater cost to human development. Odisha's GII is 0.483, a higher score than the national average, indicating a greater cost to human development on the state due to gender disparity

Decision Making

Decision-Making is a key indicator when it comes to women empowerment. The agency of a women can be expressed through decision making wherein they are able to exercise influence, take decisions, establish their own goals, and take actions on such goals. The key decisions that impact a woman's life occur both within the private sphere (such as the household, interpersonal relations, and self) as well as public sphere (within the community and in public profiles). Empowered decision making is carried out when a woman is aware of her rights, voices her beliefs and acts on these decisions. 9.8% of the women in Odisha didn't not make any decision at the household level In the study, not only has it been assessed whether a woman makes decisions across spheres such as financial decisions, family planning, employment, education of the child, voting (political decisions) as well as mobility.

¹⁸³ mospi.gov.in

Decision Making by Women



57% of the women from the respondent households reported to make financial decision at household level, while 54% of the women reported to make decision on the education of their children. 40% of the women from the respondent household reported to make decision on family planning, while 71% of them stated to make decision on casting their votes

Menstrual Hygiene Practices

It has been empirically established that menstrual hygiene is interlinked to broader issues like women empowerment and gender equality. Evidence across the world shows sound menstrual hygiene practices amongst girls most likely reduce school dropouts amongst girls' students.¹⁸⁴

64% of the women in India don't use sanitary pads during menstruation¹⁸⁵, while 42% of the women in Odisha do not have access to sanitary pads.¹⁸⁶

Moreover, absence of proper menstrual hygiene practices poses a severe risk to women. Poor hygiene practices can result into reproductive and urinary tract infection, that may result into birth complexities and infertility amongst women.

On contrary to the scenarios around the Odisha, where only 58% of the women have access to sanitary pads, 79% of the women respondent from the interviewed household reported to use sanitary napkins

SHGs and Federations

SHG has emerged as an important micro-finance system. SHGs provide a platform especially to rural women to promote solidarity among women, bringing them together on issues of health, nutrition, gender parity and gender justice. SHGs plays a pivotal role in enhancing skills of women, promoting entrepreneurial activities amongst women, and building leadership skills. SHGs have been at the forefront in rural India in promoting and ensuring women empowerment.

As per the National Rural Livelihood Mission, there are 517291 SHGs functional in Odisha.¹⁸⁷ There are 7460 SHGs, 7 Block Level Federations and 106 Gram Panchayat Level Federations functional in Jharsuguda.¹⁸⁸

Only 34% of the respondent households reported to have women as the member of SHGs in Jharsuguda.

¹⁸⁴ <https://blogs.worldbank.org/water/menstrual-health-and-hygiene-empowers-women-and-girls-how-ensure-we-get-it-right>

¹⁸⁵ <https://swachhindia.ndtv.com/menstrual-hygiene-day-facts-26-percent-use-sanitary-pads-periods-34309/>

¹⁸⁶ <https://odishatv.in/news/health/world-menstrual-hygiene-day-42-percent-odisha-women-lack-access-to-sanitary-pads--177837>

¹⁸⁷ <https://nrlm.gov.in/shgReport.do?methodName=showIntensiveStateWiseReport>

¹⁸⁸ <https://missionshakti.odisha.gov.in/district-pages/jharsuguda>

Analysis and Way Forward

Improvements

- More Women are making decisions amongst the respondent households than the state average.
- The use of Sanitary Napkins was found higher amongst the women of the respondent households than the state average.

Challenges

- The association of women with SHGs amongst the respondent households has reduced.

Possible Solutions

- Gender Behaviour Change Campaigns
- Improving Entrepreneurial Models

Way Forward

- **Closing the Gender Gap:** While women beneficiaries claimed improved regular savings, decision making in household as well as increased access to financial services, mobility issues for women are prevalent where only 34% of the women are making decision on their own mobility. Therefore, public interaction, exposure visits as well as participation in community level governance has been a challenge for women. It is recommended that the business unit works towards community level behaviour change initiatives on gender in order to tackle the gender bias. With greater allies within the community, women will be able to make bigger strides, further improving overall development indicators within each household.
- **Improving Entrepreneurial Models:** VALJ has supported women significantly in mobilizing women into Cooperative that has become the benchmark across the state, self-entrepreneurship has been limited to conventional areas such as poultry, farming etc. There is a need for better entrepreneurial models as well as market linkage to empower more women . The business unit should augment the impact created and ensure its sustainability through linkages and collaboration. Exploring opportunities for convergence and partnership, it can work towards providing better opportunities to the beneficiaries for example for market linkage of women associated with Cooperative.

Best Practice: In August, 2020 history was made in Bihar to become the first state in the country to have more than 10 lakhs women controlled SHGs through "JEEViKA" model. JEEViKA model was incepted in 2006 & each member of SHGs is known as JEEViKA "Didi" sounds more trustworthy in the village. JEEViKA has now spread up its wing in all 534 Blocks including 38 Districts of Bihar under National Rural Livelihood Mission (NRLM).

The credit disbursement to the linked SHGs has been more than 50 per cent from 2017-2019 each year, indicating a strong presence of credit facilities for the SHGs in Bihar, which has led to an increase in the formation of SHGs and also helping them to run small businesses successfully.

Digital transformation invents a new marketplace for trading handicrafts into national & international marketplace. Likewise, JEEViKA SHGs can sell its MSMEs products in 13 international marketplaces over 180 countries through the Amazon platform. 'The Saras Collection' by Union Minister of Rural Development, Panchayati Raj and Mines; Udyam of the Ministry of MSME also assists SHGs to expand themselves through a digital application. [\(PDF\) Augmenting JEEViKA SHGs silent Revolution through Digital Transformation \(researchgate.net\)](#)

6.2. Impact Assessment

6.2.1. Subhalaxmi Cooperative Society

VALJharsuguda, under the aegis of 'Vedanta Integrated Jana Jeevika Yojana (VIJY)', promoted one of the largest all women cooperative society in the region, Subhalaxmi Cooperative Society (SCS) -. The project provides capacity building support, Business Development Services (BDS) as well as financial services to its members for income augmentation. Starting in 2008-09, SCS has grown from 10 members to 4100 members in 2021-22. SCS is registered under Odisha Cooperative Society Act 1962. SCS has extended entrepreneurship support of INR 12 Lakhs to its members. The cumulative saving of the society has crossed 1.8 Cr. The society has done a business of more than 33 Cr since its inception and distributed more than 1770 and trained more than 1800 women in last two years.

The VALJ team has been working doggedly to improve the socio-economic situation of the women in the community. Due to the efforts of the CSR teams, the cooperative has emerged as a model across the country. From establishing the robust community led management and leadership

mechanism to digital integration for monitoring, it has become the best practice and reference for other cooperative to replicate.

The following section will analyse the impact created by VALJ’s SCS program by using OECD framework.

Evaluation Criteria 1: Relevance

Gender inequality is a stark reality in the country, wherein girls and women face discrimination in all domains of development, whether it be education, livelihood, bodily integrity etc. Associations of women such as cooperatives act as avenues for women for inclusive economic development, through increasing their participation in decision making, supporting their skill building, livelihood generation as well as building support structures.

Indicator	Scoring
Relevance	Extremely Satisfactory
Coherence	Extremely Satisfactory
Efficiency	Satisfactory
Effectiveness	Extremely Satisfactory
Sustainability	Extremely Satisfactory

To bridge the the gender disparity that exists between men and women, VALJ initiated Subhalaxmi Cooperative , as a flagship programme for mobilising rural women into cooperative and developing capacities around leadership, skill development, savings, and entrepreneurship. The programme was intended to increase the economic activity of the women in households such that they engage in productive activities and contribute their potential for raising the income of their households and ultimately the well-being of their families and community. Thus, the intervention is **extremely satisfactory on the relevance scale.**

It establishes the relevance of the Subhalaxmi Cooperative society, and it was found out satisfactory.

Evaluation Criteria 2: Coherence


A program's relevance is determined by how well it aligns with the goals and policies of the national and state governments as well as Sustainable Development Goas. It also aims to ascertain whether the project is pertinent to the beneficiaries' requirements. The project's relevance is understood in terms of linkages to existent government programmes and to SDGs. The project aligns with the goals and policies of the national and state governments as well as SDG Goals. It also aims to ascertain whether the project is pertinent to the beneficiaries' requirement.

Alignment to Government Policies and SDG

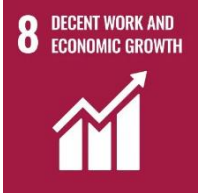
The project is well aligned to national and state’s government policies. The government of India launched National Rural Livelihood(NRLM) Mission in 2013 to mobilize the poor into functionally effective community owned institution promote their financial inclusion and strengthen their livelihoods.¹⁸⁹ Government of Odisha launce its own version of NRLM, called Odisha Livelihood Mission with the similar objective. The focus of both the schemes is to support and empower women through SHGs and women federations.

The program is also well aligned with Government of Odisha’s Mission Shakti schemes, which aims towards providing socio-economic support to the women through SHGs and women federation.

The project is well aligned to SDG -1 for No Poverty, SDG-5 for Gender equality and SDG-8 for Decent work and Economic empowerment.

SDG	SDGs target	How is it aligned?
	<ul style="list-style-type: none"> • Target 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day • Target 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions • Target 1.31 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and 	<p>– The project provision to provide financial and entrepreneurship support to the women that further enhance their food security, income level and provides access to economic resources.</p>

¹⁸⁹ <https://odishabank.in/NRLM>

	<p>control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance</p>	
	<ul style="list-style-type: none"> • Target 5.1 End all forms of discrimination against all women and girls everywhere • Target 5.5 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life • Target 5. Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws 	<ul style="list-style-type: none"> • By empowering women socially and economically the project improves decision making capabilities of women. The project also make economic resources accessible to the women.
	<ul style="list-style-type: none"> • Target 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value 	<p>The project provides descent employment and entrepreneurship opportunities to women.</p>

Evaluation Criteria 3: Effectiveness

The program's effectiveness has been measured by examining how successfully the project's targets were defined as well as the achievement of the targets. The target to provide need based financial services in terms of savings, credit and insurance was set for the program along with promotion of micro enterprise by providing Business Development Services (BDS) to the women by linking them. As per the last impact assessment study

INR 76,85,915/- savings was mobilized through 3224 members in cooperative as per impact assessment report. The loan payment rate reached to 92% which also showcase the access to financial linkages to the women and improved repayment capacity.

The program has well defined target and project outputs. The program has successfully achieved the target defined.

Evaluation Criteria 4: Efficiency

The efficiency of the intervention was considered vis-à-vis the documents provided on the project including the agreements with the implementing partners, whether the intervention had adhered to its timelines, whether utilization was undertaken through the budget and whether the intervention aligned with the CSR policy of VALJ.

The efficiency of the project was found out to be satisfactory. The project is well aligned with Vedanta's CSR policy of continuously working towards improving quality of life of the communities in its operational areas. The project has MoUs with clear definition of starting and end dates, timelines, and budget provisions. However, there is an underspent of 8% of project budget.

Sustainability

Subhalaxmi Cooperative Society is member owned; member owned organization. The governance structure in the cooperative is well structured. The sustainability of the society can be gauged by the manner it functions without any external support. The sustainability of the society has been insured by building the capacity of the members and the leaders of the society. The society has been working in close convergence with the district administration which again ensure the sustainability of the project

IMPACT:

Apart from socio-economic development of women, access to financial and entrepreneurship facilities, SCS has multifaceted impacts on the lives of women and their household. It is well established that economic empowerment of women improves her decision-making power at the household and community level. It also provides social mobility, enhances leadership skills and boost confidence amongst women to actively participate in the decision-making institutions of the community. 53% of the women of the respondent households reported to have improved access to financial services. 75% of the women of respondent households reported to have improved regular savings.

The project led to improvement of decision making amongst 52% of the women at the household level. It helped in the women participation in the Gram Sabha's and other village level institutions. 37% of the women from the respondent household reported to have improved participation in the public institution of decision making. When it comes to the household saving, the project led to a saving of on an average INR 2280/month.

The impact of the project found put extremely satisfactory.

Impact of Subhalaxmi Cooperative Society on Women

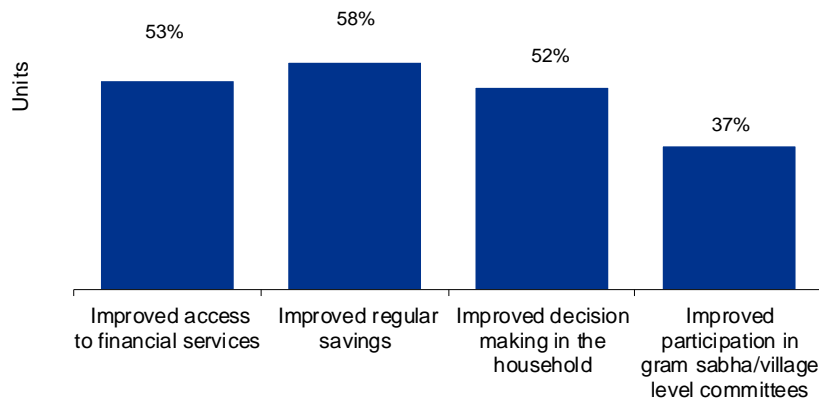


Figure 45: Impact of Subhalaxmi Cooperative Society on Women

Conclusion

Women Empowerment

The project has been pivotal in empowering the women of the community. The program provided economic opportunities and access to financial services to women, improved their savings and participation in the decision making. The project has been crucial to ensure gender equality, equal opportunities to women and in inculcating leadership skills amongst women.

Challenges

Owing to the pandemic, the income level of the households in the rural areas dropped down considerably. This also impacted the loan repayment capacities of the women who were associated with Shubha Laxmi cooperative and who availed loan as reported by the members of the cooperative.

Though, the project has been pivotal in empowering women, as per the baseline 30% of the women from the respondent households did not have any decision-making power. Therefore, public interaction, exposure visits as well as participation in community level governance has been a challenge for women.

As per the interaction with the beneficiaries from the intervention villages, the satisfaction level for Shubhalaxmi was found to be high amongst the women. However, it was observed that only few women are involved in the entrepreneurial activities through the cooperative.

Recommendation and the Way Forward

Areas of Improvement

- Despite the incremental increase in regular savings of members, improvement in the decision making and improvement in participation in the Gram Sabhas remain low.
- As observed on the ground, more women want to involve in the entrepreneurial activities through the Cooperatives .

Way Forward

Expansion of Entrepreneurship Development: Over the years Subhalaxmi has established as the model cooperative in Odisha. The cooperative has a robust and resilient entrepreneurship from which is providing entrepreneurship assistance from poultry to Agarbatti making. There is demanded to assimilate more women in the entrepreneurial activities through the cooperatives.

Gender Sensitization: The cooperative has already created intangible impact for making the women to come forth as strong and empowered individual, yet the decision making and participation in the decision-making bodies at village level is still low. The BU can use the cooperative for behavior change initiatives on gender in order to tackle the gender bias. With greater allies within the community, women will be able to make bigger strides, further improving overall development indicators within each household.

6.3. Business Drivers for Women Empowerment Programme

CSR is a pivotal management concern given that in order to expand their wealth creation role in society, businesses must proactively manage risks and take advantage of opportunities vis-à-vis reputation and engagement with stakeholders. Based on the perception survey, the internal stakeholders of VALJ believe that companies having a focus on key business drivers focused on sustainability have a greater chance of success and further believe that such companies are more attractive to investors.

The majority of the internal stakeholders did believe that the focus on certain key drivers for business have improved community relations. In fact, the focus on these business drivers has a direct relation to improving relationships with local communities, increasing trust, improving the reputation of VALJ as well as contributing to the national and international social development goals. Therefore, VALJ leadership's perception on such benefits are both inward and outward looking and encompassing a varied group of stakeholders. Specifically, according to the study 100% of the VALJ's internal stakeholders considered "supporting social development of the local community" and "providing equal economic opportunities to the local community" are the twin key business drivers for their CSR. Specifically, within the area of providing equal economic opportunities, 56% of the internal stakeholders considered that supporting women with entrepreneurship opportunities, is the strongest business driver for women empowerment programmes run under CSR.

6.4. Business Case for Subhalaxmi Cooperative Society

Through the Subhalaxmi Cooperative Society, the business is able to enhance the economic empowerment of women in the field locations which in turn has an impact on their decision making, seen through the impact assessment. This, therefore, ensures that VALJ is positioned as an organization that is an ally for women's empowerment, bolstered by their People Practices which state "We are committed to promote gender equality and women's empowerment in the workplace, marketplace, and community". It must be noted that there is a growing interest of companies to invest in women empowerment due to the heightened awareness that "empowering women yields a high return on investment". According to a pre-conference during Women Deliver 2016, private sector leaders agreed that "by investing in women, business drives growth, productivity, and innovation—and creates a better world". This is due to the fact that the business is recognized to follow an integrated approach wherein not only are their internal practices in alignment with such principles, but they are equally invested in supporting the community in inculcating the same principles of equality.

7. Environment

Key Highlights of the Baseline Assessment:

Environmental issues remain persistent in the district. Jharsuguda lies in the climate event hotspot, and drought has become more frequent in the district. In 2019 Jharsuguda received 27% less monsoon rains as compared to the India's average the most prevalent environmental issue is water and air pollution as stated by 90% of the respondents, followed by lack of green cover and soil erosion.

Key Recommendations

1. **Convergence with District Environment Plan:** If VALJ wishes to work on environment, there is an opportunity to ensure converge and thus collaborate with the district administration on Environment Action Plans created by different districts.
2. **Promotion of Climate-resilient Agriculture (CRA):** Through their existing sustainable livelihood programme, CRA can be promoted which is an approach that includes sustainably using existing natural resources through crop and livestock production systems to achieve long-term higher productivity and farm incomes under climate variabilities.

7.1. Baseline Assessment

India, which occupies 2.4 % of the world's land area and 4 % of global freshwater resources, consumes only 6 % of the world's primary energy while feeding about 18 % of the world's population. India is a mega-diverse country both culturally and biologically. It hosts 7–8 % of all recorded species, four global biodiversity hotspots, the world's largest tiger and Asian elephant populations, 10 biogeographic and 15 Agro-climatic zones.

Yet, India faces looming environmental challenges. India is home to 63 out of 100 most polluted cities in world. 48% of the country's cities have more than 10 times higher PM2.5 concentration than the 2021 WHO air quality guideline level. Vehicular emissions, industrial waste, smoke from cooking, the construction sector, crop burning, and power generation are among the biggest sources of air pollution in India. The country's dependence on coal, oil, and gas due to rampant electrification makes it the world's third-largest polluter, contributing over 2.65 billion metric tons of carbon to the atmosphere every year.¹⁹⁰

70% of India's surface water is unfit for Consumption. In India, around 40 million liters of wastewater enter the water bodies every day.¹⁹¹ Every day, India produces more than 25000 tons of plastic waste. Only 5% of the total waste collected is recycled in India.¹⁹² The country has already lost 90% of the area in the four hotspots. Due to climate change, droughts, floods, heatwaves, heavy rains have become persistent.

¹⁹⁰ <https://earth.org/environmental-issues-in-india/>

¹⁹¹ <https://earth.org/environmental-issues-in-india/>

¹⁹² <https://earth.org/environmental-issues-in-india/>

**'Contaminated sites' are delineated areas in which "constituents and characteristics of the toxic and hazardous substances, caused by humans, exist at levels and in conditions which pose existing or imminent threats to human health and the environment", according to the Union environment ministry

As per the Central Pollution Control Board data, Odisha has the highest number of *contaminated sites.¹⁹³ Fly Ash from plants, wastewater discharge from mines, deforestation have become major environmental threat in Odisha.

To maintain the ecological balance, there shall be 33% of the forest cover in the geographical area, but only 15.74% of the total area of Jharsuguda is covered with forest¹⁹⁴, while it is 33.5% for Odisha¹⁹⁵. Central Pollution Control Board has declared Jharsuguda as critically polluted industrial areas in its Comprehensive Environmental Pollution Index (CEPI) parameter. There are 18 Large scale industries/Public Sector undertaking in Jharsuguda. Predominantly, the industries set up in the district are linked with coal mining. Rampant mining has deteriorated the environment of the district. When it comes to the air pollution, for Most of the Year the Air Quality of Jharsuguda Remain in Red Zone¹⁹⁶

In the past few years, extreme weather events have become rampant in Odisha and 25 district of the Odisha have become climate event hotspots.¹⁹⁷ Jharsuguda lies in the climate event hotspot, and drought has become more frequent in the district. In 2019 Jharsuguda received 27% less monsoon rains as compared to the India's average. Due to the lesser rains, Kelo and Mahanadi River almost dried causing challenges to the farmers.¹⁹⁸ In 2021, Jharsuguda received deficient rainfalls.¹⁹⁹

The following section will analyse the environmental concern of the respondent household in Jharsuguda district.

¹⁹³ <https://www.downtoearth.org.in/news/environment/odisha-has-most-contaminated-sites-in-india-cpcb-data-75870>

¹⁹⁴ <http://www.msmedicuttack.gov.in/press-release/ls1yLh9tBIPS-Jharsuguda-2019-20.pdf>

¹⁹⁵ https://www.business-standard.com/article/current-affairs/odisha-s-forest-cover-increases-by-537-44-sq-km-in-two-years-122011400300_1.html

¹⁹⁶ <https://www.dailypioneer.com/2021/state-editions/no-relief-from-pollution-menace-in-jharsuguda.html>

¹⁹⁷ <https://www.ceew.in/publications/preparing-india-for-extreme-climate-weather-events>

¹⁹⁸ <https://www.dailypioneer.com/2019/state-editions/imminent-drought-stares-j-suguda-district-in-face.html>

¹⁹⁹ <https://en.gaonconnection.com/odisha-monsoon-rainfall-drought-tribal-farmers-kharif-agriculture-suicide-imd-climate-change-crop-loss-disaster/>

Environmental Concerns of the Community

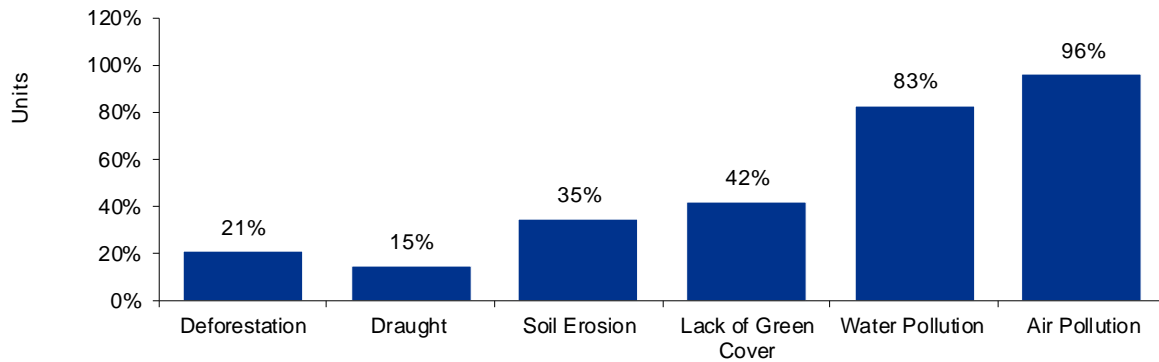


Figure 46: Environment Issues in Jharsuguda

96% of the respondent reported air pollution as the major environmental issue in the district, while 83% of the respondent reported water pollution as the issue related to environment persistent in the district.

21% of the respondent reported deforestation stated deforestation as an environmental concern in the district.

As per the Chief Medical Officer of Jharsuguda, the environmental issues have become the most prominent challenge for the inhabitants of the Jharsuguda district. There has been a rise in the number of deaths due to air and water pollution in the Jharsuguda district.

To mitigate the environmental impact, VAL -J has planted 64000 trees in three core villages.

Analysis and Way forward

Environment challenges were persistent in the Jharsuguda district. Jharsuguda district is plagued from myriad environmental challenges. The primary environmental challenge remains the air and water pollution in the district and amongst the respondent households. The district suffers from lack of green cover.

Challenges

- The main environmental concerns which are persistent in the community are water and soil pollution.

- There is only 15.7% forest coverage in the district, which is almost half of WHO norms of required forest cover in the areas where a population resides.

Way Forward

Convergence with District Environment Plan: Drought, water pollution as well as air pollution have been brought forth as significant issues that are prevalent in Jharsuguda. However, specific interventions to tackle the same are already being carried out in the community. It is recommended that VALJ continues support in providing effective solutions to tackle the water scarcity, water and air pollution as well as deforestation. VALJ must take the opportunity to **converge and collaborate with the district administration on Environment Action Plan** to contribute to the burning issues of environment in the districts.

Government Alignment: The district environmental plan outline the major areas that require attention and the immediate action points to be taken on. For example, Environment Action Plan for Jharsuguda specifies to focus on AirPollution Control, Water Pollution Control, Solid & Hazardous Waste Management. The same is followed by other districts in Odisha as well.

- **Promotion of Climate-resilient Agriculture (CRA):** CRA is an approach that includes sustainably using existing natural resources through crop and livestock production systems to achieve long-term higher productivity and farm incomes under climate variabilities. Different farm management practices can increase soil carbon stocks and stimulate soil functional stability. Conservation agriculture technologies (reduced tillage, crop rotations, and cover crops), soil conservation practices (contour farming) and nutrient recharge strategies can refill soil organic matter by giving a protective soil cover²⁰⁰.

Government Alignment: The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched in 2015 to address the issues of water resources and provide a permanent solution that envisages Per Drop More Crop, by promoting micro / drip irrigation for the conservation of maximum water.

²⁰⁰ [Climate resilient agriculture systems: The way ahead \(downtoearth.org.in\)](http://downtoearth.org.in)

Ministry of Earth Sciences (MoES), Govt. of India, has introduced a major national initiative, "System of Air Quality and Weather Forecasting and Research" known as "SAFAR" for greater metropolitan cities of India to provide location specific information on air quality in near real time and its forecast 1-3 days in advance for the first time in India. It has been combined with the early warning system on weather parameters. The SAFAR system is developed by Indian Institute of Tropical Meteorology, Pune, along with ESSO partner institutions namely India Meteorological Department (IMD) and National Centre for Medium Range Weather Forecasting (NCMRWF).

The SAFAR observational network of Air Quality Monitoring Stations (AQMS) and Automatic Weather Stations (AWS) established within city limits represents selected microenvironments of the city including industrial, residential, background/ cleaner, urban complex, agricultural zones etc. as per international guidelines which ensures the true representation of city environment.

Air Quality indicators are monitored at about 3 m height from the ground with online sophisticated instruments. These instruments are operated round the clock and data is recorded and stored at every 5 minute interval for quality check and further analysis.

Monitored Meteorological Parameters: UV Radiation, Rainfall, Temperature, Humidity, Wind speed, Wind direction, solar radiation

VALJ can collaborate with SAFAR initiatives and implement the AQMS and AWS network at microenvironment such as mining areas, areas with dense population, agriculture areas, high traffic areas.

VALJ can further carry out microenvironment based environmental conservation activities based upon the data provided by the network in liaison with the district department. Moreover, AWS and AQMS networks can also be used to provide advisory services to the farmers.

8. Theme: Culture and Sports

8.1. Executive Summary

Odisha being the land of art and heritage, houses the highest number of artists. More than 1.3 Lakhs artists are involved in more than 50 arts in the states. The government of Odisha has been working at multiple fronts to promotion of artisans in the state.

Key Highlights of the baseline

- Considerable number of respondent households were involved in one or other form of artisanal work, the support for the promotion of arts and culture from the government was found out unsatisfactory amongst the households involved in the artisanal work
- 14% of the respondent households were involved in pottery in Jharsuguda. 9% of the respondent households were involved in traditional art. 26% of the households were involved in textiles and 32% of the respondents were involved in stonework.
- When it comes to the government assistance to provide market linkages only 2% of the respondent households reported to have market linkages for their art.
- Only 16% of the respondents reported to have access to sports ground.

Key Recommendation

Promotion of Artists through Shubhalaxmi Cooperative: The BU can leverage Subhalaxmi Cooperative to promote artisans. The BU can establish tailor-made entrepreneurship program for the artisans and build their capacity. The BU can channelize financial assistance from the government for the artisans to establish their entrepreneurial avenues. Through the strong forward linkages of Shubalaxmi cooperative, the BU can link the artists to the market.

8.2. Baseline Assessment

Art and craft are an integral part of the cultural heritage of India. Odisha is considered as the land of handicraft and has highest number of artisans in the county. 1.34 lakhs artisans are involved in more than 50 different crafts. There are 1352 artisans practicing arts and crafts in Jharsuguda.²⁰¹

²⁰¹ https://crafts.odisha.gov.in/?page_id=1299

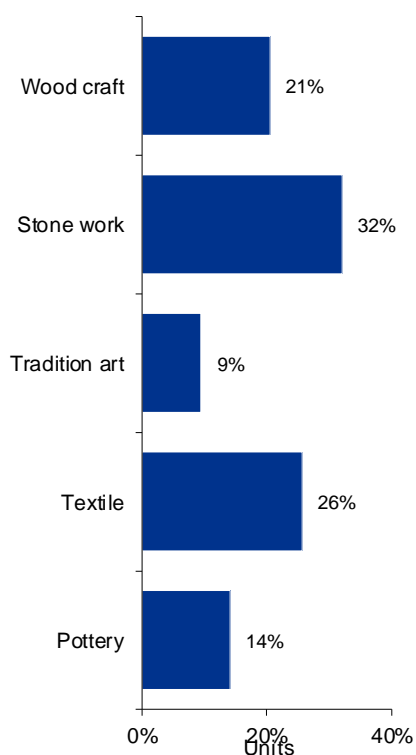
Table 6: Support Provided by the Odisha Government to Artisans, Source: <https://crafts.odisha.gov.in/>

No of Institutional Trainings	1356
Exhibition Participation	556
Self-Employment Generated	8742
Annual Production	64305 Lakhs
No SGHs Promoted	511
Bank Linkage Provided to Artisans	3357

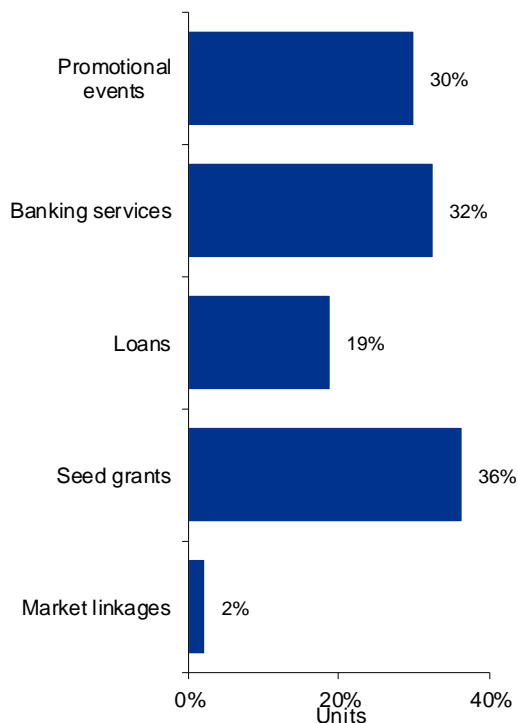
Government of Odisha has provided 1356 institutional training to artisans across Odisha. The government has provided self-employment to 8742 artisans in the state and provided bank linkage to 3357 artisans. The state has an annual production of INR 64305 Lakhs related to arts and crafts.

The following section will analysis the scenario around art and crafts amongst respondent families.

Households Involved in Artisional Work



Support Provided by The Government to Artisans



	>5000	5000-10000	10000-15000	15000-20000	20000-30000	<30000
Wood Craft	16.67%	38.10%	35.71%	4.76%	38.10%	NA
Stonework	8.62%	53.45%	29.31%	5.17%	1.72%	1.72%
Tradition Art	11.11%	50.00%	33.33%	5.56%	NA	NA
Textile	11.54%	46.15%	32.69%	3.85%	5.77%	NA
Pottery	NA	55.6%	38.9%	5.6%	NA	NA

14% of the respondent households were involved in pottery in Jharsuguda. 9% of the respondent households were involved in traditional art. 26% of the households were involved in textiles and 32% of the respondents were involved in stonework.

30% of the respondent household involved in artisanal work were supported through promotional events, while only 2% of the respondent households were provided with market linkages. 32% of the respondent households were supported through market linkages by the government.

35% of the respondent were provided seed grants.

When it comes to the sports, only 16% of the respondents reported to have access to sports ground. Most of the respondents were involved in playing football and cricket.

VAL-J's Intervention in Sports- To promote sports in the districts. VAL-J has initiated a training program to train youths on football. So far, VAL-J has trained 30+ youths on football

Government Alignment

There are myriad government schemes and initiatives being implemented by the Government of Odisha.

Silpi Unnati Yojana (SUY): Financial assistance up to Rs.20,000/- is being provided as margin money for availing bank finance up to Rs.100,000/- for setting up own production unit.

Establishment of Craft Village: Craft clusters are developed on SHG mode with need-based interventions like skill up-gradation training, supply of improved tools & equipments, design development, margin money for bank linkage, marketing support etc. to ensure livelihood of handicraft artisans.

Way Forward

Promotion of Artists through Shubhalaxmi Cooperative: The BU can leverage Subhalaxmi Cooperative to promote artisans. The BU can establish tailor-made entrepreneurship program for the artisans and build their capacity. The BU can channelize financial assistance from the government for the artisans to establish their entrepreneurial avenues. Through the strong forward linkages of Shubhalaxmi cooperative, the BU can link the artists to the market.

Movement from Sports to 'Sports-Plus' Activities: VAL-J has already been supporting students not only in enhancing their acumen in football but further in ensuring high learning outcomes and educational attainment. Sports is now widely recognized to have the potential for carrying multi-fold development outcomes by integrating elements of education, psycho-social support, health behaviour etc. into traditional sport programmes. This is termed as 'sports-plus'. It provides VA-J with the unique opportunity to leverage the football training as a platform to link multiple goals related to children's education, health, skilling etc. A case study provided below on tackling gender norms through football is one example

Mahila Jan Adhikar Samiti (MJAS) works with over 300 young girls and women and has organized them into football teams in order to instill confidence and exercise self-sufficiency. They chose a sports-based program to help the participants exercise their freedom, focused on mobility, for girls and women to leave their homes and claim public spaces. The program allowed girls and women access to support systems and networks that led to their empowerment. Many of them became local leaders as well as coaches for other girls in their communities.²⁰²

²⁰² <https://unesdoc.unesco.org/ark:/48223/pf0000380571>

Case Study

Pushpanjali Seth: The Beacon Bearer of Change

Pushpanjali Seth from Jharsuguda, district in Orissa is the President and a member of the board for Subhalaxmi Cooperative, a Vedanta flagship project. However, the life for Pushpanjali did not come easy. At a very early age, she had to give up on her schooling to take care of her family and ever since life only got harder. At an early age she got married and had children of her own. As her children were growing to educate them, she was determined to work to be able to support her husband.



Subhalaxmi Cooperative the flagship CSR project of Vedanta Ltd., Jharsuguda, engaged in promoting sustainable livelihood opportunities among rural women, creates avenues for entrepreneurship through skill development and providing financial inclusion to the members for furthering their livelihood.

Being a member of the Co-operative was a silver lining for Pushpanjali that has transformed her life. Initially her husband opposed to her stepping out of the house, but that did not stop her from pursuing and encouraging women to search for something that would help them become self sufficient and support their families. Now most women are striving and running their own enterprise like farming, groceries, parlors, food centers etc. The Subhalaxmi Co-operative initially started with 10 members in the year 2008 and today, under Pushpanjali's efforts, it has over 4000 members around 52 villages. One of the most encouraging study was that, during the Covid-19 pandemic many loans were taken from the Co-operative, and repayment was hard, but slowly and surely because of Pushpanjali reputation, everyone would be able to return the money even though it wouldn't immediately come on time. The Co-operative started with just INR 1000, has now become a corpus of around INR 3.5 crores.

Today, due to the Subhalaxmi Cooperative, Pushpanjali Seth has earned a lot of respect and appreciation. She managed to empower a lot of women by creating employment opportunities and supporting families. She is a recipient of many awards including FICCI and BRICKS awards. In the next 3 years, her aspirations are to cover the whole of Jharsugada District.

Perception Study

9. Introduction to Perception Study

To gauge the impact of social development programs, organizations have been conducting various qualitative and quantitative studies on their social development programs. Nevertheless, the perception of the beneficiaries and the stakeholder, inadvertently, remains neglected. Often, the view and perception of the stakeholders remain unnoticed while conducting impact studies.

By bypassing the experience and views of the beneficiary, an organization often loses its chance to make the development projects better. The ultimate outward goal of an organization is to ensure the satisfaction of the beneficiaries and stakeholders. Notwithstanding, the aspect of satisfaction remains uncaptured while capturing the impact of a project. It becomes pivotal not only to focus on the impact created by the programs but also on the way an intervention shapes the perception of the community and its stakeholders. Often the business operations and the development programs of an organization are intertwined, and it becomes hard for communities to bifurcate the activities under development programs and business operations. The business operations and development projects remain juxtaposed to each other in building the perception of the community. The interplay becomes strong when an organization operates in the local milieu and its business operations have an impact on the local communities. Organizations, like VAL, that have their core operation midst of local communities often strive to build a strong positive perception amongst the communities. A positive perception not only ensures smooth operations of the business but also increases the brand value of an organization. It also provides an edge to a business over its peers. In the age of stakeholder capitalism, it is palpable to ensure positive perception not only of the local communities but also at the state and national levels. The perception of myriad stakeholders is also pivotal in capturing the insights of the beneficiaries and stakeholders to ensure the effectiveness of business and social programs.

Never have the social development programs been more significant to garner a positive perception of an organization, than now. Myriad organizations have tailor-made social development programs that are helping them in building a positive perception of themselves.

As the internal stakeholders of an organization are the fulcrum to harbour community perception, it also becomes important to capture the inward perception of the internal stakeholder regarding the organization's social development programs and how deeply the philosophy of community is engrained in the DNA and the culture of the organization.

The perception study in this chapter applied different methodologies to capture the perception of the local communities, stakeholders, and perception at the state and national levels.

While a baseline and need assessment provides an understanding of the needs of the community, there is often an underlying perception and attitude of a community towards what support would be best sought from a company that is carrying out CSR in their area. Moreover, while fact-based assessments are necessary for creating a project of value, community perception is a necessary component that allows for the business unit to garner a greater social license to operate.

Perception of CSR Management Team

In today's world, the definition of business success goes much beyond the business profits, brand recognition, market value and growth of the company. In the era of stakeholder capitalism, the success of the company is based upon the perception of the stakeholders. Today, the corporates are judged based on their impacts on the society and the environment and how it generates economic values, not only for its consumers and stakeholders, but also on the local communities where it operates. Sustainability has become a fulcrum, around which the business of an organization revolves around.

CSR activities and sustainability have become synonymous and interchangeable. Businesses around the world have adopted CSR activities to ensure economic, social, and environmental sustainability. Corporates have now started anchoring CSR in their business strategies to ensure sustainability. CSR not only helps in ensuring the sustainability of an organization but also latently functions by improving the brand value, retaining the talent, and attracting the customers and investors.

To have a resilient CSR strategy at place and ensuring the execution of the strategy, it is pivotal to understand the attitude and perception of the leadership and internal stakeholders involved in execution of CSR activities. A strong orientation and positive perception about the CSR and sustainability amongst the internal stakeholder helps in engraining the CSR in the DNA of an organization.

The following section delves in to understanding the attitude and perception of internal stakeholders and leaders of VALJ regarding the CSR.

Perception of the local communities and Stakeholders

While a baseline and need assessment provides an understanding of the needs of the community, there is often an underlying perception and attitude of a community towards what support would be best sought from a company that is carrying out CSR in their area. Moreover, while fact-based assessments are necessary for creating a project of value, community perception is a necessary component that allows for the business unit to garner a greater social license to operate.

Figure 48: Satisfaction Level of Beneficiaries

Satisfaction Level of Stakeholders

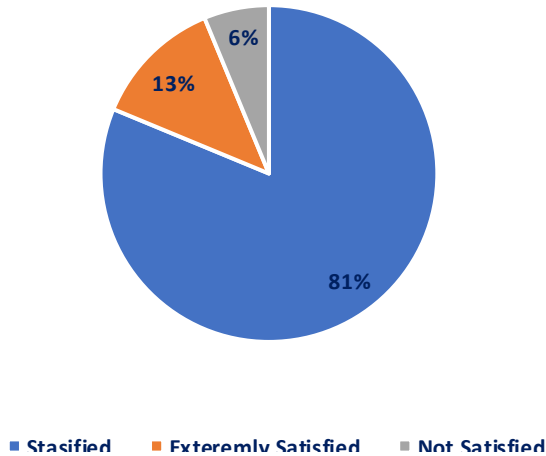


Figure 49: Satisfaction Level of Stakeholders

Satisfaction Level of the Beneficiaries

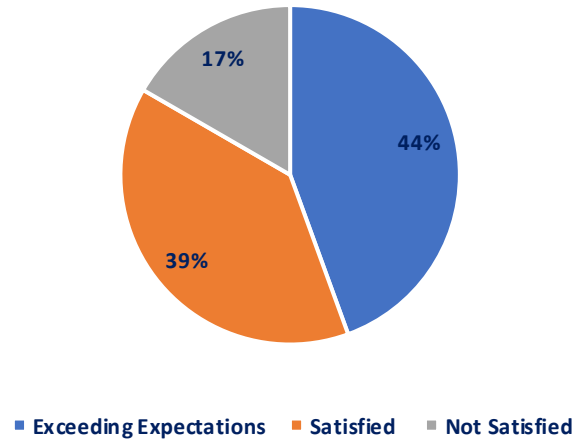


Figure 47: Satisfaction Level of Beneficiaries

44% of the beneficiaries reported that the CSR work of VALJ has exceeded their expectations. 39% of the beneficiaries were satisfied from the work being done by the business unit. 17% of the respondent households were unsatisfied from the business units. The major reason for their unsatisfaction was due to the problem of pollution and fly ash generated by the plant.

Satisfaction Level of Stakeholders

81% of the respondent beneficiaries reported being satisfied by the work done by the CSR of VALJ. 13% of the stakeholders were extremely satisfied by the work done by the CSR of VALJ. 6% of stakeholders were not satisfied from the work done by the BU.

Requirement From the Community

While a baseline and need assessment provides an understanding of the needs of the community, there is often an underlying perception and attitude of a community towards what support would be best sought from a company that is carrying out CSR in their area. Moreover, while fact-based assessments are necessary for creating a project of value, community perception is a necessary component that allows for the business unit to garner a greater social license to operate.

Here, the community members and stakeholders were asked to provide three of the top areas of support that they may require from VALJ, going forward. Based on the proportion of beneficiaries who have provided the affirmative for each of the options, a rank has been determined.

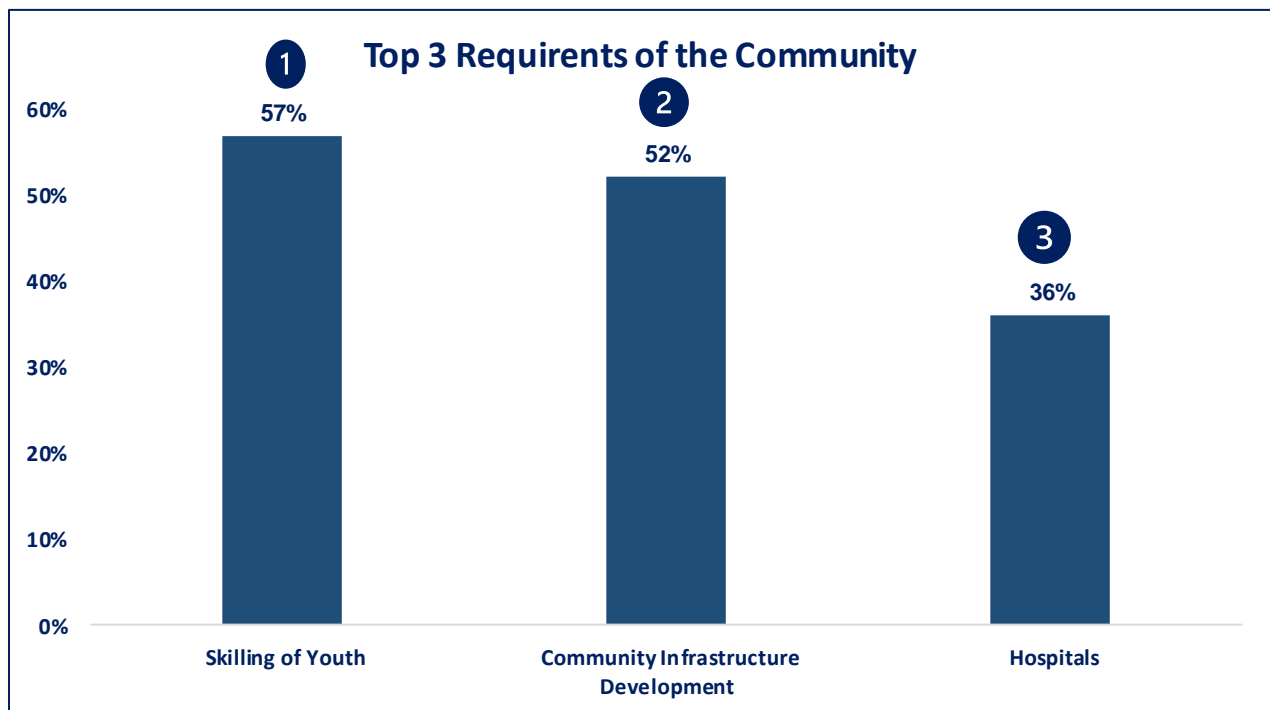


Figure 50: Top 3 Requirement of the Community

The most prominent requirement of the community is the skilling of the youth, it is followed by the community infrastructure development and creation of hospitals.

PERCEPTION OF CSR AMONGST Business Units

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The following section delves in to understanding the attitude and perception of internal stakeholders and leaders of VALJ regarding the CSR

9.1. Key Sustainability Drivers

Sustainability drivers are a subset of business drivers, specifically focuses on measures towards supporting communities and the environment. On a broad level, they can be used to determine which area of focus would allow a business to ensure its sustainability. Such drivers link the core operations of a business with the outside, to ensure a balanced and holistic approach towards operations. Therefore, through this study, the business can understand what the key sustainability driver according to their internal stakeholders are and how it can be leveraged to ensure a strong social license to operate.

The four key sustainability drivers defined for the study are:

- Providing Equal Economic Opportunities to the Community
- Supporting Social Development of the Local Community
- Conserving the Environment
- Preserving and Promoting Culture and Heritage

All the internal stakeholders provided equal importance to the key sustainability driver. They believe that all the key sustainability drivers are the tenets to ensure the social license to operate to VALJ.

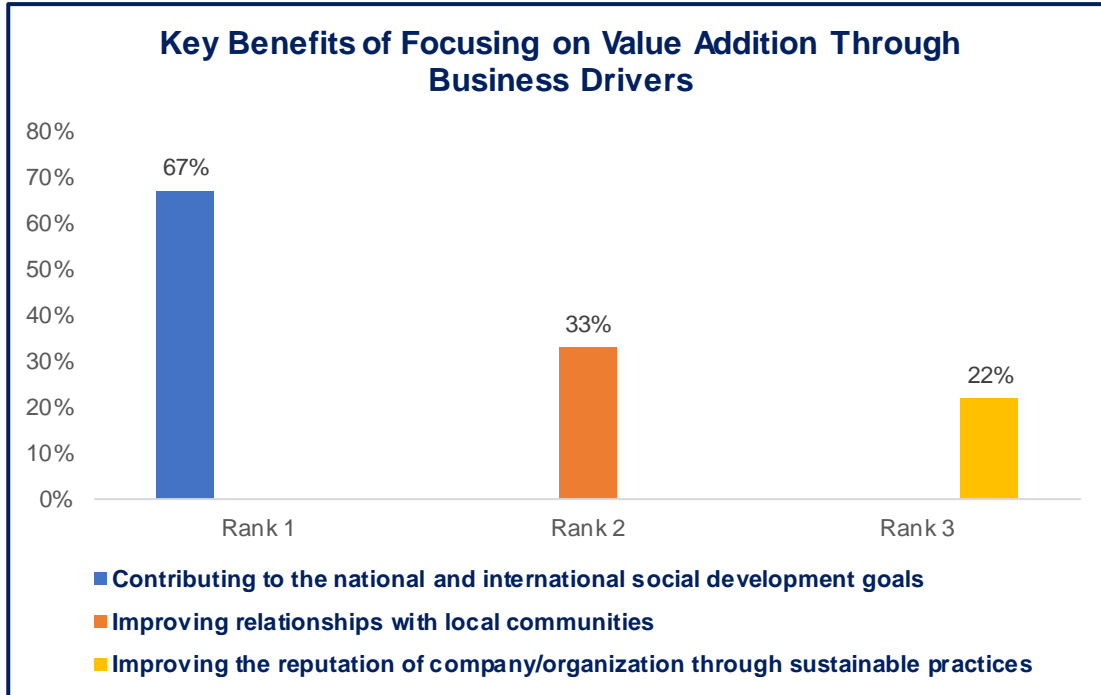


Figure 51:Key Benefits of Business Drivers

During the discussions with key stakeholders within the CSR management team, it was seen that all the stakeholders believed that supporting social development of the local community is the prime sustainability driver. While equal importance was given to factors like economic opportunities to local communities, conserving environment and preserving cultural heritage.

Benefits on focusing on Sustainability Drivers for VALJ

The internal stakeholders while agreeing that the focus on sustainability drivers would lead any business to have success, were further asked to rank the same in order of the benefits that they perceive would be received. The rankings are as follows:

1. Contributing to the national and international social development goals at Rank 1.
2. Improving relationships with local communities and Increasing trust tied at Rank 2.
3. Improving the reputation of company/organization through sustainable practices and Improving ethics and social awareness among employees tied at rank 3.

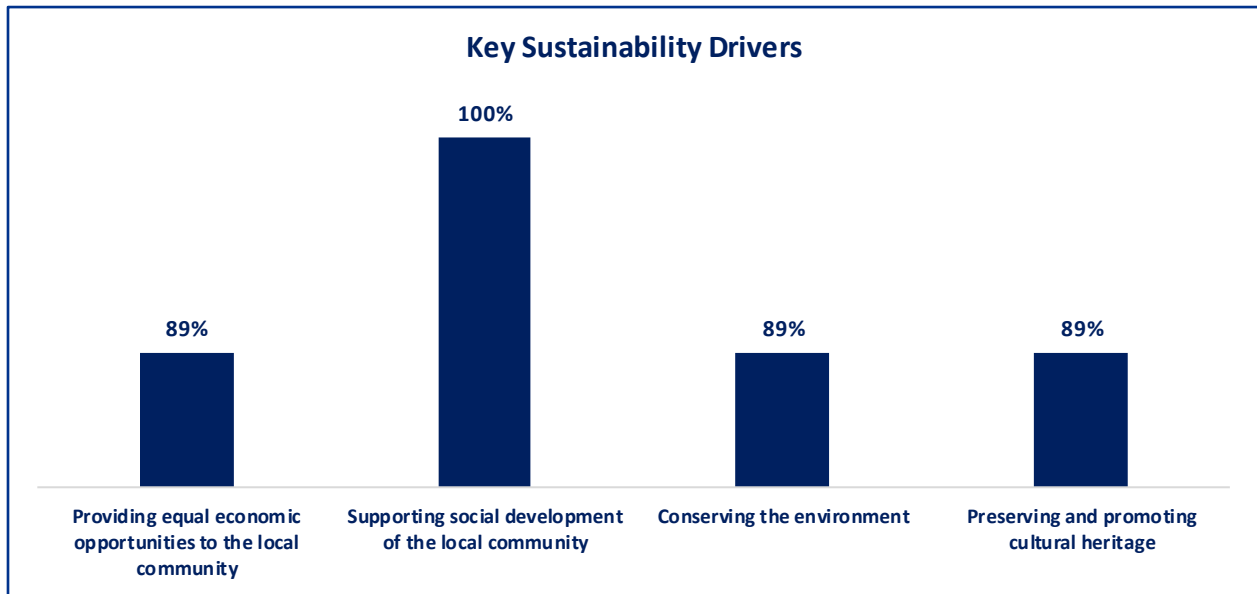


Figure 52: Key Sustainability Drivers

CSR in the context of Business

While CSR is now a mandated requirement in the Indian context for certain companies, its core aim is to ensure that companies give back to the communities in the areas in which they work, or beyond. For any company that has extractive or manufacturing processes close to large hamlets of people, it is necessary to ensure that their presence is not determinantal to the community in order to ensure that their business works in harmony with those around it. Thus, it is critical to understand how CSR is currently perceived by the internal stakeholders.

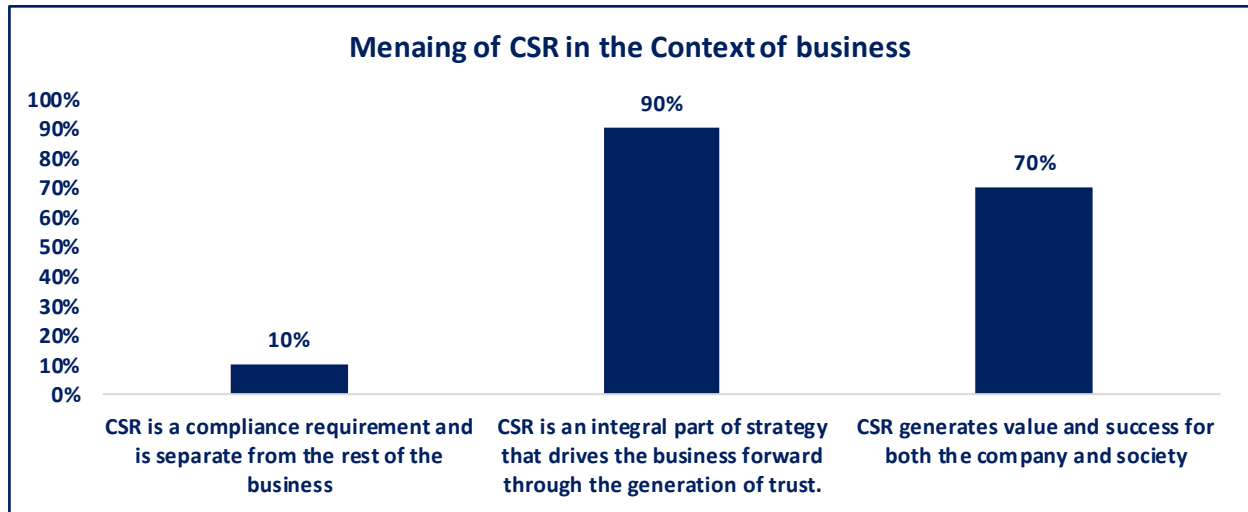


Figure 53: Meaning of CSR in the context of Business

All the stakeholder’s believed CSR is an integral part of strategy that drives the business forward through the generation of trust. They believe that establishing trust within the community and also within the team is integral to sustain the business. While 8 out of 9 believed that CSR generates value and success for both the company and society. All stakeholders were also of the opinion that socially responsible companies that have strong orientation for sustainable practices are more attractive to the investors than other companies and companies that focus on the key drivers for value addition have a greater chance of success.

Thematic Areas wise ranking

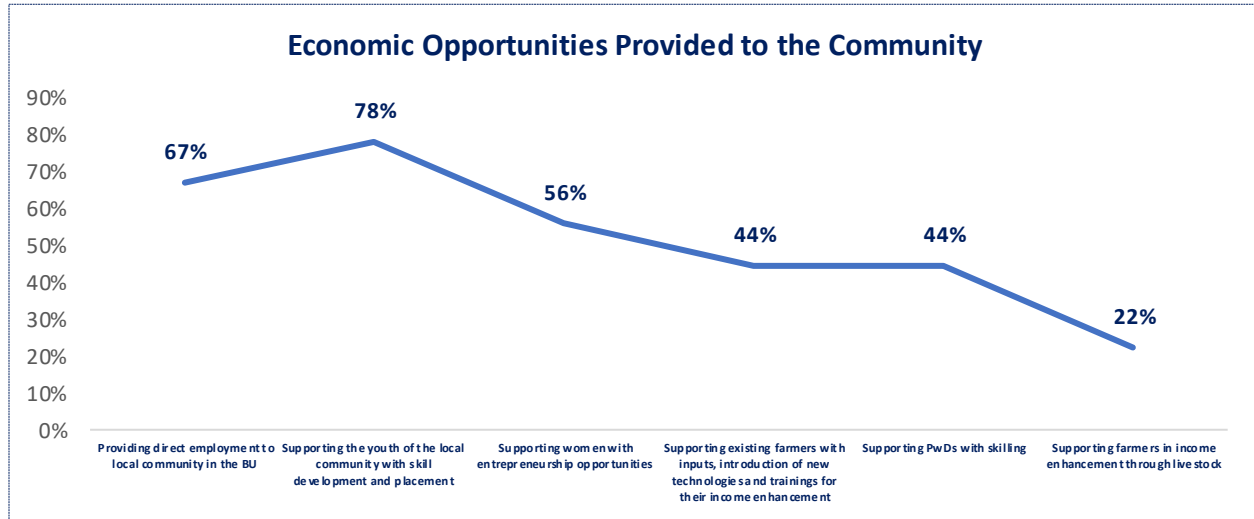
The internal stakeholders of VALJ were asked to rank the thematic areas given within its CSR Policy from 1 to 3. Based on the composite scores, the thematic areas that have received the highest ranking are:

1. Children Wellbeing at Rank 1
2. Skilling and healthcare at Rank 2
3. Agri & Animal husbandry at Rank 3

Sustainability Drivers adding the most value to VALJ

Economic Opportunities Provided to the Community

When asked which economic opportunity provided to the community, in the opinion of the internal stakeholders, added the most value to VALJ’s social license to operate, the majority saw skilling of youth (78 percent) followed by employment to local community (67 percent) as the critical driver.



health camps for door-to-door access of health services
Figure 54: Economic Opportunities Provided to the Communities

Social Development Interventions

When asked which social development interventions provided to the community, in the opinion of the internal stakeholders, added the most value to the company’s social license to operate, the majority saw renovation, construction work as the critical driver and digital infrastructure.

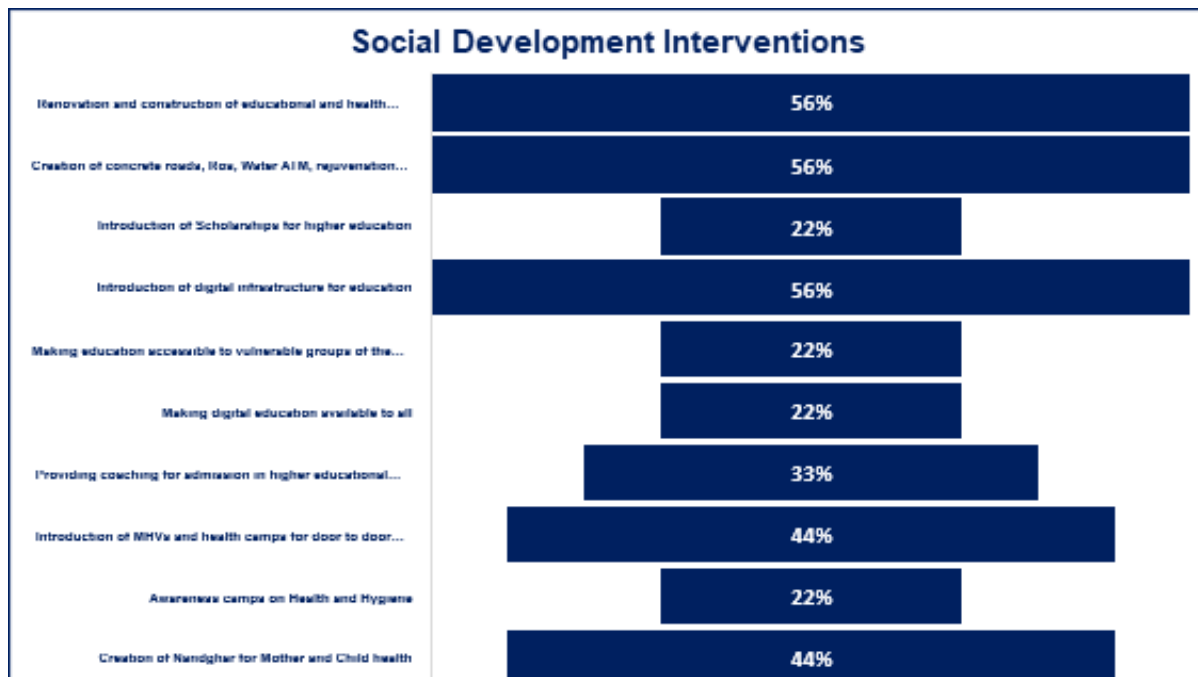


Figure 55: Social Development Intervention

Environment Conservation

Of the environmental conservation activities increasing the green cover in the local

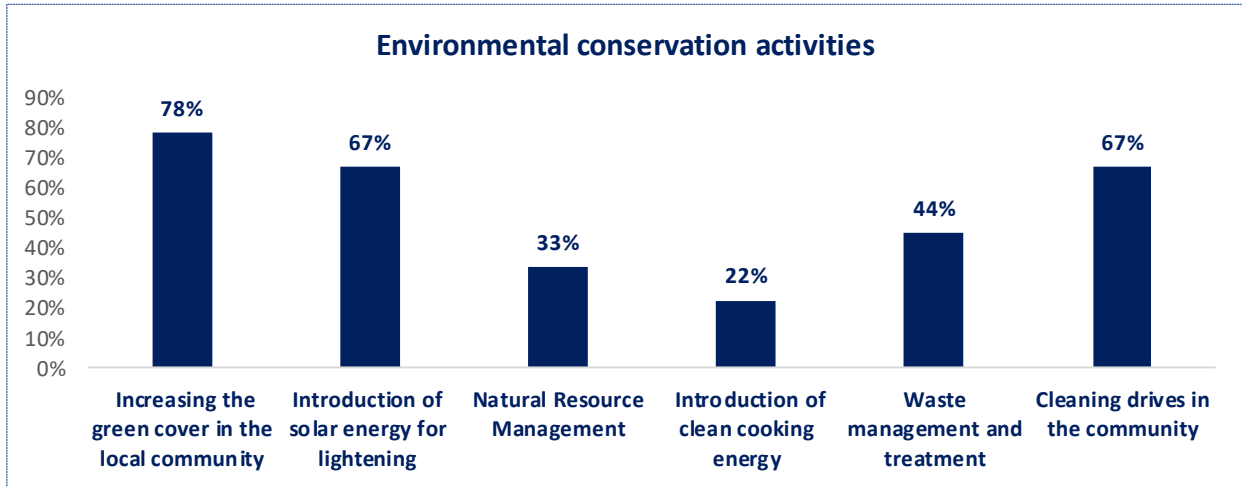


Figure 56: Environmental Conservation Activity

community adds the most value to the company’s social license to operate.

Promotional and Preservation Activities around Sports and Culture

Finally, when asked which promotional and preservation activities around sports and culture carried out within the community, in the opinion of the internal stakeholders, added the most value to VALJ’s social license to operate, the majority stated providing opportunities to local artisans as a key factor.

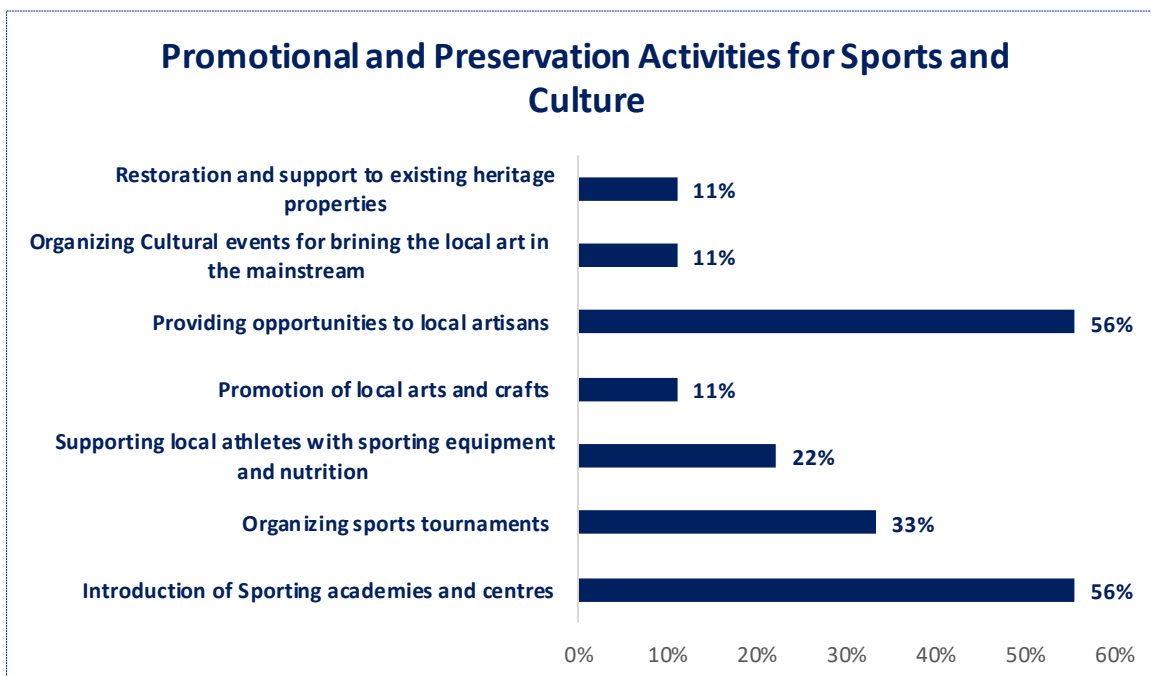


Figure 57: Promotional and Preservation Activities

During the interviews the stakeholders were asked about the barriers they perceive in ensuring value addition for a sustainable business. The stakeholders gave varied responses like:

- lack of perseverance and passion amongst the internal stakeholder,
- High expectation from community,
- Lack of Convergence with the stakeholders
- Dearth of right set of knowledge partners
- Ignoring the local community needs, their culture, and sentiments

Social Risk

The social risks defined here are the risks which can hamper Vedanta's Social Licence to operate. The low lingering social risks that are pertinent in the Jharsuguda district are the environment and employment risks.

Environment Risk

Jharsuguda, has one of richest reservoir of coal in the country. Coal is the primary mineral other minerals include quartzite, quartz and fire clay. There are 14 working coal mines in the district.²⁰³The presence of coal and other minerals in the country ensued an exponential

²⁰³

industrialization in the district. Over the course of last few years, Jharsuguda had around 7000 industry units established, where 17 industries were heavy and mining industries. This led to the rapid exploitation of the natural resources and water and air pollution. At present, the district has the highest number of the containment sites in India and the proportion of the forest in the total geographical area is almost one third of what is required for a healthy environment. 90% of the beneficiaries also reported to have pollution as the prime environment concern in the district. Water contamination becomes a grave danger for the health of community as it is one of the prime reasons of water borne diseases and poisoning. As per the stakeholder interview, the deaths due to pollution has been on the rise in the district. Moreover, it impacts the productivity of the soil, deteriorate the health of the soil, and decrease the yield drastically. It was observed from the interviews of the beneficiaries and the stakeholders that the fly ash from the plants possess a threat to the health and livelihood of the community.

Moreover, Jharsuguda lies in the climate extreme hotspot and has witnessed perpetual draughts or draught like situation from past couple of years. The drying up of the rivers in the district has been posing a daunting challenge for the farmers of the district. They have been devoid of required water for irrigation for the crop. This can be corroborated by the fact that most of the households interviewed, were growing single crop.

If not taken care of, it will become the most prominent social risk for VALJ.

Employment:

In the backdrop of discovery of natural resources in the district, Jharsuguda witnessed rapid industrialization. Minerals and its associated industries contribute to around 35% of the total GDP of Odisha and Jharsuguda substantially contributes to it.²⁰⁴ Despite of the rapid industrialization, the per-capita income of the district remains half of the state average and unemployment remains a challenge.

To assimilate the population under the working age in the industries in and around the district, there is a need of skilling for the community. The challenge of lack of skills has been palpable in the district. Hardly any youths received any skill training in the last years and there is a demand of skilling amongst the youth of the community.

Due to climatic conditions the agriculture sectors have been taking a toll in the district and leaving many families out of agriculture thus implicating their employment.

²⁰⁴ https://finance.odisha.gov.in/sites/default/files/2021-02/Economic_Survey.pdf

10. Proposed Overall CSR Strategy

Holistic Programmatic Approach: The present system of thematic area divisions breaks up the impact across projects, not allowing to see the overall change brought in within the community. A continuum approach allows for the last mile delivery of each beneficiary, supporting them with a range of opportunities, having spill over impacts from one project to the other and thus enhancing the overall impact as well as positive perception in the community. A model for the same is provided in the section titled Synergy and Continuum.

Effective use of Technology: To ensure the above, a significant investment both in terms of human resources as well as financial resources, which may not be sustainable. Hence, we need to bring in technology to ensure scale, quality, standardization, cost effectiveness and sustainability.

Monitoring: A focus on monitoring mechanism is further required. Presently the monitoring mechanism though facilitates capturing output data last mile traceability, and outcome and impact integration need to be strengthened. This can be done through developing an MIS which captures and documents beneficiary wise services-delivered and integrates outcome and impact KPIs in the overall monitoring process. This would help in review and course correction.



Education:

1. Convergence with District/ Block Education departments for Infrastructural Development and service deliveries.
2. Community mobilization on behavioral change of parents for child education
3. Capacity Building of the teachers and principals.
4. Capacity building of SHGs for mid-day meals

Health:

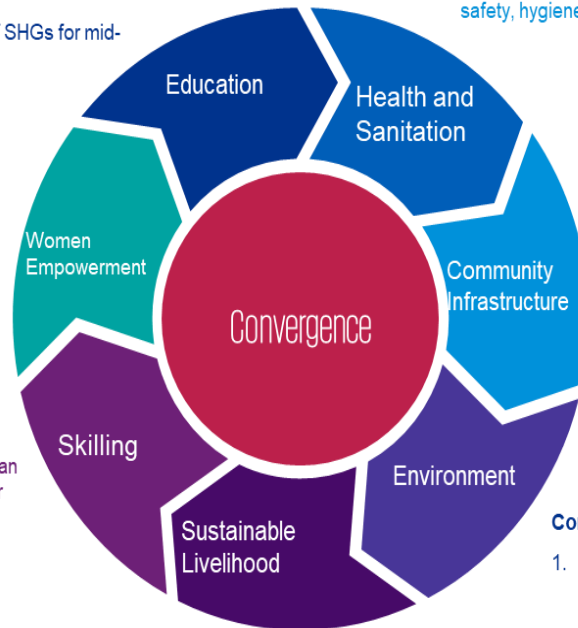
1. Capacity building of SHGs on adherence to ICDS guidelines while preparing of food w.r.t safety, hygiene, fortification and quality.
2. Nutrition intervention to be subsumed within the scope of O&M partner necessitating capacity building of the concerned stakeholder, overall system strengthening and stop-gap measures.
3. Partner to ensure adherence to ICDS guidelines, safety, hygiene, and quality of food

Women Empowerment

- 1-Assimilation of Women into SHGs
- 2- Strengthening of SHGs.
- 3- Economic Empowerment of Women.
- 4- Financial Literacy
- 5- Behavioral Change Campaigns

Skilling

- 1- Expansion of more youths in skilling
- 2- Introduction of futuristic trades which can provide better job opportunities and higher pays.
- 3- Partnerships with skilling institutions of Government of India/other CSR.



Community Infrastructure

1. Building more water infrastructures and community infrastructure in Liasson with government

Community Infrastructure

1. Tree Plantations activities for mitigating air pollution and recharging ground water.
2. Rejuvenation of local water bodies

Agriculture/Sustainable Livelihoods

1. Water management for irrigation.
2. Farm Mechanization
3. Assimilation of Farmers into FPOs
4. Expansion of Animal Husbandry Programs



The above figure provides an overview of the strategy that KPMG proposes for VALJ. This is based on the feedback received from the stakeholders as well as the current needs of the community and impact of the projects. A striking suggestion that has come about is the requirement for synergy in and between projects as well as greater convergence efforts with the government.

In order to achieve greater visibility of impact and increase the social license to operate, it is recommended that a continuum model is followed, whereby VALJ supports beneficiaries from pre-birth to employment.

VALJ shall focus on

- Fulfilling the infrastructural Gaps.
- Behavioural Change of the Community
- Strengthening PRI institutions
- Building and Strengthening Village Level Committees.
- Natural Resource Management to tackle draught

Healthcare for All: In order to fulfill the health needs of the community, VALJ shall take holistic approach. For maternal and child health, it shall focus on strengthening of the service deliveries like PDS, mid-day meals etc in liaison with government. To fulfil infrastructural gaps in the health institution, it shall liaison and partner with health department, build capacity of public health worker, establish tele-medicine centres at APHCs and PHCs based upon the proportion of the population.

- It shall focus on providing reliable electricity, lifesaving equipment at public health intuitions.
- VALJ shall also scale up MHU programs across the intervention villages to provide greater accessibility of health services in Liaison with government
- VAL- Shall increase the frequency of behavioural change campaigns to impart sensitization on WASH and Gender aspects of Health.

Short Term Goal



Increase in the Coverage of the MHUs in Liaison with Government

Infrastructure Refurbishment of the Public Health Institutions and Supporting the Health Institutions with critical life Saving equipment.

Medium Term Goal

and Introduction of Telemedicine Centres to Cope up with the low doctor population ratio and to introduce specialized medical services in the intervention villages.

Long Term Goal

Capacity Building of Frontline Workers and Hand Over to Government

Education:

VAL- Shall focus on bridging the infrastructural gaps in schools with education department. It may also

Short Term Goal

To fulfil the infrastructure gaps, VALJ shall conduct facility upgrading in the schools and introduce digital literacy program in the schools of intervention villages.

It shall cover 100% students through community mobilization to increase attendance in schools.

Medium Term Goal

It shall build capacity of teacher for delivering better pedagogies in schools.

It shall start a teacher's capacity building program for delivering pedagogies in English medium.

It shall work towards creating a conducive environment in schools by renovating sports grounds, libraries and introducing sports equipment.

Long term Goal

It shall work closely with department of education to hand over the program after building the capacity of government officials.



Women Empowerment

Short Term Goals

To ensure maximum benefit, a specific focus needs to be provided to change behaviour in the villages on gender. This can be done along with local stakeholders such as panchayats through which not only special days on gender should be celebrated but constant efforts to raise awareness within the community.

Assimilation of more women in the Subhalaxmi Cooperative

Medium Term Goals

Introduction of more diverse entrepreneurial activities in Subhalaxmi Cooperative and assimilation of women in entrepreneurial activities.

Long Term Goals

Hand Over the cooperative completely to the women after building their capacity.

Community Infrastructure:

While community infrastructure is suggested as an overarching focus across strategic areas, it is pertinent to include 'solarification' of villages as well as access to WASH infrastructure including drinking water access. These stem from the specific needs of the community.

Environment:

As the environment challenge is the major issue in the area. VALJ shall work on the environment improvement in the intervention villages.

Short Term Goals

VALJ shall increase the green cover in every village by 33%.

Medium Term Goal

VALJ shall work towards rejuvenation and cleaning of the local water bodies and work towards the water management in the villages



Long-Term Goals.

VALJ Shall work towards Natural Resource Management and covert villages in water positive.

VALJ shall establish fly ash based brickkilns.