



IRON ORE

BUSINESS (IOB)

Baseline cum Needs Assessment, Impact Assessment and Perception Study



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

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Executive Summary

IOB SESA is a Vedanta Group company that primarily is engaged in the exploration, mining, and processing of iron ore. Since its inception in 1954 in Goa and having grown to become India's top low-cost producers of iron ore, the company has further diversified its scope of activities into pig iron and metallurgical coke manufacturing besides adding cement and nickel-cobalt to its existing portfolio. The company is also known for its foray into developing indigenous and environmentally conscious technology and has expanded its operations across five states in India as well as globally.

With interventions spanning across thematic areas such as education, health, livelihoods, skilling, women empowerment, community development, environment, and sports & culture as part of its CSR initiatives, IOB SESA has strived to promote the holistic development of the local communities in the areas where it runs its businesses – the states of Goa and Karnataka, primarily. Both the states have a prominent iron ore industry owing to the rich iron ore reserves.

The previous cycle of baseline findings have been instrumental in realizing the actual needs of the communities, as well as mapping the impact of programmes being run to further improve upon ensuring effective reach. Several new projects have been brought in, while still others have been streamlined. 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, IOB appointed KPMG Assurance and Consulting Services LLP to carry out their Baseline cum Needs Assessment, Impact Assessment and Perception Study. The study was carried out with beneficiaries/respondents and stakeholders as per the sample division across three districts of North Goa, South Goa, and Chitradurga¹.

It was observed that majority (close to 60%) of the respondents from North and South Goa belonged to the APL category, while in Chitradurga, 63% belonged to BPL category – indicating significant difference in economic standings. Yet, most households had access to a smartphone (more than 95%) and TV (90% and above) in all the three

¹ Please note that all references to states and districts where it concerns the project activities refer to only select clusters within the geography where IOB's CSR project activities are being implemented.



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districts. The most common occupations reported in both North and South Goa were daily wage work, skilled wage work, and farming, while that in Chitradurga was farming.

Out of the total sample, 24% were females while the rest 76% were males. While efforts were made to have proportionate representation of women and men in the sample, due to socio-cultural barriers in the rural community, the same could not be achieved. To compensate for the same, the team spent additional time interviewing female respondents as well as focused on gender specific issues during discussions with local and district stakeholders. 54% of the respondents belonged to the general category while 22% of the sample included members belonging to the SC category, while 19% of the respondents belonged to ST category, and the rest 6% belonged to the OBC category.

Interactions with beneficiaries and stakeholders revealed that IOB strongly supports communities through its vision to improve the quality of life and wellbeing of those that live and work around their locations (as well as in its peripheries) and ensures that it fulfils its social license to operate. Its team carries out deep community-wide and sustained engagements focused around education, sustainable livelihood, women empowerment, health, water and sanitation, sports and culture, environment and safety as well as community development.



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Key Findings from Baseline Assessment

Education

- Improved sanitation and drinking water facilities at primary and middle school levels since previous baseline.
- Increased availability of digital infrastructure since the previous baseline
- Majority of the respondents have high ownership of mobile phones across North Goa, South Goa, and Chitradurga which extensively used for accessing digital education.
- Ownership of laptops observed to be high in Chitradurga.

Skilling

- Large number of respondents (33%) from North Goa showed a preference for learning on-farm skills.
- In South Goa 23% of respondents were interested in finance management training.
- In Chitradurga, 32% expressed an interest in learning financial management followed by IT skills (31%).
- A general inclination towards tertiary skills such as financial management and IT skills was seen across all districts.

Sustainable Livelihoods

- Farming practiced more in the form of subsistence in Goa wherein South Goa's agricultural inclination is lesser than North Goa
- The BU has been providing trainings, agricultural inputs, cattle feed and fodder to the communities
- Paddy is a staple crop in Goa with more than 80% involved in paddy cultivation alone, while nearly 20% practice triple cropping pattern.
- Arecanut (43%), maize and bajra (31%), paddy (24%), and dalcous beans (1%) are major crops cultivated as reported by interviewed respondents in Chitradurga where farmers require support. It is understood from the CSR team that Acrecanut, maize, bajra, and dalcous beans are major crops in Chitradurga.
- Almost all of the beneficiaries under the Sustainable Livelihoods programme received benefits in the form of agri-inputs. Majority of the respondents (42%) in Chitradurga said that they receive support in the form of provision of seeds for farming.
- 20% of the respondents in Chitradurga said that they have access to fodder seeds as part of livestock services in their area.

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Health

- North Goa and South Goa districts have good network of healthcare facilities available in addition to various state healthcare schemes that can be availed.
- On-field observations from Amona village suggest that the CMC facilities set-up by the BU has more footfall than that at the sub-center in the village due to availability of better services.
- The cost of availing healthcare services seems to have shot up since the last baseline – particularly in North and South Goa.
- Anganwadi facilities seem to have improved since the last baseline - particularly in terms of drinking water and sanitation facilities available in North Goa.
- While the anganwadi facilities were found to be fair in North Goa, the services provided by AWCs seem to be inadequate and were not accessed as frequently by community members.
- More people seem to be accessing basic diagnostic facilities such as OPD, Xray etc. in North and South Goa rather than advanced forms of treatment.
- Maternal and child health found to be a persistent healthcare concern in Chitradurga district.
- 76% of the respondents reported having access to MHU services in Chitradurga.

Women Empowerment

- Respondents in all the three districts said that women could take decisions on various aspects of their lives ranging from employment, voting, financial decisions.
- Since majority of the respondents were males in the sampled districts, the responses were taken as a perception on women's decision-making ability.
- Women were found to be generally more vocal and were part of SHGs in North Goa as compared to South Goa and Chitradurga.
- Women also were forthcoming in their expressed requirement for entrepreneurial assistance.
- Lack of livelihood opportunities was echoed as a major concern – particularly in South Goa and Chitradurga.

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Community Infrastructure & Development

- The availability of basic community infrastructure was found to be very good with significant improvement since the last baseline – in both North and South Goa.
- The North and South Goan districts majorly have access to piped water supply, with considerably lesser percentage of respondents being dependent on handpumps or community tap water. In Chitradurga, however, the use of handpumps was reported to be more as compared to the previous baseline findings.
- The kisan seva kendra seems to be used more prominently in Chitradurga than its Goan counterparts.
- Some of the persistent infrastructural gaps in the community are unavailability of concrete roads, unavailability of functioning toilets at households, and unavailability of a community hall, as well as unavailability of streetlights in Chitradurga.
- Lack of proper drainage facilities was also reported by a few stakeholders in Chitradurga.
- Sports ground facilities were reported to be limited

Environment

- 33% of the respondents reported that water pollution and air pollution are two most prominent environmental issues being faced in North Goa.
- More than 40% of the respondents in the South Goa reported air pollution to be a major environmental concern, followed by water pollution (35%).
- 33% of the respondents reported that air pollution is a major environmental concern in the district, while 27% reported that water pollution is a concern. Clean fuel initiatives are significantly high in Chitradurga district.

Sports & Culture

- 66% of the respondents in North Goa reported having access to physical/recreational facilities.
- 41% of the respondents said that these sports facilities are being provided by the SESA Football Academy (SFA)
- 50% of the respondents in South Goa reported having access to physical/recreational facilities.
- None of the respondents in Chitradurga mentioned having access to any recreational activities in their local vicinity being offered by any entity



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Key Insights from Impact Assessment

Education	<p>Project Vedanta Utkarsh: The primary objective of this project is to identify deserving students and help them overcome financial hurdles towards accessing and designing for themselves a better life-trajectory across the states of Goa and Karnataka. The project has been successful at garnering trust and appreciation for its efforts in easing financial burdens for underprivileged yet meritorious students while also helping improve digital infrastructure at schools.</p>
Skilling	<p>SESA Technical School: On-field observations suggest that SESA Technical School has very good facility for the youth of the area. The placements were also found to be decent, particularly for the electric trade. The courses offered are accessible due to reasonable and affordable fees structure. The courses are being run by qualified and experienced trainers, thereby providing quality facilities at an affordable cost.</p>
Sustainable Livelihoods	<p>Gram Nirmaan: “Back to Farming” is a key initiative under the project that aims to reclaim fallow lands and turn them to agriculturally productive lands. The program also gives special focus to the financial empowerment of rural women- It was found that only a minor share of respondents have reported being positively impacted by the project. Only 15.62% of the respondents said that their incomes have improved.</p> <p>Alternative Livelihood Opportunities Project: The primary objective of the project is to build capacities of farmers in sustainable agriculture and livestock support in partnership with BAIF. 53% of the respondents reported noticing an improvement in their incomes after the intervention. 45% of the respondents said that they have brought some portion of their farm lands under sustainable/organic agriculture.</p>
Sports & Culture	<p>SESA Football Academy: 42% of the respondents said that there has been improvement in their ability to participate in regular sports/sports competitions due to project interventions.</p>

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Health

Community Medical Centers (CMC): The Community Medical Center (CMC) is touted as a flagship project wherein the first CMC was set-up in 2006 with an aim to provide various healthcare services such as consultations and provision of medicines at no cost and thereby to make healthcare more accessible to communities. A majority of the respondents (72%) reported that the project activities have increased their accessibility to healthcare services through CMCs, MHUs etc. 36% of the respondents said that the quality of healthcare services has improved.

Mobile Health Unit (MHU): The Mobile Health Unit (MHU) is another flagship project being carried out in Chitradurga after the CMC set-up in Goa. The provision of MHU is an extension service in essence with its ambitious goal to reach the last man in the community. There has been a general improvement in the availability of medicines, frequency of visits, time required to travel, quality of healthcare personnel and the availability of sanitary napkins, as well as access to pathological tests etc.

Business Drivers

It is pertinent to note here that Corporate Social Responsibility (CSR) is not only meant to fulfill a legal compliance but plays a key role in promoting the business of the organization. CSR is essential for enhancing reputation, increasing productivity gain and supporting risk reduction for the business.

Education

Project Vedanta Utkarsh

- Project Vedanta Utkarsh was conceived to support higher education for the students belonging to financially weaker sections of society. The BU has been consistently pushing for quality education through provision of infrastructure development support at educational institutions, creating awareness and providing guidance to students, in addition to giving financial assistance to underprivileged students from local vicinities. The BU's efforts towards infrastructure development of school in North Goa and Chitradurga in the form of lab set-up and distribution of projectors and screens for digital education has been recognized and lauded.
- 58% of the management stakeholders in the present study felt that renovation and construction of educational and health infrastructure in the community can add to the BU's social license to operate. 14% of the respondents felt that both introduction of scholarships for students and introducing digital infrastructure for education can add to IOB's social license to operate.

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<p>Skilling</p> <p>SESA Technical School</p>	<ul style="list-style-type: none"> • India is the world's fastest growing economy at 7.7% as of 2019-20¹. India's labour market is characterized by a large supply of young population. However, a significant proportion of this section of population is oftentimes under-skilled to join the workforce. • North Goa has several it is such as the Bicholim Government ITI, Honda ITI, and Farmagudi Government ITI. Among these, there is the SESA Technical School is an Industrial Training Institute that was established as part of IOB's 'post-mine closure plans' in Sanquelim. The primary aim of the project is to enable the local youth with relevant skillsets for them to join the workforce successfully or start their own self-employment journey. The Sesa ITI offers trades of Fitter, Machinist, instrument mechanic & Electrician.
<p>Sustainable Livelihoods</p> <p>Gram Nirman</p>	<ul style="list-style-type: none"> • With food and nutritional security becoming a cause of concern due to transition of livelihoods away from agriculture, unsustainable input costs, decreasing climate conduciveness to practice agriculture – there is an ever-more need to make agriculture a more rewarding livelihood option for existing farmers and the youth. • 85% of the management stakeholders ranked the BU's interventions in agriculture and animal husbandry as number one in contributing to IOB's social license to operate. • IOB has been playing a crucial role in raising awareness around government schemes among farming communities, while also equipping them with relevant skillsets to revive fallow lands in the Maina-Navelim and Amona villages in the Bicholim
<p>Sustainable Livelihoods</p> <p>Alternative Livelihood Opportunities Project</p>	<ul style="list-style-type: none"> • This project being carried out in partnership with BAIF is a holistic village-wise development programme to promote sustainable development of the intervention villages. The primary objective of the project is to promote climate-resiliency and sustainable practices across the programme. The project also aims to provide farmers with relevant technological training and equipping them with knowledge on alternative agricultural practices. • 100% of the management stakeholders from Chitradurga district ranked interventions on agriculture and animal husbandry as the highest and saw it as crucial to the BU's social license to operate in Chitradurga.

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<p>Health Community Medical Centers (CMCs)</p>	<ul style="list-style-type: none"> • By setting up two OPD facilities and plying an MHU for less accessible villages, IOB SESA Goa has been able to bridge the gap of providing quality services at affordable costs or no cost at all – as evident in baseline and impact findings, community members tend to prefer private entities (such as private clinics or even the BU’s services etc.) to access better quality of healthcare services.
<p>Health Mobile Health Unit (MHU)</p>	<ul style="list-style-type: none"> • By providing a near-doorstep delivery of services in every intervention village in Chitradurga, the MHU services have shown great resilience during trying times. Health kits and awareness creation on maintaining hygiene during the pandemic have been found to be immensely useful. • The lack of proper road accessibility has been an integral aspect of the heavy use of the MHU services. Although respondents opined that medicine availability could be bettered, in general they seem to have noticed an improvement in their ability to access healthcare services.
<p>Sports & Culture SESA Football Academy</p>	<ul style="list-style-type: none"> • 43% of the management stakeholders felt that promoting sporting academies and centers adds the most value to IOB’s social license to operate. • With its presence on a reclaimed mining site in Goa for over two decades, IOB as a business unit and as a prominent sports-facility provider has gained much trust and recognition in Goa. Having built a state-of-the-art academy and catapulting numerous young players to district, state, and national platforms, the SFA is continuing to hold a steady ground in channelizing youth talents. With its expansion to Sirsaim and provision of sports facilities for senior members of the community – the BU has displayed its vision for an inclusive society.

Key Recommendations

Education

a. Counselling Services for Students, Parents, and Teachers

As seen through secondary data and on-field interactions, NER and retention rates go down, while drop-out rates tend to go up with progression towards secondary and higher secondary education. While all the three districts – North Goa, South Goa, and Chitradurga boast of some of the lowest drop-out rates in the country, the fact that drop-out rates are higher towards higher schooling levels is a bit concerning.

Youth delinquency and dropping out to pursue other work avenues was particularly a concern that was raised during on-field interactions. Empaneling counsellors to understand these patterns better – particularly to help students with making better career decisions, to enable parents to provide a healthier home environment, and for teachers to help guide students better might be useful.

b. Introduction of Vocational Courses at School level and Teacher trainings to take vocational courses, as well as special education teachers

It is pertinent to train teachers adequately in order to deliver vocational courses successfully to students. Moreover, teacher trainings particularly focusing on the needs of special students will also help make education equitable, accessible, and inclusive. Possible convergence with state government schemes can be considered for effective reach.

c. Strengthening of digital infrastructure

In Karnataka, a possible association with the “Subject Teacher Forum” and the Technology-Assisted Learning Programme (TALP) can be tapped into to ensure that teachers are equipped and comfortable with digital tools to ensure smooth dissemination. In Goa, the Computer Aided Learning (CAL) programme under the Goa Sarva Shiksha Abhiyan (GSSA) is an innovation fund to maximize coverage in upper primary schools with special emphasis on Science and Mathematics. Hardware and software training is also provided in addition to maintenance and resource support.

Skilling

a) Convergence with Skill Training Institutes in Chitradurga:

The Chief Minister's Kaushalya Karnataka Yojane (CMKKY) is a flagship scheme for short term vocational skilling to enable employment, self-employment, and entrepreneurship amongst the youth in Karnataka. Youth within the age-group of 18-35 can undertake a 3,000+ courses spanning across 35 sectors ranging from apparel, automotive, BFSI, IT&ITeS, healthcare, electronics, agriculture, retail and tourism, among others.

There are about 19 skill training institutes in the Chitradurga district with industries and trades ranging from tailoring, sewing, data operator, solar panel installation, to consignment booking assistance trainings available, identified by the CMKKY scheme.

- The BU may consider undertaking a comprehensive mapping of youth aspirations and suitably guide them towards relevant skilling centers/courses.
- New vocational courses can also be introduced after a comprehensive mapping of skills required by the youth and adults – particularly on-farm skills, digital literacy skills, and financial management skills.
- The existing skilling centers can be equipped with required materials to provide these trainings.
- Training of trainers may also be undertaken to be able to further train community members.

b) Convergence with state schemes in Goa:

The Swayampurna Goa scheme is aimed at building self-reliance of the state. An important aspect of this is the identification of skills of unemployed youth and matching them with the relevant industry. The ITI in Bicholim offers courses in Computer Operations and Programming, Electrician, Fitter, draughtsman (civil), stenography mechanic diesel trades.

Considering the expressed interest from North Goa in learning on-farm skills, a block-level training can be started for youth and adults alike to get more farming-centric skills – particularly digital literacy and financial management.

c) An aspirations mapping for the youth:

In the longer run, a mapping of aspirations can be done to see the youth's, as well as that of unemployed adults' to bring in short-term vocational courses that align with their aspirations.

Sustainable
Livelihoods

a) Specialized capacity building for farmers to work with agriculturally less productive lands

Only a minor share of respondents reported noticing an improvement in their incomes in Chitradurga and North Goa. This could be because farming itself is not actively practiced besides perhaps for subsistence. Moreover, the agricultural productivity is also low in the region. It would be helpful to organize specialized trainings and knowledge material to improve and work with agriculturally less productive lands in Chitradurga and North Goa.

b) Intensification of awareness around schemes and programmes

Particularly central and state schemes on micro-irrigation may be helpful for round-the-year cropping, since sowing is done only during the monsoon season.

c) Awareness towards millet cultivation

Efforts can be made to mobilize interested farmers towards millet cultivation. Millets have numerous health and nutritional benefits which can be promoted as a substitute to achieve food security in the region. Millets are also less input-intensive and may be apt for an irrigation-scarce area such as North Goa

d) Training on Market linkages and Certifications

As observed in the previous baseline study, high-value crops have been grown in the past in North Goa. This shows good potential to develop horticultural capacity in the area. Efforts can also be made to strengthen FPOs and help them apply for organic certifications etc. to make their produce more viable for sale in the market.

<p>Health</p>	<p>a) Convergence with state-run health facilities in Goa</p> <p>The state government’s Deen Dayal Swasthya Seva Yojana Scheme (DDSSY) is a universal health cover meant for the resident population of Goa. The scheme is meant to provide financial assistance while improving access to quality medical services to the people of Goa. Up to Rs. 1.5 lakhs per illness is provided. Further various initiatives such as Screening for Breast Cancers using iBreast Devices; Health & Wellness Centres (HWC); Pradhan Mantri National Dialysis Programme etc. are being undertaken by the state government to improve the health status of its residents. The BU could consider providing equipment support, as well as awareness and behaviour change sessions on proper health, hygiene, and sanitation practices.</p> <p>b) Increasing needs-based service in Chitradurga</p> <p>A common lament in the district was the lack of relevant medicines provision by the MHU. Although, the community members lauded the BU’s efforts in its service provision, they felt that the medicine provision could be better tailored to their immediate needs. Here, it is recommended to conduct community-based awareness on age-gender based nutrition and lifestyle diseases. Further, community must be sensitized to seek medicines for long term illnesses only in consultation with doctors at certified clinics or district hospital as opposed to relying on the MHU for the same.</p> <p>c) Convergence with Anganwadis</p> <p>Maternal and child health are persistent concerns in the district. Awareness creation sessions with AWCs and training of AWC staff may be helpful to deal effectively with maternal and child health care concerns. Janani Suraksha Yojana(JSY) is one such state scheme to reduce maternal and infant mortality rates and to increase institutional deliveries – particularly for BPL families. Cash assistance is also given to mothers who opt for home deliveries. C-section services can also be availed in the absence of doctors¹. The BU may consider creating awareness around the scheme which provides financial assistance to women opting for institutional deliveries.</p>
<p>Women Empowerment</p>	<ul style="list-style-type: none"> • Opportunity to further strengthen the presence of SHGs in North Goa, as well as possible ways of convergence to create more livelihood options for women. • Financial and digital literacy and livelihood skills training through tie-ups with SHGs can be helpful to boost the status of women in South Goa and Chitradurga.

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<p>Community Infrastructure & Development</p>	<ul style="list-style-type: none"> • Solar-powered streetlight facilities can be considered investing in for the villages in the longer term. • Efforts can be made towards understanding the role of Agriculture Credit Cooperatives, Kisan Kendras and E-Seva Kendras - that is why or why not these services are not accessible/not accessed in the Goan districts. • Sports ground facilities and road infrastructure can be improved in Chitradurga.
<p>Environment</p>	<ul style="list-style-type: none"> • As per baseline findings, air and water pollution are the prominent concerns of respondents across all project districts. Efforts to be made towards conducting mapping studies of the sources of air and water pollution in project intervention geographies. Existing and planned mitigation measures towards IOB plants' activities to be disseminated among community members • Upgradation and/or installation of air and water quality devices in the localities close to the BUs plants to monitor and disseminate findings on a real time basis. • Intensification of existing interventions such as clean fuel and solar streetlight installation highlighting IOB's commitment to environmental causes.
<p>Sports & Culture</p>	<p>1) Upgradation of existing facilities: Sports coaches pointed out that upgradation of existing sports facilities and equipment would be helpful to provide better training to enrolled sportspersons.</p> <p>2) Diversifying into new sports: Some of the stakeholders also mentioned that diversifying into other types of sports may be good option to try.</p> <p>3) Promotion of sports in Chitradurga: Stakeholders in the district mentioned having sports facilities in schools. However, they said that the district lacked proper sports coaches to train the youth. There is a possibility to consider upgrading a school ground facility to provide sports training to interested persons.</p>

Key Business Drivers and Management Perception Findings

Supporting social development of the community is considered by the Management stakeholders to be a pertinent sustainability driver. Followed by this, the management stakeholders felt that **providing equal economic opportunities to the local community** is also a key sustainability driver. Only one respondent felt that **conserving the environment** adds value to the business.

Perhaps the most highly ranked area of intervention in terms of its importance to Vedanta's social license to operate is **children's wellbeing and education, agricultural and animal husbandry** in addition to its interventions in **environment**. Women empowerment and drinking water and sanitation interventions were also found to be important.

Providing direct employment to local community in BU was ranked the highest followed by "Supporting the youth of the local community with skill development and placement" - which the stakeholders believe gives the BU its social license to operate.

As understood from the BU's CSR team, CSR interventions support in enhancing reputation, productivity gains, and risk reduction.

Community and Stakeholder Perception

Among beneficiaries, 81.25% felt that the BU's interventions were fulfilling the needs of the household and community. 3.13% felt that the BU's intervention exceed expectations in creating an impact for the community. As per respondents in Goa, CMC & MHU, SESA technical school and Back to Farming were the top three projects. In Chitradurga, Project Alternative Livelihood Opportunity, Vedanta Utkarsh Scholarship, and MHU were ranked the highest.

Overall, the satisfaction levels of the local stakeholders are at 76.32% per cent. 23.68% felt that more support was required. The overall ranking across the BU also revealed that the most popular project as per the local stakeholders was the community medical center

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and mobile health unit. The next two projects which as per the local stakeholders were performing well were the SESA Technical School and the Vedanta Utkarsh Scholarship. As per the local stakeholders in Chitradurga, the maximum support was required with respect to primary and secondary education of children, health and community infrastructure development. As per the local stakeholders in North Goa, the maximum support was required with respect to hospitals, community infrastructure development, and higher education of girls.

Among district stakeholders, 75% of the respondents were satisfied with the CSR interventions and felt that they fulfilled the needs of the community. 25% felt that more support was required.

Proposed Overall CSR Strategy

Holistic Multi-Sectoral Programmatic Approach: The present system of thematic area divisions focuses on specific impacts of each programme, drawing away from the overall impact of IOB's CSR. An approach rooted in multi-sectoral programmes that follow a continuum and convergence model, allow for last mile delivery and holistic support to each member of the community. There are clear business drivers for each of the current programmes and evidence of impact. The same when built on each other's success and value, allow for enhanced overall impact as well as positive perception in the community.

Furthermore, convergence and collaborations, not only with the government bodies and relevant schemes, but with sector specialists on each theme would enhance the design of the larger model.

Effective use of Technology: To ensure the above, a significant investment both in terms of human resources as well as financial resources is required, which may not be sustainable. Hence, there is a need to bring in technology to ensure scale, quality, standardization, cost effectiveness and sustainability. However, while applying technology for scale, one needs to be mindful of the digital exclusion where a section of the population continues to face hurdles in accessing technology². In fact, according to

² https://link.springer.com/chapter/10.1007/978-981-13-9996-1_1

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a study, one in ten households from underdeveloped rural areas versus one in every second household in urban areas have access to the internet, signifying a clear digital divide between urban and rural areas. Thus, while the use of technology can support development opportunities, it also poses a risk in widening inequalities³. Therefore, while it is recommended to deploy technological solutions to scale impact, work on the economy of scale and therefore further ensure sustainability, one must apply the 'leave no one behind' principle of the SDGs and ensure continued on-ground support⁴.

Monitoring: A focus on monitoring mechanisms is further required. Presently the monitoring mechanism facilitates capturing output data, however last mile traceability, outcome and impact integration needs 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.

The detailed strategy with the short and long term goals has been provided towards the end of the report.

³ <https://wp.nyu.edu/dispatch/2018/03/07/how-technology-is-improving-the-standard-of-living-in-developing-countries/>

⁴ <https://unsdg.un.org/sites/default/files/2022-04/Operationalizing%20LNOB%20-%20final%20with%20Annexes%20090422.pdf>



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Introduction to Studies

Country Context

India, where 65%⁵ of its population lives in villages and is largely dependent on agriculture for 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 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% of the total workforce.

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.

The inception of Corporate Social Responsibility (CSR) under the section 135 of the Indian Companies Act 2013, has become one of the primary means of achieving sustainable development in India.⁶ Corporates through their CSR arms have been tenaciously working for rural and vulnerable communities through triple bottom line approach. From creating rural infrastructure to rural livelihood program, CSR has become pivotal in ensuring sustainable rural development.

⁵ Census of India 2011

⁶ <https://www.icnl.org/wp-content/uploads/India-FAQ-3---Corporate-Social-Responsibility-FINAL.pdf>



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About Vedanta Limited

Vedanta Limited is a leading global natural resources conglomerate spread over India, South Africa, Liberia, and Nigeria. The company is a known industry-leader with its areas of functioning ranging from oil & gas, zinc-lead-silver, aluminium, iron ore, steel, copper, ferro alloys, and power. Vedanta Limited has also rapidly expanded its portfolio to include production of optical fiber and semiconductors.

Vedanta Limited distinguishes itself in the sense that it prioritizes creating long-term value for all of the stakeholders involved through the continuous and iterative processes of research, discovery, acquisition, sustainable development, and utilization of diversified natural resources. Yet, the firm has been laser-focused on ensuring the promotion of social equity and environmental justice while also promoting the wellbeing of its own workforce. The firm proudly class itself a 'people-driven' organization and it is indeed evident through the initiatives it undertakes through its Corporate Social Responsibility (CSR) programs across the country. A few of its major driving forces are:

- drawing social license to operate from local communities,
- environmental stewardship,
- ensuring social fairness,
- instituting best people practices, and
- guaranteeing all of this through good governance

Vedanta Limited invariably believes in an ambitious transformation journey, backed up by strong ESG values to continue to hold relevance not just for its own businesses but for the greater good of communities, workplace, and the planet at large.

Vedanta's Commitment to Giving Back

Vedanta Limited has striven to weave social impact initiatives into its core driving values to bring about the most impactful change. With initiatives covering thematic areas such as healthcare, education, skilling, livelihoods, and inclusive development opportunities



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for communities – the firm has touched the lives of nearly 42.3 million people at the grassroots and has spent over Rs. 3.22 billion in FY 20-21.

Iron Ore Business – SESA

Founded in year 1954, Scambi Economic SA Goa (SEA Goa) has been engaged in the exploration, mining, and processing of iron ore for more than half a decade now with having diversified into exploration of pig iron and metallurgical coke between 1991 to 1995 in Goa, Maharashtra, and Gujarat. The firm believes that the business unit (of IOB) is crucial to aid rapid urbanization, steelmaking, construction, infrastructure, and the automotive sector of India. The business unit aims to be one of the top low-cost producers of iron ore in the country while also simultaneously developing indigenous and environment-friendly technology for producing high-quality metallurgical coke.

The IOB unit has recently also forayed into the domain of nickel-cobalt production and cement with its operations spanning in five states of India and overseas operations in Liberia.

IOB SESA's CSR Initiatives and the Present Study

With a strong focus on the upliftment of the socio-economic conditions of its communities – the business unit aims at providing structured CSR interventions, thereby keeping Community Development and Sustainability at the heart of all their initiatives. IOB SESA Goa aligns its initiatives along the Sustainable Development Goals (SDGs) and believes in impactful and long-term programs to enable the communities. IOB is estimated to have impacted nearly 5,92,845 beneficiaries through its interventions as of June, 2022⁷. IOB SESA Goa partners with CSO organizations, local government bodies, communities, etc. in order to have a grassroots reach in the areas that it works in.

In order to remain unbiased and strategic, it is pertinent for any organization undertaking philanthropic endeavors 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

⁷ IOB CSR team

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assessments are also pertinent, and now also a compliance requirement under Companies Act 2013.⁸

The present study is part of a 3-year cyclical process of assessing baseline, impact, and perceptions which aims to study the community's current levels of accessibility to services, the impact of IOB's project interventions – particularly in the states of Goa (North & South Goa) and Karnataka (Chitradurga) and the perceptions held by beneficiaries, stakeholders, and Management personnel of the BU in terms of the perceived impact created and possible gaps that may need to be addressed.

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 analyzing the impacts and values created by the development initiatives by IOB across the geographies, where it is intervening. It also provides a benchmark against which the future progress can be tracked through baseline assessment. Through the perception assessment it draws the general sentiments of the

⁸ 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].



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myriad stakeholders towards the CSR activities of IOB. Finally, drawing gaps, challenges and recommendations through primary/secondary data analysis and stakeholder interviews, this study chalks out a long-term CSR strategy to make IOB's intervention more sustainable and resilient.

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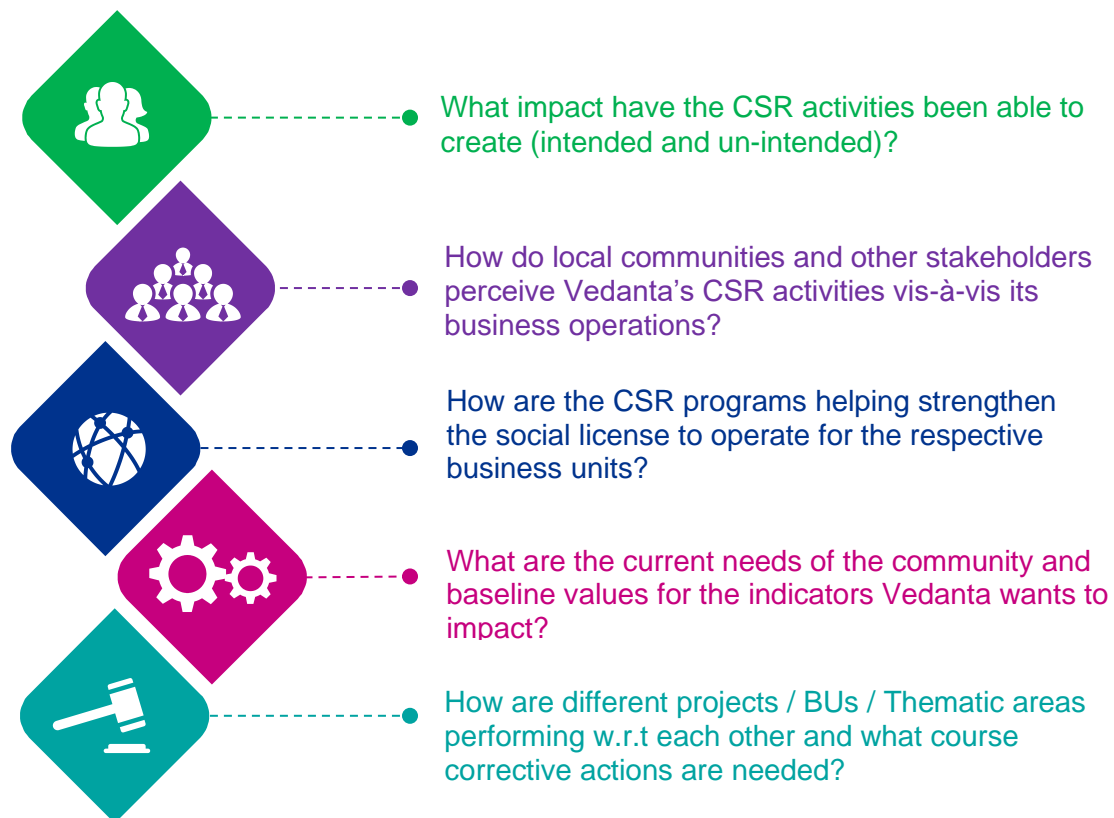
Baseline cum Needs Assessment, Impact Assessment and Perception Study

Methodology and Approach ⁹

Study Methodology

Iron Ore Business (IOB) has been carrying out impactful CSR programs based on the needs of the community. The exercise of carrying out the three studies viz. Baseline cum Needs Assessment, Impact Assessment and Perception Study, is intended to provide an understanding of what has been done right and what can be done next.

The following key questions have been answered through these studies:



⁹ Please note that

- All baseline findings are with respect to the sampled respondents' general perception on the situation in their vicinity and is not confined to the effects arising from the BU's activities
- In South Goa, project interventions were yet to be initiated at the time of the survey hence only baseline survey is relevant for South Goa. Further, any reference to "beneficiaries" in South Goa should be read as "tentative beneficiaries" of future project interventions in the area
- Secondary data wherever used for reference are as per latest government reports available and either at state or district level as per the data available
- Comparisons made with the previous baseline in the study are valid given sample sizes taken under both the studies were representative of the beneficiary population

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Figure 1 Research Questions

The key objective of this exercise has been to support the business units strategize their CSR activities in the future.

The study has been undertaken using mixed methods including both qualitative and quantitative data collection tools. These include surveys and interviews along with secondary research as well as digital insights through sentiment analysis.

In addition, using the KPMG Digital Signals Insights Platform, online conversations and sentiments have been analyzed. This is meant to allow the visualization of the sentiments related to IOB's businesses and related to its CSR.



Figure 2 Heat Map and Sentiment Analysis

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).

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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?

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- 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?

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OECD DAC : Scoring

To evaluate CSR programs on the OECD criteria, KPMG developed its own Scorecard based upon the information and documents shared by IOB.

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*¹⁰: 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.

¹⁰ The project achievement or effectiveness is based on half yearly target achievement data. As informed by the IOB CSR team, generally in all FYs the targets sets have been over achieved

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- 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%

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	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		
Efficiency	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%
	Efficiency Score		
OECD Parameters	Indicators	Guidelines	Weightage

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Sustainability	Sustainability Convergence	Mechanism,	Mechanism in place, ability to sustain impact: 100% Not fully- 50% Not able to sustain impact, no mechanism: 0% (Mechnisms include: (1) Stakeholder led governance (2) Local capacity building for operational sustainability and (3) Financial sustainability through user fee, linkages, collaboration, etc)	100%
	Sustainability Score			



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Sample Selection and Coverage¹¹

The sample size has been developed basis a scientific method of taking a 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 the BU, through which it was decided that a sample size of 3700 will be used for the specific studies. This was further divided proportionately across the business units, basis the quantum of their outreach, while maintaining at least the minimum sample reach as per the scientific method.

The originally intended total sample size of IOB was 241 including 70 household sample, 61 stakeholders and 73 institutional sample (including beneficiaries and stakeholders). It must be noted, however that the final sample distribution was subject to the availability of the beneficiaries and stakeholders on the ground. Therefore, given below are the final list of villages and the number of beneficiaries and stakeholders covered from each.

An actual sample of 261 was covered across 2 states – Goa and Karnataka. The sample is divided amongst beneficiaries, district level stakeholders, block village level stakeholders and IOB's internal stakeholders (Figure 4). Beneficiaries, district level stakeholders and block village level stakeholders were covered for baseline, impact, and perception study, while IOB's internal stakeholders were covered for CSR perception study. Respondents interviewed from South Goa were only surveyed as part of the baseline study as project intervention was at a planning or nascent stage there.

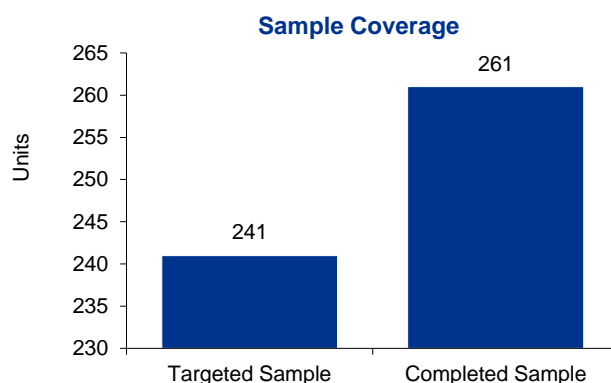


Figure 3 Sample Coverage

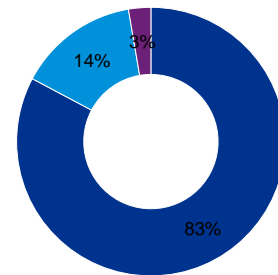
¹¹ Please note that the previous baseline and current study have different sample sizes and respondents wherever referred to for comparison.

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Moreover, to develop the heatmap, a scan was run through social media (Facebook, Twitter, YouTube, Instagram, LinkedIn, Blogs, Forums) and search engines. However, it must be noted that the number of mentions used to generate the heatmap have not been included in the total sample.

Stakeholder Distribution



■ Beneficiaries ■ Stakeholders ■ CSR Management

Figure 4 Stakeholder Distribution

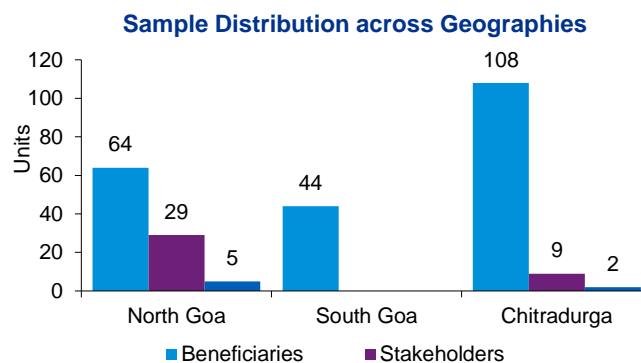


Figure 5 Sample Distribution across Geographies¹²

Geographical Coverage

The studies were undertaken across 2 states, 3 districts and 17 villages.

Table 1 Geographical Coverage of Study

Business Unit	State	Field Unit	District	Villages Covered
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¹² Respondents interviewed from South Goa were only surveyed as part of the baseline study. Hence, they are not current beneficiaries but tentative future beneficiaries

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IOB-SESA	Karnataka	IOK	Chitradurga	10
	Goa	IOB-VAB	North Goa	3
		Nicommet	South Goa	4



Figure 6 Geographical Coverage of Study

Sample Coverage across 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. However, it must be noted that the final list of villages and the distribution of the sample within it was based on ground realities.

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The list of villages covered along with the sample covered under the study have been provided below against each state. Here, the internal stakeholders covered under the Business Unit Management and CSR Team perception study have been excluded.

Table 2 Sample Coverage per Village

State	District	Villages	Beneficiaries/ Respondents	Village and Block level Stakeholders	District Stakeholders
Goa	North Goa	Betki Khandola	19	26	3
		Amona	24		
		Navelim	21		
	South Goa	Chinchinim	9		
		Cuncolim	21		
		Quepem	9		
		Veroda	5		
Karnataka	Chitradurga	Bheemasamudra	15	2	4
		Bommavvanagathihalli	8		
		Bommenahalli	12	2	
		Chikkenahalli	9		
		Hire Guntanuru	9		
		Konanuru	12		
		Madikerepura	10		
		Megalahalli	12		
		Tanigehalli	12		



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State	District	Villages	Beneficiaries/ Respondents	Village and Block level Stakeholders	District Stakeholders
		V Palya	9		

Data Collection and Analysis¹³

KPMG onboarded a third party to support with the data collection exercise. They were supervised by KPMG as well as IOB'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.

¹³ Analysis has been done on data present as of the duration of the data collection earmarked for the study

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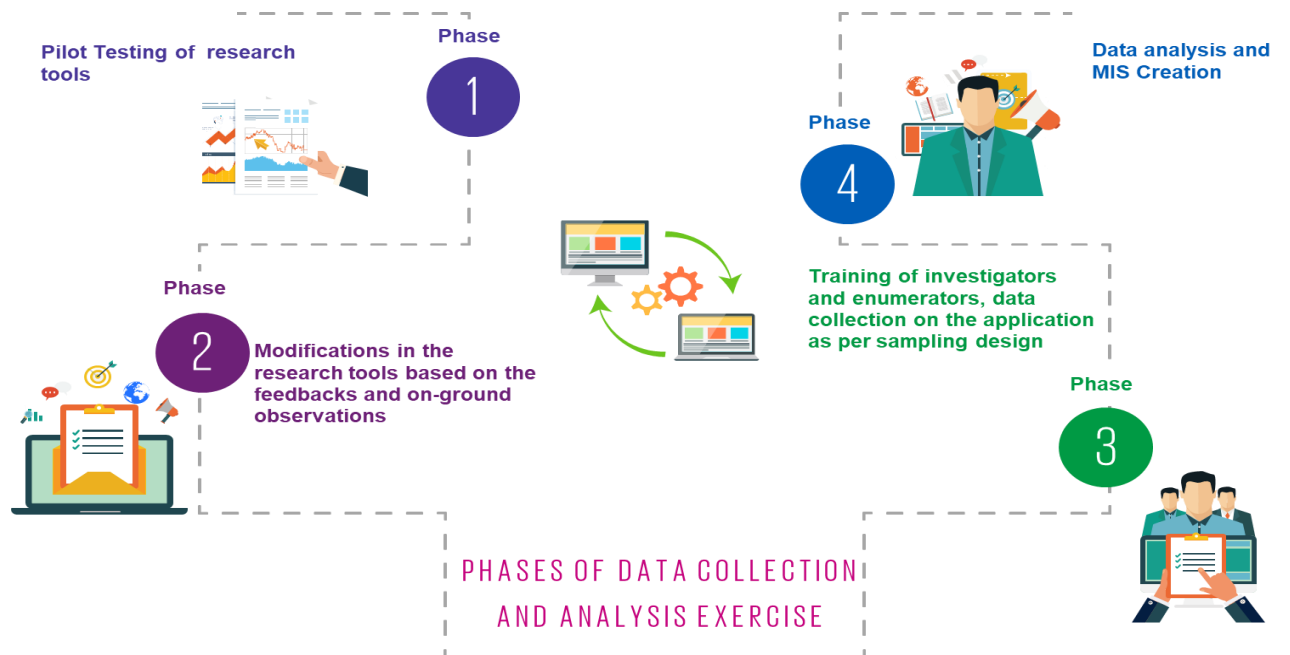


Figure 7 Phases of Data Collection and Analysis Exercise

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.



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Stakeholder Map

A 'stakeholder' for the studies is defined as an individual or a representative that has an interest and provides certain influence over the CSR projects IOB.

Such stakeholders play a pivotal role in the implementation of government policies, programs and schemes within the communities. Moreover, they are further considered as influencers within the community (while the degree of influence may vary) and can act as key players in supporting the business unit's work within the area.

Within these studies, a myriad of stakeholders have been covered ranging from anganwadi workers, block development officers to district collectors. They have provided their valuable insights, not only through providing inputs in the baseline and impact assessments but also through their recommendations for charting out the future CSR strategy of the business unit.

Below, one can see a mapping of the selected stakeholders for the study as a whole and their relative position within the influence and support to project continuum which was developed in consultation with Vedanta Limited. 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 lists provided by the business units (in this case - IOB) as well as their availability on the ground.

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Table 3 - Stakeholder Map

Thematic Areas	Type of Stakeholders	Title	Ability to Impact/Influence Project	Level of Support for the Project
Health	State Level Stakeholders	NGO Partners	High	High
	District Level Stakeholders	Chief Medical Officer (CMO)	High	Medium
	District Level Stakeholders	Health Officer	High	Medium
	Block/Village Level Stakeholder	ANM	High	High
	Block/Village Level Stakeholder	ASHA	High	High
	Block/Village Level Stakeholder	AWW	High	High
	Block/Village Level Stakeholder	MOIC	Medium	Low
	Block/Village Level Stakeholder	Gram Pradhan	High	High
	Block/Village Level Stakeholder	PRI Members	high	Medium
Educational	State Level Stakeholders	NGO Partners	High	High
	District Level Stakeholders	District Education Officer (DEO)	High	Medium
	Block/Village Level Stakeholder	Chief Block Educational Officer (CBEO)	High	High

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Thematic Areas	Type of Stakeholders	Title	Ability to Impact/Influence Project	Level of Support for the Project
	Block/Village Level Stakeholder	School Principals	High	High
	Block/Village Level Stakeholder	Gram Pradhan	High	High
	Block/Village Level Stakeholder	PRI Members	High	High
Livelihood and Women Empowerment	State Level Stakeholders	NGO Partners	High	High
	District Level Stakeholders	District Employment Officer	High	Medium
	District Level Stakeholders	Heads of the agriculture/livelihood schemes	High	Medium
	District Level Stakeholders	Managers of training centers	High	High
	Block/Village Level Stakeholder	Gram Pradhan	High	High
	Block/Village Level Stakeholder	PRI Members	High	low
	Block/Village Level Stakeholder	SHG Leaders	High	High
Community Assets	State Level Stakeholders	NGO Partners	High	High
	District Level Stakeholders	District Collector	High	High

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Thematic Areas	Type of Stakeholders	Title	Ability to Impact/Influence Project	Level of Support for the Project
	Block/Village Level Stakeholder	Panchayat Development Officer	High	Medium
	Block/Village Level Stakeholder	Gram Pradhan	High	High
	Block/Village Level Stakeholder	PRI Members	High	High
	State Level Stakeholders	NGO Partners	High	High
	District Level Stakeholders	District Collector	High	High
Environment	Block/Village Level Stakeholder	Block Development Officer	High	Medium
	Block/Village Level Stakeholder	Gram Pradhan	High	High
	Block/Village Level Stakeholder	PRI Members	Medium	High
	State Level Stakeholders	NGO Partners	High	High
	District Level Stakeholders	District Collector	High	High
Sports and Culture	Block/Village Level Stakeholder	District Sports Officer	High	High
	Block/Village Level Stakeholder	Gram Pradhan	High	High

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Thematic Areas	Type of Stakeholders	Title	Ability to Impact/Influence Project	Level of Support for the Project
	Block/Village Level Stakeholder	PRI Members	Medium	High
	Block/Village Level Stakeholder	SESA Football Academy Coaches	High	High

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About the Business Unit and CSR Activities

The Iron Ore Business unit is one of Vedanta's verticals that primarily focuses on exploration, mining and processing of iron ore and is the largest producer and exporter of iron ore in the private sector with operations in the states of Goa and Karnataka in India¹⁴.

IOB was founded in the year 1954 as "Scambi Economici SA Goa" or SESA-Goa for short and has actively been involved in producing highly cost-effective iron ores in India. The BU is also known to have developed indigenous and environment-friendly technology for producing high quality metallurgical coke. The vertical has consistently been working to integrate environmental sustainability into its existing modes of work. An apt example would be its active contribution to producing clean and renewable energy through its 60 MW power plant in SESA Goa Iron Ore.



¹⁴ [Iron Ore \(vedantaresources.com\)](http://IronOre.vedantaresources.com)

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IOB SESA's Karnataka unit won 'Best Community Development Award' at National CSR Leadership Congress & Awards presented by ZEE BUSINESS for excellence in CSR & Sustainability in September 2019. The BU has also been known for and awarded with the first prize under 'Sustainable Mining' category at Mining Mazma - 2019 in September 2019 apart from many other accolades in recognition of their contribution and active consideration to environment, safety, and health of the stakeholders most-likely to be affected by their business functions¹⁵.

SESA IOB strongly believes in the 360-degree Socio-Economic upliftment of the communities whom they share space with through structured CSR interventions. Community Development and sustainability are at the core of everything that they do. Public Private Partnerships (PPP) and Community Consultations are the core drivers of its CSR projects. SESA IOB partners with Government Agencies, Local Communities, Panchayats, and like-minded organizations like NGOs for its CSR programs to ensure that its benefits permeate through all strata of the society. Self-sustenance of the project is ensured through proper handover of the project to the community.

The company has been consistently involved in various CSR initiatives that foster a sustainable framework for development such as:

1.) Alternative Livelihood Opportunities Project (ALOP)

SESA's mining unit in Chitradurga district of Karnataka state has generated employment for many in the village cluster. Under this program, education on improved development in farming and creation of alternate enterprises for sustainable livelihood are some initiatives invested in. The activities planned and implemented in the project include Clean drinking water and supply initiatives like Rain water harvesting; Climate smart techniques including Trench Cum Bund, Tank Rejuvenations; Community development & Engagement projects like Kitchen Garden, Green Festival ; Cattle breeding centres; Agri Horti forestry initiatives & women empowerment initiatives

2.) Reclamation Mines

¹⁵ [Sustainability: Best Practices | Sesa Goa Iron Ore](#)

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Integrated Bio-Technological Approach has been applied for Mine Land Reclamation. They have been rehabilitated to create a suitable environment for agriculture and horticulture. Apart from this, educational institutes built on the reclaimed mines of Sanquelim include:

A. SESA Technical School (STS) - It aims to equip the youth in and around Sesa Goa's mining operations with technical skills to enable them to earn a living. The students specialize in the trades of Machinist, Fitter, Electrician and Instrument Mechanic with guaranteed placements.

B. SESA Football Academy (SFA)- An initiative of Sesa Community Development Foundation (SCDF), SFA provides four years of residential football training, Nutrition and boarding, all round academic- development, Gym and Best-in- class coaching to its students. Since inception, SFA has trained more than 200+ footballers and has made tremendous impact on the football fraternity in Goa as well as across India. SFA also has a series of other initiatives aimed towards promoting sportsmanship and a feeling of oneness among the community like the Women's League, grassroot football centers and Pop Up Camps.

3.) Community Healthcare

The health projects are aligned to Sustainable Development Goals which aim to improve community health by providing them with Community Health Centers and Mobile Health Units. The CMCs and mobile health units impacted 11,132 beneficiaries in the FY 21 alone and continue to effectively provide good medical facilities to villagers. Since 2014, there have been 2 CMCs operating in Goa and one MHU in Chitradurga.

4.) Safe Drinking Water Project In Karnataka

Iron Ore Karnataka has projects related to Drinking water, through which they are reaching out to 9 villages with projects like Rain water Harvesting, Tank Rejuvenation.

Rain water harvesting is focused on sustainable usage of water and to provide safe and potable water. A total of 5 rain water harvesting structures have been constructed with a capacity of 24,807 Litres.



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Tank Rejuvenation is also undertaken wherein silt is removed and placed into agricultural land which is highly fertile and rich in nutrient and humus. This leads to increase in soil fertility and recharge of ground water leading to income generation of farmers. Through this project, farmers get access to highly fertilize soil that is rich in organic content, nutrients, humus that leads to high yield and good quality production. A total of around 1,750 farmers¹⁶ benefitted through this initiative.

¹⁶ IOB CSR team

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District Profiles

IOB is operating across two states viz. Goa (North and South Goa) and Karnataka (Chitradurga) and three districts.

Table 4 IOB District Profiles

State	District	Field Unit
Goa	North Goa	IOB-VAB
	South Goa	Nicomet
Karnataka	Chitradurga	IOK

Goa

Located on the western coast, Goa is a tiny Indian state spread across a mere 3,702 sq. km., and yet, is perhaps one of the most culturally vibrant states in the country. Owing to its long coastlines, a Portugal ancestry, a mosaic of geological and architectural endowments – Goa boasts of a thriving tourism industry so much so that it contributes to nearly 16.43% to Goa’s overall GDP and provides employment to over 35% of the state’s population. The state is also one of the major fish producing states in the country, making the fisheries industry an important part of people’s livelihoods. Goa also handles significant cargo traffic being a port-state. The state has an impressive literacy rate at 88.7% and healthy female to male sex ratio – 973 for every 1,000 males. With access to National Highways, an airport, and railways, and nearly 57.46 million internet subscribers, besides 2.34 million wireless subscribers – Goa evidently has a well-connected network – both technologically and economically. The state majorly exports drug formulations (39%), iron ore (19%), iron and steel (5%), telecom instruments (5%), agro-chemicals (3%) and others (29%) etc.¹⁷

However, Goa thrives on the tourism and hospitality sector, primarily, followed closely by the fisheries sector. For over 90% of the Goan population, fish is not just an important part of livelihood but an integral part of their lifestyle itself. The presence of inland

¹⁷ Goa State Report, May 2022, IBEF <https://www.ibef.org/states/goa#>

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waterbodies and brackish waters hold great potential for the enhancement of the fisheries industry.

A major concern raised in the previous baseline assessment cycle indicated that of discontinuation of education in Goa. This was specifically noted in the drop-out rates after middle school. The drop-out rate at secondary level – although featuring among the lowest in the country at 5.9% is still significantly higher than those found at primary and middle school levels. The students drop-out right after school or discontinue higher education in order to start working. It was suggested in the previous cycle that students might need career counselling support as well as personality development sessions in order to keep them from joining the workforce at an early and vulnerable age.

It was also found in the previous baseline cycle that while Goa had good road connectivity and access to PHCs, people who lived in more remote areas and were socio-economically weaker in the state have been unable to access quality healthcare facilities – showing an accessibility gap which IOB SESA has been trying to address through its CMC set-up in North Goa and MHU facilities.

North Goa

The district of North Goa is one of the two districts in the state of Goa. The administrative headquarter for North Goa is Panaji, the state capital. The district is further divided into three subdivisions, namely, Panaji, Mapusa, and Bicholim and five talukas for administrative purposes. Besides being a coastal district, North Goa is rich in mineral resources like clay, limestone and manganese. The economy of the district is heavily dependent on the sectors of tourism, mining, and agriculture. Some of the major agricultural crops grown in the area include rice, cashew, and coconut. Despite having immense potential, the local fishing sector has shown a decline due to the advent of mechanized trawls. The district has a literacy rate of 88.9% with the male literacy rate being 93.8% and that for females being 83.7%. All the schools have access to drinking water and separate toilet facilities for girls. The Gross Enrolment Ratio (GER) in higher education (18-23 years) is 30.1% - higher than the national GER of about 25%. The households who have access to main drinking water in their houses is 80.41%. Around 21% of the households lack latrine. All the houses have access to electricity. The

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percentage of children suffering from moderate acute malnutrition is 21% and SAM (Severe Acute Malnutrition) is 8 %. Around 95% of the population has been immunized.

The overall tree cover in the district is 53.17% of the total geographical area which facilitates an optimum ecological balance¹⁸. Moreover, around 97% of the population uses clean fuels like LPG and NPG. However, only 0.17% of the installed power is generated from renewable sources of energy. The terrain of the region is quite favorable to harness renewable energy sources like wind and tidal energy.

The percentage of seats held by women in PRIs is around 33%, in compliance to the mandated 1/3rd reservation of seats for women in these institutions. This is a crucial morale-boosting measure as it enables women to be a part of decision-making and to be productive assets of society. Around 65% of the couple's avail of modern family planning methods and out of that, around 25% of them use safer methods like condoms while 33% of the couples go for the intrusive female sterilization methods. This is in contrast to other districts of the country where the method of family planning is disproportionately skewed toward harmful female sterilization techniques¹⁹.

South Goa

The administrative headquarter of South Goa is Margao and is divided into five subdivisions. The district has a literacy rate of 88.5% with the male literacy rate being 91.6% and female literacy being 79.4% (Source Y38 and AB 38 cell "Education" tab). It is important to note that the female literacy rate in the district is far more than the female literacy rate (71.5%; Source: NFHS-5 2019-21 survey) at national level. 100 % of the schools has access to drinking water facilities which signifies that water shortage problem is not there and accessibility to pipelines in the district and schools having access to Girls' Toilet is 100 % thus signifying access to sanitation facilities within education premises. The Total Dropout rate in Gross Enrolment Ratio (GER) in higher education (18-23 years) is 30.1 % which show that education is left off after completing school education a later stage of school and emphasis is given to join any other

¹⁸ <https://forest.goa.gov.in/node/11>

¹⁹ National Family Health Survey, India http://rchiips.org/nfhs/districtfactsheet_NFHS-5.shtml Point 29

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occupation to support family and, they take up vocational course which will come handy in the future thus showing decrease in interest for higher studies as the people do not think it is feasible and viable.^{20 21 22}

The major occupation of people of Goa is tourism which is the major occupation and people have contributed to the tourism industry by constructing hotels, beach resorts and giving away their houses. Besides tourism the 2nd largest occupation is mining where manganese, clay, limestone is mined. Agriculture is a source of part time employment and major crop is rice followed by cashew, coconut, and the fishing sector has shown a decline due to coming of mechanized trawls. Besides Agriculture, Fishing there are also medium based enterprises such as fertilizers, tires, tubes etc.

The householders who have access to main drinking water in their houses is 78.84% which means that there is availability of water in the area due to presence of pipelines and due to place near the coast which ensures there is constant supply of water in the areas and increase in population has led to decrease in supply of water as there is no step taken to increase the supply of water and also due to planning not taking place because the Water authorities have not looked upon the problem of water deeply. Households receiving untreated tap water within premises is 2%. However, the NFHS - 5 -Phase 1 (2019-20) shows that in South Goa, 99% of the population living in households have access to improved drinking water source. This shows that the water access may be outside the premises in the form of protected springs, public taps, tube wells, protected dug wells and community RO plants. Also 100% of the population has access to electricity which shows the area is electrified and does not meet with frequent power cuts thus ensuring smooth supply of electricity. Percentage of households with any usual member covered by a health scheme or health insurance is 67.7% which shows that health schemes are accessible to large scale people in the district and the percentage of beneficiaries covered under National Food Security Act is 11.8% which shows that the schemes of government has not reached the people at small scale

²⁰ https://censusindia.gov.in/census.website/data/data-visualizations/PopulationSearch_PCA_Indicators

²¹ http://rchiips.org/nfhs/districtfactsheet_NFHS-5.shtml

²² [NITI Aayoghttp://164.100.94.191/niti/best-practices/district-wise-statistics](http://164.100.94.191/niti/best-practices/district-wise-statistics)

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showcasing that most policies are just on paper, and they need and reviewed or replaced with new policies.^{23 24 25}

In the district the moderate acute malnutrition is 21% which is relatively low and most people in district have access to food and only small population doesn't. SAM (Severe Acute Malnutrition) is 8% which means that the people in the district have access to food thus signifying high availability of healthcare and food facilities among the population. 37.6% population in the district who suffer from anemia and in terms of immunity 95% of the population is immune thus are not prone to diseases and viruses easily. The Under 5 mortality rate in North Goa is 49 for every 1000 live births – which is still a concerning number.

The deaths due to mortality in the district for less than 5 years of age is 49% (M16 cell in health and wash tab) which is a bit higher. Therefore, under-5 mortality is a grey area that needs further attention.

The total Tree Cover in the district in terms of total geographical area is 65.92%. The percentage of the population that uses clean fuels is 96.2%. The total no of houses which have installed power installed renewable sources of electricity generation is 0.19%. The percentage of women who have used family planning methods such as contraception is 67.8%.

Karnataka

Located on the south-western part of India, fringing Goa from the west is the state of Karnataka. The state houses over 30 districts and is the seventh largest state in the country, spreading across nearly 1,92,000 sq. km of land. Endowed with mountain chains such as the Eastern and Western Ghats spreading over eastern and southern districts, in addition to plateaus, and a narrow coastal strip - the state turns out to be a biodiversity-

²³ https://censusindia.gov.in/census.website/data/data-visualizations/PopulationSearch_PCA_Indicators

²⁴ http://rchiips.org/nfhs/districtfactsheet_NFHS-5.shtml

²⁵ NITI Aayog <http://164.100.94.191/niti/best-practices/district-wise-statistics>

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haven.²⁶ Karnataka is also known to be an IT hub of India, besides having a diversified industrial base spanning across the sectors of automobile, agriculture, aerospace, textile and garments, biotechnology, and heavy engineering industries and even nanotechnology. As of FY 2022 (February), the state has clocked total exports worth US\$ 22.83 billion with a major share of exports being from the petroleum (13%), iron & steel (12%) and organic chemicals industry (5.6%), electronics (5%), iron ore (4.4%) and telecom instruments (4%) apart from others.

Karnataka is seen as a strong knowledge hub, holds a significant agriculture base, and has immense potential for tourism considering that the state hosts two world heritage sites – Hampi and Pattadakal besides being ecologically-endowed. The state also holds immense potential for renewable energy.

The overall literacy rate in the state is 75.6%, wherein male literacy is significantly higher at 82.5% than female literacy – 68.1%. The state is well-connected through road, railways, port and airport infrastructure owing primarily to the significant talent pool it attracts from all over the country. With over 66.83 million wireless subscribers and 50.13 million internet subscribers, the state is well connected to digital infrastructure – however, the people accessing these may be concentrated in metropolitan cities and urbanized centers.²⁷

Chitradurga

Chitradurga is one of the 30 districts of Karnataka and is a district steeped in historical significance enriched with sites of ancient cultural and religious significance. The district lies in the watershed areas of the Vedavati and Tungabhadra rivers. It has a sex ratio of 969 females for every 1000 males. The district is rich in minerals such as iron and limestone. The Hutti gold mines in the district employs a large number of workers. The district has a literacy rate of 73.8% with the male literacy rate being 81.4% and that for females being 66.1%. Over 98% of the schools have access to drinking water facilities and over 96% of them have separate toilet facilities for girls. Agriculture is the major occupation for people in Chitradurga

²⁶ <https://www.karnataka.gov.in/english>

²⁷ Karnataka State Report, May 2022, [IBEF Presentation](#)

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and contributes to over 23% to the total Domestic Value added in the district²⁸. The main crops grown are rice, ragi, jawar and maize. Around 25% of the households have access to main drinking water in their houses and about 99.8% of the households have access to electricity.²⁹

The percentage of children suffering from MAM (Moderate Acute Malnutrition) is 32.4% and those suffering from SAM (Severe Acute Malnutrition) is 8%. Around 67% % of the population has been immunized. However, around 63% of the women aged 15-49 are anemic. Around 98% of the deliveries in the district are institutional births indicating a deeper penetration of basic healthcare services. While 66.3% of the couples utilize modern family planning methods, around 30% of them go for female sterilization methods, considered harmful for females. Less intrusive methods like pills (11.3%) and condoms (4.4%) are also prevalent.³⁰ Some of the key healthcare issues identified in Karnataka included lack of adequate medical equipment and supplies at local health institutions and distance being a major hindering factor in accessing healthcare. It was suggested that Mobile Health Units be run in the Chitradurga area particularly since the road facilities were not found to be very developed at the time and inaccessibility to remote villages was a major concern. Besides this, a requirement for diagnostic lab facilities was also expressed.

On the environment front, the district has a tree cover of 6.84% of total geographical area and 80.6 % of its population uses clean fuel for cooking. Only about 0.56 % of total installed power generating capacity is renewable.

²⁸ https://data.opencity.in/dataset/c48d1056-a9be-46cc-a4d8-a518cc310214/resource/5a80d756-8905-4fef-9c1f-a1aaa86beaea/download/karnataka-economic-survey-2021-22-m2_eng_final.pdf

²⁹ [Chitradurga District| Government of Karnataka | Fort City | India](#)

³⁰ [National Family Health Survey \(NFHS-5\) \(rchiips.org\)](#)

Impact Map

The impact map below is a summary of the IOB's thematic areas of interventions, projects, geographies, activities under the same, output indicators to measure the achievement of those activities, key outcomes planned, and eventually the impact created from the same. The impact map is instrumental to setting a framework against which projects are planned and further evaluated as part of the baseline, impact and perception study.

Table 5 Impact Map

Thematic Area	Project Name	State	Key Activities	Key Outputs	Key Outcomes	Impact
Health & WASH	Community Medical Center & Mobile Health Unit	Goa (CMC and MHU) & Karnataka (MHU)	Out Patient Department (OPD) which provides the basic medical facilities such as physician consultation and medicines free of cost.	No. of CMCs set up Per day footfall at CMC facilities No. of MHUs plying No. of villages and beneficiaries catered to by MHUs	Improved access to quality healthcare services Improved quality of healthcare facilities and services % beneficiaries experiencing timely availability of treatment % beneficiaries reporting improved health % beneficiaries reporting increase in income due to improved health	To improve overall health quotient of the community by catering to their day-to-day basic health needs, while saving their time and money
Education	Project Vedanta Utkarsh Scholarship	Goa	Support higher education for the financially weaker sections of the society	No. of students	Percentage students reporting reduction in education expenditure Percentage decrease in drop out rate for higher education	To bridge the accessibility gap to gaining and continuing education for meritorious students belonging to socio-economically weaker sections

Thematic Area	Project Name	State	Key Activities	Key Outputs	Key Outcomes	Impact
			Selection and mentoring students for career guidance and other academic support		% increase in learning outcomes Improved enrolment and attendance in schools % decrease in drop out rate of girls Improved access to higher education	
Skilling	Project SESA Technical School	Goa	Vocational training (Technical Education) Campus placement facility On-the-job training	No of courses covered No of beneficiaries trained No of candidates provided with job opportunity	% youth / women reporting enhanced skills % youth / women receiving employment % beneficiaries pursuing higher education Increase in income for the skill development trainees Improved skillsets (skill development trainees) Improved self esteem and confidence (skill development trainees)	To increase the employability of the youth to bridge skills gap and ensure smoother transition into workforce through placements and exposures
Sustainable Livelihoods	Gram Nirmaan - Project back to farming	Goa	Rejuvenate fallow fields and boost agriculture and farming activities. Value Added Business provides agricultural inputs	No of farmer beneficiaries covered No of awareness sessions, workshops or	% increase in agricultural yield % increase in cultivable land % decrease in fallow land Improved adoption of sustainable agricultural practices	To promote ecological and economic improvement in the area through rejuvenation of fallow lands and ensuring long-term sustainability by providing relevant agri-training to farmers

Thematic Area	Project Name	State	Key Activities	Key Outputs	Key Outcomes	Impact
			such as seeds, fertilisers, barbed wire, fencing, mechanised farming equipment, etc. to the farmers. Various awareness sessions on government schemes, new farming techniques, expert consultancy services were organised as per the need of the community.	demonstrations conducted No of farmers trained	Improved capacity of farmers Improved market linkages for farmers % increase in income % increase in crop prices due to market linkages and other projec interventions	
Sustainable Livelihoods	Alternative Livelihood Opportunities Project (ALOP)	Karnataka	Natural resource management, sustainable agricultural development, tree-based farming enterprises, livestock development, building people's organisations, capacity building of women. ALOP project aims to support farmers through capacity-building trainings,	No of farmer beneficiaries covered No of awareness sessions, workshops or demonstrations conducted No of farmers trained	% increase in agricultural yield % increase in cultivable land % decrease in fallow land 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	To create opportunities for gainful self-employment for rural families by ensuring sustainable livelihood.



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Thematic Area	Project Name	State	Key Activities	Key Outputs	Key Outcomes	Impact
			<p>exposure to technological advancements (e.g., use of sorted semen to breed cattle) in the field of agriculture and animal husbandry to improve on-farm yield, as well as improve capacity to expand into dairy farming.</p>		<p>% increase in crop prices due to market linkages and other project interventions Improved access to veterinary services Improved livestock health Improved awareness on livestock development</p>	

I. Baseline Assessment &

Impact Assessment

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Introduction to Baseline Assessment

Over the past few years IOB-SESA has been implementing myriad social development programs across thematic areas for increasing wellbeing and the quality of life of local communities in its operational states. The baseline study focuses on establishing the baseline data on the effectiveness of IOB-SESA's CSR programs across its intervention states. The Baseline Study will help IOB-SESA in setting achievable and realistic indicators for their CSR projects. Moreover, it will help IOB-SESA in adjusting and maneuvering the progress of their current CSR programs and develop new projects based on the needs of the community.

The baseline will help in establishing the future objectives of the interventions, as well as the study will determine and identify the type of support needed to achieve the objectives. This will necessitate identifying locally perceived resources as well as needs and problems as defined by local stakeholders. The baseline study can be used during from the implementation process to monitor progress. The defined indicators and the result in the study can be used to access the achievement and outcome of the interventions.

The objectives of the base line study are as follows:

- To create socio-economic profiling of the communities
- To map the infrastructure and institutions in the communities
- To provide an understanding of the communities in which IOB-SESA operates
- To identify gap areas to facilitate improvement in the implementation of CSR programs.
- To provide a baseline against which the work of IOB-SESA's CSR programs can be evaluated.

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Thematic Wise Government Schemes

Sustainable development of the communities is only possible 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 institutions to fulfill the resource gap in a sustainable fashion. It helps in 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 leveraged by IOB-SESA for resource convergence to fill the gaps.

Table 6 Government Policies

Thematic Area	State	Central Scheme	State Scheme
Education	Goa	Rashtriya Madhyamik Shiksha Abhiyan Mid-Day Meal Scheme	Dayanand Bandodkar Scheme for Higher Education for Orphans Interest Free Education Loan

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		Sarva Shiksha Abhiyan	Scheme for Promotion of Science Education Goa Samagraha Shiksha Abhiyan
	Karnataka		Samagra Shikshana Karnataka Free Uniform provision
Thematic Area	State	Central Scheme	State Scheme
Health	Goa	PMJAY (Ayushman Bharat: Pradhan Mantri Jan Arogya Yojana), NDHM (National Digital Health Mission), Pradhan Mantri Atma Nirbhar Swasth Bharat Yojana,	Goa Mediclaim Scheme Incentive to Private Practitioner Family Planning Indemnity Scheme Deen Dayal Swasthya Seva Yojana
	Karnataka	Pradhan Mantri Swasthya Suraksha Nidhi, Pradhan Mantri Swasthya Suraksha Yojana	Community Monitoring Ophthalmology Rashtriya Bal Swasthya Karyakram(RBSK)

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			<p>NIDDCP</p> <p>Nutrition</p> <p>Rashtriya Kishor Swesthya Karyakram (RKSK)</p> <p>NVBDCP</p> <p>Mental Health</p> <p>JanAushadhi</p> <p>E-Hospital</p> <p>Primary Health Centre Management Information System (PHC MIS)</p> <p>Digital Continued Medical Education (CME) Programme.</p>
Thematic Area	State	Central Scheme	State Scheme
Sustainable Livelihood	Goa	<p>Rashtriya Krishi Vikas Yojana</p> <p>National Agricultural Insurance Scheme</p>	<p>Pashupalan Scheme</p> <p>Community Dairy Farming Scheme</p>

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	Karnataka	National Horticulture Mission	Karnataka State Rural Livelihood Mission - Sanjeevni
Thematic Area	State	Central Scheme	State Scheme
Skilling	Goa	Industrial Training Institute and Expansion Center Scheme of Fund for regeneration of traditional industries	Apprenticeship Training Scheme Craftsmen Training Scheme
	Karnataka	Prime Minister Employment Generation Programme(PMEGP) Performance and Credit Rating Scheme A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE) Market Promotion & Development Scheme (MPDA)	Sanjeevni Mission - KSRLPS
Thematic Area	State	Central Scheme	State Scheme
Women Empowerment	Goa	Beti Bachao Beti Padhao	Grih Adhar Scheme, Yashaswini Scheme,

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		Sukanya Samridhi Yojana	Ladli Laxmi Scheme MAMTA Scheme
	Karnataka	Shelter Home for Women	Karnataka Mahila Abhivyudhi Yojana (KMAY) Arogya Bhagya Scheme Kaushalya Karnataka Stree Shakti groups for economic empowerment
Thematic Area	State	Central Scheme	State Scheme
Environment	Goa	New & Renewable Sources of Energy Integrated Rural Energy Program	Akshay Urja Shops Improved Smokeless Chulha Programme Roof Top Solar Installation
	Karnataka		Scheduled Caste Sub-plan Samrudha Hasiru Grama

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			<p>Raising of Seedlings for public distribution</p> <p>Tribal Sub-Plan</p>
Thematic Area	State	Central Scheme	State Scheme
Community Development	Goa	Integrated Watershed Management Programme	Amrith Gram Panchayaths
	Karnataka	Housing for All : Pradhan Mantri Awaas Yojana	Amrith Rural Housing Scheme
		National Rural/Urban Livelihoods Mission	Amrith Nirmala Nagara
		Pradhan Mantri Gram Sadak Yojana	Amrith Community Development Programme
Thematic Area	State	Central Scheme	State Scheme
Sports & Culture	Goa	<p>National Service Scheme</p> <p>Rashtriya Yuva Sashaktikaran Karyakram</p>	<p>Scheme for Promotion of Cultural Sports and Co-curricular Activities in the Goa University and Colleges</p>



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		National Youth Festiva Khelo India Scheme	Women's Festival and Kerkar Awards
	Karnataka		Amrith Sports adoption Programme

Demographic Profile



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Baseline Data

Demographic Profiles of the Three Districts³¹

North Goa

It is imperative to establish the socio-economic profile of any community in order to map their endowments, as well as ability to access certain resources pertaining to income, assets, education, healthcare services and the like so as to place findings in a particular context and draw inferences.

The baseline analysis for North Goa in the project geography renders the following information in terms of its basic demography, as per data reported by respondents, 58% of the HHs fall above the poverty-line, while the rest 42% fall below the poverty line. While as per secondary data³², only 5.09% of Goans live below the poverty line, we note that the project has targeted particularly vulnerable and disadvantaged households to create maximum impact. A majority of the HHs – 92% own a pucca house, as compared to 2% who live in a rented pucca house. A mere 6% of the respondents reported owning a kuchha house. Economic categories, when seen in conjunction with the type and ownership of houses gives clearer insights to the socio-economic standings of the selected sample in North Goan villages. A high percentage of APL in addition to high ownership rates of pucca houses indicates that majority of the houses owned are ancestral and have been turned into pucca houses to reflect changing (i.e., affluent) dwelling sensibilities.

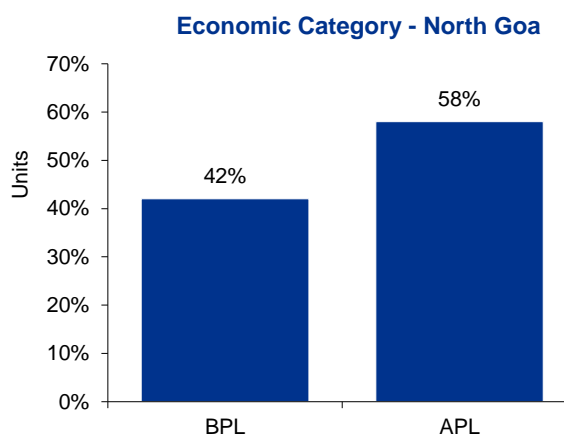


Figure 8 Economic Category - North Goa

³¹ All demographic indicators are as reported by respondents

³² <https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/154TA148090CBD6E4ED59633E6820C6E4819.PDF>

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Field enumerators also corroborated the findings by confirming that majority of the houses are, in fact, ancestral and well-off and therefore the overwhelming ownership of pucca houses in the study sample in the North Goan district.

Majority of the respondents (17%) have at least completed 5th grade and 8th grade schooling, each. This is followed by 16% of respondents who have completed 10th grade, and 14% who have completed 12th grade schooling. About 11% of the respondents have gone on to pursue graduation, however, a much lesser percentage (5%) of respondents appear to have completed post-graduation indicating a gradual decrease in the uptake of higher studies. Interestingly, out of the 3% who reported having completed post-graduation – two of these respondents are females who have gone on to pursue either skilled wage work or are employed as a salaried government employee.

Type of House and Ownership - North Goa

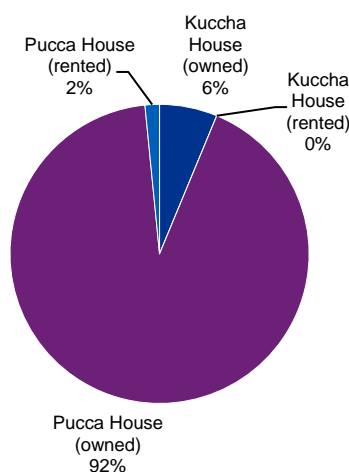


Figure 9 Type of House and Ownership - North Goa

Albeit smaller in number, the representation of females in the category of having completed post-graduation indicates a glimmer of willingness and an open-mindedness to push for women empowerment through education and employment. While the low representation may be concerning, it also signals an opportunity for tapping into a transitioning mindset towards women-empowering practices.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

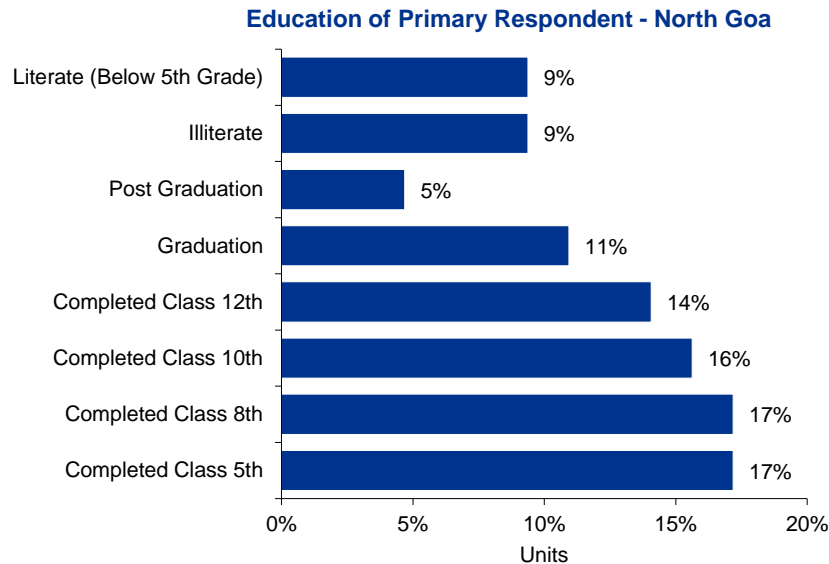


Figure 10 Education of Primary Respondent - North Goa

However, it requires noticing that in the current sample drawn from North Goa, there is only 39% representation from female respondents while the rest 61% are male respondents. This can have a skewed impact on gender-specific findings pertaining to North Goa.

Gender Composition in Sample - North Goa

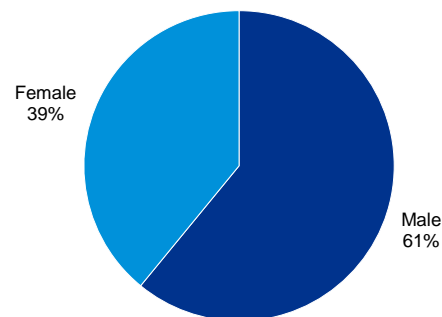


Figure 11 Gender Distribution - North Goa

All the respondents in the baseline study reported having access to an electricity connection, which also corroborates with the data provided in NFHS-5 regarding the status of electrification in the district of North Goa.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

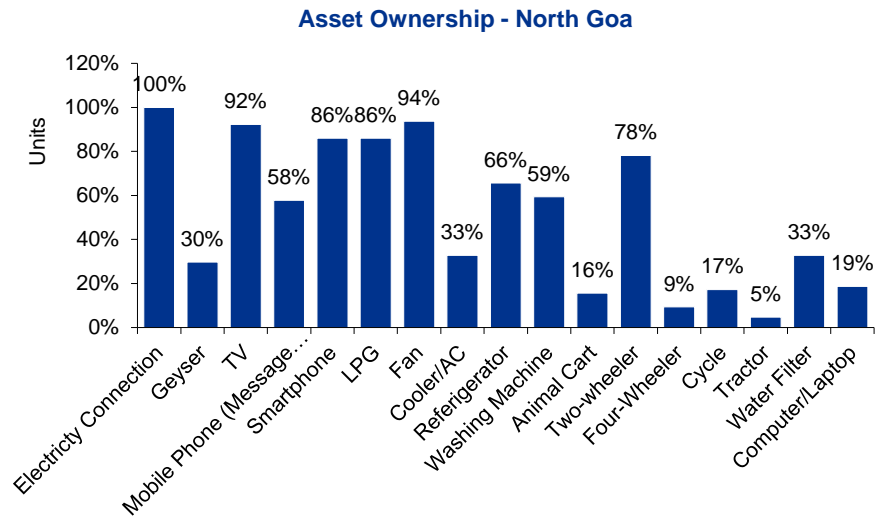


Figure 12 Asset Ownership - North Goa

More than 90% of the respondents each in instance reported having fans and TVs in their homes. More than 85% of the respondents said that they had a smartphone and an LPG connection for cooking. More than 78% of the respondents have a two-wheeler as compared to a mere 9% who reported owning a four-wheeler. More than 65% of the HHs have a refrigerator, while 59% have access to a washing machine within their HHs. Only 5% of the sample reported owning a tractor. It also seen that an impressive 100% of the HHs reported having toilet facilities.

Going by the economic categories, type and ownership status of houses that the respondents reside in, as well as the asset ownerships, it can safely be assumed that the selected sample belongs to fairly well-to-do households, in general. The households have steady access to electricity, and majority own their pucca houses – meaning that for most of the respondents, rent-paying is not an additional financial burden. This also means that most respondents have an option to not just expend on meeting the basic needs of the family but well beyond it – as can be noticed through the respondents' pattern of asset ownership in the district. Investing in washing machines, water filters (about 30%), and preference for two-wheelers over cycles, and ownership of brick-and-mortar houses show signs of upward mobility.

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As per 2011 Census, population of Hindus works out to be 76.06% followed by 16.4% of Christians, 7.08% of Muslims and others with 0.46%. Others include Sikh, Jain, Buddhist, other religions and religions not stated.

The caste-distribution in North Goa shows a majority (66%) of respondents as belonging to the General category, followed by 18% representation from OBC and 13% from the ST category. The percentage of respondents belonging to the SC category is much lesser at 8%.

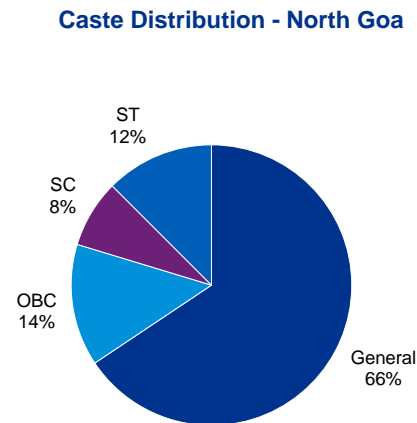


Figure 13 Caste Distribution - North Goa

South Goa

Unlike North Goa’s project intervention geography, South Goa depicts a slightly different economic disposition wherein, 64% of the selected sample reported themselves to be above the poverty line, while 36% of the respondents reported themselves as being below the poverty line. However, it can be seen from Figure 35 that 82% of the respondents said that they own their pucca houses, while 16% of the respondents said that they own a kuccha house, with only 2% reporting residing in rented pucca houses.

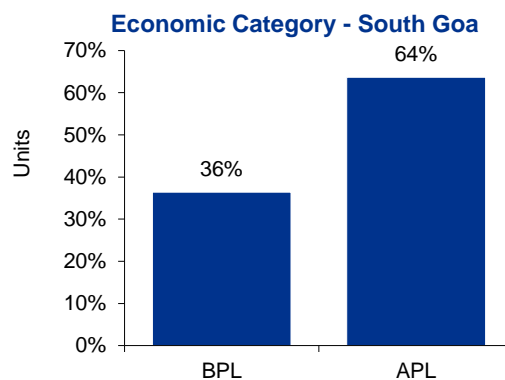


Figure 14 Economic Category - South Goa

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

As far as asset-ownership is concerned, 100% of the HHHs responded as having an electricity connection followed by 89% of the respondents who reported owning a fan and 82% who reported owning a TV. 80% respondents each said that they owned a smartphone and two-wheelers compared to only 25% who reported owning a four-wheeler. 77% of the respondents said that they had an LPG connection while 64% reported owning a washing machine.

Type of House & Ownership - South Goa

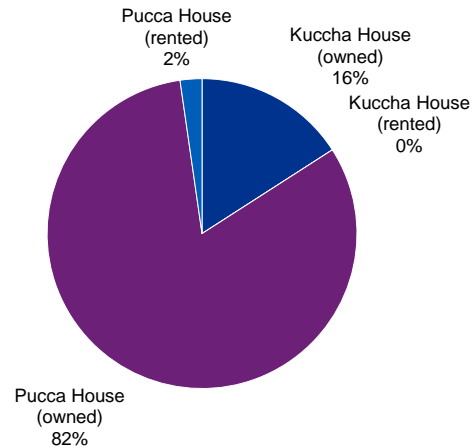


Figure 15 Type & Ownership of House - South Goa

of the respondents said that they had an LPG connection while 64% reported owning a washing machine.

Asset Ownership - South Goa

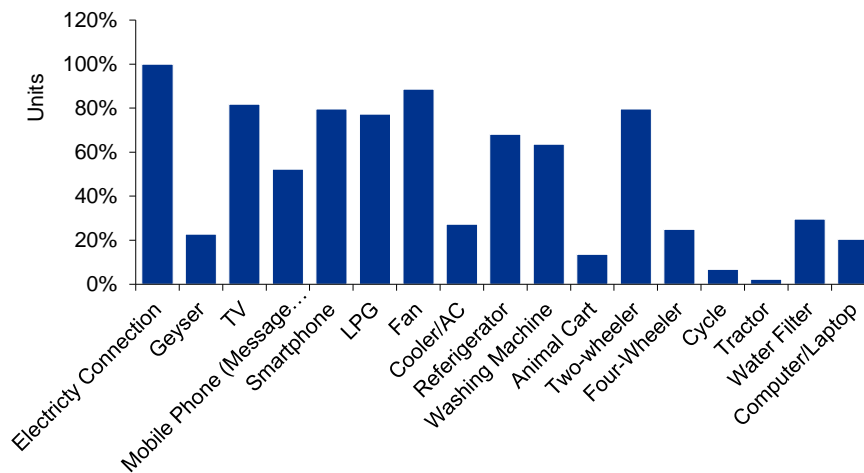


Figure 16 Asset Ownership - South Goa

From the reported economic standings, in addition to type and ownership of houses, reported monthly incomes, and asset ownership status – it can be assumed that the HHHs have access to most basic amenities and also have the means to satisfy certain wants

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such as two-wheelers, smartphones, refrigerators, and washing machines. While the ownership/preference for two-wheelers over four-wheelers may be more from a functional point of view, the ownership of washing machines, smartphones, and water-filters portray nascent stages of transition in consumer sensibilities and practicalities. This is not just the case in South Goa – similar patterns can also be noticed across North Goa and Chitradurga, as well.

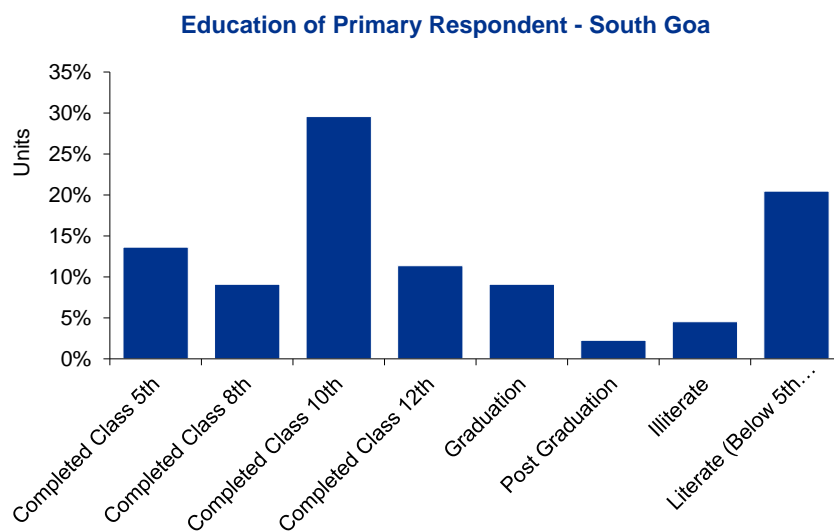


Figure 17 Education of First Respondent - South Goa

Majority of the respondents (29%) in the district have at least completed 10th grade, however, more than 20% reported being ‘literate’ – that is having attained education below the grade of 5. As is the case with the rest of districts, as well there is a steady decrease in the percentage share of people as the level of education increases. Only one respondent out of the 44 reported pursuing a post-graduate degree. This was a female respondent from an APL background. At least 4 respondents out of the total sample (2 each from APL and BPL categories) have

Gender Composition - South Goa

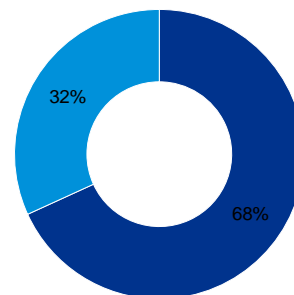


Figure 18 Gender Distribution - South Goa

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completed their graduation. The representation of a female at the post-graduation level even with a small sample size appears to indicate that there is an openness within the community to educate female members.

Of the total population in South Goa, the percentage share of Scheduled Castes (SC) has been reported to be 1.2%, while that of Scheduled Tribes (STs) it has been reported to be 14.5%.

Caste Distribution - South Goa

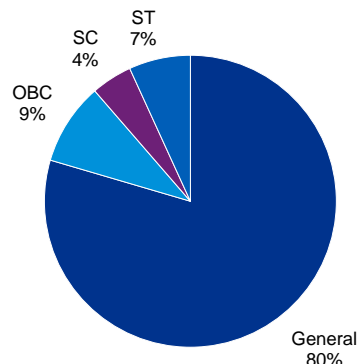


Figure 19 Caste Distribution - South Goa

Chitradurga

Unlike North Goa and South Goa, the economic categories of the selected sample in Chitradurga were evidently skewed in terms of the percentage share of respondents falling below the poverty line. More than 60% of the respondents held a BPL card while only less than 40% of the respondents said that they were above the poverty line.

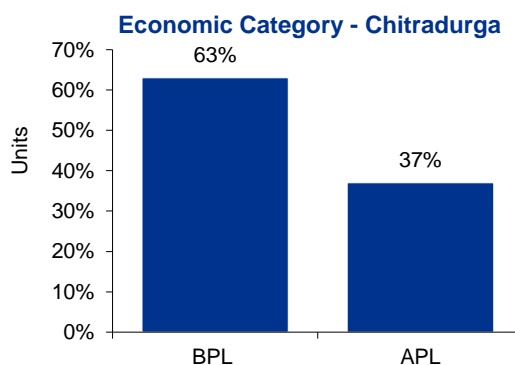


Figure 20 Economic Category - Chitradurga

The type of houses that most these people resided in and their ownership status also varied significantly. 63% of the sample lived in and owned kuccha houses as compared to only 35% who resided in and owned pucca houses. Intriguingly, 99% of the respondents living in and owning kuccha houses were also the same ones having reported belonging to the BPL category, barring only 1% who belonged to APL category, whereas all respondents living in and owning pucca houses belonged to the APL category. While it is not to make direct linkages between economic categorization and the type of housings – the findings do give important insights about

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the (preferred) housing sensibilities of the respondents, wherein when they do have the option and means – people do seem to prefer living in pucca houses, as can be seen in the case of the housing types of those belonging to the APL category. Moreover, considering that majority of the respondents own the houses they live in, it can be assumed that the ownership of houses is perhaps ancestral in most cases. The per capita income in the district is Rs. 1,30,573 for FY 2019-20 and ranks 21st amongst the 30 districts in Karnataka.³³

Type of House and Ownership - Chitradurga

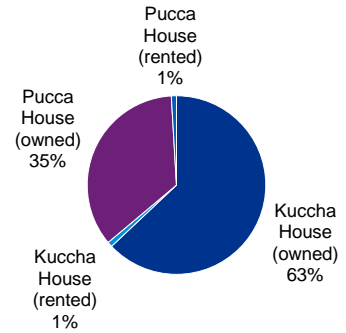


Figure 21 Type of House & Ownership - Chitradurga

It was also seen that majority of the respondents (32%) reported being ‘illiterate’ and most of these were either working on their own farms or else were daily wage workers. More than 15% of the respondents reported having completed at least 10th grade and relatively fewer people have gone on to pursue 12th grade, graduation, and post-graduation. It was interesting to see that the 5% who have completed post-graduation are all males, and the 9% who have completed graduation are all males, as well.

Education of First Respondent - Chitradurga

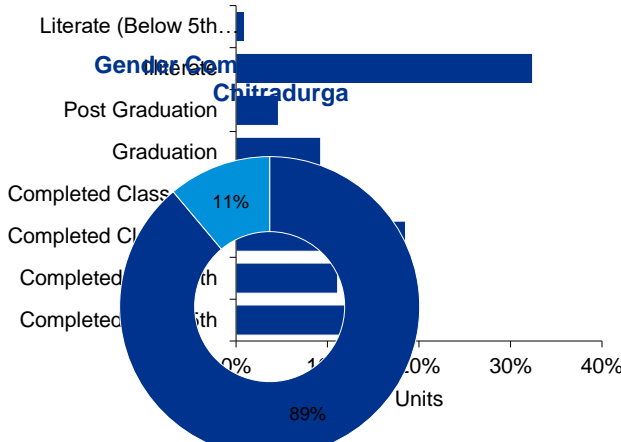


Figure 22 Education of First Respondent - Chitradurga

While this could be due to only 11% representation of females in the study sample, and mapping of literacy levels of the second HH member (usually a female or wife of the first respondent) also shows that only 4%

³³ Economic Survey of Karnataka 2021-22

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of them have gone on to pursue a graduation with the rest having completed 12th, 10th, or lower grades or not being literate at all. An analysis of the third HH member, where the member is a female, shows that at least 27.5% of the females have gone on to pursue graduation, ITI diplomas, or even post-graduation. A majority of these females are still in school/education – which portrays a conduciveness for female education.

As far as asset-ownership is concerned, all the HHs reported having an electricity connection. This goes in line with the NFHS-5 data wherein 99.8% of the HHs are reported to have access to electricity in the district. 99% of the respondents reported owning a smartphone, followed by 98% who reported having an LPG connection for cooking. The NFHS-5 data reports that only 80.9% of the HHs have access to clean cooking fuel, however. Majority of the HHs have TVs and fans, as well. 79% have two-wheelers as compared to only 19% who reported owning a four-wheeler.

Figure 23 Gender Distribution - Chitradurga

Surprisingly, the ownership of water filters by at least 43% of the respondents raises concerns pertaining to water-quality in the area. An important point to notice here is that out of the 43% of the respondents who reported owning water-filters – a major share (78.3%) of ownership is by HHs reported being BPL as compared to only 21.7% of APL HHs who reported owning water filters. It is unclear, however, whether this is due to a felt need for water-filters community members or due to a perceived need – meaning that there is a possibility that the choice of ownership of certain assets may be influenced by what others in the community own and hence, the overwhelming ownership of water-

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filters, especially among HHs identifying themselves as BPL can be further probed into.

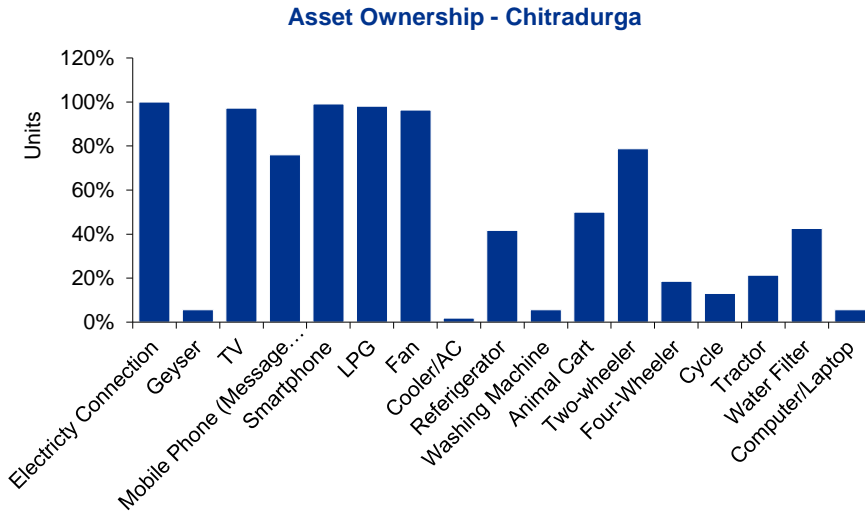


Figure 24 Asset Ownership - Chitradurga

Nearly 40% of the total population of Chitradurga is comprised of SC and ST communities. In the present study, unlike North Goa and South Goa, the caste-distribution in Chitradurga does not have representation from OBC community and is predominantly inclusive of members belonging to General, ST, and SC communities. While the percentage share of ST members is fairly lesser than members belonging to General category, the difference among the three communities is largely negligible. This also means that there is adequate representation of views and experiences from each of these communities in the study.

Caste Distribution - Chitradurga

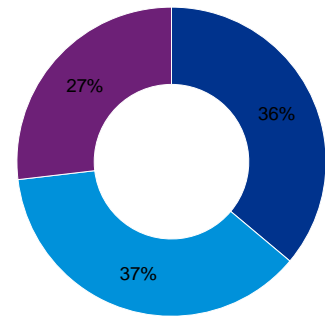


Figure 25 Caste Distribution - Chitradurga



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A. Education

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Key Highlights of the Baseline Assessment:

- Improved sanitation and drinking water facilities at primary and middle school levels since previous baseline.
- Increased availability of digital infrastructure since the previous baseline
- Majority of the respondents have high ownership of mobile phones across North Goa, South Goa, and Chitradurga – usage of mobile phone also high for accessing digital education. Ownership of laptops observed to be high in Chitradurga.

Key Highlights of the Impact Assessment:

The project has been successful at garnering trust and appreciation for its efforts in easing financial burdens for underprivileged yet meritorious students while also helping improve digital infrastructure at schools.

Key Recommendations:

a) Counselling Services for Students, Parents, and Teachers

Professional counselling sessions on possible career or even educational trajectories for students, parents, as well as teachers may help create a healthy environment for students to thrive in – both at home and at schools.

b) Introduction of Vocational Courses for students and teachers and special education teachers

While it is commendable that the BU has taken initiatives to provide financial assistance, infrastructural support on its own accord while also on the request of school committees, introduction of vocational courses at the school level may be helpful in giving more exposure to students. There is also a need to tap into the need for special education teacher trainings to ensure an inclusive education system.

c) Strengthening of digital infrastructure

Various state-run initiatives such as “Subject Teacher Forum” or Technology-Assisted Learning Programme (TALP) in Karnataka and the Computer Aided

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Learning (CAL) programme in Goa under the Goa Sarva Shiksha Abhiyan (GSSA) can be collaborated with to upgrade digital infrastructure and upskill teachers on digital learning delivery.

Baseline Findings

In the 86th Amendment of the Constitution of India, the Constitution Act, 2002 instated Article 21-A to provide free and compulsory education for all children between the ages of 6 to 14 years to be exercised as a Fundamental Right. The Right of Children to Free and Compulsory Education (RTE) Act, 2009 is one such consequential legislation under the very Article 21-A – whereby children have the complete rights to avail and complete elementary education with quality and equitable access to resources³⁴.

The Act bestows the onus of responsibility for compulsory education on central and state government bodies, local authorities, and parents besides establishing standards and norms pertaining to Teacher Pupil Ratios, infrastructures, etc. to ensure an enabling learning environment for students. The government of India also recognizes the importance of nutritious food for developing minds and perhaps runs the largest of its kind nutritious meal programmes in the world with – the Midday Meal Scheme, for school-going children between the grades of 1st to 8th, i.e., primary to upper primary. Similarly, the anganwadi centers (AWCs) also provide toddlers and their mothers with government health supplies under the ICDS programme.

Goa

Having attained its independence from Portugal rule in 1961, the state has made commendable progress in the field of education. Goa features among one of the most literate states in the country at 88.70%³² as compared to the national average of 78%, thereby significantly outdoing the national literacy levels.

A gender-wise bifurcation of the national literacy rate shows that for males it is 84.4% while that for females it is 71%. In Goa, the literacy figures for males and females are far

³⁴ [School Education | Government of India, Ministry of Education](#)

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impressive at 94% and 92%, respectively. Goa has also been primarily prioritizing universalization of education in the state and has nearly achieved its target at the elementary level of schooling. The state also enacted the Compulsory Education Act in 1995 to ensure that no child within the age-group of 6-14 remains out of school.

The Gross Enrolment Ratio (GER) – shows the number of students enrolled in schools at various schooling levels in relation to those who qualify for the grade level. In Goa the GER at primary level is 94.3%, for middle level it is 89.6%, at secondary level it is 91.1%, and at higher secondary level it is 69.9%. The state outperforms the national GER particularly at secondary and higher secondary levels wherein the national GER stands at 79.8% and 53.8%, respectively, indicating that Goa manages to enroll and retain students up to higher secondary level. However, it is pertinent to note that the GER at higher secondary level is far lesser than secondary or even middle schools.

Despite attaining some of the highest literacy levels in the country, the state is striving to push for:

- bridging regional and gender gaps,
- reducing the drop-out rate,
- emphasizing skill development and vocational programs to curb unemployment,
- improving quality of education,
- infrastructure development in schools,
- the orientation of teachers,
- computer integrated education and
- up-gradation of libraries

In the previous baseline cycle, data had been collected for Goa as a field unit in itself and hence, there was no district-specific bifurcation of data. It was found that Goa had 56 primary schools with virtual classroom facility in three, followed by library availability at 39 primary schools and playgrounds in 42. 58.9% of the households opined the need to improve the toilets in the schools. Moreover, 53.7% stressed on need for more number of teachers in schools while close to 48.4% of the respondents wanted the quality of teaching to be enhanced.

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According to a 2021 State of the Education Report for India (SOER), there are roughly 1,486 schools in the state of Goa, wherein 78% are rural schools. 16% of the total schools in the state are single-teacher schools – showing a requirement for more qualified teachers in the state. While Goa has a good availability of quality teachers at primary, upper primary, secondary, and higher secondary levels – it performs worse than most other states when it comes to quality of teachers at pre-primary level. This is pertinent because pre-primary level is a crucial time for pre-school children to start grasping key foundational concepts³⁵.

As far as accessibility to basic amenities to teachers is concerned, 100% of the teachers reported having access to the schools by road in Goa. Moreover, 100% of the schools also were said to have a functional access to drinking water, while 99% of the teachers reported that schools had separate washroom facilities for girls. 100% of the schools were also said to have functional electricity connection while 87% of the classrooms were said to be in a good condition ³⁶.

North Goa

Facilities at Educational Institutions:

Primary schools refer to grades 1-5th. The blocks covered for the study in North Goa – Ponda and Bicholim³⁷, have 148 and 94 primary schools (including government, government-aided, and unaided schools), respectively.

According to UDISE+ data for 2021-22, 100% of the primary schools in Goa have toilet facilities, while 100% of them have separate toilets for girls. 100% of the primary schools are also believed to have drinking water facilities as well as electricity facilities, with teacher-pupil ratio being 1:26 – showing a healthy ratio.

³⁵ State of the Education Report for India 2021

³⁶ State of the Education Report for India 2021

³⁷ Educational Statistics at a Glance 2019-20, Government of Goa

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In the current study, 94% of the respondents reported that there are toilet facilities for students – with 88% saying that there are separate toilets for girls. 100% of the respondents reported that schools provide drinking water facilities for students at primary schools.

In line with the UDISE+ data and similar to the findings of the SOER India 2021 on teacher working conditions and access to basic amenities in schools in Goa, the primary data from North Goa in the current study indicates that the primary schools have good access to facilities overall. Moreover, the findings also suggest that there has been considerable improvement in the state of sanitation and drinking water facilities in Goa since the last baseline study.

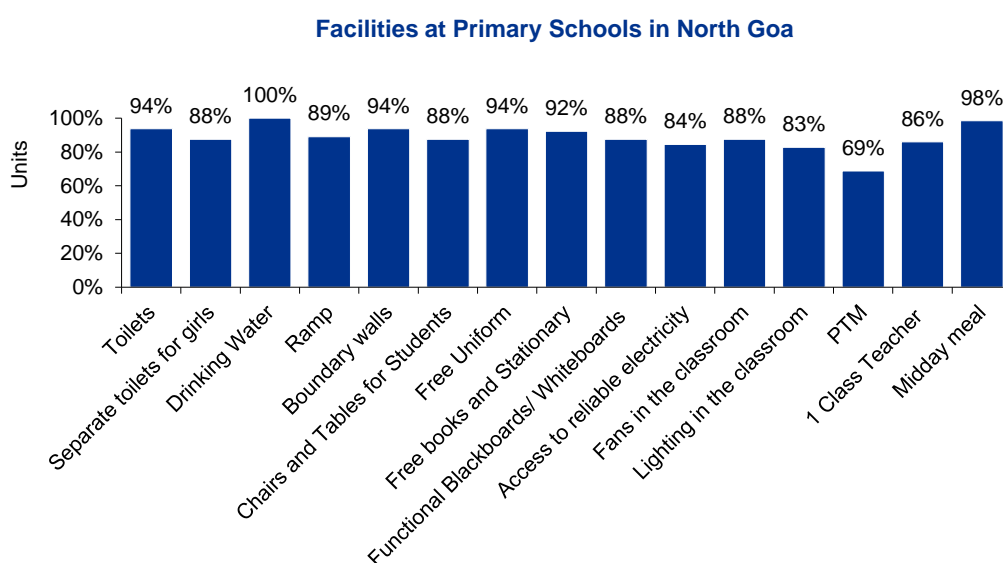


Figure 26 Facilities at Primary Schools in North Goa

As per the previous baseline findings, the Goa field unit had 16 middle schools – out of which 14 had blackboards, while only one had virtual classroom facility. 12 middle schools had access to library and playground facilities. Much similar to findings for primary schools, the middle schools were also reported to be lagging in terms of sanitations and drinking water facilities.

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The Ponda block has two middle schools and Bicholim has three middle schools in North Goa³⁸. According to UDISE+ Report for 2021-22, 100% of the middle schools are said to have toilet facilities, separate toilets for girls, drinking water facilities, and access to electricity. The teacher-pupil ratio is 1:16 at the state level. In the present study, 98% of the schools were said to have toilet facilities and separate toilets for girls, while 100% of the respondents reported that middle schools have access to drinking water facilities and access to electricity at the district level.

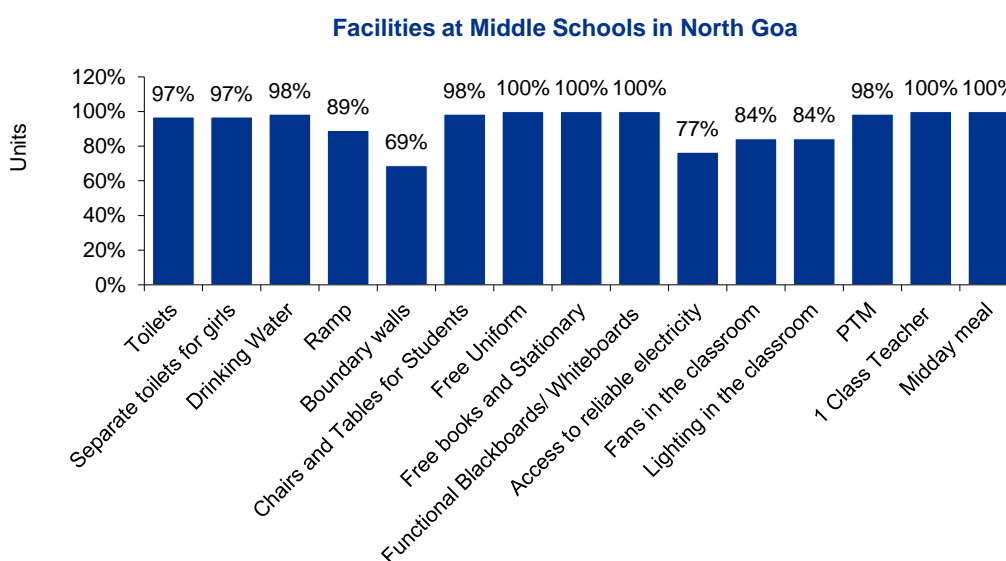


Figure 27 Facilities at Middle Schools in North Goa

In the previous baseline, five secondary schools were identified through a transect walk. 100% of the secondary schools had blackboards, libraries, and playground facilities while 80% had virtual classrooms at secondary schooling level. Similar to the findings for primary and middle schools, there was an expressed need to improve toilet facilities as well as to improve the availability of teaching staff.

The UDISE+ data indicates that 100% of the secondary schools have access to toilets, separate ones for girls, drinking water facilities and electricity at the state level. As evident in Figure 37 secondary schools tend to perform well in all respects.

³⁸ Educational Statistics at a Glance 2019-20, Government of Goa

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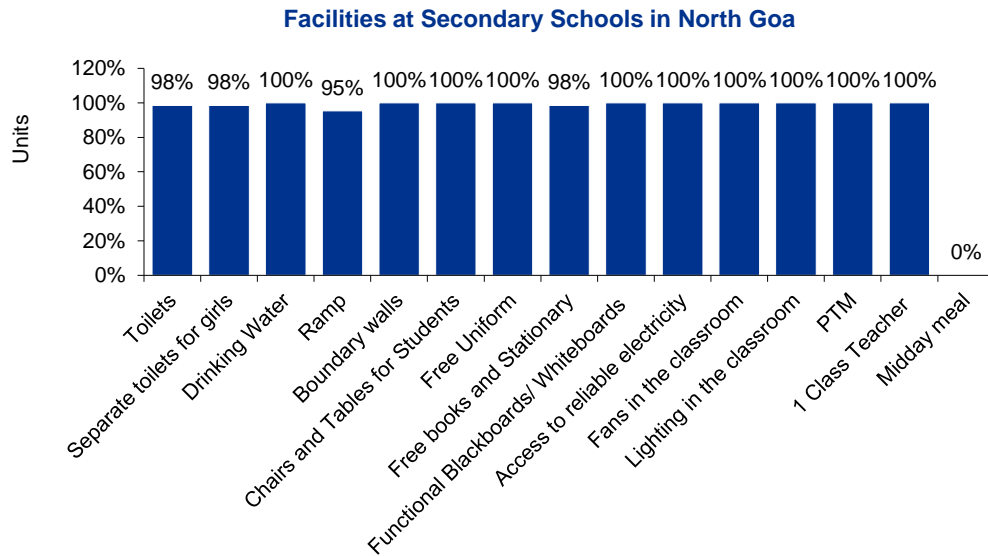


Figure 28 Facilities at Secondary Schools in North Goa

As per UDISE+ data for 2021-22, 100% of the higher secondary schools are said to have access to toilets, separate toilets for girls, drinking water facilities, and access to reliable electricity. Similarly, as is evident in Figure 38 higher secondary schools in the current study seem to have good facilities available in the North Goa district.

On the whole, on-field interactions and observations suggest that educational facilities in the district are very good. Moreover, it was also found that some of the schools had requested the BU for boundary walls to be constructed which was carried out by the BU.

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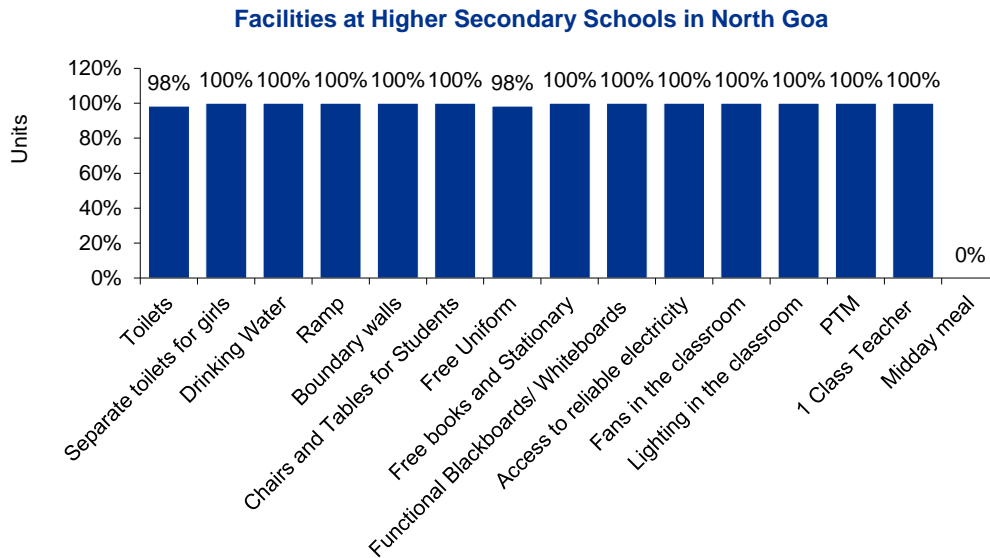


Figure 29 Facilities at Higher Secondary Schools in North Goa

Reasons for Drop-Out:

According to NITI Aayog’s School Education Quality Index (SEQI), 2019, roughly 68.3% of the schools in India have vocational courses as per the GoI rules to ensure smooth school to work transition. However, as noted earlier in the SERI report, there is a severe deficiency in the number of adequately trained teachers in the domain of vocational teaching and for students with special needs in the country. So, despite there being listed courses, lack of adequately trained staff can impact students’ continued education.

In the previous baseline, it was understood that while access to school infrastructure in terms of distance was not an issue, families required financial support for which children

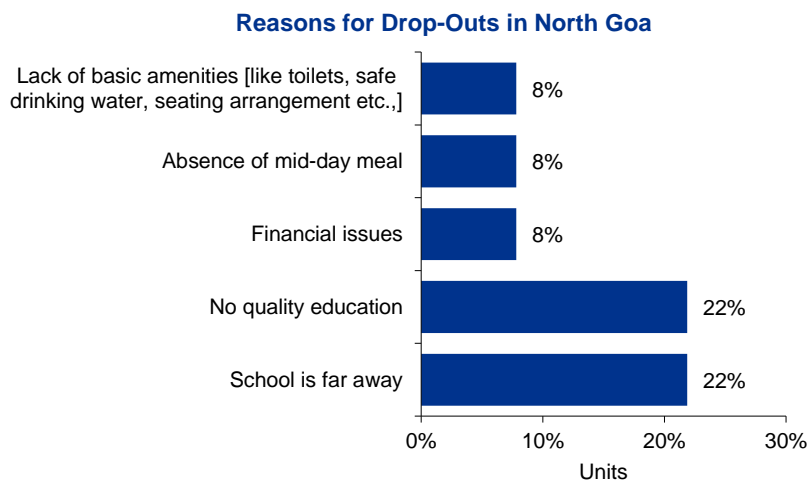


Figure 30 Reasons for Drop-Outs in North Goa

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would have to contribute. This could impact children's active participation in educational activities. 15% also reported financial issues as a prominent concern while continuing education, while 63% said that lack of midday meals is a deterring factor from attending school. An age-group analysis was also done in the previous baseline to map the number of drop-outs and illiterates among children in the survey households. Overall, it was observed that higher proportion of drop-outs were found in the higher age groups.

Goa features among the few states in India that have drop-out rates below 10%. However, in line with the previous baseline's findings, the average drop-out rate at secondary level (for both boys and girls) in Goa is 5.9% as compared to the national average of 14.6% at secondary level. In both the state and national level drop-out rates are significantly higher at secondary level than at primary or even at middle school levels. The gender-wise bifurcation of Goa's drop-out rate informs us that the drop-out rate for boys is 6.6% while that for girls is 5.2%³⁹.

In the present study, it was found that 22% of the respondents each said that they drop-out of schools due to school being far away or else due to lack of quality education. Although, drop-out rates are generally low in the state, drop-out rates at secondary level is a bit concerning. Anecdotal evidence also suggest that the drop-out rates beyond secondary and higher secondary level are high and students end up dropping out to pursue work opportunities.

Access to Digital Education:

The previous baseline cycle identified that there is a lack of digital boards and computers and other modern facilities in schools as well as computer trainings and other vocational courses. Secondary data suggests that nearly 46.9% of the students have access to desktop facility in Goa, while 34.8% have access to mobile phones, followed by nearly 30.9% who have access to laptop facilities at the state level³⁹.

³⁹ UDISE 2020-21

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Devices Used for Accessing Digital Education in North Goa

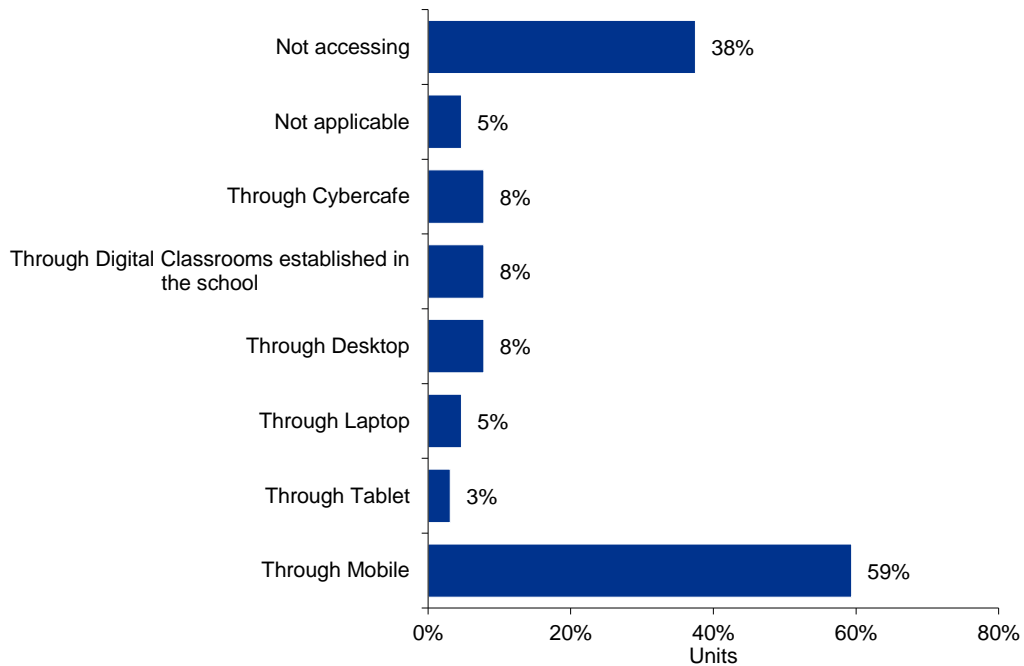


Figure 31 Devices Used for Accessing Digital Education in North Goa

In the current study, however, it was found that majority of the respondents (66%) reported that students access online education through mobile phones, with far lesser numbers reporting using laptops (5%) or even desktops (8%) – which does not go in line with the secondary data findings. However, it also needs to be noted that a very high percentage of respondents reported having mobile phones/smartphones which are more accessible and affordable to own than desktops/laptops – which may explain the high usage.

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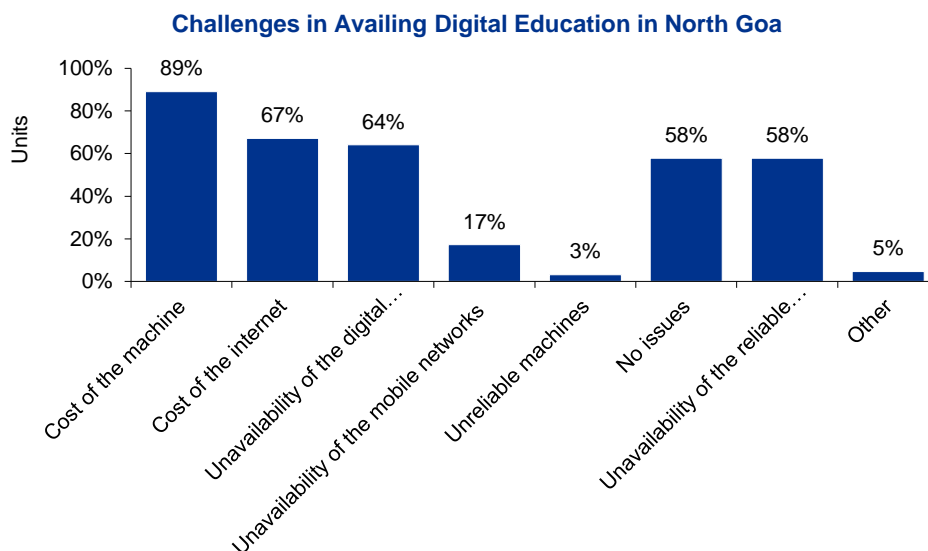


Figure 32 Challenges in Availing Digital Education in North Goa

When it comes to challenges pertaining to accessing digital education, in the sampled areas, 89% reported the cost of machine to be prohibitory, while 67% found the cost of internet to be prohibitory, while another 64% said that their schools do not have digital infrastructure. However, the Student Education Quality Index (SEQI) Report for 2019 shows that nearly 89.7% of the schools in Goa have good Infrastructure and Facilities for Outcomes – i.e. schools have computer-aided learning (CAL), have book banks/libraries/reading rooms, and have vocational courses⁴⁰. This seems to contradict with the primary data findings that digital infrastructure is not available at schools. A possible reason for this could be that even if schools may have certain infrastructure at schools, its actual functionality may differ. While availability of working electricity in schools is 100% in Goa, the SOER Report 2021 states that only 40% of the schools in Goa have access to internet facilities – which can have implications on the optimum usage of digital infrastructure available to students and teachers.

⁴⁰ School Education Quality Index (SEQI) 2019

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South Goa

Facilities at Educational Institutions

The schemes and policies that are applicable to North Goa are also applicable to South Goa. 75% of the respondents (more than those in North Goa) said that PTMs take place in the schools. 89% of the respondents reported the availability of toilets within school premises, while an impressive 98% said that there are library facilities in the schools for children. Nearly 90% of the respondents also reported having access to reliable electricity, fans, and lighting facilities in the schools – indicating a good educational infrastructure availability.

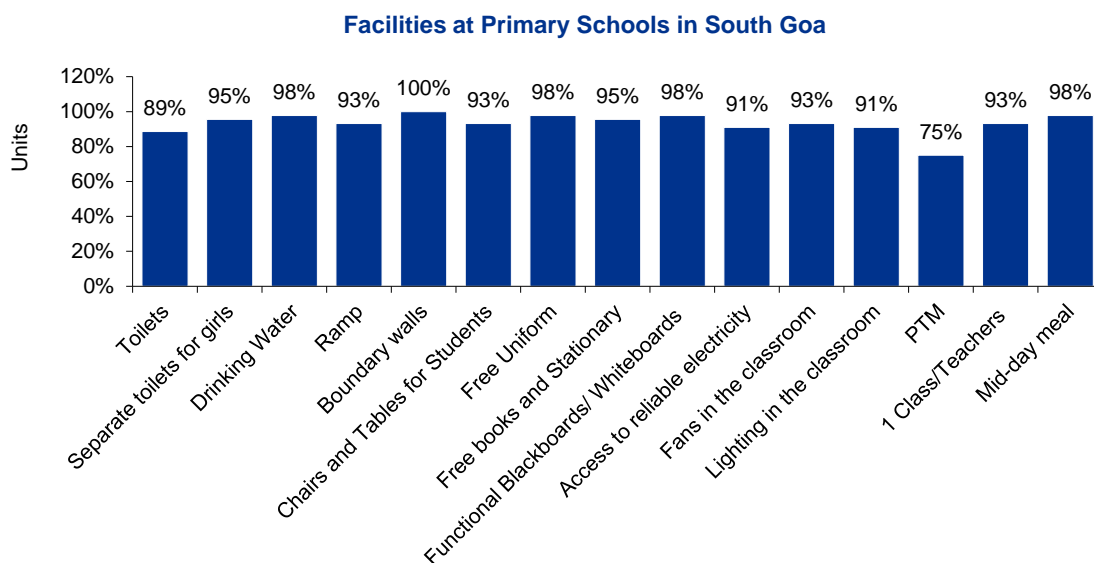


Figure 33 Facilities at Primary Schools in South Goa

100% of the respondents reported that the middle schools have toilet facilities, including separate toilets for girls, in addition to drinking water facilities – corroborating the secondary data. Access to reliable electricity was however, relatively reported by only 80% of the respondents – indicating that while there may be access to electricity as such, there may be issues in the frequency of supply. Nevertheless, the middle schools have good educational facilities at their disposal for students.

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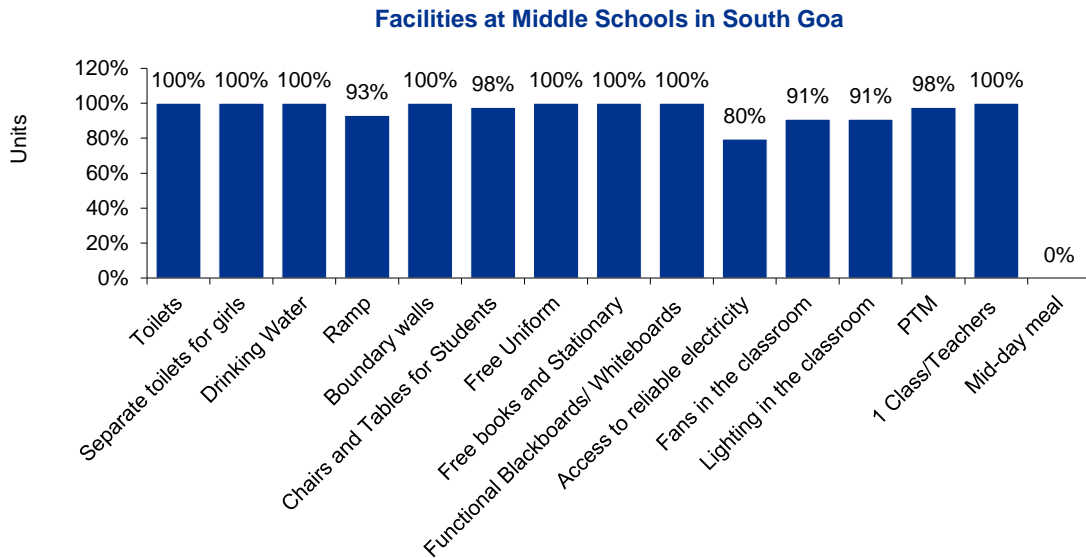


Figure 34 Facilities at Middle Schools in South Goa

The secondary schools also perform very well in terms of the facilities available. 100% of the respondents reported that secondary schools have access to drinking water facilities, functional blackboards, ramps, boundary walls etc. The secondary schools appear to have very good facilities in general.

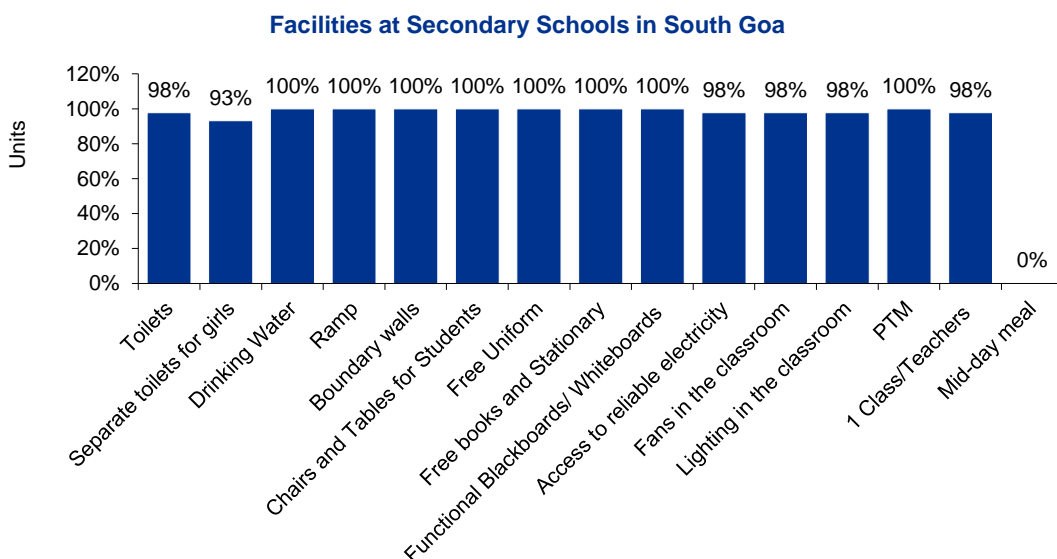


Figure 35 Facilities at Secondary Schools in South Goa

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The higher secondary schools in the South Goa district also reportedly have access to all of the facilities and only fall short of 100% in terms of toilet facilities (98%), toilets for girls (98%) and ramp facilities (95%). Apart from this, the higher secondary schools also do very well in terms of providing infrastructural facilities to students.

However, as far as facilities at educational institutions are concerned, largely middle, secondary, and higher secondary institutions across both the districts of North and South Goa appear to do exceptionally well.

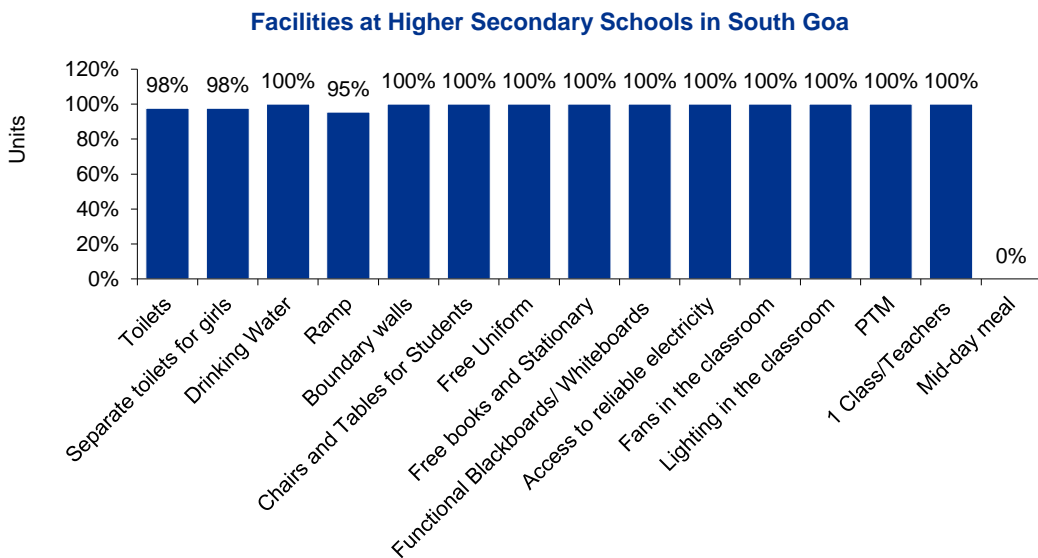


Figure 36 Facilities at Higher Secondary Schools in South Goa

Reasons for Drop-Out

The drop-out rate in Goa at primary-level is 1.5%, while that at the middle-school level is 0.6%. At secondary level it is 5.9% as compared to the national average of 14.6% at secondary level.

Roughly, 13.6% of the respondents from the sample reported having a school-going age child who dropped out of school. The Figure 42

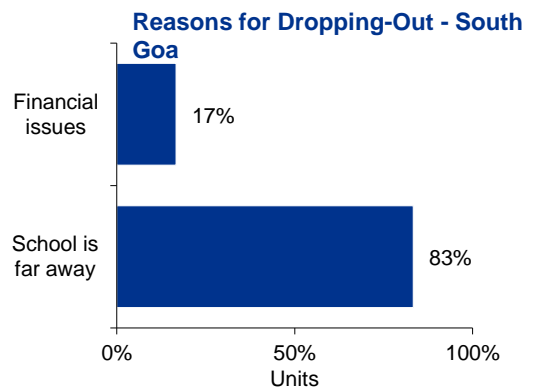


Figure 37 Reasons for Dropping-Out - South Goa

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shown below highlights that distance of the school is a major issue instigating dropping-out of schools (83% of the those who reported having a school drop-out child) while 17% said that financial reasons are also contributory factors.

These findings suggest a significantly different picture of South Goa from that of North Goa – wherein in North Goa, the concern was more about the quality of education and distance, in South Goa the concerns pertain to a combination of distance with financial issues.

Access to Digital Education:

57% of the respondents said that students majorly accessed digital education through mobile phones, while only 7% of the respondents reported availing digital education through digital classrooms established in the school. To 36% of the respondents, the question was not applicable.

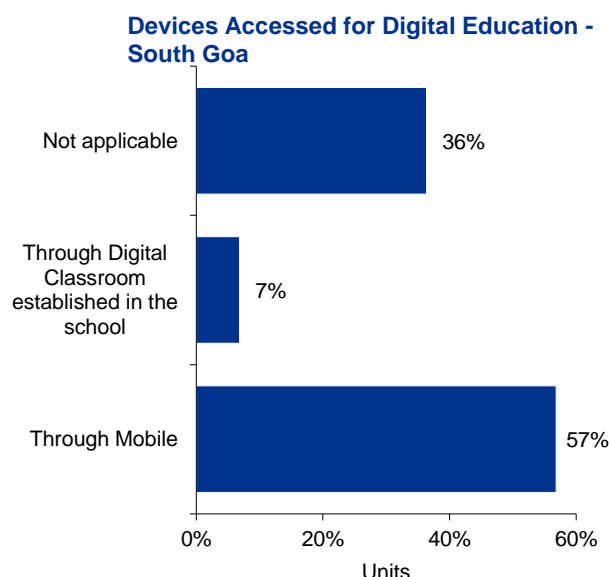


Figure 38 Devices Accessed for Digital Education - South Goa

Roughly, 13.6% of the total sample responded to the question on challenges faced while availing digital education – of this, 33.3% each said that they either found the cost of the machine to be prohibitory or else unavailability of reliable electricity connection plays as a hindrance to availing continued digital education. Here again, the issue of affordability of the machine was highlighted.

Karnataka

The state of Karnataka has over 77,000 schools with more than 1.03 crore students enrolled in these schools and providing employment to nearly 3 lakh teachers. With more robust mechanisms in place to improve midday meal delivery schemes, digital infrastructure, expanding its network of Karnataka Public Schools, and English medium

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schools, the Department of Primary and Secondary Education in Karnataka has been undertaking various initiatives to make good quality education available and accessible for all.

The Net Enrolment Ratio (NER) at primary school level in Karnataka is 96.96% and that at the middle and secondary schools is 83.38% and 66.34%, respectively⁴¹. The retention rate at primary level is 95.95%, at the middle school level is 98.41%, and at the secondary level is 91.09%. The average annual drop-out rate at primary level is 0.92%, at middle level is 1.8%, and at secondary level the drop-out rate is 8.08%⁴². It can be seen that NER and retention rate go down at secondary level, while drop-out rates also go up at secondary school level. The literacy rate in the Chitradurga district is 73.7% - for males it is 81.4% and for females it is 65.9%⁴³.

Chitradurga

Facilities at Educational Institutions

The UDISE Report for 2020-21 shows that Karnataka and Chitradurga have toilet facilities for both boys and girls, access to drinking water and electricity with more than 90 – 95% coverage while 98.8% of the schools in the Chitradurga district are reported to have access to drinking water facilities. 89% of the schools are also reported to have access to functional electricity connection, according to SOER Report 2021.

In the previous baseline study, a total of five primary schools were covered. Out of the five schools, 80% primary schools had drinking water and sanitation facilities, 20% had library facilities, and 60% of the primary schools had playground facilities, while 80% of the primary schools had blackboard facilities. None of the primary schools had virtual classroom facilities. Nearly 46% of the respondents reported the primary schools in Chitradurga to be having access to toilet facilities, separate toilets for girls, and drinking water facilities, functional blackboard facilities, and midday meals. Nearly 38 – 39% of

⁴¹ School Education in Karnataka 2018-19

⁴² State Education in Karnataka 2018-19

⁴³ NFHS-5 Chitradurga 2019-20

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the respondents reported having chairs and tables, boundary walls, free uniforms etc. at primary schools.

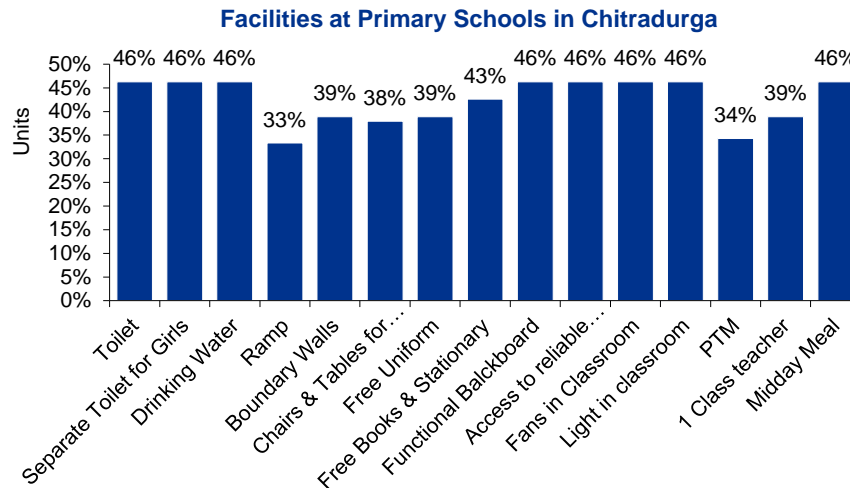


Figure 39 Facilities at Primary Schools in Chitradurga

55% of the respondents reported having access to toilet, separate toilets for girls, drinking water, ramps, boundary walls, chairs and tables etc. However, 42% said that they have access to free uniforms.

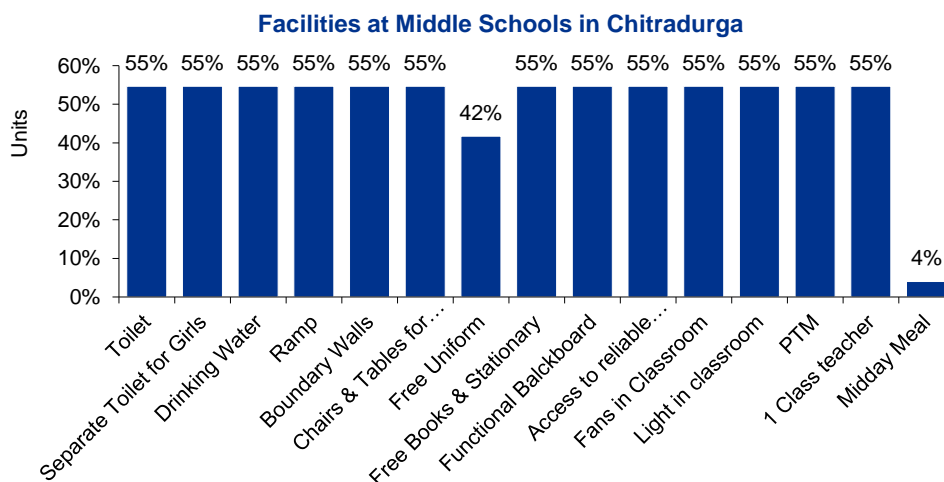


Figure 40 Facilities at Middle Schools in Chitradurga

50% of the respondents reported that the schools have access to toilets, separate toilets for girls, drinking water facilities, boundary walls, chairs and table etc. while a mere 6%

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reported getting free uniforms, followed by 48% reporting free books and stationary supply distribution.

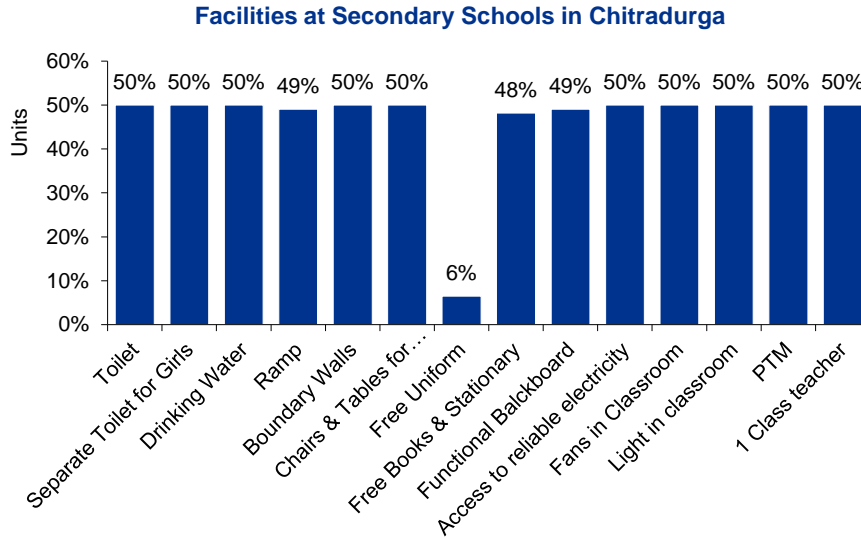


Figure 41 Facilities at Secondary Schools in Chitradurga

51% of the respondents reported that toilet facilities, separate toilet facilities, drinking water facilities, chairs and tables are available at higher secondary schools. Only 5% mentioned that free uniforms are provided at the institutions, while 40% said that free books and stationery is provided at schools.

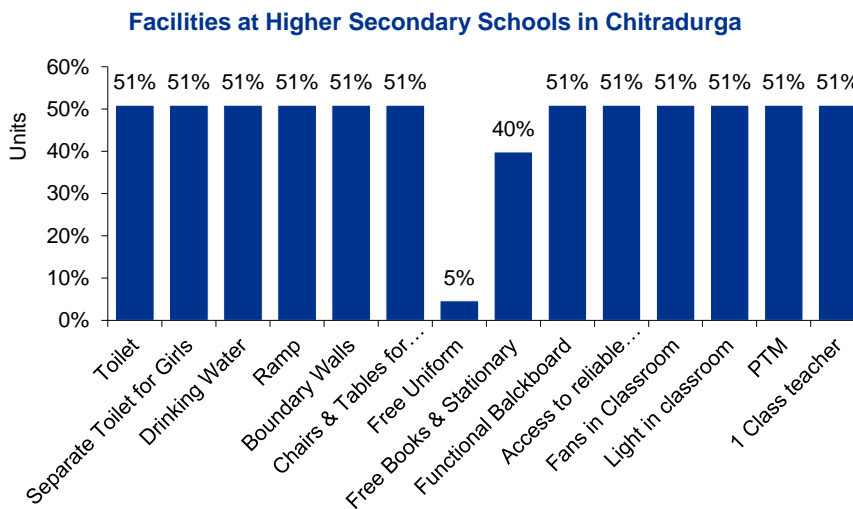


Figure 42 Facilities at Higher Secondary Schools in Chitradurga

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Reasons for Drop-Out:

The drop-out rate at secondary level in Chitradurga has been reported to be 2.71% as against the state average of 16.7% according to the UDISE Report. The numbers suggest that Chitradurga has significantly lower drop-out rates in the state. Only the responses of the HHs reporting incidences of school drop-out have been recorded. Nearly 11% of the total sample reported having a child who dropped out of school. Out of the 11%, only 25% said that the school is far away from

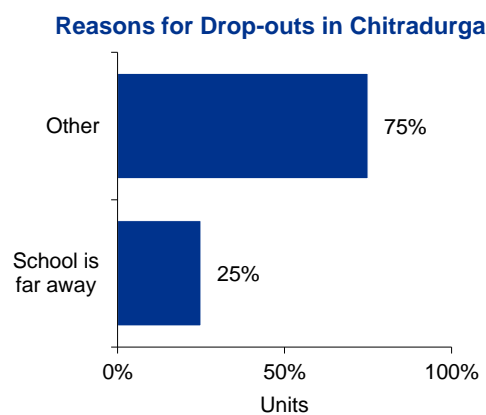


Figure 43 Reasons for Drop-outs in Chitradurga

their home, while the rest 75% gave other reasons for dropping out – one of the cited reasons was not having a school bus facility while a few others mentioned the lack of scholarship facility in their school. These were majorly respondents from Bheemasamudra and Bommenahalli villages.

Access to Digital Education

The previous cycle of baseline study found that schools lack digital boards and computers, as well as other modern facilities in schools. Additionally, a lack of computer trainings and other vocational courses was also observed.

The SOER Report for 2021 also states that only 12% of the schools in Karnataka has access to internet facilities, while a mere 5% have access to ICT lab facilities at schools, while 88% of the schools are reported to have library facilities. It was also seen that less than 20% of the schools in Karnataka have pupil-teacher ratio as per the RTE Act. The “Subject Teacher Forum” is one such initiative taken by the government of Karnataka to build ICT-enabled teaching communities to create, curate, and share open educational resources through various means. Moreover, Technology-Assisted Learning Programme (TALP) is also an initiative to launched with the objective of complementing classroom

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teaching with ICT enabled teaching across all subjects. Nearly 13,076 teachers and 1944 schools have been covered so far since its inception in 2016⁴⁴.

In the present study, nearly 52% of the respondents reported as not having used any digital device for accessing online education. This could perhaps be the case due to not having access to the device itself or else not having the need to access digital devices for educational purposes. However, nearly 48% of the respondents said that they used mobile phones to access online educational resources. They also reported that they access desktops and laptops at home while they have digital classrooms enabled at school. However, it also requires noticing that a very few respondents reported owning desktop/laptops at home in asset ownership mapping. The on-field observations appear to suggest a different scenario wherein some of the HHs were seen to have access to laptop. The Karnataka government also reportedly provides laptops for students belonging to SC and ST communities who pass out of 12th grade under the Karnataka Free Laptop scheme – which may explain the ownership of laptops in the district. Apart from this, desktop facilities are available at schools. Vedanta is also reported to have provided projector and screens to enable digital education in select schools – which were reported to be in a working condition.

A major challenge in availing proper digital education was reported as not having access to reliable machines/devices – it was felt to be the case for 75% of the respondents. This was followed by 24% who said that the cost of machine itself is a deterring factor, while only 1% reported that the unavailability of reliable mobile network is an issue. It must be

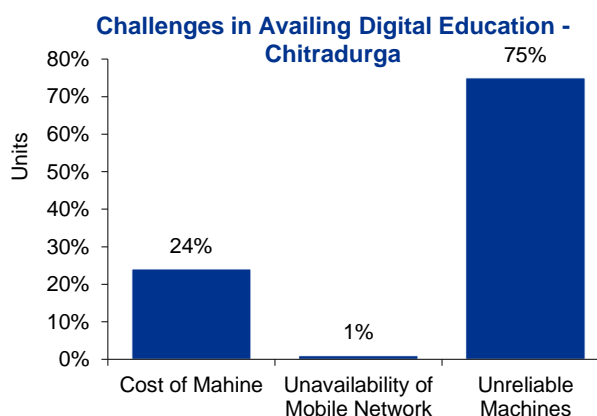


Figure 44 Challenges in Availing Digital Education - Chitradurga

noted though that an overwhelming majority’s concerns are towards the ‘quality’ of

⁴⁴ School Education in Karnataka 2018-19

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machines rather than an issue of accessibility itself. This could mean that while they may have the means to access digital devices, they could have previously had access to digital devices and their experience with it may not have been very smooth – either at home or at school. For instance, there may be issues of device lagging etc. which may eventually hinder learning processes. However, it can be seen from the responses that there were no claims about the cost of internet, or unavailability of digital infrastructure at school reported as such.

Chitradurga's PGI-D score on digital learning in 2018-19 was 24 out of 50 and in 2019-20 the score slipped to 17 – indicating that Chitradurga's decent performance on digital learning in 2018-19 has gone down to become poorer during the FY 2019-20.

The findings from the present study indicate that there has been considerable improvement noticed in terms of access to digital devices, largely owing to both the state government schemes and the BU's efforts since the last baseline study. However, Chitradurga's scores on PGI-D indicates that there is still room for improvement in terms of making digital infrastructure available at schools. A possible area of improvement could also be to include training of teachers in digital tools to ensure a smooth learning process for students.

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Analysis & Way Forward

Improvements in Educational Facilities:

- Improved sanitation and drinking water facilities at primary and middle school levels since previous baseline.
- Increased availability of digital infrastructure since the previous baseline
- Majority of the respondents have high ownership of mobile phones across North Goa, South Goa, and Chitradurga – usage of mobile phone also high for accessing digital education. Ownership of laptops observed to be high in Chitradurga.

Challenges:

All-India figures suggest that the major categories that teachers can be clubbed into are Secondary school teachers (42%), Primary school teachers (39%), and Early Childhood education teachers (18%) – with very limited representation from teachers specialized in either special education or vocational education. It is imperative to bridge this gap of availability of trained teaching staff for vocational courses, as well as for students with special needs across the three districts.

Possible Solutions:

- Introduction of and/strengthening of vocational courses in schools
- Counselling services for students to understand their aspirations; for parents to help provide a healthy and enabling home environment; for teachers to support students in navigating their career trajectories better
- Strengthening of digital infrastructure and possible tie-ups with state education departments to enable teachers to use and disseminate digital tools for learning

Way Forward

a) Counselling Services for Students, Parents, and Teachers

As seen through secondary data and on-field interactions, NER and retention rates go down, while drop-out rates tend to go up with progression towards secondary and higher secondary education. While all the three districts – North Goa, South Goa, and Chitradurga boast of some of the lowest drop-out rates in the country, the fact that drop-out rates are higher towards higher schooling levels is a bit concerning.

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Youth delinquency and dropping out to pursue other work avenues was particularly a concern that was raised during on-field interactions.

Empaneling counsellors to understand these patterns better – particularly to help students with making better career decisions, to enable parents to provide a healthier home environment, and for teachers to help guide students better might be useful.

b) Introduction of Vocational Courses at School level and Teacher trainings to take vocational courses, as well as training for special education teachers

It is pertinent to train teachers adequately in order to deliver vocational courses successfully to students. Moreover, teacher trainings particularly focusing on the needs of special students will also help make education equitable, accessible, and inclusive. Possible convergence with state government schemes can be considered for effective reach.

c) Strengthening of digital infrastructure

In Karnataka, a possible association with the “Subject Teacher Forum” and the Technology-Assisted Learning Programme (TALP) can be tapped into to ensure that teachers are equipped and comfortable with digital tools to ensure smooth dissemination. In Goa, the Computer Aided Learning (CAL) programme under the Goa Sarva Shiksha Abhiyan (GSSA) is an innovation fund to maximize coverage in upper primary schools with special emphasis on Science and Mathematics. Hardware and software training is also provided in addition to maintenance and resource support.

Impact Assessment of Project Vedanta Utkarsh


Relevance of Intervention

Launched in the year 2018, the Project SESA Utkarsh Scholarship aims to touch the lives of underprivileged, yet meritorious students by giving them an opportunity to pursue higher education. The primary objective of this project is to identify deserving students and help them overcome financial hurdles towards accessing and designing for themselves a better life-trajectory across the states of Goa and Karnataka.

Meritorious students scoring above 80-85% are selected, irrespective of the schools they go to (government or private) and are given scholarship of Rs. 10,000 for a period of one year. Preference is usually given to students who come from lower socio-economic backgrounds.

Coherence of Intervention

By providing scholarships to underprivileged students, the BU has been ensuring that students have access to 'Quality Education' thereby aligning with SDG 4.

SDG	SDGs target	How is it aligned?
	Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes	The project aims to make education accessible by removing financial barriers and to ensure access to quality infrastructure

Effectiveness of Intervention

With its aim to provide assistance in terms of infrastructural development of educational institutions, encouraging knowledge enhancement through guidance and awareness

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sessions, and providing financial aid to meritorious, yet needy students from the local communities the intervention has impacted nearly 167 students between 2016 and 2019. It has also supported six female students pursuing engineering degrees.

The interventions have therefore been instrumental in making education more accessible and ultimately contributing to the holistic development of the community.

Efficiency of Intervention

The allocated budget for the Project Vedanta Utkarsh Scholarship was Rs. 16.5 lakhs of which 80% was utilized.

Impact of Intervention

In the previous baseline study it was found that there was a:

- Lack of transport facilities in schools
- Lack of spoken English courses in educational institutes in villages
- Lack of clean drinking water
- Lack of digital board and computers and other modern facilities in schools
- Lack of computer trainings and other vocational courses

In the present study it was seen that prior to the intervention, majority (50%) of the respondents in North Goa reported spending between Rs. 1,000 to Rs. 2,000, while 30% of the respondents reported spending below Rs. 1,000, while a relatively smaller percentage of respondents reported spending up to Rs. 3,000 on their child's education expenditure.

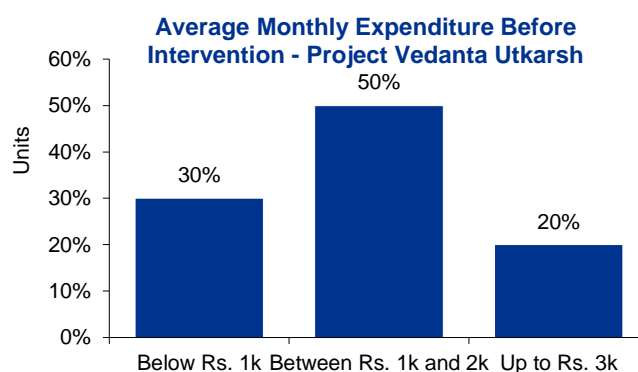


Figure 45 Average Monthly Expenditure Before Intervention - Project Vedanta Utkarsh

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

However, after the project interventions, 60% of the respondents reported that they spend up to Rs. 1,000, while 25% reported spending only up to Rs. 500. 15% reported spending up to Rs. 2,000 on their child’s education-related expenses.

Improved Access to Digital Education - Project Vedanta Utkarsh

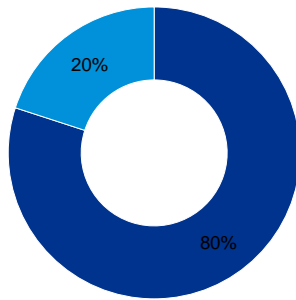


Figure 46 Improved Access to Digital Education - Project Vedanta Utkarsh

to access digital education and improve digital literacy through exposure to computers, smartphones, basic typing, use of Microsoft office tools etc. Due to the financial support provided as part of the scholarship, households can use the earlier earmarked financial resources towards fees and books for providing children with other educational resources such as sources of digital education.

Some of the on-field anecdotal findings suggested that the BU had also helped set-up science lab facilities and computer labs at a few secondary schools in Navelim and other villages. Apart from this, several seminars and workshops were organized by the BU from time to time which has been perceived to be useful by community members. In Karnataka, the BU has specifically supported with respect to providing projectors and screen distribution to schools to improve the digital learning infrastructure.

Average Monthly Expenditure After Intervention - Project Vedanta Utkarsh

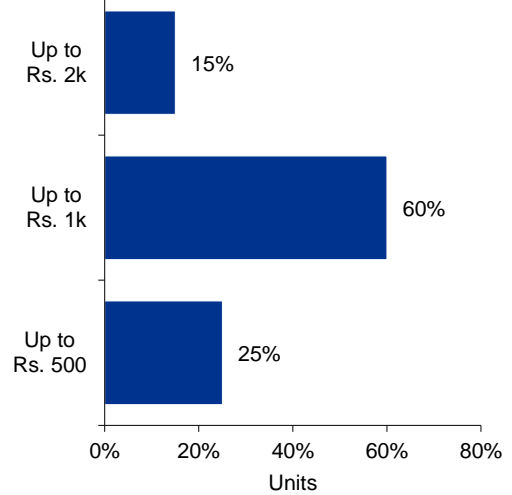


Figure 47 Average Monthly Expenditure After Intervention - Project Vedanta Utkarsh

Nearly one-fourth of the beneficiaries (20%) said that the project interventions have helped improve their child’s ability

to access digital education and improve digital literacy through exposure to computers, smartphones, basic typing, use of Microsoft

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18% of the stakeholders in North Goa expressed that mobile/tablets for online studies could be provided. Overall, in both the districts there is high ownership of mobile devices to access online education as evident through asset ownership mapping. Students in Chitradurga seem to be using multiple devices to access digital education due in part to the Free Laptop Scheme by the state government of Karnataka and the BU's initiatives such as projector and screen distribution to schools to improve digital learning infrastructure.

One of the stakeholders also mentioned that a science lab that was set-up in Amona by the BU requires refurbishing. Few beneficiaries of the Vedanta Utkarsh Scholarship also mentioned that the duration of scholarship could be extended to 3-5 years instead of one year. It must be noted, however, that Goa's per capita income is the highest in the country at Rs. 4,55,654 and performs consistently high on literacy levels, as well as in terms of educational facilities available. Whereas, for a large state like Karnataka the per capita income is only nearly half of that of Goa's – Rs. 2,36,451⁴⁵. Chitradurga particularly tends to fall among the ten poorest districts in the state. Considering this fact, the BU may consider converging its efforts with that of the state schemes and policies to upgrade existing educational institutions in both North Goa and Chitradurga, while focusing on giving financial assistance to students in Chitradurga.

Sustainability of Intervention

The primary modes of intervention are through upgradation of infrastructure, providing learning aids, and giving financial assistance to needy students. These activities are carried out by the BU directly i.e. without the involvement of any implementation agency. While the BU's efforts in providing infrastructure and learning aid to schools is commendable, the long-term sustainability of financial assistance to students is questionable. The BU could instead focus its attention and resources on providing infrastructural and digital learning support to schools.

⁴⁵ Karnataka Economic Survey 2021-22

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Strengths:

The Utkarsha Scholarship project has been successful at garnering trust and appreciation for its efforts in easing financial burdens for underprivileged yet meritorious students in the project intervention geography. Further, the financial resources the household saves from the same can be seen to be used on other educational resources as such digital learning tools.

Areas of Improvement

1) Increasing Scholarship Amount and Duration:

As suggested by on-field observations and beneficiaries, the scholarship amount is felt to be less and that the duration of the scholarship could be extended for at least 3-5 years.

2) Improving digital infrastructure support at schools:

Support can be given in terms of upgradation of current digital infrastructure in schools.

Way Forward

1) Continuing infrastructural support:

More than financial assistance, infrastructural support in the form of digital upgradation or other facilities provision can go a long way.

2) Introduction of Vocational Courses at School-level:

While it is commendable that the BU has taken initiatives to provide financial assistance, infrastructural support on its own accord while also on the request of school committees, introduction of vocational courses at the school level may be helpful in giving more exposure to students.

3) Counselling services:

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Professional counselling sessions on possible career or even educational trajectories for students, parents, as well as teachers may help create a healthy environment for students to thrive in – both at home and at schools.

Business Drivers

Despite robust policies and schemes in place, India's education system still appears to grapple with persistent concerns relating to quality of education, lack of learning, quality trainers, teacher and student retention, and irrelevant curriculum structures⁴⁶. Considering that India has one of the largest population of young people, it becomes all the more pertinent to focus on bettering accessibility to quality education for children in the country.

Some of the challenges pertaining to educational CSR initiatives in India have been identified to be the hard to commercialize nature of education – since the question is more on the lines of justice and accessibility to all sections of society, charging exorbitant sums of fees from students or their parents is a violation of Right to Education. The shrinking role of government has led to private entities filling-in on various types of service provision and initiatives in education.

Much of the CSR initiatives on education focus on infrastructural improvement, donation of learning materials, early childhood education, in-cash assistance/kind for students etc.

Nearly 58% of the management stakeholders in the present study felt that renovation and construction of educational and health infrastructure in the community can add to the BU's social license to operate. However, only 14% of the respondents felt that both introduction of scholarships for students and introducing digital infrastructure for education can add to IOB's social license to operate.

⁴⁶ CSR Initiatives in Education in India: A Critical Review of Initiatives, Issues, and Challenges



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Business Case for Project Vedanta Utkarsh

IOB's initiative – Project Vedanta Utkarsh was also conceived to support higher education for the students belonging to financially weaker sections of society. The BU has been consistently pushing for quality education through provision of infrastructure development support at educational institutions, creating awareness and providing guidance to students, in addition to giving financial assistance to underprivileged students from local vicinities. The BU's efforts towards infrastructure development of schools in North Goa and Chitradurga in the form of lab set-up and distribution of projectors and screens for digital education has been recognized and lauded. It is pertinent that the BU continues its efforts towards infrastructure development of the educational institutions while providing consistent career and personality development guidance to students to ensure that learning objectives are met and students are trained for their respective career trajectories.



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B. Skilling

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Skilling

Executive Summary

Key Highlights of the Baseline Assessment:

- High number of respondents (33%) from North Goa showed a preference for learning on-farm skills.
- In South Goa 23% said they were interested in finance management training.
- In Chitradurga, 32% expressed an interest in learning financial management followed by IT skills (31%).
- A general inclination towards financial management and IT skills was seen across all districts.
- As found in the previous baseline, there still appears to be a lack of knowledge around employment opportunities that can be explored.
- On-field interactions also suggest that there is a need to improve youth skills training in Goa.

Key Highlights of the Impact Assessment:

The SESA Technical School has been running in Sanquelim and Sirsaim for more than two decades now and has gained considerable trust-base in North Goa. Quality training at affordable cost is a major strength of the project.

Key Recommendations:

- 1) **Convergence with Skill Training Institutes in Chitradurga:**

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There are about 19 skill training institutes in the Chitradurga district with industries and trades ranging from tailoring, sewing, data operator, solar panel installation, to consignment booking assistance trainings available⁴⁷, identified by the CMKKY scheme.

- The BU may consider undertaking a comprehensive mapping of youth aspirations and suitably guide them towards relevant skilling centers/courses.
- New vocational courses can also be introduced after a comprehensive mapping of skills required by the youth and adults – particularly on-farm skills, digital literacy skills, and financial management skills.
- The existing skilling centers can be equipped with required materials to provide these trainings.
- Training of trainers may also be undertaken to be able to further train community members.

2) Convergence with state schemes in Goa:

Considering the expressed interest from North Goa in learning on-farm skills, a block-level training can be started for youth and adults alike to get more farming-centric skills – particularly digital literacy and financial management.

Baseline Findings

North Goa

As per the Ministry of Skill Development & Entrepreneurship 2021-22, the incremental human resource requirement is 2.27 lakhs⁴⁸. Unemployment rate in Goa is significantly higher at 25.8% as compared to the national average of 12.9%. Unemployment rates are particularly high (27.3%) for rural male youths in the age range of 15-29 years as against 17.5% for their urban counterparts⁴⁹. The IOB CSR team indicates that there is also the Honda government ITI and Bicholim ITI in the area.

⁴⁷ Karnataka Skill Development Corporation (KSDC) website - Training Center Details under CMKKY

⁴⁸ Ministry of Skill Development & Entrepreneurship Annual Report 2021-22

⁴⁹ Periodic Labour Force Survey July 2020 to June 2021

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Of the 569 students enrolled during 2015-16 at PMKVY training centers, only 284 were certified while only 213 went on to get placed. Under Short-term training (STT) component, of the 2,139 students enrolled in the state, only 75 students went on to get placed as of 2021. Only two Pradhan Mantri Kaushal Kendras (PMKK) have been allocated in the two districts of Goa, out of which only one has been established.

As far as beneficiary baseline findings are concerned, 13% of the respondents said that there is a lack of relevant opportunities in their area while 11% said that there is a lack of training in skills which generate sustainable income. 6% of the respondents said that there is a lack of training for skills that they are interested in. When asked about the skills that they would prefer to learn, majority of the respondents expressed an interest in wanting to learn on-farm skills (31%) followed by IT skills (22%). About 19% also reported wanting to improve their communication skills and learning financial management (17%). The trend of responses suggests a high preference for farm-based livelihoods in addition to expressing a desire to upgrade one's skills to be more digitally and financially equipped in the future.

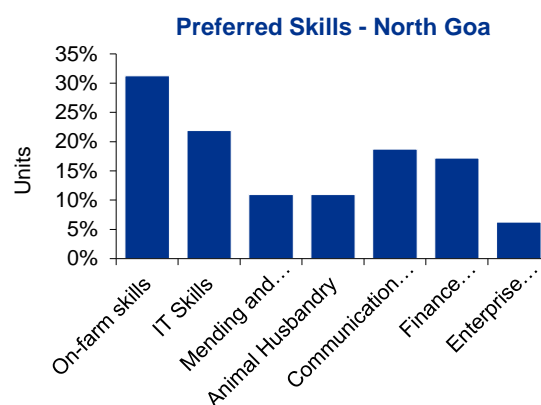


Figure 48 Preferred Skills - North Goa

South Goa

Nearly 23% of the respondents expressed an interest in learning financial management skills, followed by IT skills (20%). The trend of preferences depicts an overwhelming tendency among respondents – not just in South Goa, but as previously noticed in the recorded responses from North Goa, as well, that there is a gradual

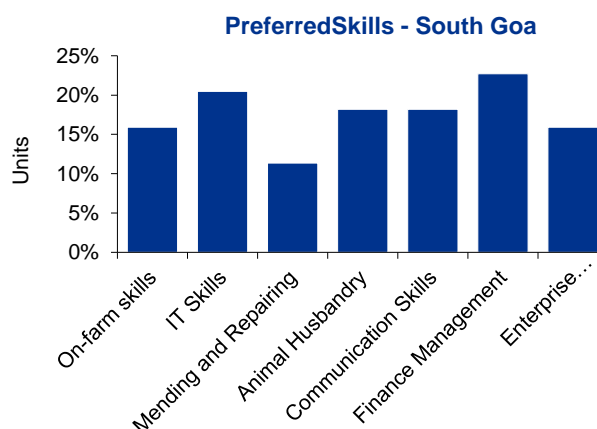


Figure 49 Preferred Skills - South Goa

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

need or perhaps a push, felt to equip oneself with the right skills (such as knowing one's finances and managing it, besides a preference for moving to digitization).

Chitradurga

The incremental human resource requirement in the state of Karnataka is 84.77% between 2013-22. Of the 17,011 students enrolled, only 1,244 went on to get placed as of 2021. Of the 36 PMKKs allocated to various districts in Karnataka, 35 PMKKs have been established.

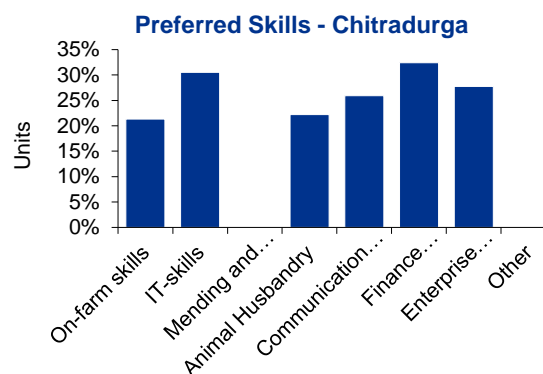


Figure 50 Preferred Skills - Chitradurga

About 20% of the total sample suggested that there are not enough/relevant trainings available for skills of interest, while another 19% reported a lack of opportunities as a pertinent driver towards unemployment.

Nearly 21% said that they would be interested in receiving trainings on developing on-farm skills, whereas another 22% said they would like to develop their skills in animal husbandry. The maximum preference (33%) was clocked for learning financial management, followed by IT skills (31%). The third-highest preference was given for enterprise development trainings – 27%. The findings suggest that there is an inclination and openness among respondents towards equipping/upgrading themselves with the most relevant skills to survive in the fast-changing landscape, which is also increasingly digital.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Analysis & Way Forward

Skilling

Major Findings:

- High number of respondents (33%) from North Goa showed a preference for learning on-farm skills.
- In South Goa 23% said they were interested in finance management training.
- In Chitradurga, 32% expressed an interest in learning financial management followed by IT skills (31%).
- A general inclination towards financial management and IT skills was seen across all districts.

Major Challenges:

- As found in the previous baseline, there still appears to be a lack of knowledge around employment opportunities that can be explored.
- On-field interactions also suggest that there is a need to improve youth skills training in Goa.

Possible Solutions:

- Involving the youth in on-farm and basic agri-tech could be helpful to improve both on-farm skills while also contributing to better agricultural practices.
- A comprehensive mapping of youth aspirations can be undertaken to understand the kind of trades/industries/sectors the youth are interested in and provide specialized trainings.

Way Forward

1) Convergence with Skill Training Institutes in Chitradurga:

The Chief Minister's Kaushalya Karnataka Yojane (CMKKY) is a flagship scheme for short term vocational skilling to enable employment, self-employment, and entrepreneurship amongst the youth in Karnataka. Youth within the age-group of 18-35 can undertake a 3,000+ courses spanning across 35 sectors ranging from apparel, automotive, BFSI, IT&ITeS, healthcare, electronics, agriculture, retail and tourism, among others.

There are about 19 skill training institutes in the Chitradurga district with industries and trades ranging from tailoring, sewing, data operator, solar panel installation, to consignment booking assistance trainings available⁵⁰, identified by the CMKKY scheme.

- The BU may consider undertaking a comprehensive mapping of youth aspirations and suitably guide them towards relevant skilling centers/courses.
- New vocational courses can also be introduced after a comprehensive mapping of skills required by the youth and adults – particularly on-farm skills, digital literacy skills, and financial management skills.
- The existing skilling centers can be equipped with required materials to provide these trainings.
- Training of trainers may also be undertaken to be able to further train community members.

2) Convergence with state schemes in Goa:

The Swayampurna Goa scheme is aimed at building self-reliance of the state. An important aspect of this is the identification of skills of unemployed youth and matching them with the relevant industry. The ITI in Bicholim offers courses in Computer Operations and Programming, Electrician, Fitter, draughtsman (civil), stenography mechanic diesel trades.

⁵⁰ Karnataka Skill Development Corporation (KSDC) website - Training Center Details under CMKKY



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Considering the expressed interest from North Goa in learning on-farm skills, a block-level training can be started for youth and adults alike to get more farming-centric skills – particularly digital literacy and financial management.

Impact Assessment of Project SESA Technical School

Relevance of Intervention

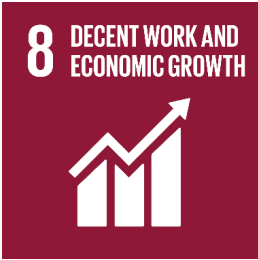

Housed under IOB's SESA Community Development Foundation, the first SESA Technical School was established in the year 1994 on a reclaimed mine site with the sole aim of equipping the local youth with technical knowledge and skills and to increase their employability in the longer run.

Coherence of Intervention

The Sanquelim branch of STS is affiliated to the National Council of Vocational Training in New Delhi and comes under the direct ambit of the Directorate General of Employment & Training (DGET), Government of India – Ministry of Labour in New Delhi.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

SDG	SDGs target	How is it aligned?
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	By equipping young adults with relevant skill sets for the industry demands, the project aims to increase workforce participation and increasing job retention.
 <p>4 QUALITY EDUCATION</p>	Target 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	The STS provides this by providing quality education at an affordable fee structure and providing expert teaching to the enrolled students

The STS project also aligns with SDG 8 for ‘Decent Work and Economic Growth’ besides SDG 4 meant to impart ‘Quality Education’.

Effectiveness of Intervention

A total of 1,600+ students are said to have successfully completed their trainings from the SESA Technical School since its inception in 1994. Every year, STS takes in a batch of 150 students – including a fresh batch of 75 from all over Goa for a course of 2 years. In FY 2021-22, nearly 130 students are believed to have been successfully placed in various trades. The STS has been instrumental in bridging the skills gap and turning the youth into equipped employees/entrepreneurs for various industries.

Efficiency of Intervention

The overall expenditure on the Sesa Technical School project for FY 22 is 1.10Cr and for FY23 the estimated budget allocation is 2.82Cr. The allocated budget is reported to have been utilized at 100% for the financial year 2020-21 for a duration of 48 months.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

The project is being implemented through the SESA Community Development Foundation in North Goa.

Impact of Intervention

In the previous baseline, it was seen that nearly 41.8% were aware of skill center promoted by the BU - SESA Technical School. At least 60.94% were aware of the SESA technical school during the current survey as they ranked project among the top 3. A professor from the SESA Technical Institute in Amona village mentioned that trainees who complete their trainings at the institute successfully see an average increase of Rs. 12,000 in their income. The most preferred trade at the STS is the Electrician trade. The professor also mentioned that 180 students were given placement opportunities, besides nearly 40 students who are reported to have either started their own businesses or are self-employed after completing the training. Roughly, 120 graduated students are said to have successfully retained their jobs for six months or more. The institute is said to have partnered with approximately 15 organizations for placement organizations/employers. The most successful courses for students has been pursuing the electrician trade at the SESA Technical Institute. So far, about 10 guest lectures/exposure visits are said to have been conducted for students.

The stakeholder mentioned that the primary reason why students drop-out of their employment arrangements is due to getting better opportunities elsewhere, relocation requirements, or other personal reasons.

On-field observations suggest that SESA Technical School has very good facility for the youth of the area. The placements were also found to be decent, particularly for the electric trade. The courses offered are accessible due to reasonable and affordable fees structure. The courses are being run by qualified and experienced trainers, thereby providing quality facilities at an affordable cost.

Sustainability of the Intervention

With its long-standing presence in Goa – the SESA Technical School has become a well-recognized institute for skills training in the state. By bridging the skills gap, the

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

intervention is giving an opportunity for the youth to pave a career for themselves and contribute to the local and national economy through their improved skillsets. More recently, the STS has also established a computer training center to provide basic and advanced digital literacy trainings to the students. Though the BU's commitment to staying updated and providing upskilling opportunities for its students is laudable, diversifying its course offerings further could be helpful to stay relevant in the longer run.

Strength

The project has been running in Sanquelim for more than two decades now and has gained considerable trust-base in North Goa. Quality training at affordable cost is a major strength of the project.

Areas of Improvement

- 1) Students suggested that placement opportunities could be improved. STS could increase its tie up with varied organizations and possibly into new domains, as well.
- 2) Transportation facilities seem to be underdeveloped as the Technical School is relatively far off and public transport is not available till the school vicinity.

Way Forward

- 1) Inclusion of new vocational courses after understanding the requirements of the youth.
- 2) In the longer run- a mapping of aspirations can be done to see the youth's, as well as that of unemployed adults' to bring in short-term vocational courses that align with their aspirations.

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Business Drivers

India is the world's fastest growing economy at 7.7% as of 2019-20⁵¹. India's labour market is characterized by a large supply of young population. However, a significant proportion of this section of population is oftentimes under-skilled to join the workforce⁵². The Industrial Revolution 4.0 is set to change the demand for skills. A higher technological and machine integration is expected to take over – which the authors of the research article believe is a new challenge to tackle. The Skill India mission is aimed at achieving two particular goals – i) identifying employer demand for skilled workforce and ii) prepare the workforce for a decent livelihood. CSR initiatives play a crucial role in bridging this gap and enabling the youth to equip themselves for relevant industries.

Business Case for SESA Technical School

The SESA Technical School is an Industrial Training Institute that was established as part of IOB's 'post-mine closure plans' in Sanquelim. The primary aim of the project is to enable the local youth with relevant skillsets in order for them to join the workforce successfully or start their own self-employment journey. A major concern raised by stakeholders in North Goa was the requirement of skills training for unemployed youth. Drop-out rates, although among the lowest in the country, are still high at secondary education level as compared to primary and middle schools. SESA Technical School's facilities, quality of trainers, and affordability have garnered much appreciation in the district – with transportation being the only hindrance.

⁵¹ World Bank Report 2019-20

⁵² Skilling Indian Youth for Industry 4.0 - [17924-Article Text-25383-1-10-20200112.pdf](#)

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Baseline cum Needs Assessment, Impact Assessment and Perception Study



C. Sustainable Livelihoods

Sustainable Livelihoods

Executive Summary

Key Highlights of the Baseline Assessment:

- Paddy a staple crop in Goa with more than 80% involved in paddy cultivation alone, while nearly 20% practice triple cropping pattern.
- Arecanut (43%), maize and bajra (31%), paddy (24%), and dalcous beans (1%) major crops in Chitradurga. While these are crops reported by respondents, the BU's CSR team indicates that Arecanut, maize, bajra, and dalcous beans are major crops in Chitradurga.
- Majority of the respondents (42%) in Chitradurga said that they receive support in the form of provision of seeds for farming.
- Only 20% of the respondents in Chitradurga said that they have access to fodder seeds as part of livestock services in their area while the rest 80% reported no such livestock services that are accessible to them.

Key Highlights of the Impact Assessment:

Gram Nirman

- The project aligns itself to two particular schemes – Swayampurna Goa, Directorate of Agriculture, Directorate of Animal Husbandry and Veterinary Services, and ICAR and focuses on rejuvenating fallow lands to make them productive.
- Only 15.62% of the respondents said that their incomes have improved after the intervention. About 28% of the beneficiaries also reported that their overall input costs have reduced.
- There is a need to increase or better highlight improvement in agricultural productivity, support availability of labour and irrigation facilities through mechanization or other innovations, and rigorously report community consultations carried out by the BU.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Since agricultural productivity is generally low in the North and South Goa, specialized trainings and knowledge material to improve and work with agriculturally less productive lands could be helpful.

b) Intensification of awareness around schemes and programmes

Particularly central and state schemes on micro-irrigation may be helpful for round-the-year cropping, since sowing is done only during the monsoon season.

c) Awareness towards millet cultivation⁵³

Efforts can be made to mobilize interested farmers towards millet cultivation. Millets have numerous health and nutritional benefits which can be promoted as a substitute to achieve food security in the region. Millets are also less input-intensive and may be apt for an irrigation-scarce area such as North Goa⁵⁴

d) Training on Market linkages and Certifications

As observed in the previous baseline study, high-value crops have been grown in the past in the region. This shows good potential to develop horticultural capacity in the area. Efforts can also be made to strengthen FPOs and help them apply for organic certifications etc. to make their produce more viable for sale in the market.

Alternative Livelihood Opportunities Project

a) Cluster-level agri-input units:

Setting up village-level/cluster level agri-input units can be helpful to promote sustainability and reduced costs further considering that Chitradurga in among the poorest districts in Karnataka. Increasing cost-effectiveness would be pertinent in this regard.

b) Market linkage support

⁵³ [ICARGOA](#)

⁵⁴ [Farming of nutritious millets gets Goa boost | Goa News - Times of India \(indiatimes.com\)](#)

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Strengthening of FPOs presence and providing training with certification support would be helpful, considering that sustainable agriculture is a major component of the intervention. Organic certification will further help with giving farmers the credibility they need to sell their produce.

Baseline Findings

Tourism followed by mining are two of the economical backbones for the state of Goa. Agriculture, animal husbandry, and fishery activities contribute a much lesser share to the state's overall GDP. The total share of agriculture (including both North and South Goa) is only a meagre 3.74% to the state's economy. Of the nearly 5,77,248 total workers in the state of Goa, only 5% are employed as cultivators while only nearly 4% work as agricultural labourers⁵⁵. Some of the primary challenges for the agricultural sector in the state are the general low productivity of the crops being grown, unavailability of quality seeds, high costs of labour and often unavailability of labour, and underdeveloped potential of dairy farming. The Swayampurna Goa Scheme is one such initiative to promote the development of agriculture and other allied sectors in the state of Goa.

In the previous baseline study it was reported that banana (14%), cashew (16%) and coconut (25%), and paddy (3%) are the most common agricultural produce in the state of Goa. According to the Statistical Handbook of Goa 2018-19, cashew has the highest percentage share in terms of total cropped area at 37.65% followed by nearly 24% of total cropped area under rice cultivation (during both Kharif and Rabi seasons). 17.6% of the total cropped area is also under coconut cultivation in the state.

Goa

North Goa

Income and Occupations

The monthly incomes of the first respondents from North Goa is capped at Rs 30,000 – the maximum reported earnings from their respective occupations. The per capita

⁵⁵ Statistical Handbook of Goa 2018-19

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income of Goa is reportedly Rs 4,91,351 (i.e., approximately, Rs. 41,000/month) – which is supposedly the highest in the country according to the Economic Survey of Goa for FY 2021-22.⁵⁶

Nearly 33% of the respondents reported earning anywhere between Rs. 10,000 to Rs. 15,000, while the second-highest percentage (27%) of responses pointed to an income range below Rs. 5,000, followed by 22% of respondents who reported earning between Rs. 20,000 to Rs. 30,000. A mere 3% said that they earn between Rs. 5,000 to Rs. 10,000 while the question was not applicable to the rest 16% who were either unemployed or were either studying.

Table 6 Monthly Income Distribution and occupations

Monthly Income Distribution	% share	Occupations
< Rs. 5,000	27%	Daily wage work, farming, unskilled wage labour
Rs. 5,000 - Rs. 10,000	3%	Daily wage work
Rs. 10,000 - Rs. 15,000	33%	Skilled wage work, farming, animal husbandry, business, daily wage work
Rs. 20,000 - Rs. 30,000	22%	Salaried government employees, business, skilled wage work, farming
NA	16%	School-going, unemployed

About 27% of the respondents are reported to be occupied as daily wage labourers – most of the respondents who identified themselves to be occupied as such reported earning less than Rs. 5,000 barring a miniscule number of respondents whose incomes ranged between Rs. 5,000 to Rs. 10,000 or even Rs. 10,000 to Rs. 15,000. Incidentally, a few of these are also people who have migrated from elsewhere.

⁵⁶ Economic Survey of Goa FY 2021-22

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Nearly 13% of the respondents reported practicing farming on their own lands and majorly earned between Rs. 10,000 to Rs. 15,000 except for a few respondents who reported earnings below Rs. 5,000. Only one respondent said that they earned between Rs. 20,000 to Rs. 30,000.

Another 13% of respondents said that they are salaried employees in the government and reported earnings between Rs. 20,000 to Rs. 30,000. 13% of the respondents are reported to be employed as skilled wage workers with monthly earnings ranging between Rs. 10,000 to Rs. 15,000. Only two respondents who identified themselves as skilled wage workers said that they earned between Rs. 20,000 to Rs. 30,000 per month.

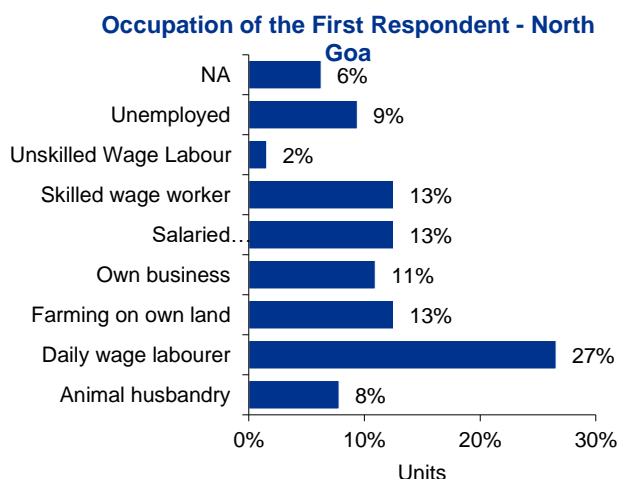


Figure 51 Occupation of First Respondent - North Goa

Roughly 11% of the respondents from North Goa reported running their own businesses and largely reported a monthly salary within the ranges of Rs. 10,000 to Rs. 15,000 and Rs. 20,000 to Rs. 30,000. A lesser number of respondents – 8% reported practicing animal husbandry as an occupation with reported earnings between Rs. 10,000 to Rs. 15,000 per month. Only 2% said that they were employed as unskilled labourers, with an earning below Rs. 5,000. The rest 15% of the respondents were either not employed at the time of the baseline survey or the question was not applicable to them.

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Size of Landholding

More than 85% of the respondents either have less than 1 ha or between 1 to 2 ha of landholdings, followed by 8% who own between 2-4 ha of land. Only 3% of the respondents reported owning more than 5 ha of land, while for another 3% the question was not applicable. Also, the miniscule percentage of tractor-owners (5%)

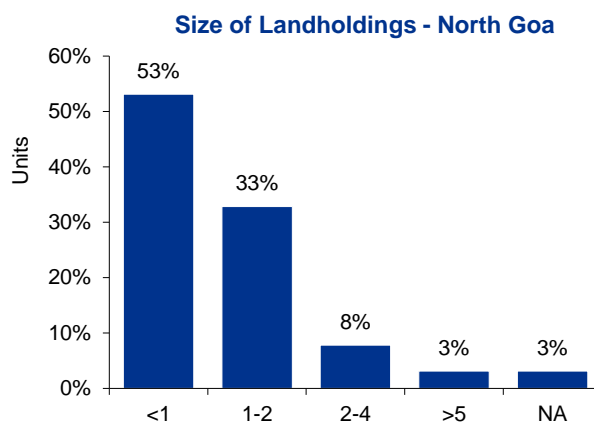


Figure 52 Size of Landholdings - North Goa

as seen in the asset-ownership data seems to indicate that agriculture, even if practiced, is perhaps only being done for meeting household needs and not taken up at a larger commercial level.

Cropping Pattern and Type of Crops Grown:

In the present study, it was observed that 86% of the respondents grow paddy as a single crop, while 14% grow paddy along with chavli, and chilli in a triple cropping pattern. A comparison with the previous baseline findings suggests that paddy is a staple crop being grown in the district. On-field interactions indicate that farming may not be a primary occupation for most of the respondents, but it is mostly practiced more in the form of subsistence. It was also seen that only one crop is preferred to be grown at given point of time due to agriculture not being the main occupation in the district. Field interactions also suggest that subsistence farming is more prominent in the district. Moreover, most people now only have half of their lands left (due to having given their lands for the BU plant) for agricultural purposes near riverbanks.

As seen from the previous baseline study, the district appears to hold potential for growing high value crops such as cashew and banana etc. 59% of the operational landholding in the district of North Goa is below 0.5 ha – validating the fact that smallholder farming and farming for subsistence is more prominent in the region.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Agricultural Assistance and Average Amount Spent on Agriculture Annually: 23% of the respondents in the present study reported having received subsidies on irrigation, while 16% of the respondents reported receiving assistance in terms of both seeds and subsidies on fertilizers, and only 3% reported receiving soil testing support. Respondents had also reported that they had received support in terms of cattle feed through an animal husbandry project.

64% of the respondents reported spending between Rs. 10k to 20k on agriculture annually, while 17% reported spending between Rs. 20k to 30k. Only 2% reported spending between Rs. 40k to 50k.

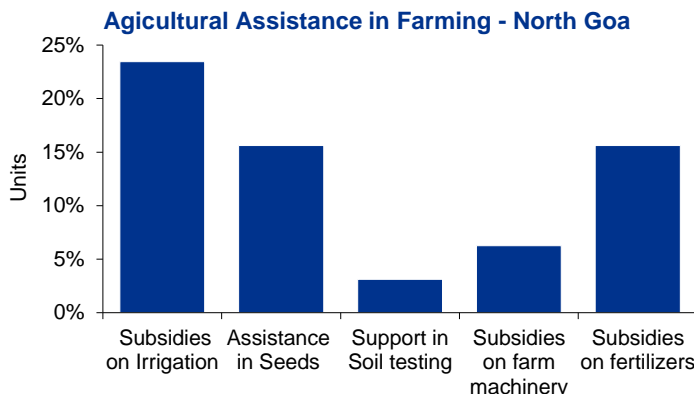


Figure 53 Agricultural Assistance in Farming - North Goa

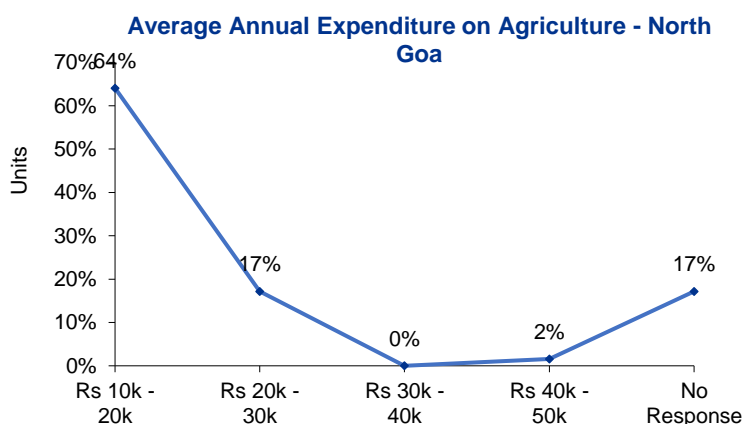


Figure 54 Average Annual Expenditure on Agriculture - North Goa

Mode of Irrigation

Total 2,732 ha of agricultural land is covered under micro-irrigation – out of which 1,386 ha is under drip irrigation and 1,346 ha are under sprinkler irrigation in Goa⁵⁷.

⁵⁷ Agricultural Statistics at a Glance 2021

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In the present study, 14% of the respondents reported using surface irrigation, while 11% responded as using flooded irrigation. Relatively fewer respondents reported using drip and sprinkler irrigation methods.

Considering that Goa is a rainfed state, there is a potential to develop rainwater harvesting systems. These structures can help in additional cropping during off-season.

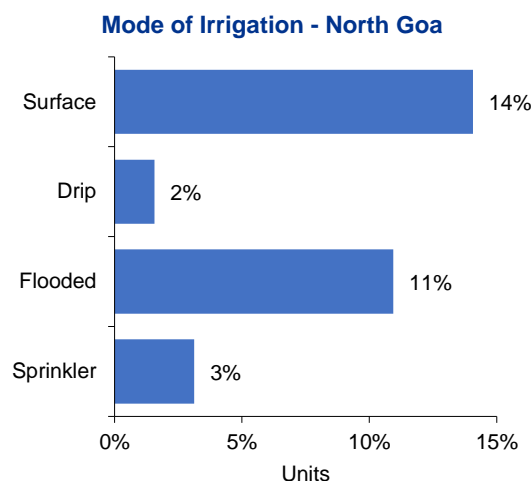


Figure 55 Mode of Irrigation - North Goa

Availability of Livestock Services:

In the previous baseline, across plant areas Buffalo was the preferred species. 53.3% of the respondents reported producing their own fodder, whereas 26.7% of the respondents reported using a combination of producing fodder and externally bought fodder. In the current study, 14% of the respondents reported having received fodder seeds.

Challenges faced in carrying out agricultural activities:

Some of the respondents reported that unavailability of fertilizers and fencing facilities is a problem and that water for irrigation is only available during monsoons. According to the enumerator, the BU has been providing trainings, agricultural inputs, cattle feed and fodder to the communities from time to time to enable them to practice alternative livelihoods. Although, these efforts were said to be appreciated, the agricultural productivity does not seem to have been impacted, as such.

One of the stakeholders – an Assistant Zonal Agricultural Officer opined that the interventions should align better with community needs. Vedanta Team should have a continuous connect with the farming community. Timely execution of interventions becomes an issue due to untimely flow of funds. Vedanta Team should have an annual

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farming plan provided by farmers and there should be convergence with the plans” to better align Vedanta’s efforts in a way that holds relevancy to the farmers. He also pointed out that graphite emission is a concern in the area.

Moreover, considering the fact that agriculture is not a mainstay occupation in Goa but only one of the sources of livelihood among tourism, fisheries, and manufacturing. There is growing evidence towards younger generations inching towards alternative modes of earning income. There is a need to create sustainability in interventions through either institutionalizing forward linkages that branch out into secondary or tertiary sector activities to attract youth towards agriculture and also to ensure agriculture is a financially sustainable business worth pursuing.

South Goa

South Goa’s agricultural inclination is much lesser than North Goa, in general. The district also has comparatively lower ground-water availability – making it not entirely conducive to agricultural productivity. However, the challenges posed by the COVID-19 pandemic forced the Goa government to rethink its dependency and, in its efforts, to intensify self-reliance the state government propagated the need for improvement in crop-productivity. High yielding varieties (HVY), setting-up of mango wadis were a few activities envisioned under the Swayampurna Goa program.

Incomes and Occupations

A majority of the respondents (32%) reported earning between Rs. 20,000 to Rs. 30,000, followed by 25% who reported earning between Rs. 10,000 to Rs. 15,000. Roughly 16% of the respondents said that they earn below Rs. 5,000 while 11% reported to be earning between Rs. 5,000 to Rs. 10,000. The question was not applicable to 16% of the selected sample – all of whom were unemployed at the time of the survey.

Table 7 Income range and occupations

Income Ranges	% share	Occupations
<5000	16%	Daily wage labourer, Farming on own land

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Rs. 5,000 - Rs. 10,000	11%	Daily wage labour
Rs. 10,000 - Rs. 15,000	25%	Animal husbandry, Skilled wage worker, Own business
Rs. 20,000 - Rs. 30,000	32%	Own business, Farming on own land, Skilled wage worker, Salaried Employment in Government
NA	16%	Studying or Unemployed

All respondents except for one were daily wage labourers who reported earning below Rs. 5,000 and between Rs. 5,000 and Rs. 10,000 per month, whereas those who reported earning between Rs. 10,000 and Rs. 15,000 were majorly people practicing animal husbandry barring very few who reported being a skilled wage worker or else owning a business. Those earning between Rs. 20,000 and Rs. 30,000 appeared to hold more variegated positions ranging from owning a business to farming on their own lands, were skilled wage workers or were salaried employees with the government.

Occupation of First Respondent - South Goa

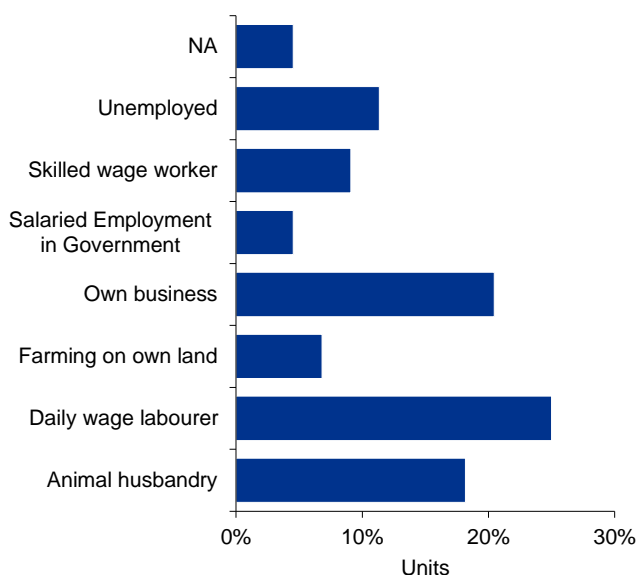


Figure 56 Occupation of the First Respondent - South Goa

Size of Landholding

Majority of the respondents from South Goa reported owning less than 1 ha of land, while 27% reported owning land between 1 – 2 ha. 7% of the respondents reported owning

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

more than 5 ha of land and even smaller percentage of respondents reported owing between 2 – 4 ha.

Cropping Pattern and Type of Crops Grown:

In South Goa, a majority of the operational landholdings (63%) is below 0.5 ha. In the previous baseline, it was observed that

very few HHs were found to be actively engaged in farming. However, 22% grew banana, 41% grew cashew, 66% grew coconut, 3% grew Areca nut and 12% grew paddy.

In the present study, 80% of the respondents reported growing paddy as a single crop, while 20% reported growing paddy, chavli, and chillies in a triple cropping pattern.

Agricultural Assistance Average Amount Spent on Agriculture Annually:

In the current study, it was seen that 59% of the respondents reported receiving subsidies on irrigation, while 48% said that they have received crop insurance support. 39% of the respondents reported receiving seed support, while 7% reported to have received soil testing support. Interestingly, a larger share of respondents reported having availed agricultural assistance in the district than in North Goa.

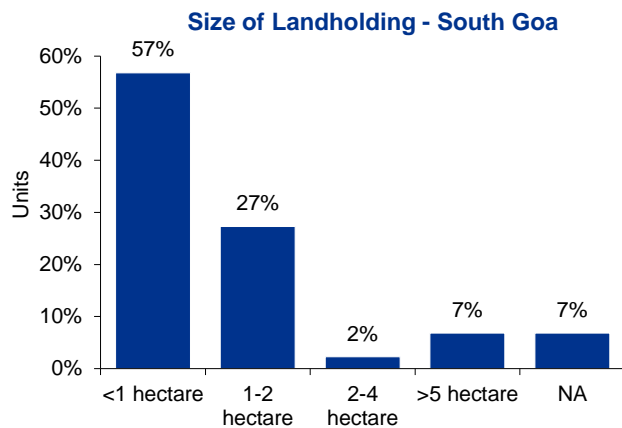


Figure 57 Size of Landholding - South Goa

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

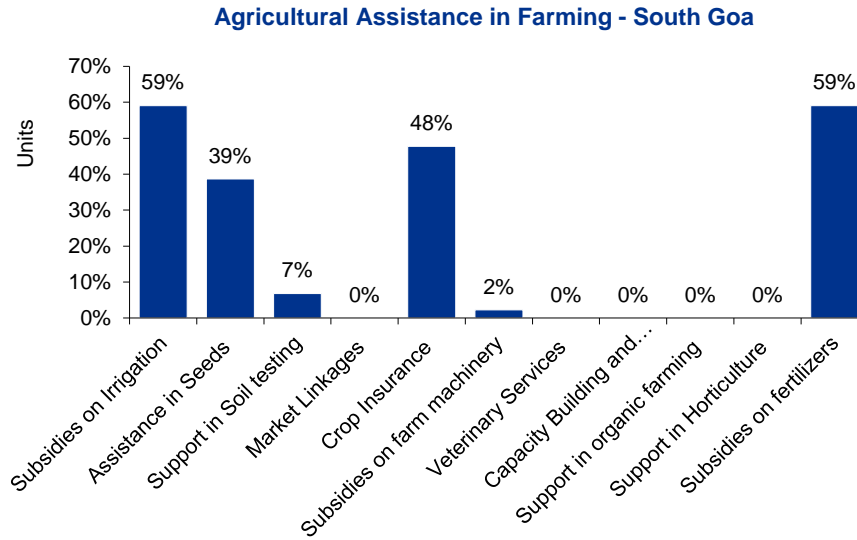


Figure 58 Agricultural Assistance in Farming - South Goa

59% of the respondents reported spending between Rs. 10k to 20k, 9% reported spending between Rs. 20k to 30k, while 5% respondents reported spending between Rs. 30k to 40k, while another 5% reported spending anywhere between Rs. 40k to 50k on agriculture annually.

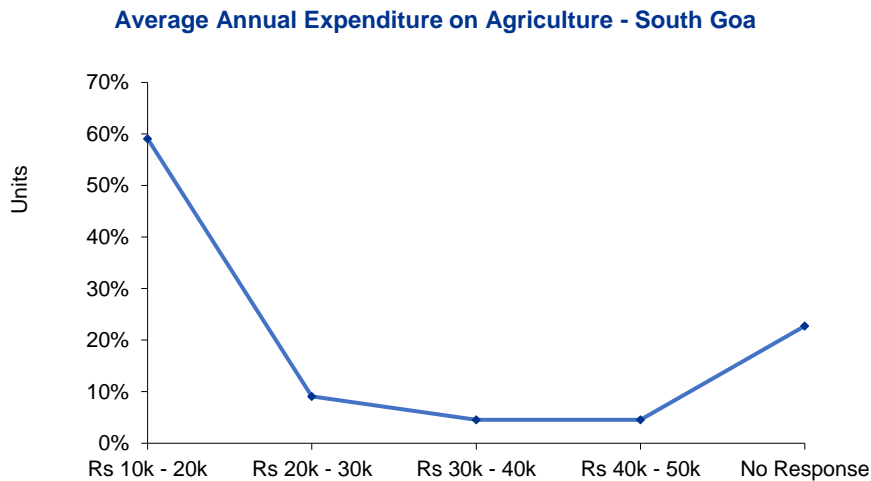


Figure 59 Average Annual Expenditure on Agriculture - South Goa

Only 7% of the respondents reported having access to fodder seeds.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Mode of Irrigation:

52% of the respondents reported using flooded irrigation system while 41% reported using surface irrigation and only 5% reported using sprinkler irrigation for agriculture.

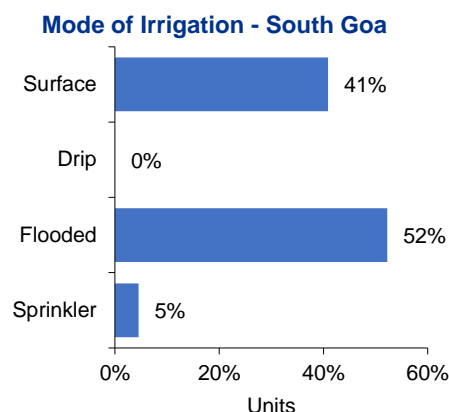


Figure 60 Mode of Irrigation - South Goa

Challenges faced in carrying out agricultural activities:

37.5% said they faced challenges in terms of availability of electricity and agricultural inputs.

25% also said they lacked access to the market, not knowing the correct selling price of the crop, and low yield in general.

Dependency on rainfall for agriculture is high in the state. Apart from this, pollution of soil & water was also a concern raised by the respondents. Farm-fencing was also raised as a concern by a minor share of respondents.

Provision of soil testing kits to farmers, micro-irrigation facilities, and accessibility to agriculture tools and services may be helpful to improve agriculture in the district.

Karnataka

Featuring among the top five states in country – Karnataka has a robust IT services industry and performs exceptionally well in other technology-driven areas. The state is also a major job-producer in the country. The agriculture sector in Karnataka grew by 16.6% CAGR in the last five years and employs the largest share of workforce. The Karnataka government’s consistent support in the form of subsidies and other agricultural assistance ensured that the sector kept growing even during the COVID-19 pandemic. However, the sector lacks structures, investments, and incentives to support the sector in the state⁵⁸.

The GVO percentage share of crops has gone down from 42.9% in 2011-12 to 33.8% in 2018-19. Incidentally, crops also have the lowest CAGR among major sub-sectors of

⁵⁸ Economic Survey of Karnataka 2021-22

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agriculture at 6.3% - indicating changing food consumption habits, as well as, that a larger share of farmer incomes are coming from non-cereal and non-crop sectors.

The per capita income of Chitradurga is Rs. 1,30,573 and features amongst some of the lowest in Karnataka⁵⁹ and features amongst the bottom five districts in terms of HDI values (0.526).

Chitradurga

Incomes and Occupations

The respondents who reported earning less than Rs. 5,000 per month were either engaged in farming or were daily wage labourers or else had their own business. The ones who reported earning between Rs. 5,000 to Rs. 10,000 had the largest share of representation in the selected sample at 38% - with a majority reporting farming to be their main source of income, followed by daily wage workers. Very few reported being salaried employees with the government or being employed as a labourer with the BU.

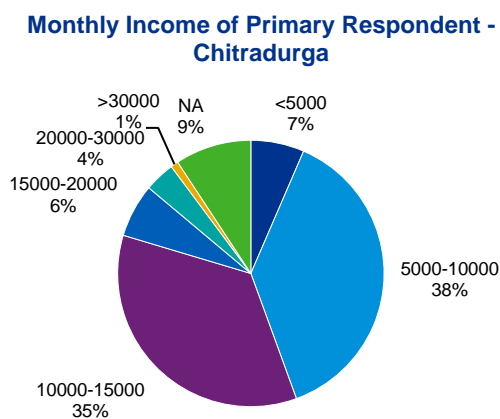


Figure 61 Monthly Income of First Respondent - Chitradurga

For those reporting incomes between Rs. 10,000 and Rs. 15,000 – the main occupation of the first respondent was farming again, followed by daily wage work, salaried employment with government, or owning a business. One of the respondents reported working with Vedanta. The respondents earning between Rs. 15,000 to Rs. 20,000 were fairly miniscule at 6% and also displayed varied sources of income ranging from farming to daily wage work, to being salaried employees either at the government or Vedanta. The percentage share of people earning between Rs. 20,000 to Rs. 30,000 was even

⁵⁹ Economic Survey of Karnataka 2021-22

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lesser (4%) while their sources of income included working at Vedanta (as MHU/vehicle drivers etc.), farming, and salaried employment with the government. 9% of the people for whom the question was not applicable were either retired or unemployed.

Going by the reported occupations, it is evident that farming is major source of income in the district and is widely practiced irrespective of the returns the respondents derive from it, since all income ranges had a significant representation of farming as an occupation – in many cases outnumbering other sources of income. Majority (31%) of HHs have 2-4 ha of landholding while nearly 23% have 1-2 ha of land. 14% have less than 1 ha of landholding, while much lesser percentage of respondents (7%) own more than 5 ha. The question was not applicable to 25% of the sample and these were majorly people whose maximum reported monthly incomes were less Rs. 15,000.

Occupation of First Respondent - Chitradurga

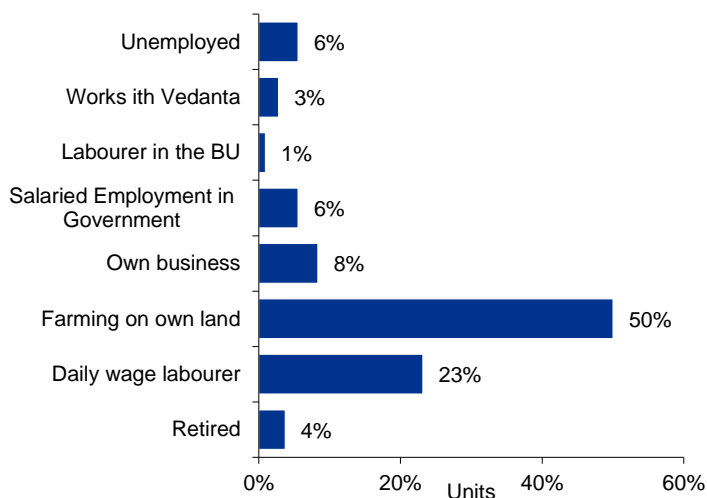


Figure 62 Occupation of First Respondent - Chitradurga

Size of Landholding

It was also seen that a significant percentage of respondents (roughly 31%) reported having at least 2- 4 ha of landholding – indicating an agricultural-inclination in livelihoods.

Size of Landholding - Chitradurga

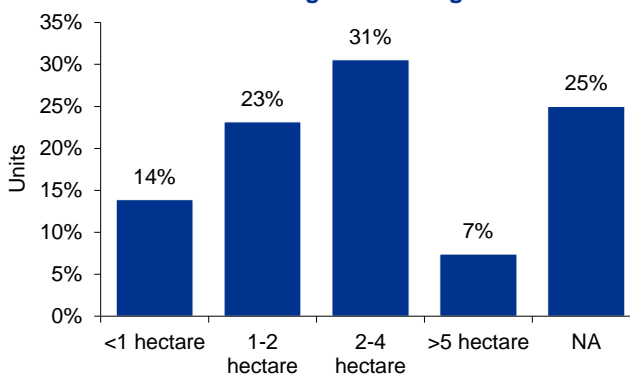


Figure 63 Size of Landholding - Chitradurga

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Cropping Pattern and Type of Crops Grown:

In the previous baseline study, it was found that 95% HHs grew maize in Rabi and Kharif seasons indicating that maize was the staple crop of the households. 8% of the HHs grew chillies in Rabi season and around 13% HHs reported growing chillies in Kharif season

In the current study, 57% of the respondents reported practicing single crop farming, while 18% reported as growing double crops. The most prominent crops grown in the district are arecanut (43%), maize and bajra (31%), paddy (24%), and dalcous beans (1%).

Overall, there is a strong agricultural inclination in the district besides a more commercial nature of farming as against subsistence-based farming in North and South Goa.

Agricultural Assistance and Average Amount Spent on Agriculture Annually:

In the previous baseline, 43.8% households in Karnataka plant area reported that they did not receive any benefit from any scheme or programme. However, in the current study, majority of the respondents (42%) said that they receive support in the form of provision of seeds for farming. The primary aim of this initiative by the state government is to provide farmers with quality seeds on subsidized rates for up to 2 ha per farmer. Nearly 39% of the respondents said that they receive support in terms of push towards growing horticultural crops and as well as in soil-testing. The promotion of horticultural crops is done under the Pradhana Mantri Krishi Sinchayi Yojane (PMKSY) while the soil-testing is done as part of the state's Soil Health Mission wherein Soil Health cards are issued to farmers based on a testing of nutrient levels in their respective farm-lands and to keep a track of soil health⁶⁰. Of the 25% who reported as availing other forms of assistance from the government and Vedanta – few said that they have received in the form of distribution of seeds for setting up kitchen gardens, have received support in setting up vermi-composts, and setting up mango wadis.

⁶⁰ [DEPARTMENT RELATED WEBSITE - Department of Agriculture\(KSDA\) \(karnataka.gov.in\)](http://DEPARTMENT RELATED WEBSITE - Department of Agriculture(KSDA) (karnataka.gov.in))

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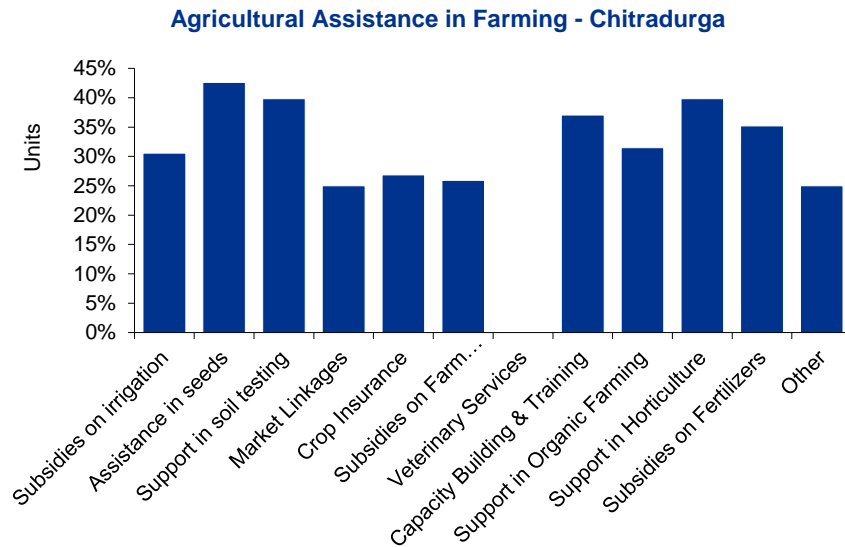


Figure 64 Agricultural Assistance in Farming - Chitradurga

67% of the respondents reported spending anywhere between Rs. 10k to 20k on agriculture, annually, while 8% reported spending between Rs. 30k to 40k.

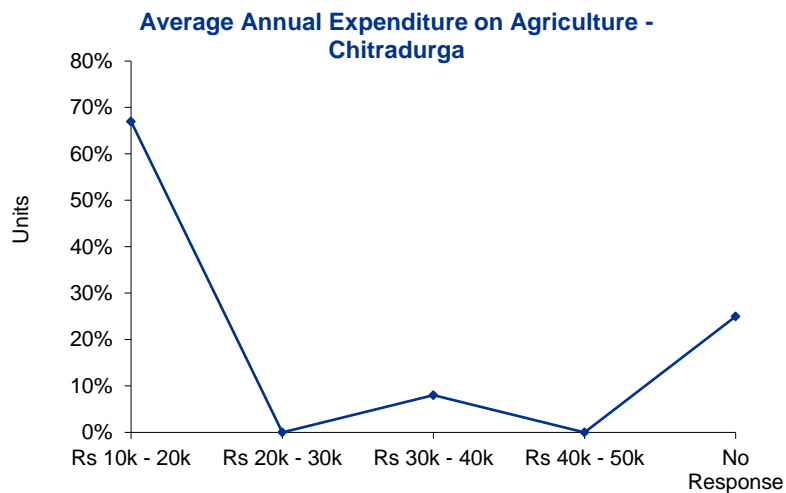


Figure 65 Average Annual Expenditure on Agriculture – Chitradurga

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Mode of Irrigation

At 33%, Karnataka is a top-performer in terms of use of micro-irrigation facilities availed under the PMKSY61. In the present study, roughly 33% of the HHs have reported having access to diesel-powered pumps.

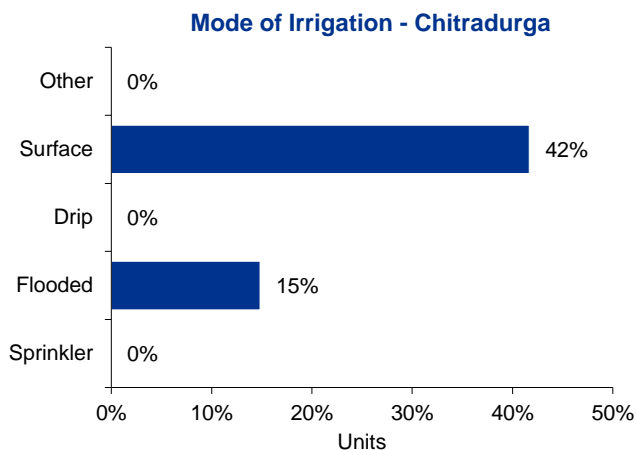


Figure 66 Mode of Irrigation - Chitradurga

The Krishi Bhagya Scheme in Chitradurga has been able to tap into the opportunity of Chitradurga being a rainfed area, thereby, promoting harvesting of surface rainwater in farm ponds and using the same for agricultural purposes⁶². An important element of this scheme has been to distribute diesel pump-sets and sprinkler irrigation sets on subsidy to farmers. Chitradurga is a rainfed district and the ownership of diesel-pumps by a considerable percentage of the respondents could either be attributed to the Krishi Bhagya Scheme or else, initiatives taken by the farmers themselves. Surface irrigation seems to be the most prominent method of irrigation - 42% of the respondents in the district reported using surface irrigation while 15% reported using flooded irrigation for agriculture.

The Karnataka government has been consistently working to improve the irrigation potential in the state. The Karnataka government has increased irrigation potential under major, medium and minor irrigation potential considerably from 38.82 lakh hectares in 2014-15 to 42.01 lakh hectares in 2020-21. Furthermore, the state government is also looking to increase irrigation efficiency while saving water – particularly in drought-prone areas of the state⁶³.

⁶¹ Composite Water Management Index, 2019

⁶² [KKISAN \(karnataka.gov.in\)](http://KKISAN(karnataka.gov.in))

⁶³ Economic Survey of Karnataka 2021-22

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Availability of Livestock Services

Chitradurga is one of 17 districts in Karnataka where, as a part of government efforts, the National Artificial Insemination Programme (NAIP) is being implemented through Karnataka Livestock Development Agency (K LDA).

In the previous baseline, cow was the preferred specific species. 66.2% of the respondents reported producing their own fodder, whereas 26% of the respondents reported buying and producing fodder.

In the current study, only 20% of the respondents said that they have access to fodder seeds as part of livestock services in their area while the rest 80% reported no such livestock services that are accessible to them.

Challenges faced in carrying out agricultural activities

In the previous baseline, lack of water for irrigation (25%), regular electricity (37.5%) and suitable tools (37.5%) and fertilizer (12.5%) were the major problems expressed by farmers

- There was a lack of access to market (25%) & low agricultural yields (25%)
- Lack of training or awareness building activities on livestock management. Regular and periodic camps for providing information on animal husbandry information and services could be organized
- The provision for soil testing and orientation of farmers according to test results were needed in all the surveyed villages

In the current study, the primary challenges faced by farmers pertain to the lack of proper labour and water facilities. Being a drought-prone area and being susceptible to water pollution due to mining activities, it is pertinent to train farmers on drought-resilient strategies and interventions - whether in terms of crops, water management techniques as well as intensification of existing interventions of water filter provision.

Analysis & Way Forward

Sustainable Livelihoods

Major Findings:

- Farming practiced more in the form of subsistence in Goa – South Goa’s agricultural inclination lesser than North Goa
- The BU has been providing trainings, agricultural inputs, cattle feed and fodder to the communities
- Paddy a staple crop in Goa with more than 80% involved in paddy cultivation alone, while nearly 20% practice triple cropping pattern.
- Arecanut (43%), maize and bajra (31%), paddy (24%), and dalcous beans (1%) major crops in Chitradurga
- Majority of the respondents (42%) in Chitradurga said that they receive support in the form of provision of seeds for farming.
- Only 20% of the respondents in Chitradurga said that they have access to fodder seeds as part of livestock services in their area while the rest 80% reported no such livestock services that are accessible to them.

Major Challenges:

- Stakeholders pointed out that graphite emission is a concern in the Goa area.
- On-field interactions suggested that soil and water pollution as well as lack of proper fencing are causing challenges to agriculture in South Goa
- Inadequate irrigation facilities limit farming to only during monsoon and one crop per year. This further limits employment prospects for agricultural labour. Cattle farming, dairy farming, and poultry farming is limited. Additionally, agricultural extension services are also limited in Goa.
- The primary challenges faced by farmers in Chitradurga pertain to the lack of proper labour and water facilities.

Possible Solutions:

- Considering that Goa is rainfed state, there is a potential to develop rainwater harvesting systems. These structures can help in additional cropping during off-season.
- Collaborative designing of projects along with community members to ensure timely synchronization of funds and activities with the community's farming calendars.
- Provision of soil testing kits to farmers, micro-irrigation facilities, and accessibility to agriculture tools and services may be helpful to improve agriculture in the North and South Goan district.
- Chitradurga is a drought-prone area and mining activities can further exacerbate water pollution. In light of the same, it is pertinent to train farmers on drought-resilient strategies and interventions in terms of crops and water management techniques to name a few. Further, considering the current status of water scarcity and quality, intensification of existing interventions of water filter provision would benefit the community.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Way Forward

1) Convergence with state schemes in Goa

North Goa alone receives nearly 3,000 mm of rainfall annually during the months of June to September⁶⁴. Due to this very reason, the district has abundant surface water availability, as well as ground water availability. However, according to Goa's Department of Water Resources⁶⁵, the effective utilization of rainwater is still a constraint in the state. Various state schemes can be availed to give further impetus to rainwater harvesting for irrigation purposes.

- Construction of Irrigation Wells – is a beneficiary-oriented subsidy scheme wherein construction of new wells is undertaken for agricultural and horticultural use, however, is not meant for agriculture-based industrial activity. Shallow wells, deep wells, bore wells can be constructed using the differential subsidy amounts offered by the Department of Water Resources.
- Rainwater Harvesting – is also a beneficiary-oriented scheme aimed at individuals/households, residential complexes and apartment buildings; commercial complexes/hospitality businesses, and industrial plots equal to or above 1,500 sq m size.
- Swayampurna Goa – launched under the aegis of the Atmanirbhar Bharat mission, a few important elements of the Swayampurna Goa scheme is the provision of PM Kisan, Krishi Card, Kisan Credit Card services to all farmers (including agriculture, horticulture, dairy, fisheries, and poultry). Considering that these services do not seem to be used as much according to the baseline findings, a convergence with the Swayampurna Goa scheme can be considered to further extend and strengthen these services in the state.

More awareness can be created regarding the availability of these schemes to give an impetus to agricultural productivity while ensuring ground-water recharge.

⁶⁴ North Goa Environment Management Plan 2021-22

⁶⁵ [Nital Goem Nital Baim | Department of Water Resources, Government of Goa. \(goawrd.gov.in\)](https://www.goawrd.gov.in/)

2) Convergence with state schemes in Karnataka

Exports of agricultural and processed foods including seeds and beverages had clocked a remarkable growth in the state of Karnataka⁶⁶. NABARD aims to focus on targeted infrastructure development of Tier 3 and 4 towns while strengthening agri-value chain infrastructure in the state. This proves to be an opportune time to strengthen FPO presence, SHGs, as well as agri value chain development.

Various programs being undertaken by the state government can also be considered to provide organic farming support to beneficiaries:

- Organic Farming Adoption and Certification – to go beyond provision of organic seeds and give trainings to farmers in order to apply for certification for the organic produce. This will ensure that a transparent and conscious supply chain is created.
- Zero Budget Natural Farming – training and certification on ZBNF practices will be helpful in mobilizing farmers towards ecologically-healthy and cost-effective agri-inputs and pest management. Considering that Chitradurga is among the ten poorest districts in the state of Karnataka, cost-effective practices such as the ZBNF may be helpful to save up on input costs while ensuring a healthy produce.
- Raita Siri Programme – millets are a versatile crop and cost-effective crop that pack immense nutritive benefits while being less dependent on inputs. Millets have also been declared as the “One Country One Product” for India by the Government of India. With steady demand for millets in the market, there is high potential to converge with the Raita Siri programme.

3) Collaborative designing of agricultural interventions

Lastly, it is also pertinent to conduct regular interaction sessions with the community members to best align with the local farming calendars and ensure timely delivery of services.

⁶⁶ Economic Survey of Karnataka 2021-22

Impact Assessment Gram Nirmaan at VAB

Gram Nirman was launched in 2021 to strengthen existing livelihoods and to promote alternative ones, while improving the community’s access to clean drinking water and sanitation in the villages of Amona, Navelim, and Betqui-Khandola. “Back to Farming” is a key initiative under the project that aims to reclaim fallow lands and turn them to agriculturally productive lands. The program also gives special focus to the financial empowerment of rural women.

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

Relevance of Intervention

One of the primary findings in the last cycle of Baseline and Needs assessment was that North Goa is more agriculturally inclined than South Goa is. Additionally, there is also an insufficiency of good agricultural lands, thereby, affecting agricultural productivity in the area. With its aim to address the same, the Gram Nirmaan project was found to be **extremely satisfactory** on the relevancy front.

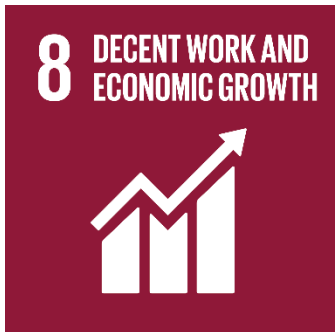


Coherence of Intervention

The project aligns itself to two particular schemes – Swayampurna Goa, Directorate of Agriculture, Directorate of Animal Husbandry and Veterinary Services, and ICAR. Swayampurna Goa is touted as a flagship scheme envisaged by the Chief Minister of Goa – Dr. Pramod Sawant to make every Goan village and city self-reliant. The scheme was particularly forwarded during COVID-19 as a knee-jerk reaction to realizing that the state had been depending on its neighboring states to meet its basic food necessities – such as vegetables, fruits, chicken, eggs etc. Atmanirbhar Bharat, on the other hand, is a larger campaign led by the Hon’ble Prime Minister Shri Narendra Modi brought to the forefront in 2020 to make India a self-reliant nation in all respects including transforming businesses (as well as MSMEs); agriculture; economically weaker sections; and creating a more enabling environment for industries and individuals.

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Table 8 Alignment with SDGs

SDG	SDGs target	How is it aligned?
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>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</p>	<p>The project aims to give impetus to agricultural livelihoods by giving farmers agri-input support and capacity-building trainings</p>
 <p>6 CLEAN WATER AND SANITATION</p>	<p>Target 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations</p>	<p>The project is envisioned as a village-development intervention wherein infrastructure development and sanitation improvement are key components</p>
 <p>5 GENDER EQUALITY</p>	<p>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</p>	<p>Women enterprise development is also a key component of the project</p>

The project works towards meeting SDG 8 for promotion of Decent Work and Economic Growth, Goal 6 for promotion of access to Clean Water and Sanitation, and finally Goal 5 for promoting Gender Equality.

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Effectiveness of Intervention

The project aimed to reach 500 farmers, bring 225 acres of land into agricultural productivity, and reach 300 women. As per the BU representative's self-reporting, 75% of the set target has been achieved so far.

The effectiveness of the project has been found to be **satisfactory**.

Efficiency of Intervention

The project came into effect in February 2021 and is slated to go on till March 2024. The budgetary allocation for the project is reportedly INR 1.31 crores (FY 21-22) which has been underspent by up to 5-10%. No reason for underspending has been given. The project's score on this parameter can be said to be **extremely satisfactory**.

Sustainability of Intervention

Since the project is aimed at building local capacities, it is expected that the project will enable operational sustainability even after the project concludes. Therefore, the project interventions are **extremely satisfactory** on the sustainability front.

Impact of Intervention

Improvement in income and reduction in input costs:

Only 15.62% of the respondents said that their incomes have improved within the range of Rs. 1000 to Rs. 6000 – with an average increase of Rs. 3,500. 39% of the respondents said that there has been no change in their incomes while for the rest, the question was not applicable.

Increase in Income after Intervention - Gram Nirmaan

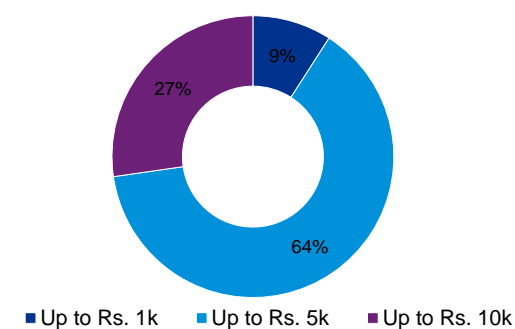


Figure 67 Increase in Income after Intervention - Gram Nirmaan

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About 28% of the beneficiaries also reported that their overall input costs have reduced on an average by Rs. 1,111.

Land under sustainable agriculture and irrigation, food security:

A minor share of respondents – nearly 13% said that the project interventions have reduced outward migration. However, a major share of the respondents – 81.25% said that they are unsure of the project's impact on curbing outward migration – indicating that many people may still prefer seeking livelihoods out of the village and towards urban centers.

Two out of five stakeholders from Navelim said that there were two crops being grown before intervention. However, after the intervention, one of the two stakeholders who responded mentioned that the number of crops being grown came down to one. Only one stakeholder felt that the project interventions have reduced outward migration. Veterinary services have also been reported to have improved according to two stakeholders from Navelim out of five. There appears to have been a 40-50% increase in dairy/poultry production. The stakeholders also reported that nearly 15-20% of the Navelim village have taken up sustainable agriculture.

Strength

The project aligns itself to two particular schemes – Swayampurna Goa, Directorate of Agriculture, Directorate of Animal Husbandry and Veterinary Services, and ICAR and focuses on rejuvenating fallow lands to make them productive.

Areas of Improvement

1) Lack of Improvement in Agricultural Productivity:

The BU has been providing trainings, agricultural inputs, feed and fodder for cattle to the communities from time to time to enable them to practice alternative livelihoods. Although, these efforts were said to be appreciated, the agricultural productivity did not seem to have been impacted, as such. As the presence of dust and ash from air pollution

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reduces agricultural productivity⁶⁷, the per unit produce received from land has gone down over time. Hence, villagers are able to take up only one crop to meeting their crop requirements.

2) Lack of consistent availability of labour and irrigation facilities:

In most of villages, because of unavailability of labour and Irrigation facility, many people have left farming.

Way Forward

a) Specialized capacity building for farmers to work with agriculturally less productive lands

Only a minor share of respondents reported noticing an improvement in their incomes. This could be because farming itself is not actively practiced besides perhaps for subsistence. Moreover, the agricultural productivity is also low in the region. Specialized trainings and knowledge material to improve and work with agriculturally less productive lands could be helpful.

b) Intensification of awareness around schemes and programmes

Particularly central and state schemes on micro-irrigation may be helpful for round-the-year cropping, since sowing is done only during the monsoon season.

c) Awareness towards millet cultivation⁶⁸

Efforts can be made to mobilize interested farmers towards millet cultivation. Millets have numerous health and nutritional benefits which can be promoted as a substitute to achieve food security in the region. Millets are also less input-intensive and may be apt for an irrigation-scarce area such as North Goa

⁶⁷ [\(PDF\) DUST POLLUTION AND ITS INFLUENCE ON VEGETATION - A CRITICAL ANALYSIS \(researchgate.net\)](#)

⁶⁸ [ICARGOA](#)



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

d) Training on Market linkages and Certifications

As observed in the previous baseline study, high-value crops have been grown in the past in the region. This shows good potential to develop horticultural capacity in the area. Efforts can also be made to strengthen FPOs and help them apply for organic certifications etc. to make their produce more viable for sale in the market.

Impact Assessment of Alternative Livelihood Opportunities Project (ALOP)

Relevance of Intervention

Indicator	Scoring
Relevance	Extremely Satisfactory
Coherence	Extremely Satisfactory

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In the previous cycle of Baseline and Needs assessment, it was reported that agriculture and allied activities are a mainstay occupation in the state of Karnataka, however, that there is dearth of support to tap into the state’s agricultural potential due to inaccessible or unavailable or un-availed government schemes.

Effectiveness	Extremely Satisfactory
Efficiency	Moderately Satisfactory
Sustainability	Extremely Satisfactory

As per the requirements set to meet the relevance criteria, and based on the documents submitted and our evaluation of

- Whether a Baseline was conducted or not
- Whether findings from baseline study was considered in designing the project

It can be said that the ALOP project was found to be **extremely satisfactory** on the relevancy parameter.



Coherence of Intervention

While Alternative Livelihood Opportunities Project is an independent project, it’s objectives align closely with the National Artificial Insemination Programme (NAIP) launched between 2019-20 under the “Rashtriya Gokul Mission” to increase the quality of bovines, as well as the production of milk. This substantiates that IOB’s ALOP program is closely aligned with national objectives. The programme has been conducted in a phasal manner to provide communities with opportunities to diversify their income sources through dairy farming. The ALOP project also aligns with the SDG 9 for ‘Industry, Innovation, and Infrastructure’ by using technological innovations to improve farmer livelihoods and SDG 5 for ensuring ‘Gender Equality’.

SDG	SDGs target	How is it aligned?
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	<p>Target 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p>	<p>The project, while being an independent initiative of the BU, is aligned with government efforts under the NAIP is innovative in the sense that it focuses on technological solutions to provide agricultural support to farmers</p>
	<p>Target 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decisionmaking in political, economic and public life</p>	<p>The project aims to ensure women's participation and empowerment through its interventions on clean cooking fuel, kitchen garden seeds support etc.</p>

An MoU between the BU and BAIF was also signed to facilitate the implementation of the project in the Chitradurga district.

A review of the information provided by the BU and the corroborating documents suggests that the ALOP project scores **extremely satisfactorily** on the coherence parameter.

Effectiveness of Intervention

In Karnataka, As a part of ALOP, Artificial insemination of the cattle is done through 2 cattle breeding centres. Through this project insemination of approximately 350 cattle is done, benefitting around 600 families from breeding centers at Muthugudhuru and Hireguntanuru.

Considering that the ALOP initiative meets less than 35% of the effectiveness criteria, the project has been found to be **extremely satisfactorily** in terms of its effectiveness.

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Efficiency of Intervention

The ALOP project commenced on 19th October 2019 and is stipulated to be functional until 18th October 2024. As reported by the BU representatives, there was 1-3 months delay in the project’s timeline owing to COVID-19 restrictions. The allocated budget for the project is INR 84,00,000 and is also reported to have been overspent by up to 10-20%. No budget utilization sheet was provided, however.

Based on the meeting of these criteria, the ALOP project’s score on the efficiency parameter has been found to be **moderately satisfactory**.

Sustainability of Intervention

The project has a clear exit strategy in place envisioning local capacity building of community members, thereby, showing the potential to self-sustain even after the project-term ends. There were adaptations in the existing strategy pertaining to drought resilient crop demonstrations and trainings. The trainings could not be carried out due to coinciding dates/seasons of the same with the ongoing COVID-19 pandemic.

The project intervention in terms of its sustainability strategy is found to be **extremely satisfactory**.

Impact of Intervention

The field-enumerator mentioned that support in terms of distribution of NPK compost, BNH 10 seeds, kitchen garden seeds, as well as trainings on vermicomposting have been given to the beneficiaries in the area. The enumerator also added that clean kitchen stoves for nearly 20 people, seed packets for 20 people, and cattle-feed provision to 110 people was also

Increase in Income due to Intervention - Alternative Livelihoods Opportunity project

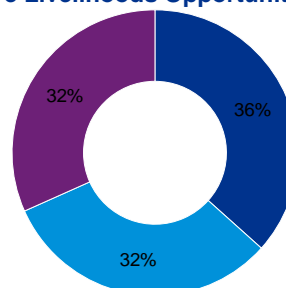


Figure 68 Reported Increase in Incomes After ALOP Intervention

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

carried out as part of the project. However, he mentioned that no provisions were given for Areca-nut crop – which is majorly grown in the district.

Of the nearly 53% of the respondents who responded as having seen an improvement in their incomes due to the ALOP project, it was seen that there has been an increase of up to Rs. 9,737 on an average. Nearly 72% of the respondents from the study also mentioned that the incurred input costs have gone down by up to Rs. 2,000 to 3,000.

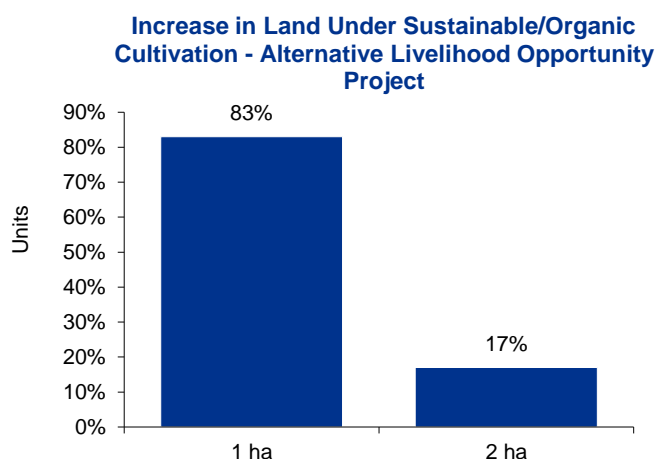
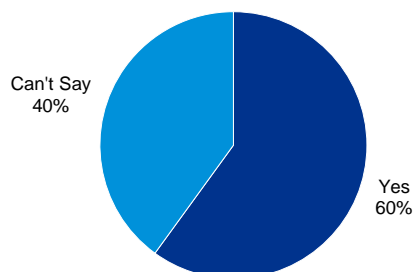


Figure 69 Increase in Land Under Sustainable/Organic Cultivation - Alternative Livelihood Opportunity Project

Impact on Food Security - Alternative Livelihood Opportunity Project



It was also seen that of the nearly 45% of the respondents who reported having land brought under sustainable agriculture or organic cultivation, nearly 83% reported having converted at least 1 ha of land to sustainable/organic cultivation, as compared to 17% of those who brought nearly 2 ha of land

under sustainable agriculture.

Only 14% of the total sample reported that they have brought at least 1 ha of land under irrigation. Moreover, about

60% of the respondents did confirm, however, that the project has had positive implications on their food security.

It also needs to be noted that in the baseline survey, about 18% of the respondents reported receiving support in terms of distribution of NPK compost, BNH 10 seeds, kitchen garden seeds, as well as trainings on vermicomposting having been provided to

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them. The field-enumerator also corroborated these findings and mentioned that these provisions have been given to the beneficiaries in the area. The enumerator also added that clean kitchen stoves for nearly 20 people, seed packets for 20 people, and cattle-feed provision to 110 people was also carried out as part of the project. However, he mentioned that no provisions were given for Areca-nut crop – which is majorly grown in the district.

The respondents reportedly saw an improvement in terms of women empowerment indicators such as improved skillsets (21%), increased confidence and self-esteem (28%), improved social support network (27%), praise from family/relatives (28%) and a stronger role in family decisions (23%). Nearly 50% of the respondents also reported having noticed an improvement in women's ability to access financial services, improved regular savings, improved decision-making in HH, and improved participation in gram sabhas.

The CSR team further reports that AI service is given under ALOP to 24 villages. Even though services to 4 villages are provided through 2 centres with the target of 25/centre is covered under NAIP convergence. Under ALOP, through its 2 Cattle Breeding Centres, doorstep Artificial inseminations through conventional and sorted semen insemination are provided to cattle's as per the requirement from cattle owners. This helps bridge the gap of NAIP, wherein sorted semen insemination is not covered.

Strengths

a) Agri-support:

In the baseline survey, about 18% of the respondents reported receiving support in terms of distribution of NPK compost, BNH 10 seeds, kitchen garden seeds, as well as trainings on vermicomposting having been provided to them. Independent government efforts are being made by the National Artificial Insemination Programme (NAIP) launched between 2019-20 under the "Rashtriya Gokul Mission" to increase the quality of bovines, as well as the production of milk.

b) Women Empowerment:

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The respondents reportedly saw an improvement in terms of women empowerment indicators such as improved skillsets (21%), increased confidence and self-esteem (28%), improved social support network (27%), praise from family/relatives (28%) and a stronger role in family decisions (23%). Nearly 50% of the respondents also reported having noticed an improvement in women's ability to access financial services, improved regular savings, improved decision-making in HH, and improved participation in gram sabhas.

Areas of Improvement

- 1) Intensification of Existing Services and Better Convergence with state schemes

Majority of the respondents report having noticed an improvement in their annual incomes. An intensification of existing services can be helpful besides creating convergence with state schemes. A convergence with Karnataka's Krishi Bhagya Scheme may be helpful to reach more beneficiaries

Way Forward:

a) Cluster-level agri-input units:

Setting up village-level/cluster level agri-input units can be helpful to promote sustainability and reduced costs further considering that Chitradurga is among the poorest districts in Karnataka. Increasing cost-effectiveness would be pertinent in this regard.

b) Market linkage support

Strengthening of FPOs presence and providing training with certification support would be helpful, considering that sustainable agriculture is a major component of the intervention. Organic certification will further help with giving farmers the credibility they need to sell their produce.

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Business Drivers

With food and nutritional security coming into increasing question due transition of livelihoods away from agriculture, unsustainable input costs, decreasing climate conduciveness to practice agriculture – there is an ever-more need to make agriculture a more rewarding livelihood option for existing farmers and the youth. ‘A Holistic Approach for Achieving Impact through CSR’ by Wani, Chander, and Garg (2018) highlights there is a pressing need to invest in holistic approaches to developing agriculture – i.e. by focusing not just on crops but also on improving livestock services and bringing in the concept of “Science of Delivery” to farmers. This may involve equipping farming communities with a mix of traditional and modern tools and information to collectivize themselves, organize themselves as FPO groups and successfully market their produce with efficient storage, handling, and transportation systems in place⁶⁹.

85% of the management stakeholders ranked the BU’s interventions in agri and animal husbandry as “1” and in contributing to IOB’s social license to operate. 100% of the respondents felt that providing direct employment to the local communities gives the BU its social license to operate.

Business Case for Gram Nirmaan

Low agricultural productivity and lack of availability of agricultural labour are two of the most prominent issues in the state of Goa – so much so that until COVID-19, the state was majorly dependent on its neighbouring states for agricultural and dairy products. Only during the pandemic the Goa government announced the Swayampurna Goa scheme to make the state self-reliant and improve livelihoods and community infrastructure across the state. IOB has been playing a crucial role in raising awareness around government schemes among farming communities, while also equipping them with relevant skillsets to revive fallow lands in the Maina-Navelim and Amona villages in the Bicholim block.

⁶⁹ Corporate Social Responsibility: Win-win Propositions for Communities, Corporates and Agriculture (eds S. P. Wani and K. V. Raju) [CSR-Book-Published-2018.pdf \(icrisat.org\)](https://www.icrisat.org/publications/CSR-Book-Published-2018.pdf)



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Business Case for Alternative Livelihood Opportunities Project (ALOP)

This project being carried out in partnership with BAIF is a holistic village-wise development programme to promote sustainable development of the intervention villages. The primary objective of the project is to promote climate-resiliency and sustainable practices across the programme. The project also aims to provide farmers with relevant technological training and equipping them with knowledge on alternative agricultural practices. An important component of the project is that though it is an independent project, there is alignment with the objectives under National Artificial Insemination Programme (NAIP) – a flagship scheme to provide quality livestock services in the area. 100% of the management stakeholders from Chitradurga district ranked interventions on agri and animal husbandry as “1” and saw it as crucial to the BU’s social license to operate in Chitradurga.

D. Health

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- The cost of availing healthcare services seems to have shot up since the last baseline – particularly in North and South Goa.
- Anganwadi facilities seem to have improved since the last baseline - particularly in terms of drinking water and sanitation facilities available in North Goa.
- While the anganwadi facilities were found to be fairly decent in North Goa, the services provided by AWCs seem to be inadequate or else not accessed as frequently by community members.
- Maternal and child health found to be a persistent healthcare concern in Chitradurga district.
- 76% of the respondents reported having access to MHU services in Chitradurga.

Key Highlights of the Impact Assessment:

Community Medical Centers (CMCs) & MHU

- Significant reduction in healthcare costs reported after the project interventions
- 72% reported that the project activities have increased their accessibility to healthcare services through CMCs, MHUs etc.
- 36% of the respondents said that the quality of healthcare services has improved

IOB SESA recognizes the importance of giving quality healthcare services to community members while also making it accessible. As intended, the CMC facility has brought down medical expenditure, also providing a reliable healthcare set-up to ensure services at regular intervals while maintaining service quality. The visible preference among community members for the CMC facility over the sub-center is a testament to the quality of services that is being provided by the BU in North Goa.

Mobile Health Unit (MHUs)

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- 30% of the total sample appear to have been impacted by the MHU facilities and they reported that they have noticed an improvement in their ability to access timely healthcare facilities.
- Considering that villages are relatively remote and road facilities are not very developed in Chitradurga district - as found in the baseline study as well as corroborated by on-field enumerators, the MHU services are bridging the accessibility gap, while also bringing down medical costs.

Key Recommendations:

Community Medical Centers (CMCs) & Mobile Health Units (MHUs)

1. Convergence with state schemes and policies

It is recommended that the BU taps into the existing state-run facilities to expand its reach and impact. Shared efforts by the BU, Health department and the community may have a positive effect on making healthcare more accessible and collaborative. Awareness can also be created on various health schemes being run in the state.

2. Equipment support to state-run facilities

Helping upgrade equipment at state-run facilities is advised for making better services accessible. Since state-run facilities do seem to be easily accessible, the only concern among community members seems to be that of quality of services being provided at state-run facilities.

Mobile Health Units (MHUs)

- 1) Increasing the variety of medicines available based on community's requirements
- 2) Strengthening of existing services, provision of needs-based medicines, and intensification of awareness sessions on health and hygiene
- 3) Convergence with relevant state schemes and policies can be considered to bring down the costs further.

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Baseline Findings

North Goa

Access to Healthcare Institutions

In the previous baseline, health facilities were found to be much better in the state of Goa than other parts of the country. PHCs were also available at close distances and easily accessible, but people from far off hamlets were unable to access them. The accessibility to health facilities in the locality was found to be satisfactory as nearly 33.3% of the households had to travel less than 1 km and 50% had to travel a distance of about 1 km – 3 km.

On-field observations from Amona village suggest that the CMC facilities set-up by the BU has more footfall than that at the sub-center in the village and villagers also prefer visiting the CMC due to availability of better facilities and the surety of getting to consult with a healthcare personnel unlike at the sub-center in Amona. The PHCs are roughly at 1 km from the villages as observed by on-field enumerators.

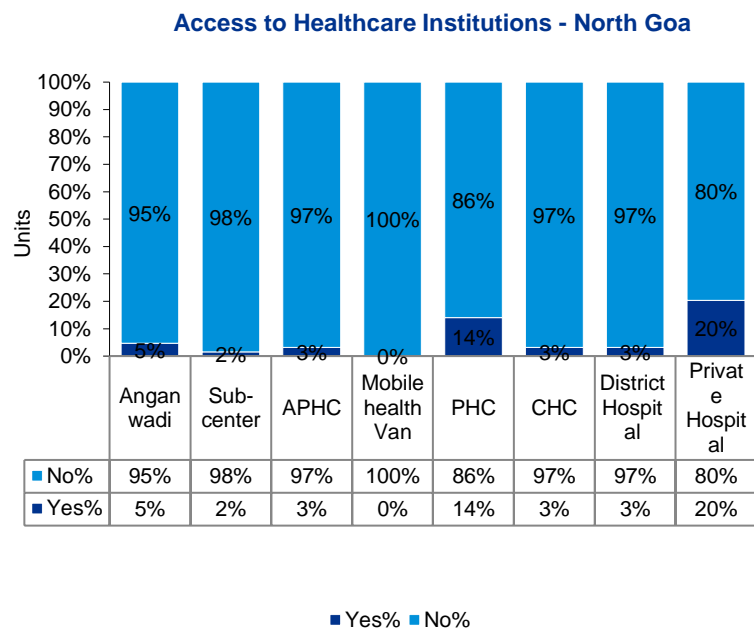


Figure 70 Access to Healthcare Institutions - North Goa

Of the total 23 PHCs in Goa, 11 are in North Goa. Overall, secondary data suggests that North Goa appears to have good access to medical facilities, wherein, in some instances facilities such as PHCs, APHCs, and CHCs have been found to be in surplus. However, only a minor share of respondents in the present study have reported accessing them.

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Anecdotal evidence suggests that patients prefer going to CMC facilities set-up by the BU than the state-run counterparts due to surety of availability of trained staff and quality services.

North Goa has good network of healthcare facilities available in addition to various state healthcare schemes that can be availed. Despite a robust network, however, State-run facilities seem to lack trained resources and equipment due to which people prefer private entities more.

Healthcare facilities may need regular stocking of medical equipment and training of healthcare resources.

Frequency of Accessing Healthcare Services

41% of the respondents reported accessing healthcare facilities on an annual basis, while 27% of the respondents reported accessing them every three months. 19% reported accessing medical services once a month, while 14% reported accessing them twice a month. The findings indicate that majority of the respondents access medical facilities only on an annual basis.

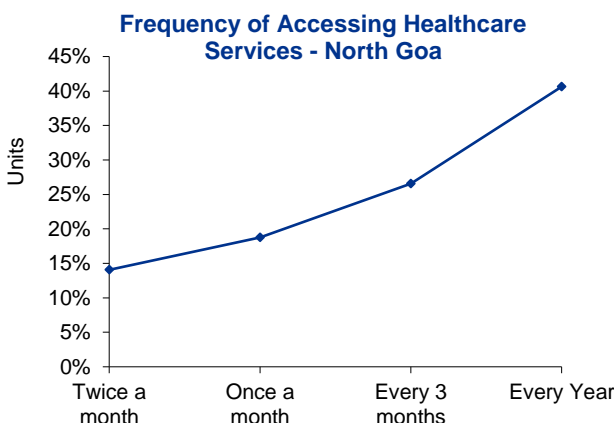


Figure 71 Frequency of Accessing Healthcare Services - North Goa

Increasing awareness around the state schemes and policies as well as the major healthcare concerns in the locality may be helpful for community members.

Accessibility to medical facilities and Overall Expenditure on Healthcare

More than 50% of the respondents reported accessing OPD facilities, X-ray, diagnostic lab services, and beds at hospitals. More people seem to be accessing basic diagnostic

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facilities such as OPD, X-ray etc. The more advance form of health care facilities such as ICU, OTs, Trauma centre etc., are less frequently accessed.

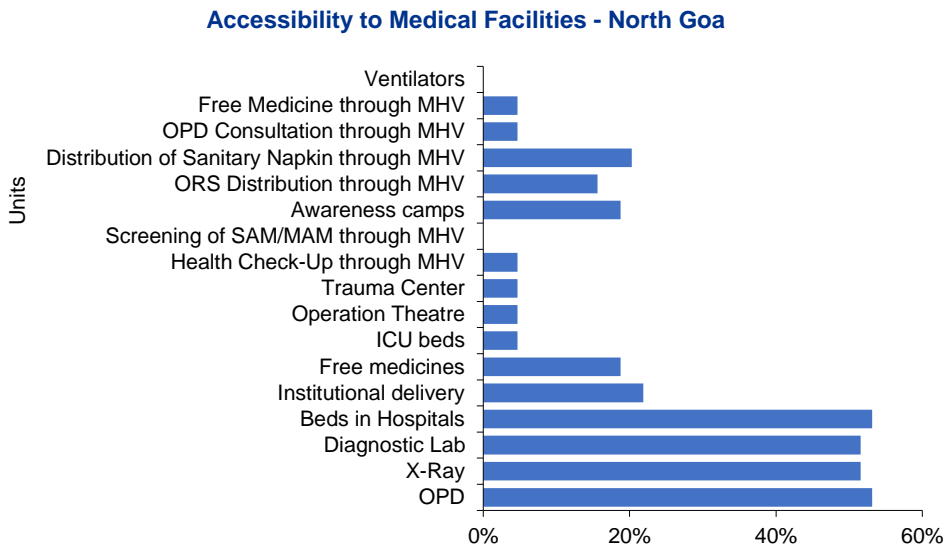


Figure 72 Accessibility to Medical Facilities - North Goa

In the previous baseline, average expenditure on healthcare per episode of illness was found to be Rs. 2k - 100%. In the present study, 51% of the respondents reported spending between Rs. 5k to 10k annually, while 30% reported spending anywhere between Rs. 2k to 5k. Less than 20% of the respondents reported spending below Rs. 2k. The cost of availing healthcare services seems to have shot up since the last baseline.

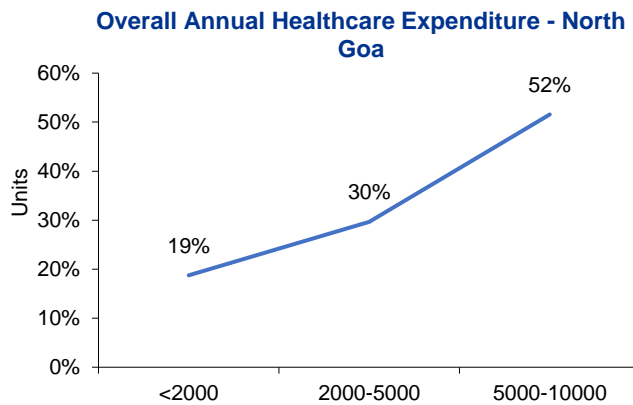


Figure 73 Overall Annual Healthcare Expenditure - North Goa

Goa’s State Insurance Policy, PMJAY, and State Mediciam

Schemes are being run to reduce out of pocket expenditures in the state – these can be leveraged to bring down medical costs. This may require a convergence of efforts with state-run healthcare facilities.

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Services at the Anganwadi

In the previous baseline, it was identified that 11 anganwadi centers available in the vicinity with an average distance of 0.9 kms. Drinking water and sanitation facilities were found to be an issue in the AWCs. The HHs wished to see improvements in toilets, quality of teaching and care, health facilities, infrastructure and the quality of food provided. In the present study, 78% of the respondents reported that toilet facilities are available, with 77% reporting that separate toilet facilities are available for girls. 100% of the AWCs appeared to have drinking water facilities and also provided midday meals. 95% of the AWCs were also said to have access to electricity facilities.

On-field enumerators also observed that anganwadis are functioning well with good facilities for children. Anganwadi facilities seem to have improved since the last baseline - particularly in terms of drinking water and sanitation facilities available. An anganwadi worker said that "...now better health and education facilities are available for small children".

The anganwadis in North Goa district appear to be well-equipped according to anecdotal evidence. However, the primary data suggests a slightly different picture - especially, in terms of functional blackboards,

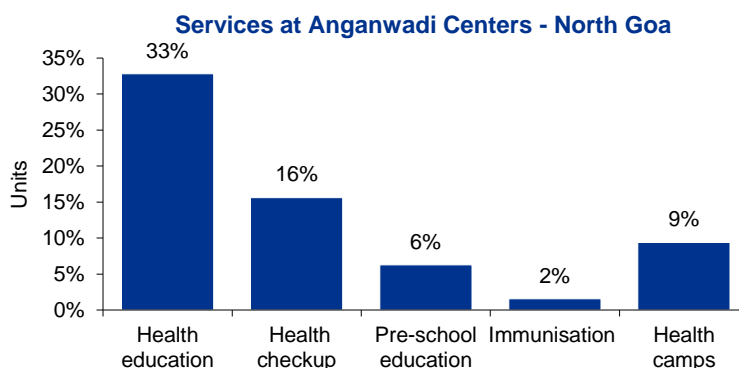


Figure 74 Services at Anganwadi Centers - North Goa

PTMs, student-teacher ratio, and access to reliable electricity, the anganwadi facilities appear to be lacking. The low numbers could also be due to a general inadequacy of representation from HHs regularly using anganwadi facilities or else due to not accessing them at all.

However, only 33% of the respondents reported that AWCs conduct health education sessions, while only 16% use AWCs for health check-ups. The primary data suggests

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that AWCs are underperforming in the areas of providing health education, checkups, pre-school education, immunization programmes, health camps etc. While the anganwadi facilities were found to be fairly decent, the services provided by AWCs seem to be inadequate or else not accessed as frequently by community members.

The BU may consider working with anganwadi centers to strengthen and improve upon the existing infrastructure facilities available at AWCs. Training of AWC staff, awareness creation among AWC members and community outreach to ensure proper utilization of facilities may be considered.

South Goa

Access to Healthcare Institutions

Of the 23 PHCs available in Goa, 12 are in South Goa and much similar to North Goa, South Goa also has a good network of healthcare facilities available in addition to various state healthcare schemes that can be availed.

In terms of the healthcare institutions available in the district, it was found that the maximum respondents (20%) preferred to access private hospitals more than district hospitals (11%) or even anganwadi centers (5%) and sub-centers (2%). The responses show an overwhelming preference among respondents for private hospitals and the facilities that they offer.

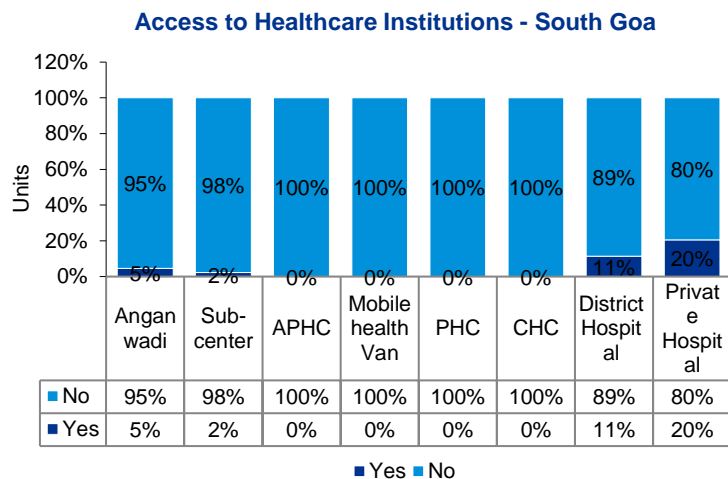


Figure 75 Access to Healthcare Institutions - South Goa

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Unlike in North Goa, though, the respondents showed a preference for accessing district hospitals rather than PHCs, despite the availability of total 13 PHCs in the district, including in Chinchinim, Quepem, and Ponda.

Frequency of Accessing Healthcare Services

52% of the respondents reported accessing healthcare services once a year, while 27% reported accessing them every three months. 11% reported accessing healthcare facilities twice a month and 9% accessing them once a month. The findings indicate that majority of the respondents access medical facilities only on an annual basis.

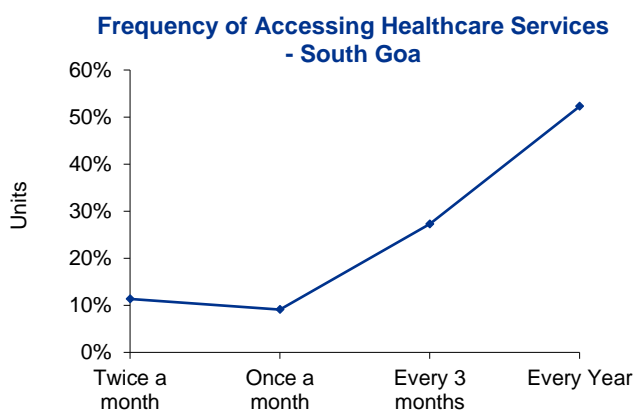


Figure 76 Frequency of Accessing Healthcare Services - South Goa

Accessibility to medical facilities and Overall Expenditure on Healthcare

More than 50% of the respondents reported accessing OPD, X-ray, diagnostic lab facilities and hospital bed facilities. More people seem to be accessing basic diagnostic facilities such as OPD, Xray etc. More advanced form of health care facilities such as ICU, OTs, Trauma centre etc., are less frequently accessed. District hospitals are more accessed overall. Relatively fewer respondents reported having accessed MHU facilities.

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Accessibility to Medical Facilities - South Goa

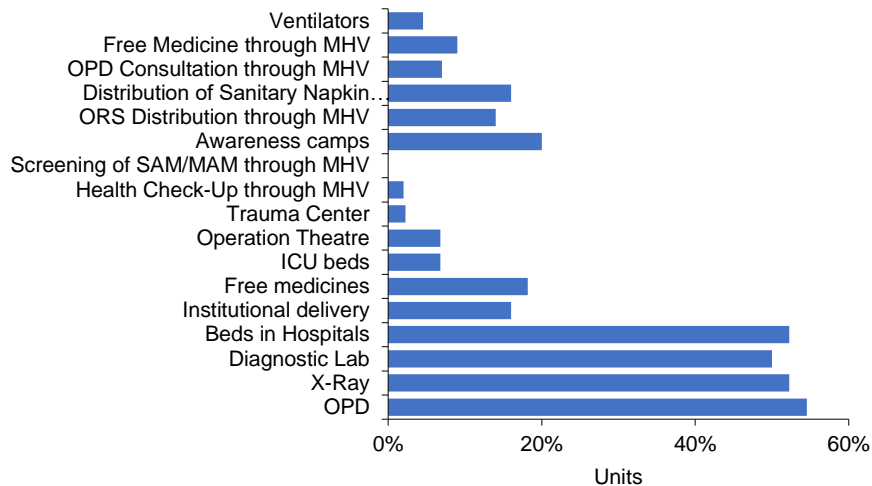


Figure 77 Accessibility to Medical Facilities - South Goa

The question on accessibility to medical facilities was reportedly asked more on the lines of ‘whether the respondents access the listed medical facilities or not’ rather than if they have accessibility to them at all. Nevertheless, the respondents’ availing of the listed facilities itself can be taken as marker for their ability to access them. Going by the trend of responses, it seems evident that high percentages of respondents seek out diagnostic lab facilities, OPD consultations, and X-Rays – all perhaps availed at private health institutions.

Very similar to North Goa, majority of the respondents reported spending anywhere between Rs. 5k to 10k annually on healthcare services. While 36% of the respondents reported spending between Rs. 2k to 5k and 20% reported spending less than or equal to Rs. 2k annually. The previous baseline found that on average, 100% of the

Overall Annual Healthcare Expenditure - South Goa

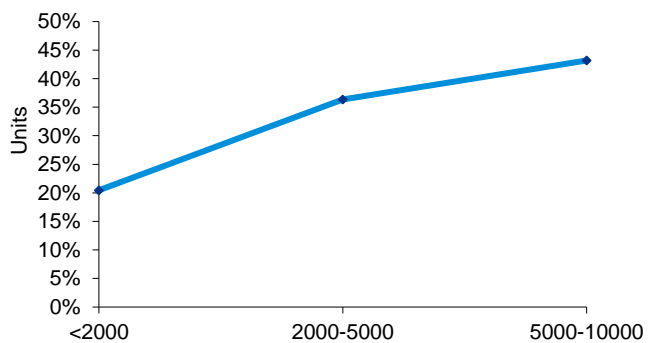


Figure 78 Overall Annual Healthcare Expenditure - South Goa

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

respondents spend Rs. 2k per episode of illness. Existing state schemes and policies can be leveraged to reduce overall expenditure.

Increasing the availability of diagnostic lab facilities, adequate staffing and training of healthcare personnel. Additionally, increasing awareness around prominent healthcare concerns in the area and strategies to tackle the same might be helpful.

Services at the Anganwadi

In the previous baseline study, that covered only North Goa, it was found that drinking water and sanitation facilities were lacking at AWCs. In the present study, 100% of the respondents reported that midday meals are provided at AWCs, while more than 85% of the respondents said that separate toilet facilities are available for girls. However,

only 48% of the respondents said that AWCs have reliable access to electricity. Overall, AWC seem to have good toilet, drinking water, and midday meal facilities but seem to be lacking in terms of access to reliable electricity.

Again similar to North Goa, 27% of the respondents reported that the AWCs provide health education, while 23% reported that health checkups are conducted. Relatively more respondents seem to have accessed various services provided by the AWCs than in North Goa.

Training of AWC staff, awareness creation among AWC members and community outreach to ensure proper utilization of facilities.

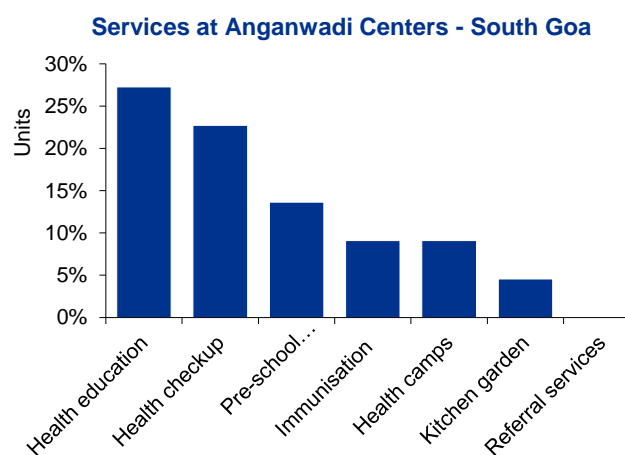


Figure 79 Services at Anganwadi Centers - South Goa

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Chitradurga

Karnataka's State Health Policy, developed basis the National Health Policy (2002), recognizes that health indicators are bound to differ across regions, districts, and within districts. Therefore, a comprehensive Karnataka State Policy for the Integrated Health Development was articulated in order to give more emphasis on the process and implementation of people-oriented development of health services.⁷⁰ Some of the most prominent areas of its interventions include:

- building on the existing institutional capacities of the public, voluntary and private health sectors.
- particular attention to filling up gaps and moving towards greater equity in health and health care, within a reasonable time frame.
- using a public health approach, focusing on determinants of health such as food and nutrition, safe-water, sanitation, housing and education.
- expanding beyond a focus on curative care and further strengthening the primary health care strategy
- encourage development of Indian and other systems of medicine

According to NFHS-5 data, the IMR rate in the Chitradurga district is 61 deaths per 1,000 live births, which is significantly more than the state average of 25.5 infant deaths per 1,000 live births and the national average of 35.2 deaths per 1,000 live births. The under 5 mortality rates also hover around 60, again significantly deviating from the state and national averages. This raises concern pertaining to early childhood care in the region. However, the immunization rate in Chitradurga surpasses state (84.1%) and national (83.8%) averages at 97.2% showing an impressive immunization rate.

⁷⁰ [Proceedings of the Government of Karnataka](#)

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Access to Healthcare Institutions

In the previous baseline study, it was observed that PHCs are available at close distance to villages and are easily accessible due to availability of proper road facilities. However, people from few hamlets which are far, had to travel long distances to avail medical facilities. The accessibility to health facilities in the plant areas were satisfactory as nearly 33.3% of the

households had to travel less than 1 km and 66.7% had to travel a distance of about 1 km – 3 km.

Nearly 60% of the respondents from Megahalli, Bommavvanagathahalli, Chikkenahalli, Konanuru, Bheemasamudra, Hireguntanuru, Bommenahalli, V Palya, Tanigehalli, and Madikerepura reported having access to Anganwadi facilities in their respective villages. Much lower percentage of respondents reported having access to sub-centers or APHCs. Interestingly, 76% of the respondents reported having access to MHU services across Megalahalli, Bommanagathahalli, Chikkenahalli, Bheemasamudra, Bommenahalli, V Palya, Tanigehalli, and Madikerepura.

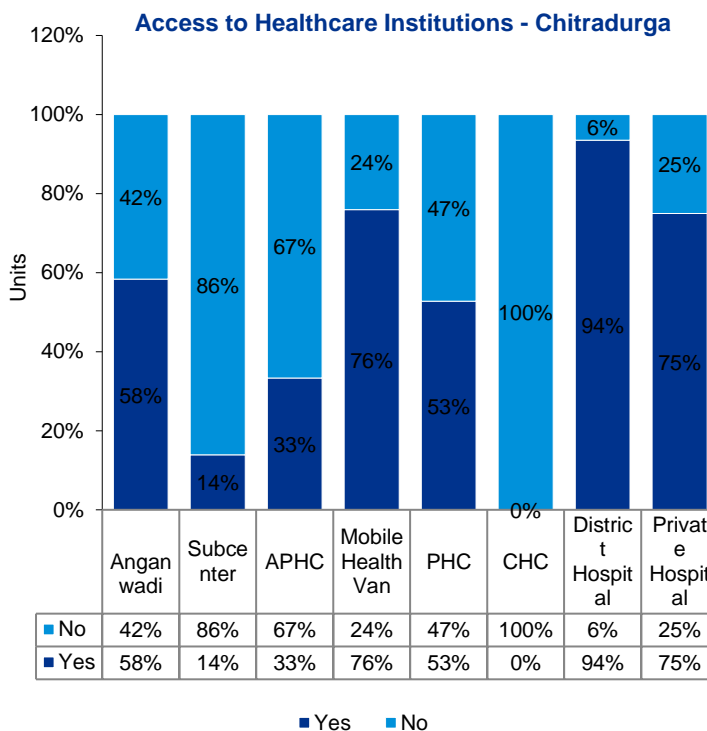


Figure 80 Access to Healthcare Institutions - Chitradurga

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Community members in Chitradurga appear to access a variety of healthcare facilities overall. Sub-centers and PHCs have been found to be in surplus in the district - catering to a wider number of people⁷¹.

The most intriguing finding is that majority – 94% of the respondents reported as having access to district hospital. It must be noted here that the enumerators posited the ‘access’ question more in terms of whether they access it at all. The responses here, therefore, can also perhaps be taken as a form of preference for accessing certain healthcare facilities. The enumerator – a local from the area mentioned that most people prefer going to the district hospitals due to availability of better services.

Frequency of Accessing Healthcare Services

35% of the respondents reported accessing healthcare services on an annual basis, while 33% of the respondents reported accessing them twice a month. 27% of the respondents reported accessing healthcare facilities once a month, while a mere 5% said that they access them every three months.

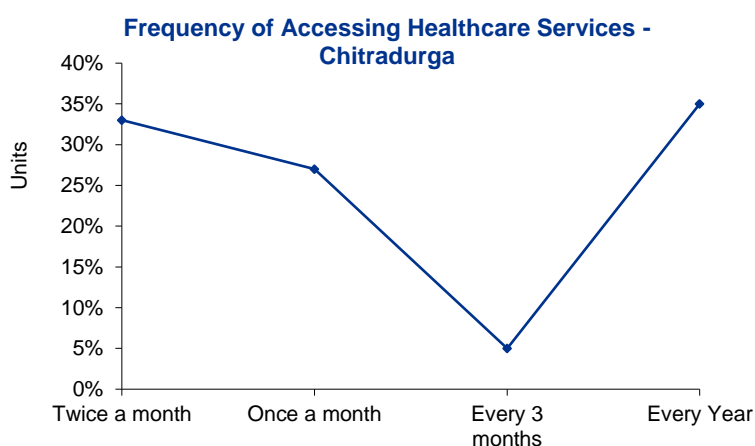


Figure 81 Frequency of Accessing Healthcare Services - Chitradurga

Accessibility to medical facilities and Overall Expenditure on Healthcare

All respondents reported that they access medical facilities for institutional deliveries, depicting a general preference for institutional births over homebirths. As far as the services provided by MHUs are concerned, more than 70% of the respondents said that

⁷¹ Rural Health Statistics 2020-21

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

they have received free medicines through MHUs, as well as OPD consultations. Distribution of ORS were comparatively reported lesser.

Accessibility to Medical Facilities - Chitradurga

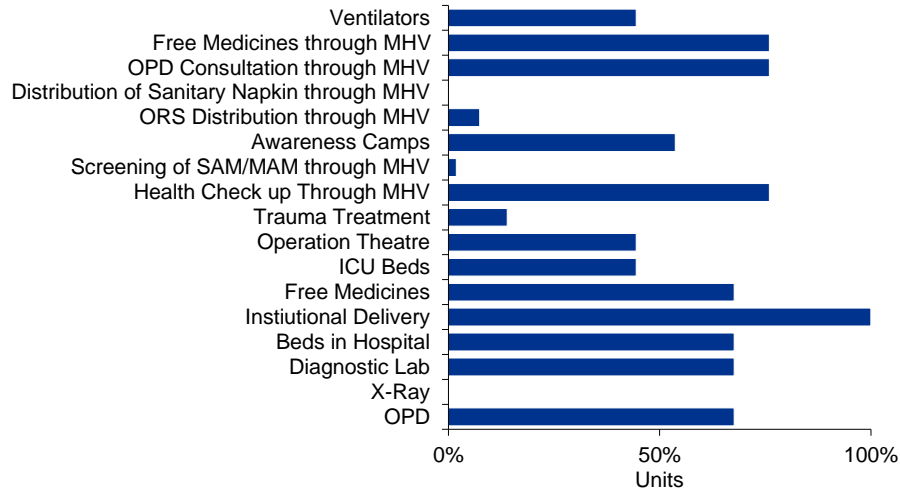


Figure 82 Accessibility to Medical Facilities - Chitradurga

However, nearly 50% of the respondents did mention that awareness camps were being held by the BU through MHUs, while more than 70% reported having access to health check-up camps held by MHUs. It is believed that the MHU primarily facilitated with blood sugar tests for community members. While this was not explicitly expressed by beneficiaries during the survey, they may have responded while referring to it's as a 'health checkup'. The screening

for SAM and MAM was less than 5%. Overall, however, the respondents had mentioned that while the MHU does distribute medicines free of cost, it often does not provide medicines for illnesses plaguing the respondents and their families at that particular point of time – to mean that the MHU medicines do

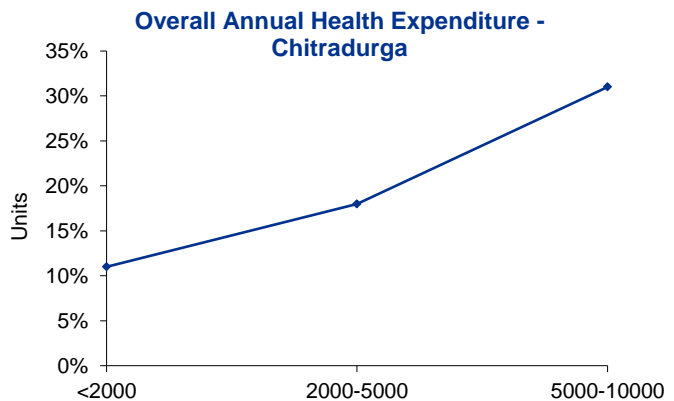


Figure 83 Overall Annual Health Expenditure - Chitradurga

not address the immediately relevant illnesses but provides medicines for common ones.

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In the previous baseline study, 100% of the respondents reported spending Rs. 2k per episode of illness. In the present study, 31% of the respondents reported spending Rs. 5k to 10k on healthcare, annually, while 18% reported spending between Rs. 2k to 5k and 11% reported spending equal to or below Rs. 2k annually. Existing state schemes and policies can be leveraged to reduce overall expenditure further.

Services at the Anganwadi

62580 AWCs and 3331 mini anganwadi centers are functioning in 204 ICDS projects in Karnataka, covering all the 175 taluks (181 rural projects & 12 tribal & 11 urban projects). The state government has also introduced SRUSTI - Egg Provision programme; Ksheera Bhagya - Milk provision programme; and Mathrupoorna - One Full Meal Scheme (Maternal

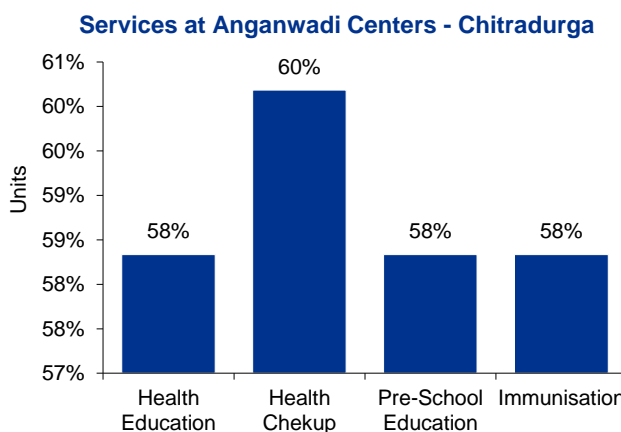


Figure 84 Services at Anganwadi Centers - Chitradurga

Nutrition). The Karnataka government provides additional nutritional items for its students under ICDS to ensure healthy development of children and expectant mothers. Rs. 3,791.95 lakhs is allocated to the Karnataka government under Pradhan Mantri Matru Vandana Yojana for improving anganwadi facilities, wherein 38,64,489 children between 6 months to 6 years benefit and 8,00,418 pregnant and lactating women benefit through the centers⁷².

In the previous baseline, five anganwadi centers were identified in the vicinity with an average distance of 0.9 kms. Only one AWC with safe drinking water and 4 centres with functional toilets were found. Drinking water and sanitation facilities were seen to be a concern at the AWCs.

⁷² Ministry of WCD – Annual Report 2020-21

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As per secondary data, Chitradurga district appears to have an expansive network of anganwadi centres. However, going by the primary data in the current study, the numbers seem to come down drastically. It requires noticing that respondents expressed discomfort with extensive lines of questioning.

A district health officer mentioned that maternal mortality is a persistent healthcare concern in the area besides underdevelopment of tertiary care services. However, the health officer and a district level doctor mentioned that the BU has been carrying out awareness programs, as well as providing medical services through the MHU – particularly lauding the BU's plying of MHUs which has played an instrumental role in a bridging the accessibility gap.

The doctor and Tehsildar also pointed out that basic health infrastructure is a cause for concern and so is unavailability of life-saving equipment. The doctor said that lack of proper roads and remote location of villages creates accessibility issue for community members hence better roads shall help people. He also added that maternal and child healthcare is a pressing need for the community.

Increasing MHU facilities may be helpful for community members since road accessibility is low in the district. Additionally, diversifying medicine availability and providing basic health checkup facilities may be helpful. Moreover, there is a need to train AWC workers and improve community outreach pertaining to health, hygiene, and sanitation.



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Analysis & Way Forward:

Health

Major Findings:

- North Goa and South Goa districts have good network of healthcare facilities available in addition to various state healthcare schemes that can be availed.
- On-field observations from Amona village suggest that the CMC facilities set-up by the BU has more footfall than that at the sub-center in the village due to availability of better services.
- The cost of availing healthcare services seems to have shot up since the last baseline – particularly in North and South Goa.
- Anganwadi facilities seem to have improved since the last baseline - particularly in terms of drinking water and sanitation facilities available in North Goa.
- While the anganwadi facilities were found to be fairly decent in North Goa, the services provided by AWCs seem to be inadequate or else not accessed as frequently by community members.
- More people seem to be accessing basic diagnostic facilities such as OPD, Xray etc. in North and South Goa rather than advanced forms of treatment.
- Maternal and child health found to be a persistent healthcare concern in Chitradurga district.
- 76% of the respondents reported having access to MHU services in Chitradurga.

Major Challenges:

- Despite a robust network, however, State-run facilities in Goa seem to lack trained resources and equipment due to which people prefer private entities more.
- Anganwadi facilities do not seem to be accessed much in North Goa.
- A common concern in Chitradurga was that though the MHU provided free medicines for common health issues such as fever, cold, and menstrual hygiene support, it would be good to get support in terms of detect chronic illnesses as well as medicinal support towards common diseases such as diabetes or hypertension. Sensitization on lifestyle changes towards reducing the occurrence and impact of these chronic diseases would also be helpful. Further, awareness activities on communicable and non-communicable diseases
- Lack of proper roads and remote location of villages creates accessibility issue for community members in Chitradurga

Possible Solutions:

- Healthcare facilities may need regular stocking of medical equipment and training of healthcare resources both in North and South Goa.
- Goa's state government runs various healthcare schemes and Medclaim policies which can be leveraged.
- The BU may consider working with anganwadi centers to strengthen and improve upon the existing infrastructure facilities available at AWCs. Training of AWC staff, awareness creation among AWC members and community outreach to ensure proper utilization of facilities may be considered.
- Increasing MHU facilities and stocking a variety of medicines may be helpful for community members since road accessibility is low in the district.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Way Forward

a) Convergence with state-run health facilities in Goa

The state government's Deen Dayal Swasthya Seva Yojana Scheme (DDSSY) is a universal health cover meant for the resident population of Goa. The scheme is meant to provide financial assistance while improving access to quality medical services to the people of Goa. Up to Rs. 1.5 lakhs per illness is provided. Further various initiatives such as Screening for Breast Cancers using iBreast Devices; Health & Wellness Centres (HWC); Pradhan Mantri National Dialysis Programme etc. are being undertaken by the state government to improve the health status of its residents. The BU could consider providing equipment support, as well as awareness and behaviour change sessions on proper health, hygiene, and sanitation practices.

b) Increasing needs-based service in Chitradurga

A common lament in the district was the lack of few medicines, especially towards chronic illnesses, being provision by the MHU. Although, the community members lauded the BU's efforts in its service provision, they felt that the medicine provision could be better tailored to their immediate needs.

c) Convergence with Anganwadis

Maternal and child health are persistent concerns in the district. Awareness creation sessions with AWCs and training of AWC staff may be helpful to deal effectively with maternal and child health care concerns.

Janani Suraksha Yojana (JSY) is one such state scheme to reduce maternal and infant mortality rates and to increase institutional deliveries – particularly for BPL families. Cash assistance is also given to mothers who opt for home deliveries. C-section services can also be availed in the absence of doctors⁷³. The BU may consider creating awareness around the scheme which provides financial assistance to women opting for institutional deliveries.

⁷³ Karnataka Economic Survey 2021-22

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Impact Assessment Community Medical Center & Mobile Health Unit at VAB

The Community Medical Center (CMC) is touted as a flagship project wherein the first CMC was set-up in 2006 with an aim to provide various healthcare services such as consultations and provision of medicines at no cost and thereby to make healthcare more accessible to communities. About 11,132 community members are said to have benefitted collectively through the CMC and MHU facilities till 2021.

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

Relevance of Intervention

A major point highlighted in the previous baseline study was the lack of access to healthcare resource persons and services on a regular basis in Goa. While the incidence of diseases was reported to be low and healthcare facilities were reportedly better in Goa as compared to other parts of the country, in general, a lack of proper sanitation was a major concern raised. Moreover, only 33.3% of the respondents had access to a healthcare facility within 1 km reach, while the rest 50% had to travel between 1 km to 3 km, and another 16.7% of respondents had to travel more than 5 km to avail healthcare facilities.


IOB had provided free checkup, free medicines, immunization, family planning, antenatal and postnatal, nutrition and medical counselling services to the community members. The access to and utilization of the medical services was found to be impressive across the plant regions in the previous baseline study.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Coherence of Intervention

The CMC project in North Goa comes under the ambit of the Directorate of Health Services and aligns itself to providing quality and equitable services for all. The project also goes in tandem with Goal 3 for promoting Good Health and Well-being under the SDGs.

SDG	SDGs target	How is it aligned?
	<p>Target 3.8 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.</p>	<p>By setting up CMC facilities and plying of MHU services in North Goa, the BU has made healthcare more accessible while ensuring that communities have access to quality services at reduced costs</p>

Effectiveness of Intervention

The effectiveness of the intervention was assessed on the secondary documentation for the program wherein the availability of the targets as well as the achievements against the same was considered. The BU had anticipated a footfall of nearly 6,000 beneficiaries and targeted to conduct at least 12 health check-up camps. At least 75% of these targets are said to have been met till now.

The project intervention was **satisfactory** on the effectiveness parameter.

Efficiency of Intervention

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 IOB SESA. The CMC and MHU project started in North Goa since July 2021 and is set to conclude in the year 2024. The allocated budget for the same is INR 66 lakhs for a duration of three years (FY 2021 – 2024). The mentioned budget was reportedly underspent by nearly 5-10%.

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The project intervention was found to be **extremely satisfactory** on the efficiency front.

Sustainability of Intervention

The project's long-term sustainability plan has been found to be **dissatisfactory** due to not having an exit strategy in place.

Impact of Intervention

Average Annual Expenditure on Health Before and After Intervention:

Majority (52%) of the respondents reported spending between Rs. 5k to 10k annually on health. 30% of the respondents said that they spent between Rs. 2k to 5k, while 19% reported spending up to Rs. 2k annually on healthcare expenditure.

After the CMC facility was set-up in North Goa, majority of the respondents – 39% reported spending only up to Rs. 1,000 annually, while 38% reported spending anywhere between Rs. 1k to 3k. Only 23% of the respondents reported spending Rs. 3k or above. This indicates that there has been a significant reduction in healthcare costs after the intervention.

Accessibility to Healthcare Services:

A majority of the respondents (72%) reported that the project activities have increased their accessibility to healthcare services through CMCs, MHUs etc., while only 23% seemed unsure of the project's contribution to making healthcare accessible. A negligible number of respondents

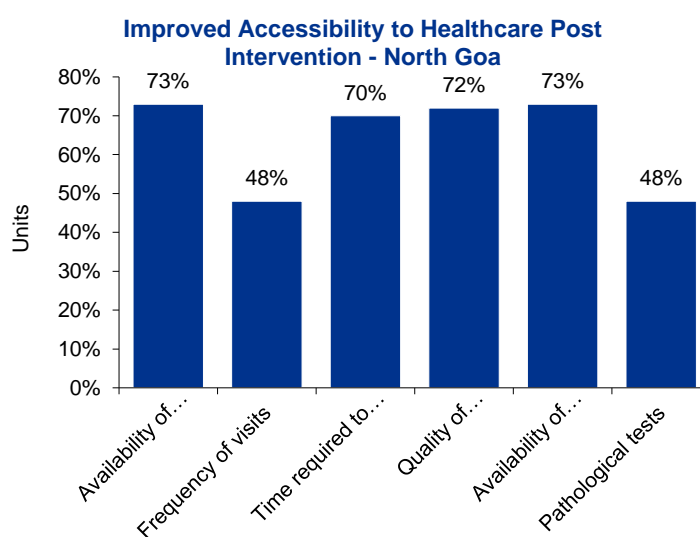


Figure 85 Improved Accessibility to Healthcare Post Intervention - North Goa

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mentioned having seen no benefits or the question was not applicable to them.

Those who responded as “Yes” to having noticed an increased accessibility to healthcare services also specified what all areas they found the healthcare interventions most accessible in. The most common response was that it has improved accessibility to medicines (73%), apart from generally improving quality of services available (72%), as well as reducing the time for travel to reach a healthcare facility (70%). It must be noted here that the responses were recorded in a multiple-choice format, therefore, responses can be overlapping.

Quality of Healthcare Services:

36% of the respondents said that the quality of healthcare services has improved, while 50% said that they “can’t say” and 11% said that they did not see any improvement in the quality of healthcare services.

On-field observations suggest that CMC facilities have healthcare resource persons throughout the day, while healthcare practitioners have stipulated timings. This ensures that patients have an expert to consult with on the specified days and timings. The CMC facility has also brought down their medical expenses considerably.

On being asked their respective opinions on the impact of the project interventions for improving health – particularly that of women and children, two stakeholders - the Sarpanch and Panch from Navelim said that facilities in their village have largely improved.

A Health Officer at the district level, on the other hand, put a more general, yet poignant point forward saying that there is a lack of convergence in efforts (of state and private entities such as the BU itself) often leading to duplication of efforts. Moreover, the Health Officer said that the BU’s efforts could have been better in terms of dealing with COVID-19.

However, the stakeholders recognized the BU’s efforts towards promoting healthcare facilities through the setup of health clinics and medicine-provision for the communities residing in the district of North Goa.

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Strengths

IOB SESA recognizes the importance of giving quality healthcare services to community members while also making it accessible. As intended, the CMC facility has brought down medical expenditure, also providing a reliable healthcare set-up to ensure services at regular intervals while maintaining service quality. The visible preference among community members for the CMC facility over the sub-center is a testament to the quality of services that is being provided by the BU in North Goa.

Areas of Improvement

- a) The fact that the BU functions in silos – particularly in terms of healthcare provision has been pointed by stakeholders as leading to duplication of efforts. This may end up leading to usage of double the resources for both the state and the BU to serve the same community.
- b) Better convergence with state schemes and medi-claim policies by the Directorate of Health Services Goa could help to bring costs further down.
- c) In both North and South Goa it was noticed that there is a high preference for private healthcare entities. This could possibly be due to a preference for better quality or variety of services. State-run entities are said to lack life-saving equipment. Tapping into the network of existing state-run healthcare facilities and providing equipment support or training of state-resources may help improve general access to and experience of healthcare services

Way Forward

1. Convergence with state schemes and policies

It is recommended that the BU taps into the existing state-run facilities to expand its reach and impact. Shared efforts by the BU, Health department and the community may have a positive effect on making healthcare more accessible and collaborative. Awareness can also be created on various health schemes being run in the state.

2. Equipment support to state-run facilities

Helping upgrade equipment at state-run facilities is advised for making better services accessible. Since state-run facilities do seem to be easily accessible, the only concern among community members seems to be that of quality of services being provided at state-run facilities.

Impact Assessment of Mobile Health Unit (MHU) in Chitradurga, Karnataka

The Mobile Health Unit (MHU) is another flagship project being carried out in Chitradurga after the CMC set-up in Goa. The provision of MHU is an extension service in essence with its ambitious goal to reach the last man in the community. In efforts to reach its goals, the MHUs cater to remote locations in Chitradurga. Some of the major activities carried out as part of this service include distribution of free medicines, setting up health awareness campaigns etc.

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

Relevance of Intervention

As per the last cycle of baseline assessment it was reiterated that in Karnataka, particularly, community members had to travel relatively longer distances (anywhere between 3 to 5 km) to access healthcare facilities due to the remoteness of certain hamlets. Considering that villages are relatively remote and road facilities are not very developed in Chitradurga district - as found in the baseline study as well as corroborated by on-field enumerators, the MHU services are bridging the accessibility gap, while also bringing down medical costs. The provision of extension services such as the MHUs appears to be very relevant considering the previous baseline findings.


Hence, the relevance for the project is found to be **Extremely Satisfactory** as per our scoring methodology.

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Coherence of Intervention

The project aligns with the Karnataka state government’s Health & Family Welfare Services (H&FWS) wing. The state has been aspiring to provide integrated and comprehensive primary health care services, create a conducive environment for public-private partnership models to ensure better service and equitable delivery to members of all communities, besides strengthening the overall health infrastructure in the state. In aiming to reach the last man, IOB through its MHU services is not only making healthcare service accessible, but, also equitable. Moreover, IOB’s commitment to working towards and strengthening healthcare services also meets Goal 3 for promotion of ‘Good Health & Well-being” of the Sustainable Development Goals outlined by the UN.

SDG	SDGs target	How is it aligned?
	Target 3.8 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.	By plying of MHU services in Chitradurga, the BU has made healthcare more accessible while ensuring that communities have access to quality services at reduced costs

Effectiveness of Intervention

The BU benefitted nearly 5966 patients from the MHU besides setting-up 2 Special Health Camps in FY 21-22. It met the target of achieving 6 awareness sessions within the year 2022.

Basis the information provided by the BU, the project scores 90% according to our scoring criteria, and hence, the intervention has been found to be **extremely satisfactory on the effectiveness scale.**

Efficiency of intervention

The MHU project was started in September 2021 with a new partner and the project is still underway in the state. There was about 6-12 months of delay in starting-up the

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project due to the restrictions posed by COVID-19. The budgeted amount for this project was INR 27 lakhs. It is reported that the said amount was underspent by up to 20% due to the onboarding of a new partner in the midway of the project. The project also has an exit strategy or a sustainability plan as confirmed by the IOB CSR team.

Our scoring criteria renders the project's score on the efficiency front was found to be **satisfactory**.

Sustainability of Intervention

The project has an exit strategy in sight in order to make the project self-sustaining in the longer run, thereby rendering the project intervention extremely satisfactory.

Resilience of Intervention

The project showed immense relevance during the trying times of COVID-19, whereby the BU could facilitate the distribution of Rapid Testing Kits, as well as conduction of awareness sessions on COVID-19 through the MHUs.

Impact of Intervention

Average annual expenditure on the health expenses before and after intervention:

The current average annual expenditure on healthcare per HH was reported to be Rs. 1,125. However, prior to the MHU service provision, the average annual expenditure was reported to be Rs. 2,685. While the responses pertaining to current average expenditure on health definitely appears to be a positive change – with a nearly 50% slash in the healthcare costs incurred, it is unclear whether the slash in costs is due to i) the reduced travel time, ii) availability of free medicines through MHU, iii) decrease in incidences of medical conditions, in general.

Accessibility to Healthcare Services:

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Roughly, 30% of the total sample appear to have been impacted by the MHU facilities and they reported that they have noticed an improvement in their ability to access timely healthcare facilities. There has been a general improvement in the availability of medicines, frequency of visits, time required to travel, quality of healthcare personnel and the availability of sanitary napkins, as well as access to pathological tests etc.

The MHUs are said to cover 18 villages per week with one vehicle. An observation made by one of the enumerators was that often the medicines provided by the MHU are meant for common seasonal illnesses. What this ends up doing is that it does not cater to the illness-specific healthcare needs of the HH members at a particular point of time, which is why community members usually prefer going to district hospitals – perhaps for availing a variety of other facilities that suit their specific needs. Perhaps, the nearly 50% reduction in overall expenditure can be attributed to the services that the community members do in fact avail for treatment of common illnesses, for which they may not have the need to travel to the district hospital.

Impact on health and WASH:

57% of the respondents reported noticing an improvement in their access to clean drinking water, while 47% reported seeing a decrease in water-borne diseases. 46% of the respondents said that there has been an improvement in sanitation and hygiene in the villages. Relatively fewer respondents said that they noticed an improvement in open-defecation, awareness around WASH and hygiene, and continued education for girls.

Strengths

Considering that villages are relatively remote and road facilities are not very developed in Chitradurga district - as found in the baseline study as well as corroborated by on-field enumerators, the MHU services are bridging the accessibility gap, while also bringing down medical costs.

Areas of Improvement

The MHUs are said to cover 18 villages per week with one vehicle. An observation made by one of the enumerators was that often the medicines provided by the MHU are meant

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for common seasonal illnesses. What this ends up doing is that it does not cater to the illness-specific healthcare needs of the HH members at a particular point of time, which is why community members usually prefer going to district hospitals – perhaps for availing a variety of other facilities that suit their specific needs.

Way Forward

- 1) Increasing the variety of medicines available based on community's requirements
- 2) Strengthening of existing services, provision of needs-based medicines, and intensification of awareness sessions on health and hygiene
- 3) Convergence with relevant state schemes and policies can be considered to bring down the costs further.

Business Drivers

Much like education, healthcare is also a unique sector in the sense that its success depends on its accessibility and quality to large sections of society – thereby making the profitability aspect a challenge. Nevertheless, profiteering motives often end up compromising upon the quality of services provided. For a socio-economically diverse country like India this can have serious repercussions – particularly for marginalized communities. CSR initiatives have a vital role to play in making this service delivery smoother and accessible to the masses. This can be done through an integrated approach that focuses on “...patient-centeredness, efficiency, effectiveness, timeliness, and equity”⁷⁴. 43% of the respondents felt that providing MHU and health camp support to increase community’s accessibility to healthcare facilities is a major social development intervention that adds to social license to operate. Furthermore, the BU also plans to digitize all its patient records to increase the efficiency of its intervention. The primary objective of IOB has been to create awareness among community members and provision of affordable and accessible healthcare service.

⁷⁴ An integrated conceptual model for achieving global quality service in healthcare establishments – D. Gopi; A Pal Pandi; P. V. Rajendra Sethupathi; K. P. Paranitharan; and D. Jeyathilagar in International Journal of Services and Operations Management, Vol. 33, No. 1, 2019



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Business Case for Community Medical Center (CMC)

A study by Tan, Ojo, Cheah, & Ramayah on measuring service quality provision and its effects on patient satisfaction levels in Malaysia found that hospital image, patient safety, personnel quality, and social responsibility play an important role in determining a patient's willingness to return⁷⁵. By setting up two OPD facilities and plying an MHU for less accessible villages, IOB SESA Goa has been able to bridge the gap of providing quality services at affordable costs or no cost at all – as evident in baseline and impact findings, community members tend to prefer private entities (such as private clinics or even the BU's services etc.) to access better quality of healthcare services.

Business Case for Mobile Health Unit (MHU)

As evident in the baseline and impact findings majority of the respondents reported accessing MHU services in Chitradurga. The lack of proper road accessibility has been an integral aspect of the heavy use of the MHU services. Although respondents opined that medicine availability could be bettered, in general they seem to have noticed an improvement in their ability to access healthcare services. The actual value of doorstep delivery of healthcare services became glaringly evident amidst the handicapping effects of the COVID-19 pandemic. By providing a near-doorstep delivery of services in every



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Women Empowerment

Executive Summary

Key Highlights of the Baseline Assessment:

- Respondents in all the three districts said that women could take decisions on various aspects of their lives ranging from employment, voting, financial decisions.
- Women were found to be generally more vocal and were part of SHGs in North Goa than in South Goa and in Chitradurga.
- Women also were forthcoming in their expressed requirement for entrepreneurial assistance.
- Lack of livelihood opportunities was echoed as a major concern – particularly in South Goa and Chitradurga.

Key Recommendations:

1) Convergence with SHGs in all the districts:

There is a requirement to improve awareness around SHG association – particularly in South Goa and Chitradurga. Stakeholder responses and on-field interactions suggested that women generally lack livelihood options.

2) Livelihoods/enterprise development training:

Livelihood generation opportunities and skill-building for women may be helpful in the longer run.

Baseline Findings

North Goa

According to NFHS-5 data for Goa 2019-21, a person is said to be 'literate' if they have completed at least 9th grade or else passed a simple literacy test administered during the NFHS-5 survey. Going by this standard, it was found that 92% of women in the age group of 15-49 in Goa are literate while 94% of men in the same age group – this indicates a healthy literacy parity among the genders in Goa. Conversely, however, only 48% of

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women in the age group of 15-49 have ever completed class 12th or more years of schooling as compared to 54% of men.

The median age at first marriage in Goa for women is 25.7 years. Only 6% of women are married off before the age of 18 years in the state, according to NFHS-5 data. This indicates that child marriage or even adolescent marriage for girls is considerably rare in Goa.

Decision-making

In the present study, 81% of the respondents said that women take decisions on voting, followed by 72% who reported that women take decisions on their employment. An equal

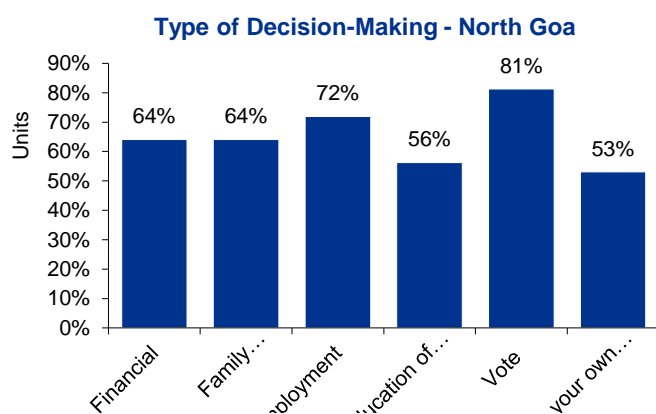


Figure 86 Type of Decision-Making - North Goa

share of respondents said that women can take financial decisions, as well as on family planning. While knowledge around contraceptive use is universal in Goa, some methods are still less well known to women. Only 45% of married women in Goa know about female condoms, while 71% know about emergency contraception⁷⁶.

Women's Participation in Gram Sabhas and Association with SHGs

According to stakeholders, while women were said to regularly attend gram sabha meetings and participate in its work planning, they often lacked livelihood opportunities besides lacking financial services, thereby, hindering their empowerment.

SHGs play an important role in providing a safety net for women in a rural community. As per NRLM data, 21.8% of women in India are associated with an SHG. Only 22% of the HHs reported being associated with an SHG in the current study. In the previous

⁷⁶ NFHS-5 Goa 2019-21

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baseline cycle, it was found that a mere 10.7% of the HHs had reported being associated with an SHG – showing a near-double increase in association with SHGs in Goa.

An SHG leader from Navelim in North Goa district had also mentioned that SHG funds are used to give personal loans to SHG members, for setting up micro-enterprises, and other income generation activities. This means that there is a prevailing notion amongst women in the district to view SHG association as a possible safety net. This presents the opportunity to further strengthen the presence of SHGs in the district, as well as consider possible ways of convergence to create more livelihood opportunities for women.

Type of Entrepreneurial Assistance Required

In the previous baseline cycle, lack of skill development and proper training as well as initial financial support to start new work by women help group was identified as a key gap area pertaining to women empowerment.

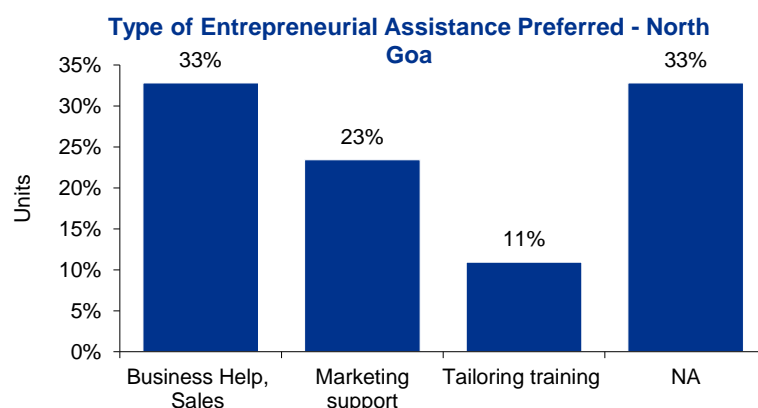


Figure 87 Type of Entrepreneurial Assistance Preferred - North Goa

In the present study, majority of the respondents – 33% said that help with setting up a business while 23% said that they would prefer to receive marketing support as a form of entrepreneurial assistance to women in the district.

The SHG leader from Navelim suggested that small home-based businesses like tailoring, toy making, candle making etc. would be a few good options for income-generation in the area.

It requires noticing, however, that the gender-distribution in the sample is visibly skewed towards male respondents (61%). Since the data was collected by male enumerators, predominantly, they often found it difficult to establish a rapport with female respondents

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as compared to males, which is why there may not be an adequate representation of females' views in the study. Yet, on-field interactions suggest that women in North Goa were more vocal in terms of their needs and aspirations and also displayed good decision-making power. This presents a promising opportunity to focus on initiatives that can strengthen SHGs, as well as give enterprise development a strong impetus in the district.

South Goa

Decision-making

On-field enumerators in South Goa noted that women were relatively more reserved than their North Goan counterparts. Primary data findings suggest that majority of the women (in 75% of the HHs) enjoy decision-making over their

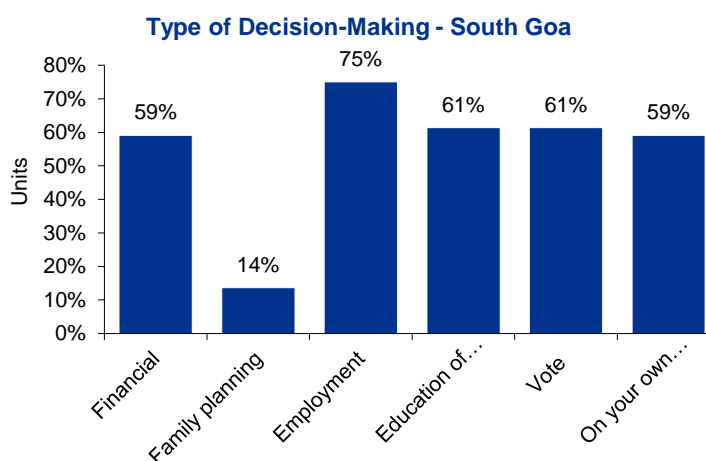


Figure 88 Type of Decision-Making - South Goa

employment, while 61% each reported that women take decisions pertaining to education of their children or even voting. 59% each said that they can decide over the family's finances and over their own mobility. However, the lowest percentage share (14%) of respondents reported that women can decide over family planning.

This may be the case because the responses were largely administered by male enumerators to male HH members – 68% of the respondents were male while only 32% were females from South Goa. Therefore, the responses can at best be considered to be male perceptions of female decision-making. Nevertheless, the low numbers on the

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family planning front is a bit concerning. According to NFHS-5 data, only 1% of the men in the age-group of 15-49 feel that contraception is a woman's choice⁷⁷.

The NFHS-5 data for South Goa district shows that 75% of married women within the age range of 15-49 years do use some form of family planning method. However, the rates of female sterilization (40%) seem concerningly higher than the rates for male sterilization – which is 0%. Only 23.5% of the women reported using a condom for family planning. Moreover, only 19.7% of the times, a health worker has ever spoken with a female non-user about family planning methods available at her disposal⁷⁸. This appears to indicate that the burden of family planning unduly falls on the female counterpart in a marriage – that, too, without a proper knowledge and know-how of the different options available. Overall, however, women seem to exercise good levels of decision-making power over certain aspects of their life in the district.

Type of Entrepreneurial Assistance Required

On being asked about the kind of entrepreneurial support required, nearly 30% of the respondents said that they would need assistance in setting up a business. 16% went on to say they would require marketing support or else need tailoring training (2%).

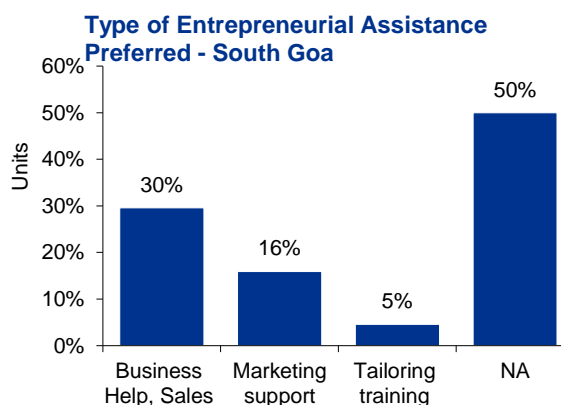


Figure 89 Type of Entrepreneurial Assistance Preferred - South Goa

On-field enumerators also suggested that the presence of SHGs was not very prominent in South Goan villages – therefore, mobilizing women towards SHGs could be considered in addition to financial literacy sessions. Moreover, conducting awareness sessions on importance of family planning with AWCs can be considered on a regular basis.

⁷⁷ NFHS-5 Goa 2019-21

⁷⁸ NFHS-5 South Goa 2019-20

Chitradurga

Decision-making

Surprisingly, unlike North and South Goa, significantly higher number of respondents reported that women have good decision-making power over various aspects of their lives. For instance, 91% of the respondents report that women can take financial decisions,

while 90% say that women decide over family planning. More than 85% of the respondents said that women have decision-making power over their employment, education of children, or even on voting.

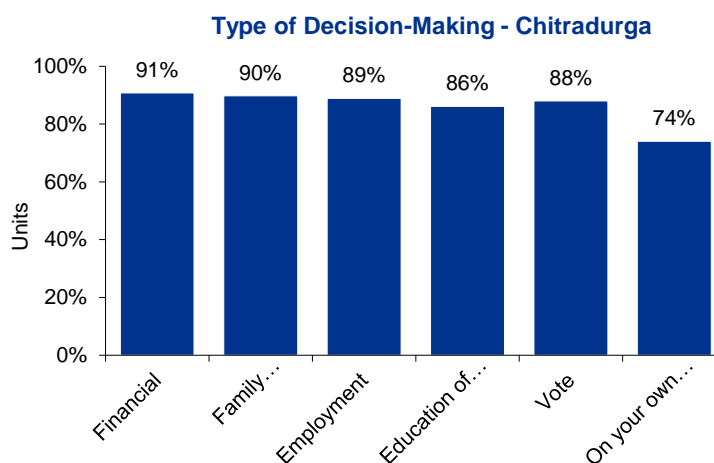


Figure 90 Type of Decision-Making - Chitradurga

It must be noted here, however, that these responses were overwhelmingly given by male respondents, as is evident in the gender distribution within the study undertaken in Chitradurga district. On-field observations, as well as the deeper delving into frequency of decision-making suggests that women largely tend to take a backseat when decision-making is concerned, and the decisions are majorly taken by their male counterparts in the HH. The high numbers could either be due to – i) confirming that women can/do take decisions in general (irrespective of frequency) and ii) social acquiescence - that is, giving responses that the interviewee thinks the interviewer wants to hear.

A deeper delving into the data reveals that more than 50% reported that women never make decisions pertaining to finances. An overwhelming percentage (60%) of the respondents in the study said that women rarely or never take decisions over family planning, while only 16% said that women always take decisions on family planning and

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only 12% reported that women sometimes take decisions on the same. As per NFHS-5 data, female sterilization is even greater in Chitradurga district at 62% than found in North Goa and South Goa – as compared to 0% for male sterilization. The usage of condoms is also extremely low at 4.3% - again indicating that the family planning burden falls on the female counterparts. However, interestingly, 63.4% of the times, a health worker has reportedly spoken with a female non-user about family planning⁷⁹.

Women's Participation in Gram Sabhas and Association with SHGs

Stakeholders confirmed that women do participate in gram sabha meetings and work-plannings, and also go on to hold positions as ward members (nearly 8-10 women elected) in the past 5 years. However, on-field observations suggested that while women may be elected representatives, it is actually their spouses who make decisions for them. These findings are concerning and points to a requirement of strengthening women empowerment. Stakeholders also expressed concern over women not being able to fully empower themselves due to a lack of livelihood opportunities.

As per the previous baseline cycle, 33.2% of the HHs in Chitradurga had any member in their family associated with an SHG. In the current study, only 28% reported being associated with an SHG – showing a decline. There is a need to tap into SHG network existing in the district and to mobilize women towards signing up for the same in order to improve livelihoods for women.

Type of Entrepreneurial Assistance Required

A minor percentage of respondents expressed an intent in availing any form of entrepreneurial assistance and this could also be possible due to responses being generally skewed towards male respondents. Nevertheless, 19% of the respondents expressed an interest in either learning advanced tailoring skills or any form of training. As mentioned by stakeholders and noted by on-field enumerators, a focus on adult female education – i.e., financial and digital literacy and livelihood skills training through tie-ups with SHGs can be helpful to boost the status of women in the district.

⁷⁹ NFHS-5 Chitradurga 2019-20

Analysis & Way Forward

Women Empowerment

Major Findings:

- Respondents in all the three districts said that women could take decisions on various aspects of their lives ranging from employment, voting, financial decisions.
- Since majority of the respondents were males in the sampled districts, the responses can only be taken as a perception on women's decision-making ability.
- Women were found to be generally more vocal and were part of SHGs in North Goa than in South Goa and in Chitradurga.
- Women also were forthcoming in their expressed requirement for entrepreneurial assistance.

Major Challenges:

- Lack of livelihood opportunities was echoed as a major concern – particularly in South Goa and Chitradurga.

Possible Solutions:

- Opportunity to further strengthen the presence of SHGs in North Goa, as well as possible ways of convergence to create more livelihood opportunities for women.
- Financial and digital literacy and livelihood skills training through tie-ups with SHGs can be helpful to boost the status of women in South Goa and Chitradurga.

Way Forward:

1) Convergence with SHGs in all the districts:

There is a requirement to improve awareness around SHG association – particularly in South Goa and Chitradurga. Stakeholder responses and on-field interactions suggested that women generally lack livelihood options.

2) Livelihoods/enterprise development training:

Livelihood generation and skill-building for women may be helpful in the longer run. Particularly holistic programs such as manufacture of cloth pads can be considered. This

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can improve livelihoods of women, meet local demands for menstrual hygiene products, create awareness around menstrual hygiene practices, with the potential of becoming self-sustaining in the longer-term while being ecologically-conscious - considering that North Goa or even Goa - for that matter are ecologically-vulnerable due to their geographical endowments.

A social enterprise 'Ecofemme' in Auroville is one such example wherein local women have been given training on making cloth pads while also creating a conducive dialogic environment to destigmatize menstruation and menstrual hygiene practices⁸⁰. The social enterprise sources organic cotton to make these cloth pads and also contribute to ecological sustainability by diverting waste from the landfills. For an ecologically-sensitive area like Goa this is pertinent.

⁸⁰ [Eco Femme • Join the cloth pad revolution!](#)

F. Community Infrastructure & Development

Community Infrastructure & Development

Executive Summary

Key Highlights of the Baseline Assessment:

- The availability of basic community infrastructure was found to be very good with significant improvement since the last baseline in North Goa. A baseline was not conducted in South Goa during the last cycle as interventions started in South Goa post the previous impact study.
- The North and South Goan districts majorly have access to piped water supply, with considerably lesser percentage of respondents being dependent on handpumps or community tap water. In Chitradurga, however, the use of handpumps was reported to be more as compared to the previous baseline findings.
- The kisan seva kendra seems to be used more prominently in Chitradurga than its Goan counterparts.
- Some of the persistent infrastructural gaps in the community are unavailability of concrete roads, unavailability of functioning toilets at households, and unavailability of a community hall, as well as unavailability of streetlights in Chitradurga.

Key Recommendations:

1) Improving sanitation and drainage facilities in Chitradurga:

As per Karnataka's Economic Survey 2021-22, sanitation facilities are still lacking in the Chitradurga district with high rates of open-defecation still being prevalent. The incidence of diarrhea is also said to be high in the district. The BU can consider working with the Swachh Bharat Mission-Gramin (SBM-G) project to provide awareness sessions on healthy hygiene and sanitation practices in the district.

2) Improving road facilities in Chitradurga:

The BU can consider undertaking road infrastructure improvement initiative as a short-term engagement and employ the local unemployed persons for the purpose since road accessibility still appears to be a persistent concern in the region.

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3) Solar Streetlight in all the three districts:

The BU may also consider intensifying its efforts towards installing solar streetlights in all the three districts.

Baseline Findings

North Goa

Accessibility to Community Infrastructure

There are 2240 co-operative societies in North Goa with nearly 7,64,118 members⁸¹.

In the previous baseline study, it was found that road facilities and drainage systems were poor. Moreover, lack of proper streetlights and lack of cleanliness facility on regular basis for maintaining clean roads was also reported. The respondents opined that police stations should be there in every village level for safety and security purposes.

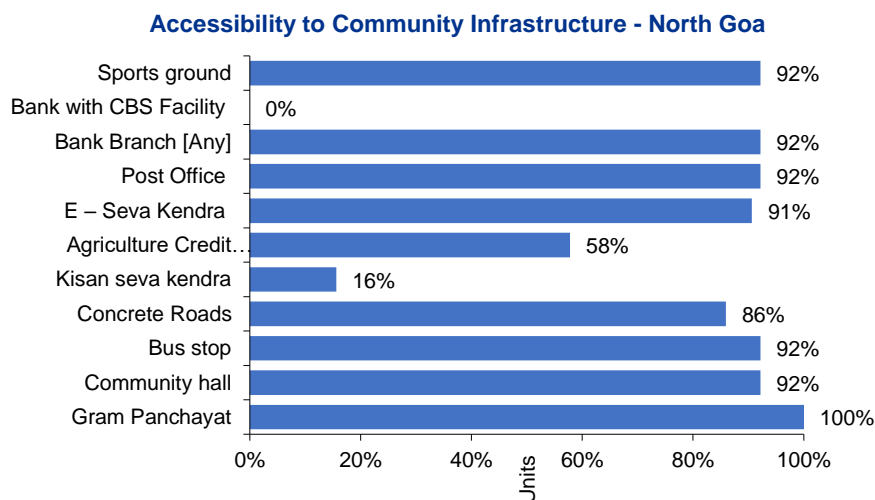


Figure 91 Accessibility to Community Infrastructure - North Goa

In the present study, an impressive 100% of the respondents reported having access to a gram panchayat. More than 90% of respondents said they had access to bus stops, postal services, and banking facilities. More than 85% of the respondents also mentioned

⁸¹ Statistical Handbook of Goa 2019-20

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having access to concrete roads. 100% of the HHs reported being connected to the power grid for electricity, while 44% of the respondents reported having street-light facilities in their village. Apart from this, 100% of the HHs are reported to have access to toilet facilities. Going by the responses of the participants, it is evident that North Goa has exceptionally good basic facilities in place.

Availability of Toilet Facilities in HHs - North Goa

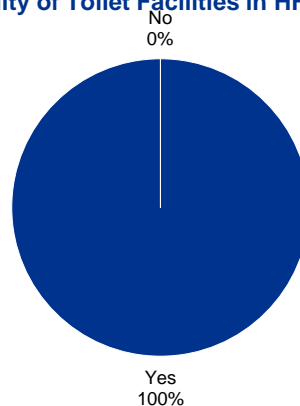


Figure 92 Availability of Toilets in HHs - North Goa

Source of drinking water

According to NFHS-5, In the previous baseline study, 95.9% of HHs in India reported an improved access to drinking water facilities, while 98.5% of HHs in Goa reported an improved access to drinking water facilities. In North Goa, 98.1% reported an improved access to clean drinking water facilities⁸². In the previous baseline 81% of the respondents reported having a piped water supply, while 0.7% reported sourcing drinking water from community well. 0.9% of the respondents reported using handpumps for sourcing drinking water. According to the Composite Water Management Index 2019, 100% of the HH report having individual water meter connections⁸³.

In the current study, 81% of the respondents reported getting piped water supply, while 17% reported getting drinking water from community wells. Overall, North Goa appears to have good access to water facilities.

Source of Drinking Water - North Goa

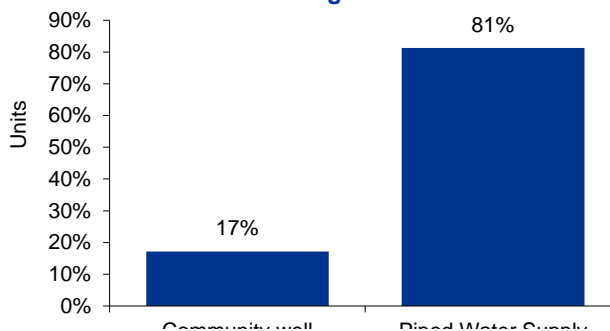


Figure 93 Source of Drinking Water - North Goa

⁸² NFHS-5 India, Goa, and North Goa

⁸³ Composite Water Management Index 2019

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Distance of Water Source

In the last cycle of baseline study, the average reported time travelled to fetch water was less than 30 min - 14.5%; 30 min - 1 hour - 20.2%; 1 hour to 2.5 hours - 0.5%; and more than 2.5 hours - 0%, while water facilities said to be available at nearly 64.7% of the HHs.

In the present study, 81% of the respondents said that the source of water is within the periphery of HH, while 17% of the respondents said that it is within a 500 meters reach. 2% of the respondents reported that the source of water is within 100 meters. Overall, the district appears to have good accessibility to water with majority of the HHs having the source of water well within reach.

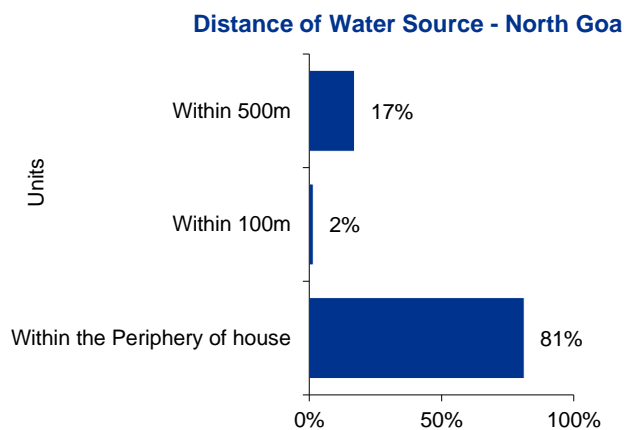


Figure 94 Distance of Water Source - North Goa

South Goa

Accessibility to Community Infrastructure

In South Goa, a total of 2838 co-operative societies are functioning with 5,00,154 members³². On being asked about the availability of and thereby accessibility to community infrastructures, 100% of the respondents reported having access to a gram panchayat, bus stop, and community halls. The responses indicate the existence of a robust basic infrastructure system which community members can leverage for the community’s overall upliftment. For instance, the existence of a well-functioning gram panchayat may, in fact, help create awareness among and keep the community members about government schemes that can be helpful to the overall development of a HH and village. The existence of bus-stops indicates a high-level of transportation integration which can in turn be used to access various facilities, such as healthcare.

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Accessibility to Community Infrastructure - South Goa

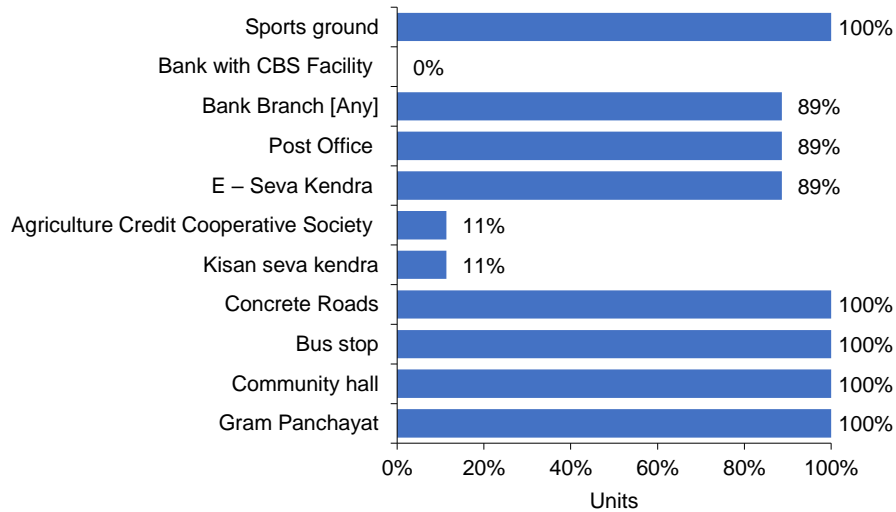


Figure 95 Accessibility to Community Infrastructure - South Goa

Overall, as per the primary data and the observational data, community infrastructure facilities are found to be extremely good and accessible to HHs. However, the field enumerators also noticed that basic community infrastructures were in place in South Goa, however, the quality of these infrastructures were not as good as that of North Goa's.

Availability of Toilet Facilities in HHs - South Goa

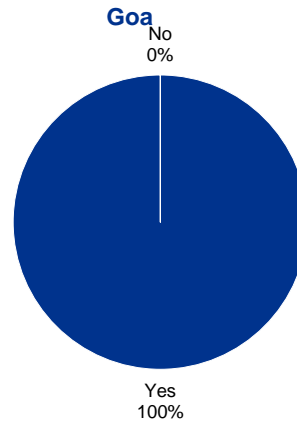


Figure 96 Availability of Toilet Facilities - South Goa

Efforts can be made towards understanding the role of Agriculture Credit Cooperatives, Kisan Kendras - that is why or why not these services are not accessible/not accessed in the district. Additionally, the BU may consider intensifying its efforts around street-light installations.

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Source of drinking water

In the previous baseline, 84.9% of the respondents reported having access to piped water supply, while 0.7% of the respondents reported accessing the community well.

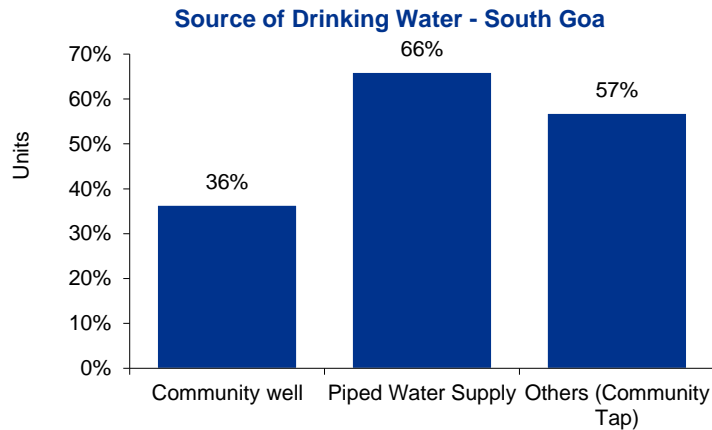


Figure 97 Source of Drinking Water - South Goa

In the current baseline study, 66% of the respondents reported accessing drinking water through piped water supply – thereby deviating from the previous baseline findings. 36% of the respondents reported accessing community wells, while 57% reported accessing community tap.

Distance of Water Source

57% of the respondents reported having the source of water within the periphery of the house, while 23% of the respondents reported accessing water within 500 meters of reach, whereas another 20% reported having the source of water within 100 meters of distance. Overall, respondents appear to have good access to water facilities with ease of accessibility.

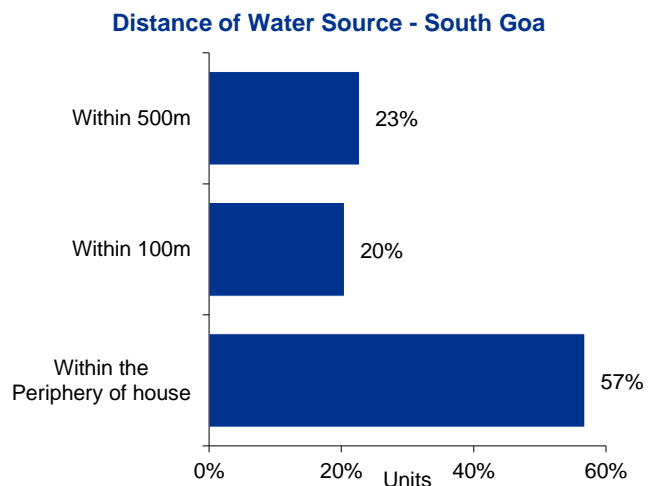


Figure 98 Distance of Water Source - South Goa

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Chitradurga

There has been a considerable improvement in the percentage share of populations living in HHs with improved sanitation – from 43.4% during NFHS-4 to 63.1% during NFHS-5 survey⁸⁴.

In the previous baseline cycle of Chitradurga, it was pointed out that there was an absence of streetlights, persistent problem of irregular electricity supply, lack of dustbin for garbage disposal, lack of cleanliness and cleaning of drains etc. The community members had also expressed that loud noise from the mining area, dust pollution due to the BU’s trucks plying are some of the major concerns. They had also asked for solar lights to be installed in the area.

Access to Community Infrastructures

In the present study, more than 95% of the respondents in Chitradurga reported having access to Gram Panchayat in their respective villages, followed by nearly 90% reporting having access to postal services. About 85% of the respondents also reported having community halls in their respective villages, followed by more than 75% of the respondents reporting having access to bus stops.

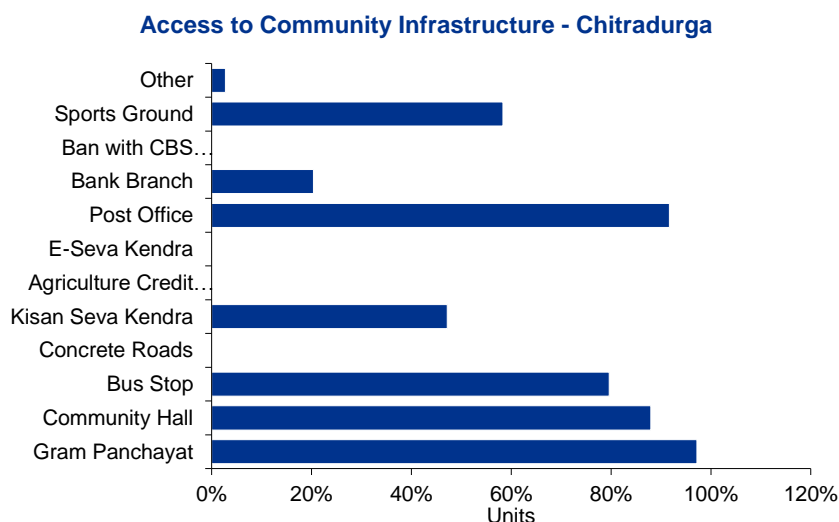


Figure 99 Access to Community Infrastructure - Chitradurga

⁸⁴ Karnataka Economic Survey 2021-22

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The responses show that most villages have access to the basic infrastructures in place – be it in terms of communication channels, transportation services, as well as connection with PRI bodies.

Most (92%) HHs also reported having access to toilet facilities while the rest 8% reported as not having access to it.

The ones who reported not having access to toilets were all members belonging to the ST and SC communities spread across Megalahalli, Bommanagathihalli, Chikkenalli and Tanigehalli.

Availability of Toilet Facilities in HHs - Chitradurga

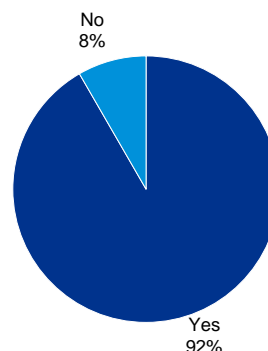


Figure 100 Availability of Toilet in HHs - Chitradurga

Overall, the district has good accessibility to community infrastructure. The kisan seva kendra seems to be used more prominently in Chitradurga than its Goan counterparts. Sports ground facilities also seem to be limited. Moreover, as was observed by on-field enumerators, the road facilities in the district were found to be extremely poor. There is a possibility to look into developing and improving road infrastructure, solar streetlights, and sports ground facilities in the area.

Two stakeholders said that some of the persistent infrastructural gaps in the community are unavailability of concrete roads, unavailability of functioning toilets at households, and unavailability of a community hall, as well as unavailability of streetlights. Four stakeholders – three at the village level and one district level stakeholder said that community toilets are unavailable. Three stakeholders said that unavailability of drains is another concern. Only one stakeholder – the PDO said that unavailability of reliable electricity is also an issue.

All of the respondents also mentioned that their respective HHs are connected with the power-grid for electricity, however, none of them mentioned the presence of streetlights. Less than 4% of the respondents did mention, however, that they rely on solar energy for whenever there is an electricity cut, while most either rely on candles or mobile phone

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torches in the absence of electricity. Roughly 10% of the respondents reported having access to inverter for power back-up. The minor foray into usage of solar energy seems like a step in the right direction, though, and can be further tapped into by creating more awareness around the benefits of using solar power and subsidies for availing the same.

Source of Drinking Water and Distance:

In the previous baseline study, it was found that a majority of the HHs (98.4%) reported having access to piped drinking water supply, with only 0.4% reporting using handpumps. Whereas, in the current study, about 60% of the HHs reported using handpumps for sourcing water, followed by using piped water supply channels (more than 50%). More than 30% of the HHs also reported using community wells for sourcing water.

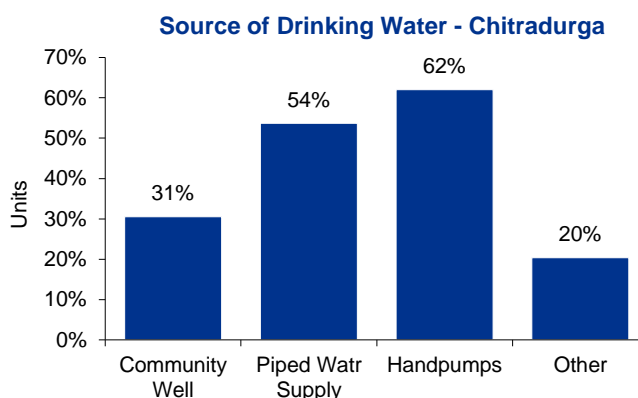


Figure 101 Source of Drinking Water - Chitradurga

Distance of Water Source

In the last baseline cycle, it was found that in the Karnataka field unit HHs had to spend about 30 mins from their houses to fetch water. The average time travelled to fetch water: less than 30 min - 31.6%; 30 min - 1 hour - 41.6%; 1 hour to 2.5 hours - 16%; and more than 2.5 hours

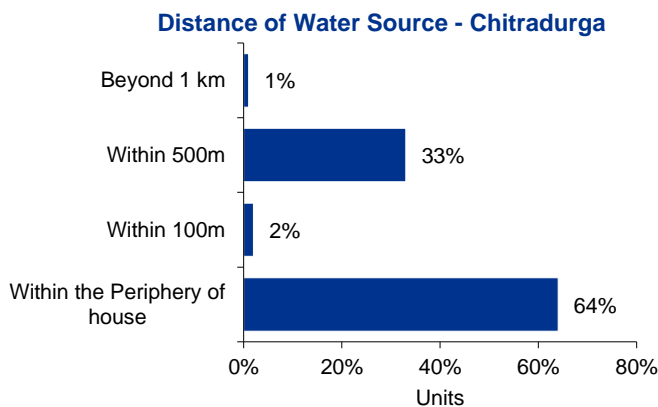


Figure 102 Distance of Water Source - Chitradurga

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-3.6%. In the present study, majority (64%) of the respondents said that the source of water was either within the HH or within the periphery of the HH, whereas 33% reported having the source of water within 500 m of distance. Only 3% reported having the water-source within 1 km or beyond 1 km from their HH. This essentially means that for most (97%) of the HHs, the source of water is well within their immediate reach.

Analysis & Way Forward

Community Infrastructure & Development

Major Findings:

- The availability of basic community infrastructure was found to be very good with significant improvement since the last baseline – in both North and South Goa.
- The North and South Goan districts majorly have access to piped water supply, with considerably lesser percentage of respondents being dependent on handpumps or community tap water. In Chitradurga, however, the use of handpumps was reported to be more as compared to the previous baseline findings.
- The kisan seva kendra seems to be used more prominently in Chitradurga than its Goan counterparts.

Major Challenges:

- Some of the persistent infrastructural gaps in the community are unavailability of concrete roads, unavailability of functioning toilets at households, and unavailability of a community hall, as well as unavailability of streetlights in Chitradurga.
- Lack of proper drainage facilities was also reported by a few stakeholders in Chitradurga.
- Sports ground facilities were reported to be limited in Chitradurga.

Possible Solutions:

- Solar-powered streetlight facilities can be considered investing in for the villages in the longer term.
- Efforts can be made towards understanding the role of Agriculture Credit Cooperatives, Kisan Kendras and E-Seva Kendras - that is why or why not these services are not accessible/not accessed in the district.
- Sports ground facilities and road infrastructure can be improved in Chitradurga.

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Way Forward:

1) Improving sanitation and drainage facilities in Chitradurga:

As per Karnataka's Economic Survey 2021-22, sanitation facilities are still lacking in the Chitradurga district with high rates of open-defecation still being prevalent. The incidence of diarrhea is also said to be high in the district⁸⁵. The Swachh Bharat Mission Gramin (SBM-G) has been consistently working in the state to reduce open-defecation. The Economic Survey of Karnataka report claims that Karnataka has become OD free, which seems to contradict with the baseline findings of the present study. Phase-II of the project started in 2020-21 and will go on till 2024-25. One of the key objectives of Phase-II is to improve the levels of cleanliness in rural areas through solid and liquid waste management to turn the villages into ODF Plus. Behaviour Change Communication and Capacity Strengthening will be undertaken to carry out the project. The BU can consider working with the SBM-G project to provide awareness sessions on healthy hygiene and sanitation practices in the district.

2) Improving road facilities in Chitradurga:

The BU can consider undertaking road infrastructure improvement initiative as a short-term engagement and employ the local unemployed persons for the purpose since road accessibility still appears to be a persistent concern in the region.

3) Solar Streetlight in all the three districts:

The BU may also consider intensifying its efforts towards installing solar streetlights in all the three districts.

⁸⁵ Karnataka Economic Survey 2021-22

G. Environment

Environment⁸⁶

Executive Summary

Key Highlights of the Baseline Assessment:

- 33% of the respondents reported that water pollution and air pollution are two most prominent environmental issues being faced in North Goa.
- More than 40% of the respondents in South Goa reported air pollution to be a major environmental concern, followed by water pollution (35%).
- 33% of the respondents reported that air pollution is a major environmental concern in the district, while 27% reported that water pollution is a concern. Clean fuel initiatives significantly high in Chitradurga district.

Key Recommendations:

1) Installation/upgradation of air and water quality devices in localities close to the plant areas:

This may be helpful to keep a constant check on quality of both air and quality.

2) Installation of solar streetlights and intensification of other interventions:

Community members had pointed out that they found the solar streetlight installation quite helpful. Several plantation drives and awareness-creation sessions are also said to have been completed. Intensifying the same might be helpful.

Baseline Findings

Goa boasts of a unique physiographical set-up – comprising of coastal plains with marine landforms; denudational hills and tablelands, in addition to deeply dissected high western ghats. Goa receives copious amounts of rainfall during the monsoons⁸⁷. Besides this,

⁸⁶ Please note all findings of the baseline study pertain to general findings and perceptions of the community regarding their surroundings and ecosystem. It is not specific to effects of the BU's work or projects.

⁸⁷ Environmental Management Plan North Goa 2021-22

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Goa has multiple environmentally sensitive areas such as turtle nesting grounds, coral reefs, crocodile estuaries, Khazan lands, wetlands, and mangrove reserves.

North Goa

54.37% of North Goa’s geographical area is covered with forests. 33% of the respondents reported that water pollution and air pollution are two most prominent environmental issues

being faced in North Goa. A common lament among the respondents was that the mining activities that take place in the factory disperse dust, thereby, causing air pollution while also contributing the water pollution.

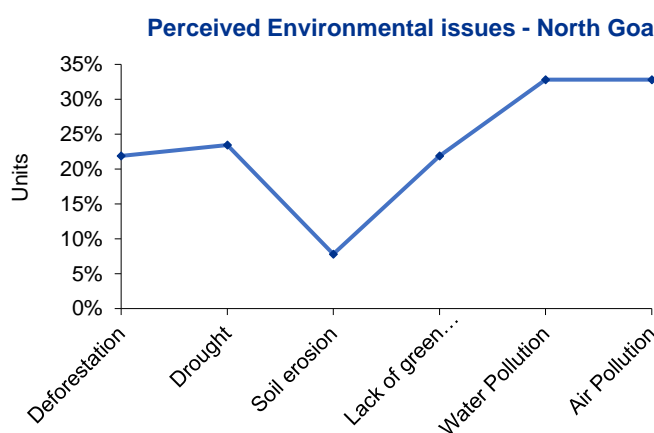


Figure 103 Perceived Environmental issues - North Goa

These findings were also corroborated by the responses given by respondents. 15 of the stakeholders interviewed said that air pollution is an environmental concern, while only one stakeholder felt that water pollution is a concern. 14 stakeholders said soil pollution is a concern while 13 people reported that deforestation is an environmental concern in their respective areas.

Apart from this, though, few respondents also mentioned that Vedanta has been undertaking tree plantation drives in the core villages, besides conducting environmental awareness sessions on Environment Day.

While it is commendable that the BU is taking efforts to instill pro-environment behavior through its plantation drives and awareness initiatives, it may help to look into the externalities that the BU’s business activities may be having on the people living nearby.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

South Goa

More than 40% of the respondents in the district reported air pollution to be a major environmental concern, followed by water pollution (35%) and deforestation (27%). The responses seem concerning because in North Goa, too, very similar concerns were raised pertaining to environment. As pointed out by the IOB CSR team, it is pertinent to note here that the area from where respondents were sampled is in the middle of Cuncolim Industrial Development Corporation (IDC)⁸⁸. Hence, the area is a hub of different industries and business operations leading to a higher pollution rate.

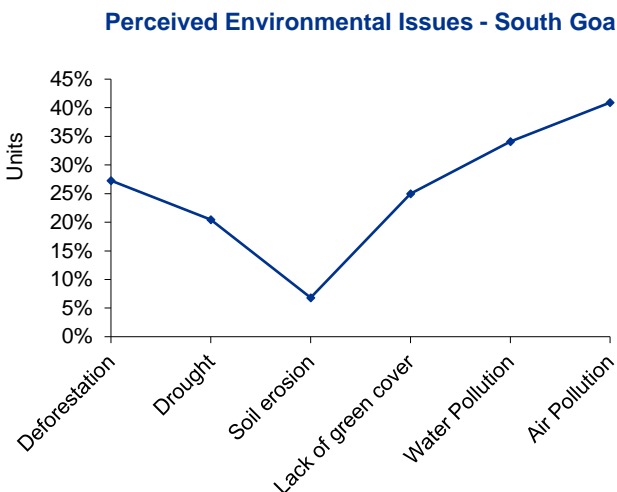


Figure 104 Perceived Environmental Issues - South Goa

Chitradurga

The total forest cover in Chitradurga is 11.53%⁸⁹. A significant improvement has been noticed in terms of increased usage of clean fuel in the kitchen in the Chitradurga district. From 40% to nearly 90%, there has been more than 50% of increase in the sue of clean cooking fuel. This has been attributed to the Pradhan Mantri Ujjwala Yojana (PMUY) which was launched in May 2016⁹⁰.

33% of the respondents reported that air pollution is a major environmental concern in the district, while 27% reported that water pollution is a concern. 23% said that soil erosion is an environmental concern in the area.

24% of the respondents reported that activities pertaining to promotion of clean cooking have been taken up in the district. While another 4% said that other types of activities

⁸⁸ [GOA Industrial Development Corporation \(goaidc.com\)](http://goaidc.com)

⁸⁹ Karnataka Forest Department Annual Report 2021-22

⁹⁰ Karnataka Economic Survey 2021-22

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have been undertaken – such as promotion of clean kitchens, distribution of bio-fertilizers, promotion of rainwater harvesting systems and water-filters.

A secretary from Bommenahalli and PDO from Beemasamudra said that the government runs programs for natural resource management and tree plantation programs (along with the BU), while the PDO added that pollution control programs and clean energy for lighting and cooking programs are also being run by the government – confirming that projects are being run to promote clean cooking.

Efforts to be made towards understanding the reason why air and water pollution are the prominent concerns in the region.

Analysis & Way Forward

Environment

Major Findings:

- 33% of the respondents reported that water pollution and air pollution are two most prominent environmental issues being faced in North Goa.
- More than 40% of the respondents in South Goa reported air pollution to be a major environmental concern, followed by water pollution (35%).
- 33% of the respondents reported that air pollution is a major environmental concern in the district, while 27% reported that water pollution is a concern. Clean fuel initiatives significantly high in Chitradurga district.

Major Challenges:

- As the project intervention areas either have a history or ongoing mining activity, the externalities of the same, especially in the form of pollution are found to be a major concern highlighted by community members.

Possible Solutions:

- Efforts to be made towards understanding the reason why air and water pollution are the prominent concerns in the region.
- Upgradation and/or installation of air and water quality devices in the localities close to the BU's plants.
- Intensification of existing interventions such as clean fuel, solar streetlight installation

Way Forward:



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- 1) Installation/upgradation of air and water quality devices in localities close to the plant areas:** This may be helpful to keep a constant check on quality of both

H. Sports & Culture

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Sports & Culture

Executive Summary

Key Highlights of the Baseline Assessment:

- 66% of the respondents in North Goa reported having access to physical/recreational facilities.
- 41% of the respondents said that these sports facilities are being provided by the SESA Football Academy (SFA)
- 50% of the respondents in South Goa reported having access to physical/recreational facilities.
- None of the respondents in Chitradurga mentioned having access to any recreational activities in their local vicinity being offered by any entity.
- Stakeholders in North Goa mentioned that sports equipment can be upgraded to include more advanced equipment.
- Sports ground facilities were reported to be not very well developed in the Chitradurga district. Additionally, a lack of coaches, sports trainings, and village stadiums and that there is a need to improve the same was reported.

Key Highlights of the Impact Assessment:

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

- 42% of the respondents said that there has been improvement in their ability to participate in regular sports/sports competitions due to project interventions.
- On-field observations suggest that the SESA Football Academy is a very good facility for youth interested in football.

The project has garnered much support and recognition for its efforts towards channelizing talented members from the community in sports.

Key Recommendations:

a) Upgradation of existing facilities:

Sports coaches pointed out that upgradation of existing sports facilities and equipment would be helpful to provide better training to enrolled sportspersons.

b) Diversifying into new sports:

Some of the stakeholders also mentioned that diversifying into other types of sports may be good option to try.

c) Promotion of sports in Chitradurga:

Stakeholders in the district mentioned having sports facilities in schools. However, they said that the district lacked proper sports coaches to train the youth. There is a possibility to consider upgrading a school ground facility to provide sports training to interested persons.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Baseline Findings

North Goa

A major share of respondents (44%) reported not having any physical/recreational activities in their locality, however, a prominent percentage of respondents reported having access to football facilities in their area (30%), followed by 19% who reported having cricket and volleyball facilities. 8% reported that they only had access to cricket facilities.

One of the stakeholders – a coach from Sakili said that the SESA Football Academy provides sports facilities. A few students from the same institute in Sakili said that football, cricket, and volleyball facilities are also available. The Navelim sarpanch, Panch, and SHG leader said that only football

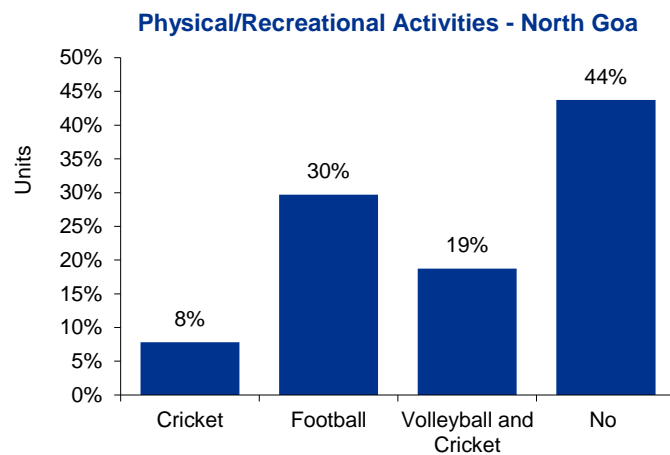


Figure 105 Physical/Recreational Activities - North Goa

facilities are available in their village. In Amona, the principal of the SFA said that football, volleyball, and cricket facilities are available. Only Betqui Khandola appeared to have no such facilities.

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41% of the respondents said that these sports facilities are being provided by the SESA Football Academy (SFA), while 25% said that their schools provide sports facilities to them, as against 34% who responded as not having access to these facilities.

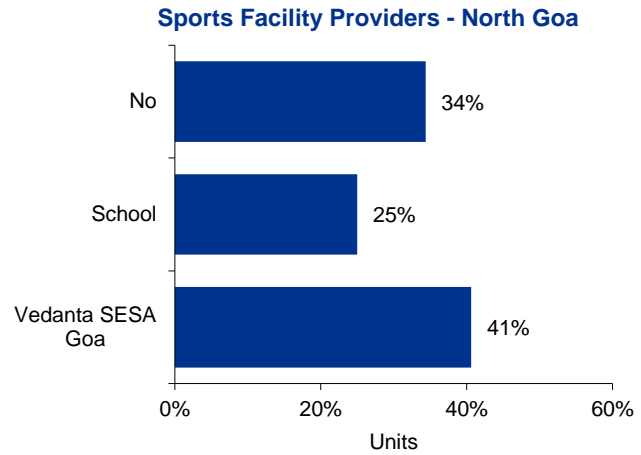


Figure 106 Sports Facility Providers - North Goa

The primary needs expressed by the stakeholders was the need for setting-up a playground, followed by a requirement for a wider range of sports facilities to be made available that are also relevant to the changing times. A few students also expressed that more sports coaches are required at the SESA Football Academy. The CSR team here had reported that there were already two full-fledged playgrounds at both the panchayats surveyed in Amona and Navelim.

As far as cultural practices are concerned, the recorded responses were found to be insignificant.

South Goa

30% of the respondents reported having access to football facilities in the district, followed by 14% who had access to volleyball facilities. 7% said that they could access cricket facilities. Of the 50% who responded as having access to sports facilities, 32% said that they could access these facilities through their school, while the rest 18% said they could access the facilities

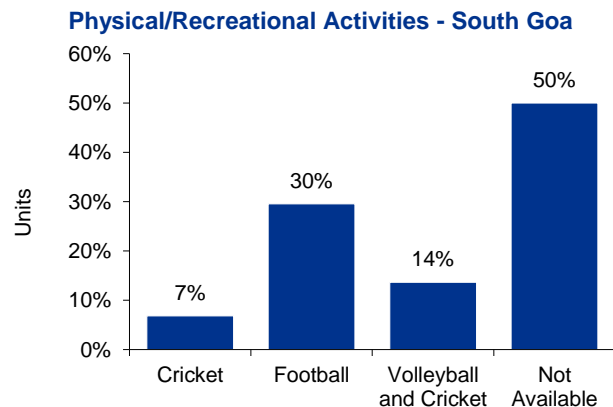


Figure 107 Physical/Recreational Activities - South Goa

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

through the SESA Football Academy (SFA). Few respondents suggested that sports ground facilities and football facilities could be improved in the area.

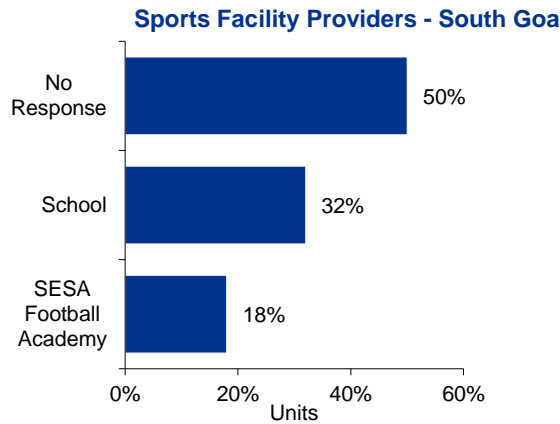


Figure 108 Sports Facility Providers - South Goa

ChitradurgaNone of the respondents in the district mentioned having access to any recreational activities in their local vicinity being offered by any entity. However, nearly 36% of the respondents said that football can be promoted locally in the area, followed by cricket, while the rest of sample did not appear have any suggestions on promoting sports facilities in the area.

A Sarpanch from Beemasamudra, Secretary from Bommenahalli, and PDO from Beemasamudra said that playground and other sports equipment are available at schools. However, they reported

there is a lack of coaches, sports trainings, and village stadiums and that there is a need to improve the same.

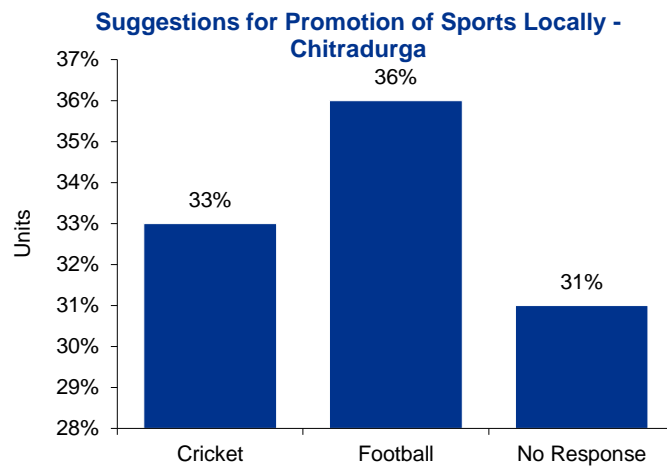


Figure 109 Suggestions for Promotion of Sports Locally - Chitradurga

The SESA Football Academy's (SFA) secretary

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

suggested that "...women's football should be fostered and linkage with livelihood should be developed. Young women and girls should be encouraged to take up sports, besides focusing on education alone.

Analysis & Way Forward:

Sports & Culture

Major Findings:

- 66% of the respondents in North Goa reported having access to physical/recreational facilities.
- 41% of the respondents said that these sports facilities are being provided by the SESA Football Academy (SFA)
- 50% of the respondents in South Goa reported having access to physical/recreational facilities.
- None of the respondents in Chitradurga mentioned having access to any recreational activities in their local vicinity being offered by any entity

Major Challenges:

- Stakeholders in North Goa mentioned that sports equipment can be upgraded to include more advanced equipment.
- Sports ground facilities were reported to be not very well developed in the Chitradurga district. Additionally, a lack of coaches, sports trainings, and village stadiums and that there is a need to improve the same was reported.

Possible Solutions:

- Upgradation of sports infrastructure and equipment at the SESA Football Academy in North Goa.
- Diversifying into new sports
- Upgradation of sports facilities in Chitradurga
- Promotion of sports for girls and women.

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Way Forward

1) Upgradation of existing facilities in North Goa:

Sports coaches pointed out that upgradation of existing sports facilities and equipment would be helpful to provide better training to enrolled sportspersons.

2) Diversifying into new sports:

Some of the stakeholders also mentioned that diversifying into other types of sports may be good option to try.

3) Promotion of sports in Chitradurga:

Stakeholders in the district mentioned having sports facilities in schools. However, they said that the district lacked proper sports coaches to train the youth. There is a possibility to consider upgrading a school ground facility to provide sports training to interested persons.

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Impact Assessment Project SESA Football Academy

Relevance of Intervention

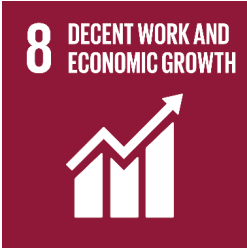
As part of its strategy to foster skill development in the area, the SESA Football Academy (SFA) has been in existence since 1998. The first campus was set-up on reclaimed mine in Sanquelim and has ever since striven to become a premier institute with the sole aim of identifying and honing the skills of talented budding footballers in the age-group of 13 and 15 from across the country, but primarily from Goa through its four-year residential program. Its second campus was set up in Sirsaim. The SFA provides amenities including healthy food, health care, gymnasium, play area and gives expert coaching.

Coherence of Intervention

The SFA aligns with Goal 8 of the SDGs to provide 'Decent Work and Economic Growth' for the sports-inclined youth in Goa. By providing football training institute and giving the youth a platform, the IOB SESA has helped legitimize sports, and particularly football as a possible avenue that can be pursued as an occupation.

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SDG	SDGs target	How is it aligned?
	<p>Target 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training</p>	<p>The BU aims at identifying and talented and sports-oriented youth and to equip them with relevant skill-sets and further hone their talent to play at various platforms. This gives many of the youth the opportunity to earn a decent livelihood for those who pursue it professionally.</p>

Effectiveness of Intervention

By setting out to channelize youth talents and nurture academically, athletically, socially, and emotionally well-rounded youth – the SESA Football Academy has trained more than 230 sportspersons while helping them pursue sports either as a hobby or as a possible career. The countless platforms at district, state, national, and international levels that the SFA collaborates with and participates in is testament to its effectiveness as a premier football academy.

Efficiency of Intervention

The program is implemented in partnership with the SESA Community Development Foundation. In FY 22, an overall expenditure of of 2.28Cr was done on this project. In FY 23, the overall budget allocated is 4.3CR and the same is planned to be spent strategically by the end of FY 23. 100% is reported to have been utilized.

Impact of Intervention

42% of the respondents said that there has been improvement in their ability to participate in regular sports/sports competitions due to project interventions. However, 10% said they see no improvement as such, while for the remaining the question was not applicable.

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On-field observations suggest that the SESA Football Academy is a very good facility for youth interested in football. Students are believed to go on to win many local and state level championships.

Sustainability of Intervention

The SESA Football Academy was conceived of in order to train and hone the skills of talented sportspersons in the state of Goa and has continued to provide holistic development opportunities targeting physical, psychological, technical, and tactical training, as well as their nutritional well-being. Having begun its journey in Sanquelim in 1999 and opening up a new campus in 2008 in Sirsaim, the SFA has garnered for itself a strong foothold in the region and continues to be a well-recognized presence with its consistent focus on i) giving access to budding footballers to district, state, and national platforms; ii) expansion through Vedanta Football Schools; iii) increasing its relevance to the larger community in the region through its initiatives such as senior football and hosting women's leagues. It is safe to say that the SFA's more than two decades long presence and its consistent efforts to stay relevant and expand seem to be crucial for the holistic development of the community and especially that of the Goan youth.

Strengths

The project has garnered much support and recognition for its efforts towards channelizing talented members from the community in sports.

Area of Improvement

Stakeholders felt that the sports facilities and equipment could be upgraded to enable more advanced forms of training.

Another suggested area of improvement was that the availability of a physiotherapist be regularized.

Stakeholders felt that there could be a diversification in sports facilities provided

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Way Forward

Sports coaches pointed out that upgradation of existing sports facilities and equipment would be helpful to provide better training to enrolled sportspersons.

a) Upgradation of existing facilities:

Sports coaches pointed out that upgradation of existing sports facilities and equipment would be helpful to provide better training to enrolled sportspersons.

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Some of the stakeholders also mentioned that diversifying into other types of sports may be good option to try.

c) Promotion of sports in Chitradurga:

Stakeholders in the district mentioned having sports facilities in schools. However, they said that the district lacked proper sports coaches to train the youth. There is a possibility to consider upgrading a school ground facility to provide sports training to interested persons.

Business Drivers

43% of the management stakeholders felt that promoting sporting academies and centers adds the most value to IOB's social license to operate. However, 29% of the respondents said that organizing sports tournaments increases the BU's social license to operate while 14% of the respondents said that supporting local athletes with sporting equipment and nutrition is valuable to an organization's social license to operate in an area.

43% of the management stakeholders also felt that promotion of local artisanal livelihoods can aid in the BU's social license to operate.



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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Business Case for SESA Football Academy

With its presence on a reclaimed mining site in Goa for over two decades, IOB as a business unit and as a prominent sports-facility provider has gained much trust and recognition in Goa. Having built a state-of-the-art academy and catapulting numerous young players to district, state, and national platforms, the SFA is continuing to hold a steady ground in channelizing youth talents. With its expansion to Sirsaim and provision of sports facilities for senior members of the community – the BU has displayed its vision for an inclusive society.



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Case Study on SESA Football Academy (SFA)

With a vision to transform India in the field of sports, SESA established a Football Academy in the mining area of Sanquelin, North Goa in 1999 with the aim to stoke the inherent interest of Goan children in Football and nurture talent in football not only from Goa but from pan India. The academy runs a four year long residential program that provides education to the trainees in the first half of the day and trains them in football in the second half. Owing to the success of the academy, a second campus was opened in Sirsaim in the year 2008.





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There is a strong focus on women empowerment with the academy having initiated the Vedanta Women's League in 2017, providing the much-needed opportunity for the women football players of Goa to showcase their talent and create opportunities for foraying into the national and international platforms.

Since its establishment, SFA has trained over 230+ footballers. SFA graduates are part of coveted teams such as the national football team and the Indian Super League. It has produced players like Mickey Fernandes, Godwin Franco, Rowilson Rodrigues, and Adil Khan.

The SESA Football Academy has earned accreditation under the Khelo India scheme which will further fortify the efforts of the academy to take football to the grassroots level.

Over the years, many SFA graduates have ascended through the positions in Goa's local leagues, and presently are the part of the Goa Pro League, the topmost division of Goan football. SFA has extended its outreach to school children in Goa through the Vedanta Football Schools drive.

Vedanta was awarded the "Best Organization Contributing to Sports through CSR" at the FICCI India Sports Awards 2019 for this initiative.

II. Perception Study

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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.

Organizations, like IOB, 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.

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 ingrained in the DNA and the culture of the organization.

The perception study in this chapter captured the perception of the local communities, local stakeholders, and district stakeholders.

Beneficiaries and Stakeholder Perception in North Goa

Project Ranking

In North Goa, the CMC and MHU interventions seemed to be the highest ranked/recognized intervention of the BU – wherein more than 75% of the respondents seem to view CMC and MHU programs positively, followed by Project SESA Technical School – whereby more than 60% of the

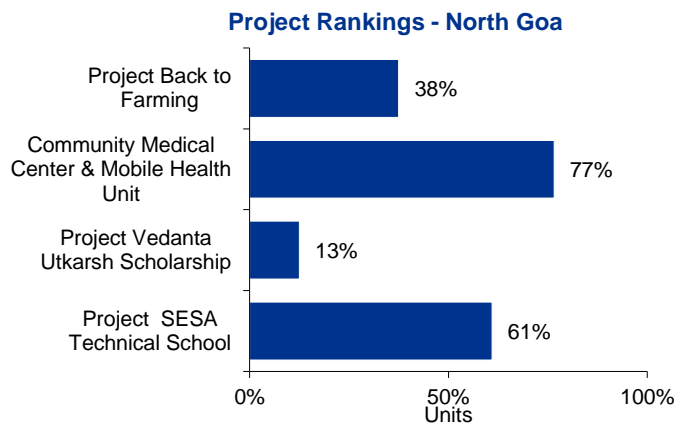


Figure 110 Project Rankings – North Goa

respondents viewed the project favourably in terms of providing crucial skills training support while also providing a platform for aspiring sportspersons to find and outlet for themselves. Gram Nirmaan project was seen favourably by 38% of the sample. However, not much impact for Project Utkarsh was quite visible.

On-field interactions with respondents who were either a Vedanta Utkarsh Scholarship beneficiary or knew about the project suggested that the provision of scholarship only for a duration of one year was not found to be very helpful. They opined that the scholarships should be provided at least for a duration of 3-5 years. In North Goa, at least 2 respondents mentioned that they found street-light interventions (community development), and trainings provided for women empowerment particularly useful.

Perception and Suggested Improvements for Social Development in North Goa

84% of the respondents felt that the overall social initiatives were either excellent or satisfactory. 16% of the respondents felt that there was further room for improvement.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

Overall Perception of the Social Development Initiatives - North Goa

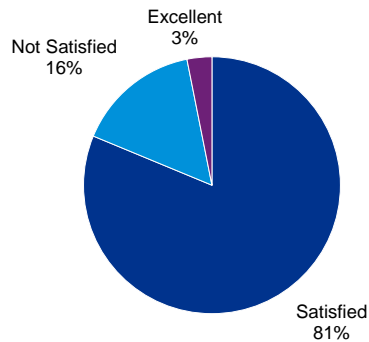


Figure 111 Overall Perception of the Social Development Initiatives - North Goa

We attempt to unpack the expressed requirements of community members to understand these areas of improvement.

Majority of the respondents in North Goa – 41%, expressed that they require support with skilling of the youth followed by 36% each for hospital facilities and improving/set-up of water ATMs and ROs. As found in the baseline study, many of the youth expressed an interest in wanting to learn on-farm skills in addition to IT and financial management skills.

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Baseline cum Needs Assessment, Impact Assessment and Perception Study

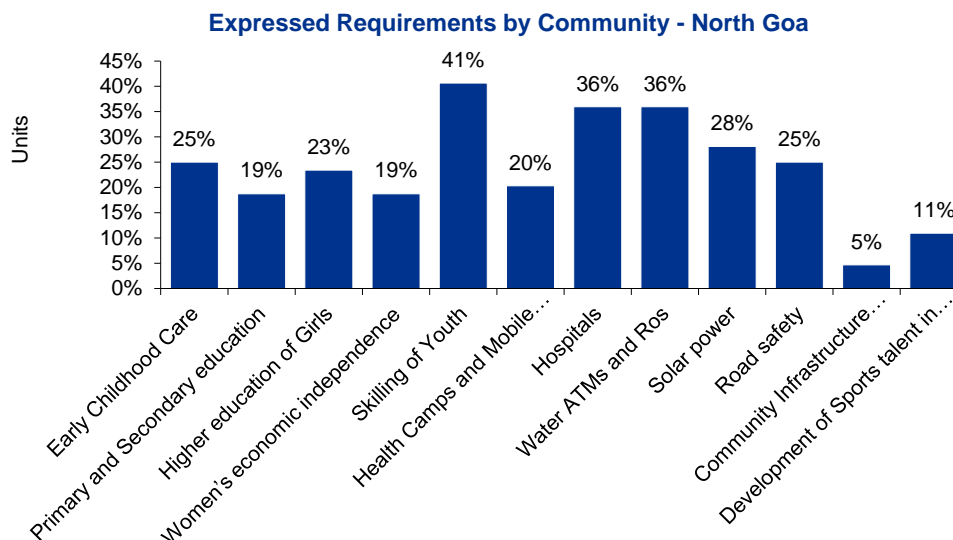


Figure 112 Expressed Requirements by Community - North Goa

A growing concern that was also noticed during field interactions was the increasing incidences of alcohol consumption among the male youth, even the ones who are into sports. This is feared to have health-related repercussions for the talented sportspersons in the district, which may in turn, affect their ability to perform. It is likely to have implications not just for sports but for other spheres of life such as holding a livelihood that many of the respondents seek skills for. Therefore, addressing this issue may be pertinent.

The responses from the beneficiaries in terms of suggested improvements were quite varied and hence needed to be clubbed into various thematic categories for ease of reporting. Roughly 35% of the beneficiaries said that they would require help with sustainable livelihood and skilling. While some suggested that help in setting up business, creating market linkages would be required, others expressed their needs with agricultural support in terms of fencing, improved seed quality, fertilizers etc. Some said that employment opportunities are lacking in the area and any support in the regard would be welcome.

Beneficiaries and Stakeholder Perception in Chitradurga

Project Ranking

According to the beneficiaries' responses in Chitradurga, the highest-ranking/recognized project is the Project Alternative Livelihood Opportunity in Chitradurga, Karnataka at 58%, followed by Project Vedanta Utkarsh Scholarship at 31%. 20% of the respondents said they benefitted from MHU services. In the

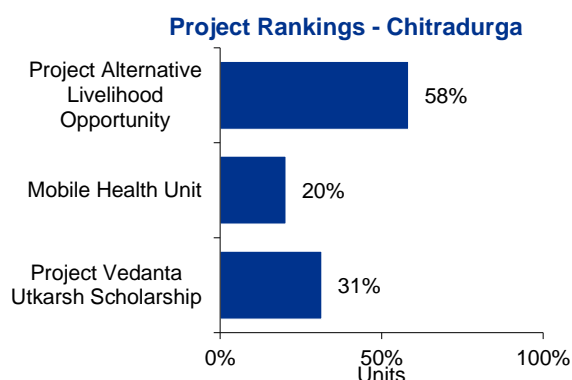


Figure 113 Project Rankings - Chitradurga

baseline more than 70% of the respondents agreed to accessing the MHU services. However, as far as their perception is concerned, only 20% of the respondents reportedly found it useful. A primary reason for this is the lack of provision of medicines apart from those for common seasonal illnesses for immediate community needs.

As far as Project ALOP is concerned, the impact and perception results corroborate with one another in the sense that it seems as if the project is being seen very favourably and also taken up intently by the beneficiaries of the program. Initiatives like clean kitchen, vermicompost trainings, seed distribution, wadi set-ups, kitchen garden seeds, water filters, etc. have been pointed out by the beneficiaries to have been very helpful.

Perception and Suggested Improvements for Social Development in Chitradurga

97% of the respondents were either satisfied with the programs being run by the BU in the district or found them par excellence, 3% of the respondents felt that there was further room for improvement.

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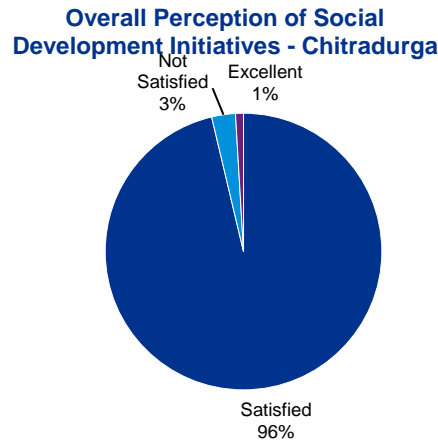


Figure 114 Overall Perception of Social Development Initiatives - Chitradurga

Most respondents tended to stress upon the need for agri-market linkages and agricultural trainings. Considering that the villages in Chitradurga are quite remote and access to medical facilities may not be readily available, most people also felt that the MHUs could visit more frequently.

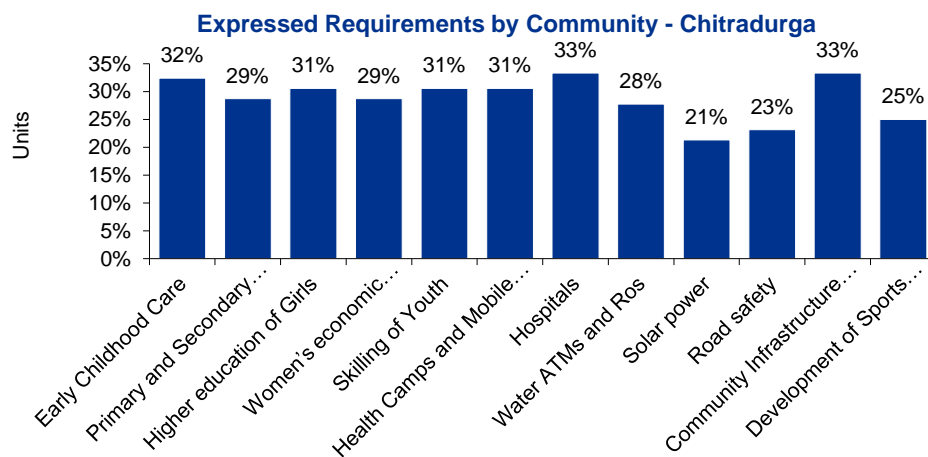


Figure 115 Expressed Requirements by Community - Chitradurga

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Local Stakeholder Perception in Goa

Just like with the community members, local stakeholders were asked to provide information on whether they were satisfied with the projects being run by the business unit to support the community, they were asked whether they were satisfied, whether the projects were exceeding expectations or whether they required additional support or had recommendations.

Satisfaction Levels Among the Local Stakeholders- Primary Data

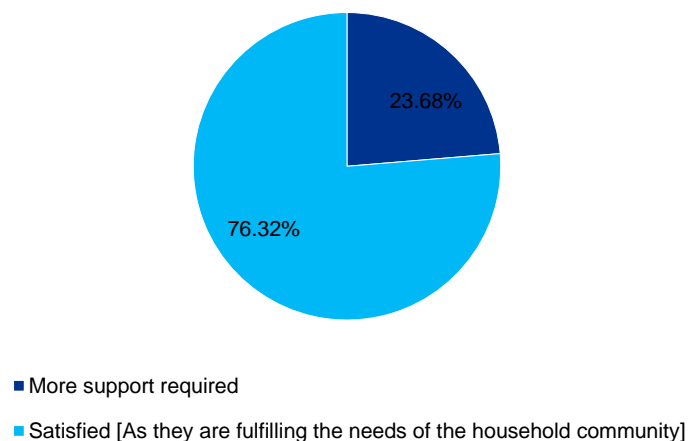


Figure 117: Satisfaction level among Local Stakeholders

Overall, the satisfaction levels of the local stakeholders are at 76.32% per cent. 23.68% felt that more support was required.

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In Chitradurga, 88.89% of the respondents were satisfied while 11.11% felt that further support was required.

In North Goa, 73.08% of the respondents were satisfied with the CSR interventions while 26.92% felt that further support was required.

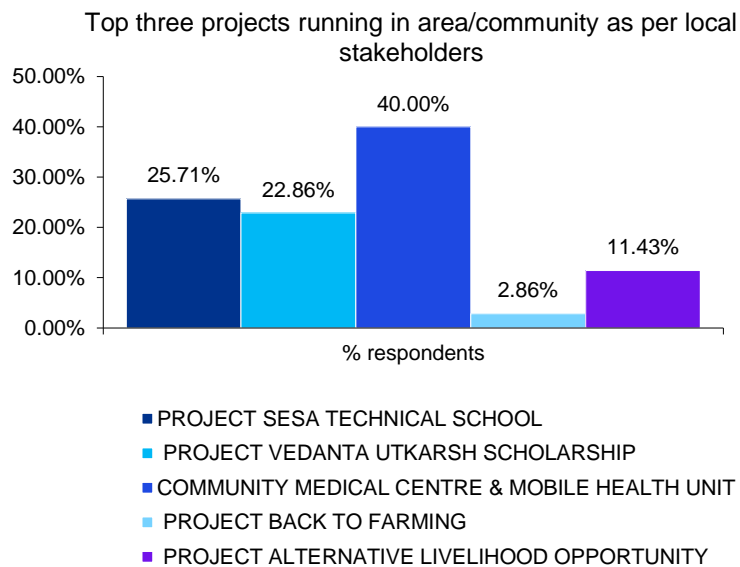


Figure 118: Top three projects running in the area/community

The overall ranking across the BU also revealed that the most popular project as per the local stakeholders was the community medical center and mobile health unit. The next two projects which as per the local stakeholders were performing well were the SESA Technical School and the Vedanta Utkarsh Scholarship.

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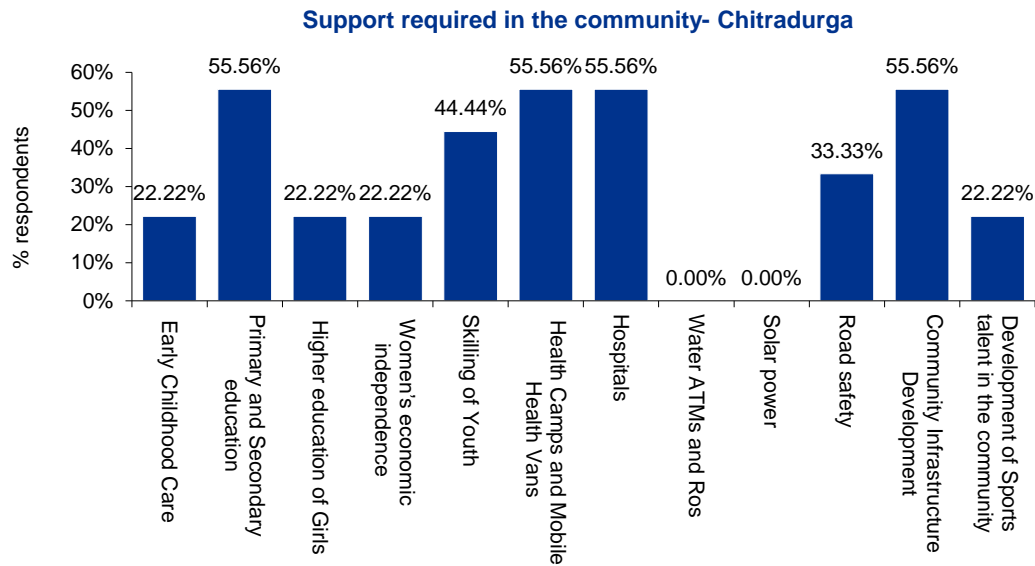


Figure 119: Support required in the community-Chitradurga

As per the local stakeholders in Chitradurga, the maximum support was required with respect to

- a. Primary and secondary education of children
- b. Health camps and mobile health vans
- c. Hospitals
- d. Community infrastructure development

As per the local stakeholders in North Goa, the maximum support was required with respect to

- a. Hospitals
- b. Community infrastructure development
- c. Higher education of girls

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District Stakeholder Perception in Goa

District Stakeholders were further asked for their opinion vis-à-vis how satisfied they were with the operations of IOB's CSR. They were asked whether they were satisfied, whether the projects were exceeding expectations or whether they required additional support or had recommendations

**Satisfaction Levels Among the District stakeholders
- Primary Data**

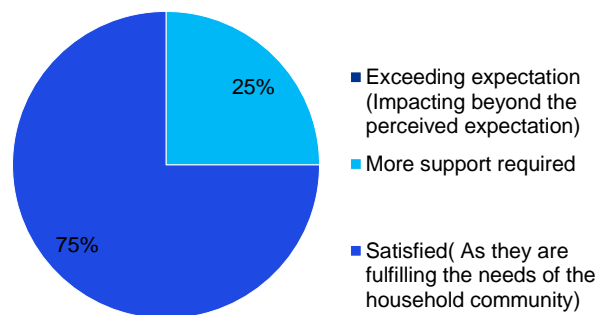


Figure 120: Satisfaction level among District Stakeholders

75% of the respondents were satisfied with the CSR interventions and felt that they fulfilled the needs of the community. 25% felt that more support was required.

Dr. Rangnath, District Health Officer, Chitradurga felt that the Mobile Health Unit has been able to provide door to door healthcare services in a very remote region where accessibility is a big challenge. The idea of bringing healthcare services to people has been successfully executed and has also been regular in nature. During COVID, there was a lot of support from IOB in terms of supply of protective gear, PPE kits and ICU beds especially during the second wave.

On areas of improvement, he recommended that a District Healthcare Service Delivery Plan should be operationalized which will be a sustainable asset and regular meetings with the health department shall help the BU understand the pressing needs of the community. One such example that he highlighted was the need of super specialty care.

It was highlighted by Dr. Agrawal of Seva Mobile that most of the community members face a lot of difficulty in going to hospital due to infrastructural challenges. Lack of proper

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roads and remote location of villages creates accessibility issue for community members. The MHU has thus played an instrumental role in bridging this gap.

On Alternative Livelihood Opportunity Project (For farmers), as per the Project Leader from BAIF, the project currently has covered approximately 1500 farmers in the 24 villages. The objective is to create IGA (Income Generation Activities) through ideation with the community. Recently bakery, papaya jam & leaf plate making have shown good response. Several percolation points have been created which shall support in year-round irrigation. The shift from indigenous cooking to green kitchen has established itself as a good model.

The project has started since 2019 and has led to creation of various kind of livelihood activities as well as contributed to community development through initiatives like Wadi development, green kitchen, tank desiltation etc. The fodder development (BH10) for livestock has helped in growing smoother grass which is easier to chew. The microentrepreneurial model of Jeevika tailoring centre has helped women in creating sustainable income.

District stakeholders interviewed on community development noted that IOB has contributed in providing infrastructural support by building compound walls as well as installing toilet and drinking water facility in government schools. A lot of material is also being distributed in schools but the support by BU should not be limited to material supply and should also extend to operationalizing and behavior change such as with respect to open defecation.

There is a lack of visibility of the work done by the BU at a district level. An annual report which showcases work done by them and also the action plan for future will lead to more concentrated efforts. The villages in Chitradurga need to be connected via better roads, especially during monsoon it becomes difficult to commute.

With respect to Project Gram Nirman in Goa, Govind Parab (Assistant Zonal Agriculture Officer) stressed that the Vedanta team should have a continuous connect with farmer. Their team was aware of the project and acknowledged that the project is undertaken in collaboration with NGO Vanrai. It aims at covering all basic needs of the farmers such as access to fertilisers, seeds, and market connectivity.

Hence, the district stakeholders have acknowledged efforts being put in by the BU as well as the positive impact it has on the community. It would be possible to scale this effort and improve visibility if degree of convergence with relevant government departments and schemes increases.

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Management Perception & Benefits of CSR to IOB

IOB SESA Goa and Vedanta itself, for that matter, have focused on promoting holistic development of the areas and the communities that they happen to work with. IOB's vision is futuristic in the sense that it attempts to seek out real impact in an iterative, retrospective, and contextual manner.

As IOB's business is of extractive nature, the BU requires support to build goodwill among the community. CSR operations provide the last mile touch, accessibility and a face for the BU amongst the community. Basis the CSR operations, the community is able to associate the BU with aspects beyond its extractive nature. IOB's CSR activities help the BU gain its social license to operate. The activities create opportunities for youth and keep them engaged in productive activities to prevent them from getting engaged in unlawful activities. Initiatives like the SESA Technical schools have helped rehabilitate and provide a source of income for those who needed employment post closure of mining operations. Further, sports initiatives help create a spirit of community oneness and solidarity spirit among the BU and community. This increases the community's trusts and ensures that they entertain the BU's activities with a rationale mind instead of being swayed by external elements while forming their opinions.

Key Sustainability Drivers:

The general, unanimous perception of the BU's management personnel was that **supporting a community's social development** (100%) is pertinent to driving sustainability followed by **provision of equal economic opportunities to local communities** and viewed CSR as a key strategy of benefitting both the society and the business. Only 14% of the respondents felt that conserving the environment adds value to the business.

Ranking of IOB's Areas of Intervention:

Vedanta's CSR efforts were seen as having brought about visible changes and improvement in community relations according to them. Perhaps the most highly ranked area of intervention in terms of its importance to Vedanta's social license to operate is

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agricultural and animal husbandry followed by **children's wellbeing and education**, in addition to its interventions in environment. Women empowerment and drinking water and sanitation interventions were also found to be important.

Needless to say, IOB SESA's long-term presence in Goa has helped establish a trust-base besides helping the BU grow and radiate towards its neighbouring areas. With its initiatives focused around reviving wastelands, agriculture, and intensifying the same – IOB shows a strong commitment to providing an impetus to nature-based and geography-specific livelihoods. The BU, as well as Vedanta portray an impressive passion for the ecology and the people which is truly commendable.

Interventions that add to Social License to Operate:

Economic Opportunities:

71% of the respondents felt that **providing direct employment to local community** in BU was ranked the highest followed by 57% who said that **supporting women with entrepreneurship opportunities** is also a pertinent economic intervention that can add to the BU's social license to operate. 29% of the respondents felt that **supporting the youth of the local community with skill development and placement**. Another 29% also said that **supporting farmers in income enhancement through livestock** can give an impetus to the BU's social license to operate.

Ranking of Key Benefits of focusing on Value-addition through Business Drivers:

57% of the internal stakeholders also reported that **improving the reputation of the company through sustainable practices** is a key benefit of focusing on value-addition through the business drivers. 43% of the respondents said that **improving relationships with local communities** can help in the long-term sustainability of the project. Relatively fewer stakeholders (15%) felt that improving recognition of brand as responsible/sustainable or increasing employee participation or even increasing trust would be key benefits.

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Beginning with the SESA Technical School (STS) nearly three decades ago (1994) – on a reclaimed mining site, the company has been committed to enabling and investing in the youth and making them employable for the longer term, thereby, effectively contributing to individual livelihoods, as well as the uplifting of the community as a whole.

Social Development Interventions:

Majority of the respondents (85%) felt that **renovation and construction of educational and health infrastructure in the community** adds to the BU's social license to operate, while 57% of the respondents said that interventions aimed at **creation of concrete roads, Ros, Water ATM, rejuvenation of community ponds, irrigation infrastructure, piped drinking water, Street lights, CCTV, overhead tanks** etc. gives further impetus to social license to operate. 43% of the respondents said that **introduction of MHUs and health camps for door-to-door access of health services** adds most value to IOB's social license to operate.

The BU's focus on providing community healthcare through its CMC facilities and MHUs have been helpful to reach the people for whom availing medical services itself was an issue of accessibility. With about 3,96,997 cumulative footfalls recorded till date, the BU has been able to make healthcare affordable besides creating awareness around health and maintenance of the same.

Environmental Interventions:

58% of the internal stakeholders said that increasing green cover in the local community followed by introduction of solar energy for lighting and natural resource management (43%, respectively) are key environmental conservation interventions which give the BU its social license to operate.

Promotional and Preservation Interventions:

43% of the management stakeholders also felt that promotion of local artisanal livelihoods can aid in the BU's social license to operate.

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The SESA Football Academy (SFA) has been a flagship project initiated by IOB in 1999 – again on a reclaimed mining site to identify and hone talented youth to metamorphose into celebrated and recognized sportspersons. By channelizing and capitalizing on the

Goan youth's latent talent for sports, IOB has also managed to help create awareness around the importance of physical health. The BU's concerted efforts towards promoting sports through the SFA appears to have been well-recognized and even lauded.

Social Risks:

Lack of Convergence with Government Schemes and Policies:

The highest ranked perceived problem by the stakeholders was that of “Working in silos i.e. lack of convergence with government and other stakeholders” – 80% of the stakeholders perceived this to be true.

Community Resistance to External Support:

The only other problem identified by one of the stakeholders was that of “unfavourable local environment hindering sustainable value add to the community by CSR”.

The stakeholders said that there is usually a gap between what the community/leader wants and what the BU is already doing. It was also interestingly mentioned that most of the needs that arise from the community are more on the lines of individual needs and not as an organized collective. Further, there appears to be a disconnect with the community, somehow – wherein local resistance emerges to outsiders (i.e., IOB) being involved. This essentially means that local communities are not readily willing to accept the support of or even are resistant to the support lent by entities that do not belong to the area such as Vedanta and its subsidiary – IOB. This happens to create a lot of conflict between the ‘outsider’ entity and the local community, thereby, requiring intensive efforts towards trust-building alone. Nevertheless, the BU seems to have garnered much recognition and appreciation in its to contribute meaningfully and also has managed to gain the community's trust to large extent.

III. Strategy and Way Forward

Strategy & Way Forward

Holistic Multi-Sectoral Programmatic Approach: The present system of thematic area divisions focuses on specific impacts of each programme, drawing away from the overall impact of IOB's CSR. An approach rooted in multi-sectoral programmes that follow a continuum and convergence model, allow for last mile delivery and holistic support to each member of the community through every life stage. There are clear business drivers for each of the current programmes and evidence of impact. The same when built on each other's success and value, allow for enhanced 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 is required, which may not be sustainable. Hence, there is a need to bring in technology to ensure scale, quality, standardization, cost effectiveness and sustainability. However, while applying technology for scale, one needs to be mindful of the digital exclusion where a section of the population continues to face hurdles in accessing technology⁹¹. In fact, according to a study, one in ten households from underdeveloped rural areas versus one in every second household in urban areas have access to the internet, signifying a clear digital divide between urban and rural areas. Thus, while the use of technology can support development opportunities, it also poses a risk in widening inequalities⁹². Therefore, while it is recommended to deploy technological solutions to scale impact, work on the economy of scale and therefore further ensure sustainability, one must apply the 'leave no one behind' principle of the SDGs and ensure continued on-ground support⁹³.

Monitoring: A focus on monitoring mechanisms is further required. Presently the monitoring mechanism facilitates capturing output data, however last mile traceability, outcome and impact integration needs to be strengthened. This can be done through developing an MIS which continuously captures and documents beneficiary wise

⁹¹ https://link.springer.com/chapter/10.1007/978-981-13-9996-1_1

⁹² <https://wp.nyu.edu/dispatch/2018/03/07/how-technology-is-improving-the-standard-of-living-in-developing-countries/>

⁹³ <https://unsdg.un.org/sites/default/files/2022-04/Operationalizing%20LNOB%20-%20final%20with%20Annexes%20090422.pdf>

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services-delivered and integrates outcome and impact KPIs in the overall monitoring process throughout the project's lifecycle. This would help in review and course correction.

The first strategy that KPMG proposes for IOB 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 IOB supports beneficiaries from pre-birth to employment.

It is proposed to focus on infrastructure, manpower training, capacity building of beneficiaries as well as awareness raising are recommended to run in tandem with the local government across strategy areas. IOB itself has already placed focus on improving the twin pillars of quality of life and economic wellbeing within its operational areas.

Strategy 1- Healthcare for All: *Under this strategy, it is proposed that the healthcare project is reshaped into a continuum of care initiative wherein the focus is from pregnancy to old age. Therefore, interventions within this to focus on health and nutrition of pregnant women and lactating mothers through antenatal care, nutrition, and communicable and non-communicable diseases. It will involve tracking and ensuring that all children receive the required healthcare services from birth through existing government services. While government physical and financial infrastructure exists, there is often a gap between access and usage of the facilities. IOB may act as a link between the government infrastructure and community either through last mile CSR staff or telephonic helplines to support linkage to schemes to add value. A big aspect that the government looks to for support is for behavioural change where necessary guidelines are circulated but support is required to have it materialize at the last mile with the community. Preventable healthcare and sensitization on lifestyle changes with respect to nutrition and health are extremely important areas of intervention especially to prevent lifestyle diseases as well as malnutrition among children. MHUs have the potential to*

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play a huge role in this. The state government, especially in Goa, has multiple health insurance policies. Convergence with the same may be explored going forward. Another big gap in government health facilities is adequate provision of mental health care, which may be considered as an area of intervention. Efforts also need to be made to overcome physical challenges to accessing public healthcare such as poor roads or absence of quality services.

Long Term Goals:

- Training of health professionals in public health facilities in 100 per cent of the core villages to improve quality of health services and hence uptake of the same
- 100 per cent coverage of health services promoting preventive and curative approach to tackle common diseases and improve nutritional status of the communities
- 100 per cent coverage of infants and young children along with pregnant and lactating mothers to provide them with nutritional and health support in The First 1000 Days⁹⁴

Short Term Goals:

- 100 per cent saturation of MHUs in operational villages
- Increased health and hygiene behaviour change campaigns (at least one every quarter in each location)
- Setting up of mobile help desks and/or helpline numbers to facilitate access to government health schemes⁹⁵

⁹⁴https://nhm.gov.in/images/pdf/programmes/RBSK/Resource_Documents/Journey_of_The_First_1000_Days.pdf

⁹⁵ The state government's Deen Dayal Swasthya Seva Yojana Scheme (DDSSY) is a universal health cover meant for the resident population of Goa. The scheme is meant to provide financial assistance while improving access to quality medical services to the people of Goa. Up to Rs. 1.5 lakhs per illness is provided. Further various initiatives such as Screening for Breast Cancers using iBreast Devices; Health & Wellness Centres (HWC); Pradhan Mantri National Dialysis Programme etc. are being undertaken by the state government to improve the health status of its residents.

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Strategy 2- Continuum of Education, Skill Building and Employment: *Under this strategic area, it is proposed to build a continuum of education, skill building and employment. Such continuum is already being observed between support provided to students under Project Vedanta Utkarsh and the SESA technical school. Similarly, the same is proposed to continue from early childhood education and secondary schooling up to employment through which project-linkages can be established and greater impact.*

Long Term Goals:

- 100 per cent mainstreaming of children and no drop outs
- 100 per cent schools with essential WASH and learning facilities
- 2X increase in farmers' income through sustainable climate resilient farming and established farmer aggregates in the form of an FPO or otherwise as deemed suitable to leverage economies of scale in backward and forward markets.
- Identify and design trainings or introduce vocational courses in schools to ensure that atleast 50 per cent of the courses are aligned with requirements of the local industry such as tourism industry for Goa and 50 per cent of the courses build tertiary skills such as finance management and IT skills as conveyed by the surveyed population as well.
- Skilling youth and facilitating placements to reduce unemployment by 50 per cent from 2022 to 2025
- Convergence with relevant government schemes or institutes such as Chief Minister's Kaushalya Karnataka Yojane (CMKKY) or Swayampurna Goa

Short Term Goals:

- Upgradation of Anganwadi infrastructure and upskilling of workers to ensure atleast 50 per cent of the Anganwadis in the operational areas are nutrition and learning centers for children.

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- Increase enrolment into pre-school education through Anganwadis (early childhood education) to at least 20 per cent across field locations.
- Improve learning environments in at least 100 per cent secondary and higher secondary government schools in the locations through provisions of essential learning aids, furniture and WASH facilities.
- Increase retention of trained and placed youth to 100 per cent for at least a year.
- Increase placement to 100 per cent of all trained youth across locations.

Strategy 3- Special Focus on Behaviour Change around Gender: *Despite the current efforts of the business unit, girls and women are facing challenges in benefiting from all the projects because of the lack of support received within the household and the community beliefs over defined gender roles. Further, limited women are associated with SHGs. Thus, to ensure maximum benefit, a specific focus needs to be provided to change behaviour in the villages on gender and equip women with financial literacy to increase participation in financial decisions. This can be done along with local stakeholders such as panchayats and increasing participation of women led aggregates such as SHGs. In schools, learning materials, games and sports should be geared towards encouraging gender-equitable behaviour.*

Long Term Goals:

- Increase participation of women in SHGs by 50 per cent
- 100 per cent functional, digital and financial literacy of SHG members
- 100 per cent of the SHG members to be trained in income generating activities and atleast 50 per cent to be linked with measurable income generating activities

Short Term Goals:

- Increased gender behaviour change campaigns (at least one every quarter in each location) focusing on increased participation of women in financial as well as family planning decisions.

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Strategy 4- Community Infrastructure: While community infrastructure is suggested as an overarching focus across strategic areas, it is pertinent to improve the quality of roads as they are one of the biggest hurdles cited in accessing quality healthcare and education. Further, concerns on water and air pollution of the community need to be addressed through installation of quality monitoring devices. These stem from the specific needs of the community.

Long Term Goals:

- Focus on supporting road construction in atleast 50 per cent of the interior villages
- Provide support to atleast 50 per cent of the educational institutions in complete access to essential learning and WASH facilities.
- Upgradation and/or installation of air and water quality devices in the localities close to the BU's plants.
- Solar-powered streetlight facilities can be considered investing in for the villages in the longer term.

Model Village Program

IOB may follow suit of HZL's Model Village Strategy for 2025 with a target of 25 villages. This model provides many of the elements that are included in the strategy.

The non-negotiable areas provided here include:

- 1 Roads with drainage facility
- 2 Model hospital- PHC/sub-centre
- 3 Model Anganwadi
- 4 Community Infrastructure- Washrooms for women and equipping schools with essential learning and WASH facilities



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5 Plantation on roadside/panchayat land/school premises

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A. Appendix: Final Questionnaires

A.1 Baseline Assessment Questionnaires

Baseline Beneficiary Questionnaire



COMMON for all
BUs_Baseline Questio

Baseline Stakeholder Questionnaire



COMMON for all
BUs_Baseline Questio

A.2 Impact Assessment and Perception Study Questionnaires

Impact Assessment and Perception Study Beneficiary Questionnaire



IOB SESA_
Beneficiary Impact As:

Impact Assessment and Perception Study Stakeholder Questionnaire



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Impact Assessment_Fi

A.3 BU Management and CSR Team Perception Study Questionnaires



COMMON for all
BUs_Perception study

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B. Appendix: List of Villages

State	District	Villages	Beneficiaries/ Respondents	Village and Block level Stakeholders	District Stakeholders
Goa	North Goa	Betki Khandola	19	26	3
		Amona	24		
		Navelim	21		
	South Goa	Chinchinim	9		
		Cuncolim	21		
		Quepem	9		
		Veroda	5		
Karnataka	Chitradurga	Bheemasamudra	15	2	4
		Bommavvanagathihalli	8		
		Bommenahalli	12	2	
		Chikkenahalli	9		
		Hire Guntanuru	9		
		Konanuru	12		
		Madikerepura	10		
		Megalahalli	12		
		Tanigehalli	12		



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State	District	Villages	Beneficiaries/ Respondents	Village and Block level Stakeholders	District Stakeholders
		V Palya	9		



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C. Annexure: OECD DAC Score Sheet

OECD Parameters	Indicators	Guidelines	Weightage					Overall IOB
				Alternative Livelihood opportunity project	Mobile Health Unit	Gram Nirmaan at VAB	Community Medical Centre/MHU at VAB	
Relevance	Baseline conducted or not	A baseline assessment was conducted and document provided	50%	50%	50%	50%	50%	50%
	Alignment of project with baseline	Information from baseline used to develop projects	50%	50%	50%	50%	50%	50%
	Relevance Score				100%	100%	100%	100%
Coherence	Alignment of project with government scheme/policy	National alignment	50%	50%	50%	50%	50%	50%
	Alignment of project with SDGs	International alignment	50%	50%	50%	50%	50%	50%
	Coherence Score				100%	100%	100%	100%



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Effectiveness	Targets clearly identified	Availability of targets	10%	10%	10%	10%	10%	10%
	Target achievement (planned vs actuals)	Completion rate: 80-100%-> 90% 60-80%->70% 40-60%-> 50% Less than 40%-> 0%	90%	90%	90%	70%	70%	80%
	Effectiveness Score			100%	100%	80%	80%	90%
Efficiency	Alignment with Vedanta CSR policy	Coherence with internal requirements	20%	20%	20%	20%	20%	20%
	Availability of MoUs	MoUs available and provided	10%	10%	10%	10%	10%	8%
	Clearly articulated start and end date	Availability of start and end dates in MoUs	10%	10%	10%	10%	10%	10%
	Delay in Timeline	Yes/No Information- 0, No-20	20%	0%	20%	20%	20%	10%
	Budget for Project provided	Clear Budget included in project documents	20%	20%	20%	20%	20%	20%
	Budget Utilisation	If utilisation as per budget	30%	0%	0%	0%	0%	0%



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	Margin of Underspent or Overspent	Up to 5%: (-) 2 5%- 10%: (-) 4 10%-20%: (-) 8 More than 20%: (-) 10	-10%	-8%	-10%	-4%	-4%	-7%
	Efficiency Score			52%	70%	76%	76%	69%
Sustainability	Sustainability Mechanism, Convergence	Mechanism in place, ability to sustain impact: 100% Not fully- 50% Not able to sustain impact, no mechanism: 0% (Mechanisms include: (1) Stakeholder led governance (2) Local capacity building for operational sustainability and (3) Financial sustainability through user fee, linkages, collaboration, etc)	100%	100%	100%	100%	0%	50%
	Sustainability Score			100%	100%	100%	0%	75%



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Overall Project Scores								
Effectiveness + Efficiency			50%	76%	85%	78%	78%	79%
Relevance+Coherence			40%	100%	100%	100%	100%	100%
Sustainability			10%	100%	100%	100%	0%	75%
Total score				88%	93%	89%	79%	87%



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