CORPORATE SOCIAL RESPONSIBILITY

UPL LIMITED

NEED ASSESSMENT STUDY (2014-15)

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Executive Summary

A Need Assessment Study was conducted in 2014-15 for the CSR unit of UPL Limited, Gujarat. The study was conducted by a third party (CSR Consultant) with active support from the CSR team.

CSR is in the DNA of UPL Limited and the organization has been actively involved in community development. The company has been contributing to the growth of the neighboring community since its inception in a planned manner. The CSR program is well structured and managed. Even though projects and programs have been running for decades now, the unit felt the need to conduct a Need Assessment study. This would help the team in streamlining its efforts with the needs of the community.

Need Assessment is essentially done to understand the needs of the community, establish their causes and make an action plan for addressing those needs.

Though there are various types of needs, this study focused on 3 specific types of needs in the rural context- Deficiency Needs, Growth Needs and Development Needs. After a thorough discussion with the team, key domains and indicators were selected for the study.

8 indicators were chosen to study deficiency needs, 17 indicators for growth needs and 9 indicators for development needs. Primary Data was collected in the months of May, June and July, 2014. Questionnaire method was used to collect data from 2216 Households across 25 villages in 5 blocks. Secondary data was collected from various sources during analysis.

The data was collected and compiled for analysis. Various types of graphs and charts (column, bar, line, pie etc) were used to exhibit the information.

A Multi Dimensional Need Assessment Model was used for analyzing the information. The information was subject to 3 different types of analysis- causal analysis, criticality analysis and complexity analysis. Based on the above mentioned analysis, needs were classified as High, Medium and Low on Criticality and Complexity.

After analyzing 34 indicators, a total of 40 needs were established - 9 deficiency needs, 21 growth needs and 10 development needs. Primary and Secondary causes for the needs were analyzed through further investigation of data using various statistical tools. Pivot table was used extensively for the same.

These needs were further put to criticality and complexity analysis. The results showed that of all the needs assessed, 27 % were highly critical. This meant that addressing these needs would lead to overall development of the community. Complexity analysis showed that 60% of the needs were highly complex to address and hence would require multiple resources.

A model was suggested to address these needs based on their relative criticality and complexity. It was suggested that needs that were highly critical and low on complexity can be addressed immediately. Encouraging Self Help Group members to undertake economic activities is one such need. Similarly needs that were high on critically and complexity should be addressed with proper planning and strategy (e.g.-building toilet facilities)

The study ascertained that there are various needs which require to be addressed for the holistic development of the area under study. UPL Ltd. would need to prioritize them based on its vision and mission. Many strategic partnerships with experts and community based organizations would be required to address these needs.

UPL Limited and its CSR approach

Company Profile: UPL Limited is a leading global producer of crop protection products, intermediates, specialty chemicals and other industrial chemicals. Being the largest manufacturer of agrochemicals in India, it offers a wide range of products that include Insecticides, Fungicides, Herbicides, Fumigants, PGR and Rodenticides.
It operates in every continent and has a customer base in 123 countries. It has 23 manufacturing sites (9 in India, 4 in France, 2 in Spain, 3 in Argentina, 1 each in UK, Vietnam, Netherlands, Italy, China).
UPL Limited works in synergy with its customers in the marketplace and recognizes the requirement for the highest level of support in product research, development and registration. Capability in applied R & D is one of its major core competences.

CSR Approach: UPL has been donning the mantle of the socially responsible corporate even before the term had become a predominant norm. The history of the company's Corporate Social Responsibility stretches as far back as 1969 with the inception of its manufacturing operations at Vapi, Gujarat. Like supporting and running Schools, College of management, College of Chemical technology, Rotary Hospital and Nursing College.

Treatment of effluents to solid waste management for environmental care.

Conducting Farmers' Training Programmes and establishing and running Farmers' Field Schools. Each of the effort was in line with the needs of the society.

Education is a basic human right pivotal to personal and societal development, so it is an integral part of its CSR agenda. The organization has maintained a strong focus on improving educational facilities in its areas of operation by establishing and running schools and colleges, such as-

Smt. Sandraben Shroff Gnyan Dham School , VAPI.

Gnyan Dham Eklavya Model Residential School, Ahwa, Dist Dang.

CSR Vision: We and our subsidiaries along with our partners commit ourselves to create a more equitable and inclusive society by supporting processes that will lead to long term sustainable transformation and social integration and by creating opportunities that enable the socially disadvantaged to utilize their potential in achieving their aspirations and ambitions.

CSR Mission:

- To implement need based CSR projects and extension work
- To build capacity of community so as to make them self reliant
- To develop partnership with all stakeholders
- To promote and institutionalize CSR with UPL group business strategy

CSR Values

- Care
- Excellence
- Partnership
- Sustainability
- Learning and Sharing

The CSR unit is driven by a **5E CSR process** which is:

- Engage with the community to understand needs and priorities
- Evolve the key community need

- Enable community (individuals and groups) by providing them skills
- Enrich life of community by focused approach
- Evaluate initiatives for learning

Thematic focus of the CSR unit:

- **Agriculture development**- Some initiatives include Farmers training school, Dangs Paddy Development project, UPL Agritech project which provides low cost paddy thrashing machines, Khedut Pragati which organizes regular farmers meetings, Krishi Melas and many more.

- Employability and Entrepreneurship- UPL Niyojaniy Kendra that provides mobilization and training workshops, skill development program on various trades, formation of women SHGs, entrepreneurship awareness campaign etc.

- Nature Conservation- UPL Vasudha projects for creating awareness among all stakeholders for nature conservation, tree plantation drive, cleanliness drive, formation of eco clubs etc.

- Education and Empowerment- Providing school bags and books to students, participating in government sports program, etc.

- Health and Sanitation- Organizing various medical camps, health awareness drives, blood donation camps, sanitation drives, construction of toilets etc.

- National / Local area need- Girls safety project, ITI students safety project, personality development program at various schools, etc.

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Concern for community has always been an integral part of all UPL Ltd's endeavor by looking beyond the bottom line!

Profile of Program Areas

Ankleshwar
Ankleshwar is a city and a municipality in the Bharuch district of Gujarat. The city is located ten kilometres from Bharuch. Ankleshwar is known for its industrial township called GIDC (Gujarat Industrial Development Corporation) which is the biggest Pharmaceutical and Chemical Zone in Asia. It has over 5000 chemical plants, producing products such as pesticides, pharmaceuticals, chemicals and paints.

Ankleshwar is an educated city with literacy rate of 76%. The educational provisions in the city of Ankleshwar are remarkable.

Dangs
Dang also known as The Dangs, is a district in Gujarat. The administrative headquarters of the district is located in Ahwa. The Dangs have an area of 1,764 km² and a population of 226,769 (as of 2011)
As of 2011 it is the least populous district of Gujarat.
As per the Planning Commission, Dangs is the most backward district in India. Saputara and Waghai are important towns in the district. Dangs is mostly inhabited by tribal population.

Halol
Halol is a city and a municipality in Panchmahal district in Gujarat. It has an average elevation of 499 metres (1637 feet). Halol is known as a Special Economic Zone.
Many large companies are located here including Sun Pharmaceutical Industries Ltd, HNG Float Glass, General Motors India Private Limited, etc.

Jhagadia
Jhagadia is a taluka in the state of Gujarat. Jhagadia is located (3.2 km) south on southern bank of the Narmada river. On its north lies the historical town of ShuklaThirth, where Chanakya lived until he returned to Pataliputra (now Patna). The economy of Jhagadia is dependent on Industrial area (G.I.D.C.) and the fertile land where Banana, Sugar cane, Cotton, wheat, Juvar, vegetables and various fruits are grown and exported. Trade to the interior villages, local government offices, and reputed Seva Rural hospital and local businesses provide most of the employment.

Vapi
Vapi is a city and municipality in Valsad District in the southern part of Gujarat. It is situated on the banks of the Damanganga River and is the largest city in the Valsad district.
The town originally belonged to the community of Koli Patel, Desai (Anavil Bramhins) and other tribal castes. It is the largest industrial area in Asia in terms of small-scale industries, dominated by the chemical industry.

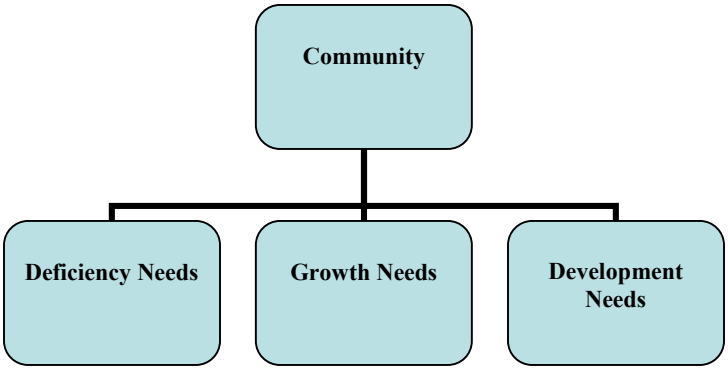
Project Background

Need Assessment is a systematic set of procedures that are used to determine needs, examine their nature and causes, and set priorities for future action. UPL Limited conducted the study to gauge the following:

- an objective description of needs
- criticality of the need for developing the community
- any change or improvement required in the current programs, services, structure or operation.

Project Scope: This study has classified needs into 3 specific types based on the various aspects of a rural community. They are:

1) Deficiency Needs
2) Growth Needs
3) Development Needs



All the 3 needs are equally important for any community and hence the stake holders including the community need to address them simultaneously.

Deficiency Needs are the fundamental requirements of a community for a healthy living. If these needs are not taken care of, then any growth or development loses its meaning.
For example, availability of toilet facility at home is a deficiency need. The community might have high per capita income, the skill levels may be high, latest technology might be available to the people, but if the community still uses open air defecation, then the rest of the development parameters lose their significance. Hence it becomes imperative to manage these needs as a priority.

The following indicators were chosen to ascertain the deficiency needs of the community:

- Type of Dwelling
- Electrification
- Availability of toilet facility in each home
- Waste disposal system
- Source and Quality of drinking water
- Mode of cooking
- Availability of Primary health facility
- Vaccinations

An indicator is a data that can verify that a concern exists.

Growth Needs are the requirements of the community to produce goods and services in order to sustain itself and enhance its standard of living. Growth needs are the ones that deserve utmost attention from the policy makers. For example improving the skill sets of the community is a growth need. Because this has a direct impact on the income levels of the people. This study will focus on the following indicators to understand the growth needs of the community:

- Average Monthly Income from Employment
- Annual Household income
- Economic Status of Households -% in Below Poverty Line (BPL) category
- Literacy Levels
- School Drop out Ratio
- Family Size
- Average No. of Children per Household
- Dependency Ratio
- Availability of cultivable land
- Land Holding pattern
- Mode of Irrigation
- Use of agri equipments
- %of Households having cattle
- Per capita availability of cattle
- Productivity of Cattle
- Availability of Roads and Connectivity
- Women empowerment measured through self help groups

Development needs are the socio- cultural and institutional needs of the community. They have a positive impact on the quality of life of the community in the long run. It is important to work on these needs as they make the community self sustainable. For example having a garbage recycling facility in the community is a development need. As this makes the community self sustainable in handling its garbage without any external support.
In this study we have focused on the following indicators to ascertain the development needs of the community.

- Sex Ratio (Adults)
- Sex Ratio (Children)
- Technology penetration through Mobile phones
- Technology penetration through computers and internet
- Availability of Household Assets
- Discrepancy in economic status due to racial background
- Availability of community assets
- Socio Cultural Groups
- Institutional support

Methodology Adopted: A 3 phase methodology was adopted for the study.

Phase 1- Plan	Phase 2- Generate Information	Phase 3 – Prepare Report
Study the Existing scenario	Select target group	Summarize findings
Establish the need for the study	Prepare questionnaire	Make model for action plan
Identifying major concern areas for study	Conduct Study and generate data	Prepare report
Determine indicators for study	Analyze Information	Share report with team
Identify data sources	Do causal analysis	Team to make an action plan based on the findings
Prepare plan for study	Do criticality and complexity analysis	
Identify resources	Prioritize needs based on criticality and complexity	

Model used for analysis:

Multi Dimensional Need Assessment Model was used for analyzing the findings. The model contains 3 dimensions:
Causal Analysis- This dimension finds out the various causes for the needs – primary and secondary causes are established through this analysis.
Criticality Analysis- It establishes the importance of the need for the overall development of the community.
Complexity Analysis- It finds out the degree of difficulty in addressing the need.

Causal Analysis

Concern	Primary Cause	Secondary Cause

Criticality Analysis

Criticality Analysis (Impact of need on various facets of development)					
Need Assessed	Natural Resource Development	Human Resource Development	Capital Formation	Technological Growth	Socio Cultural Development

Complexity Analysis

Complexity Analysis (Requirement of Resources)					
Need Assessed	Man	Money	Material	Management	Motivation

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Figures for Gujarat and India were taken as benchmarks for certain indicators.

Based on the findings of the criticality and complexity analysis, needs are classified as High, Medium and Low on criticality and complexity.

A Plan of Action is made on the relative position of needs on criticality and complexity scale.

Collection of Primary Data: Data was collected through questionnaire method.
Random Sampling was used to select the respondents in the following 25 villages:

Village	Gram Panchayat	Block	District	Sample HHs
Naugama	Naugama	Ankleshwar	Bharuch	80
J.Kashiya	N. Kashiya	Ankleshwar	Bharuch	55
N. Kashiya	N. Kashiya	Ankleshwar	Bharuch	150
Motali	Motali	Ankleshwar	Bharuch	105
Amrutpura	Amrutpura	Ankleshwar	Bharuch	76
Chankhal	Chankhal	Ahwa	Dang	29
Gondalvihar	Gondalvihar	Ahwa	Dang	27
Goriya	Chikhatiya	Ahwa	Dang	20
Dhulmod	Pipardi	Ahwa	Dang	20
Kuttarnachiya	Ahwa	Ahwa	Dang	19
Vangan	Ahwa	Ahwa	Dang	21
Pipaldhodi	Ahwa	Ahwa	Dang	19
Mahalpada	Ahwa	Ahwa	Dang	20
Chikatiya	Nadagkhadi	Ahwa	Dang	25
Bhikhapura	Gopipura	Halol	Panchmahal	45
Nurpura	Gopipura	Halol	Panchmahal	40
Gopipura	Gopipura	Halol	Panchmahal	51
Dadheda	Dadheda	Jhagadia	Bharuch	108
Utiya	Utiya	Jhagadia	Bharuch	71
Sardarpura	Utiya	Jhagadia	Bharuch	68
Fulvadi	Fulvadi	Jhagadia	Bharuch	67
Chiri	Chiri	Vapi	Valsad	503
Sulpad	Sulpad	Vapi	Valsad	496
Naholi	Naholi	Umargam	Valsad	51
Kachigam	Kachigam	Umargam	Valsad	50

Collection of Secondary Data: Secondary Data was collected to establish various indicators for the study. It was also collected to get the benchmark figures for Gujarat and India on certain indicators. The list is given as references at the end of the report.

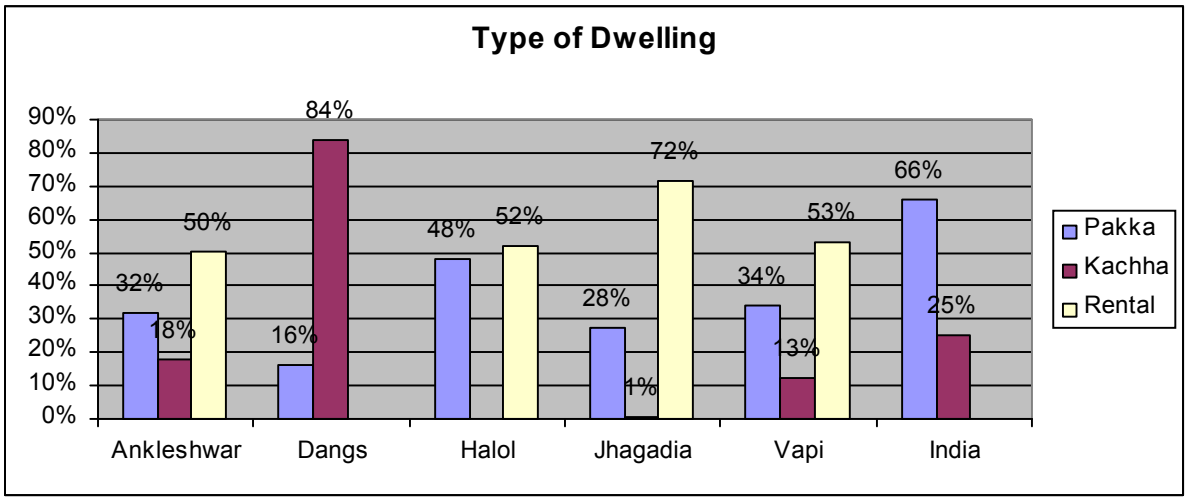
Socio- Economic Profile of Sample Households

Characteristics of Households (HH) Surveyed	Ankleshwar	Dang	Halol	Jhagadia	Vapi
Total No. Households	466	200	136	314	1100
Total Population	2141	1336	837	1732	5175
Avg. size of HH	4.6	6.7	6.1	5.5	4.9
% Working Population	27%	34%	23%	18%	26%
% of Children	33%	42%	35%	28%	37%
Sex Ratio	870	887	770	838	757
% Literate (adults)	59%	55%	38%	58%	72%
% SC + ST Households	75%	100%	66%	45%	19%
% of HH in BPL category	75%	76%	73%	62%	54%
% HH with Land	14%	90%	26%	20%	4%
% HH with Cattle	13%	37%	17%	9%	0.5%
Avg. Cattle per HH	0.31	0.54	0.78	0.25	0.02
% HH having clean drinking water	83%	100%	100%	62%	78%
% HH with Electricity	98%	98%	82%	84%	99%
% HH with toilet facility	23%	24%	4%	34%	57%
% HH with mobile phones	71%	65%	35%	72%	89%

Assessment of Deficiency Needs

Indicator: Type of Dwelling

Good Housing condition is closely related to health and education. It is difficult for students to study in poorly lit houses. Various respiratory disorders originate due to unfavorable housing. Poor sanitation and hygiene, inadequate ventilation and smoke inhalation are all associated aspects of poor housing that affect health and social development.

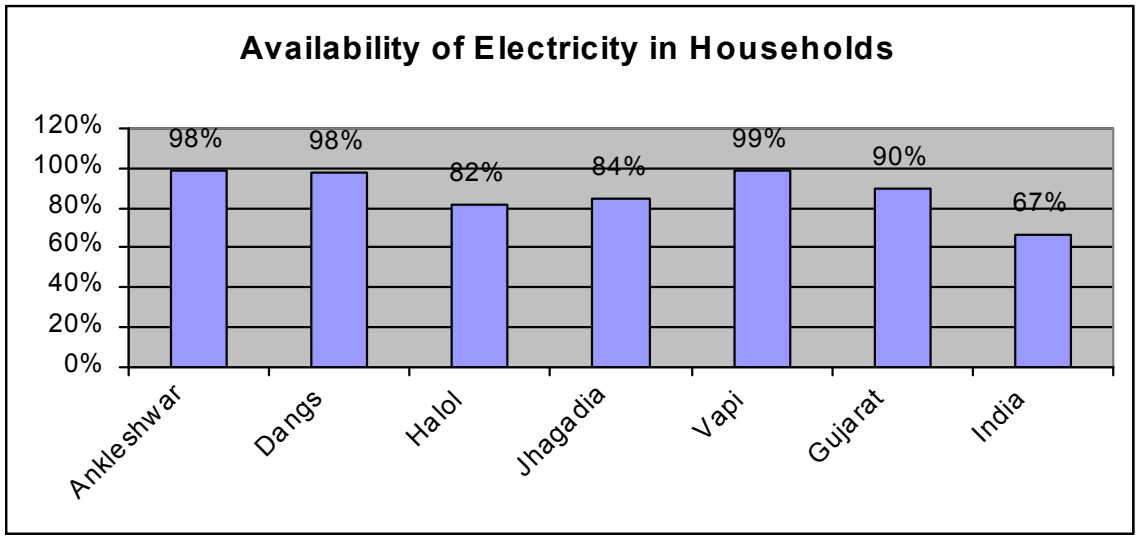


Concern	84% of the population in Dang lives in kachha houses
Primary Cause	88% have annual income less than Rs 50k. So Pakka house becomes economically unaffordable. 88% of Dangs population is dependent on agriculture for their living
Secondary Cause	With 55% adult literacy, it is difficult to get other forms of gainful employment. Hence the low income levels.

Need: There is a need to address the housing issue in Dangs. Various government schemes available for rural poor needs to be explored for Dangs.

Indicator: Availability of electricity in Households

Availability of Electricity has multiple benefits for the rural households. Direct benefits would include mechanization of agriculture, promoting electricity driven entrepreneurial activities etc. Indirect benefits include freeing women from chores which can be taken up at night time, and hence making them available for economic activities. Children can study during night hours without adversely affecting their eye sights and many others.

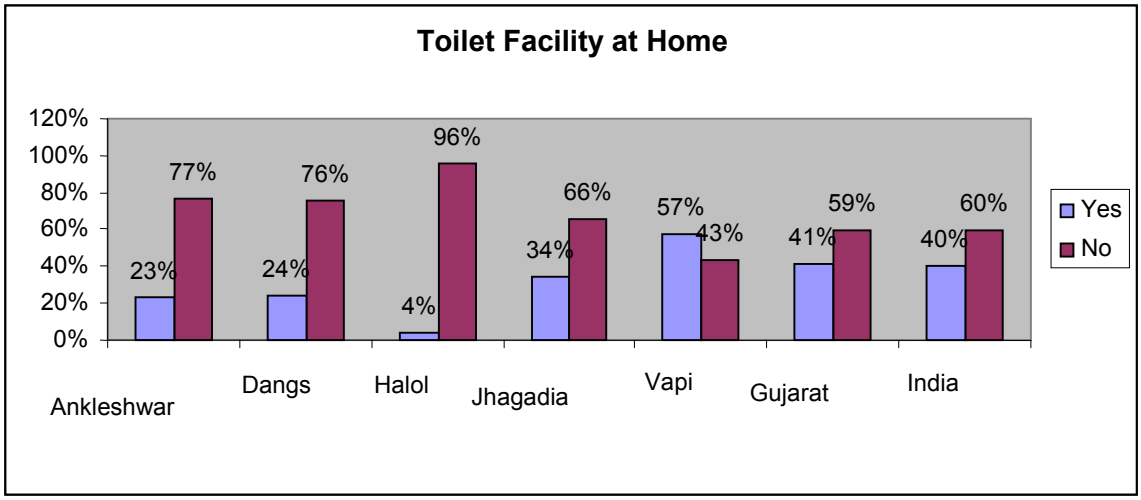


The overall scenario of electricity appears to be positive from the data, when we compare it to India figure which is an abysmal 67%.

Good electricity availability can be an asset for growth and development.

Indicator: Availability of Toilet Facility at home

Open air defecation is responsible for various types of infections and diseases. Women suffer a lot from the agony and humiliation of open air defecation. The necessity of having a clean toilet at each and every home cannot be undermined.

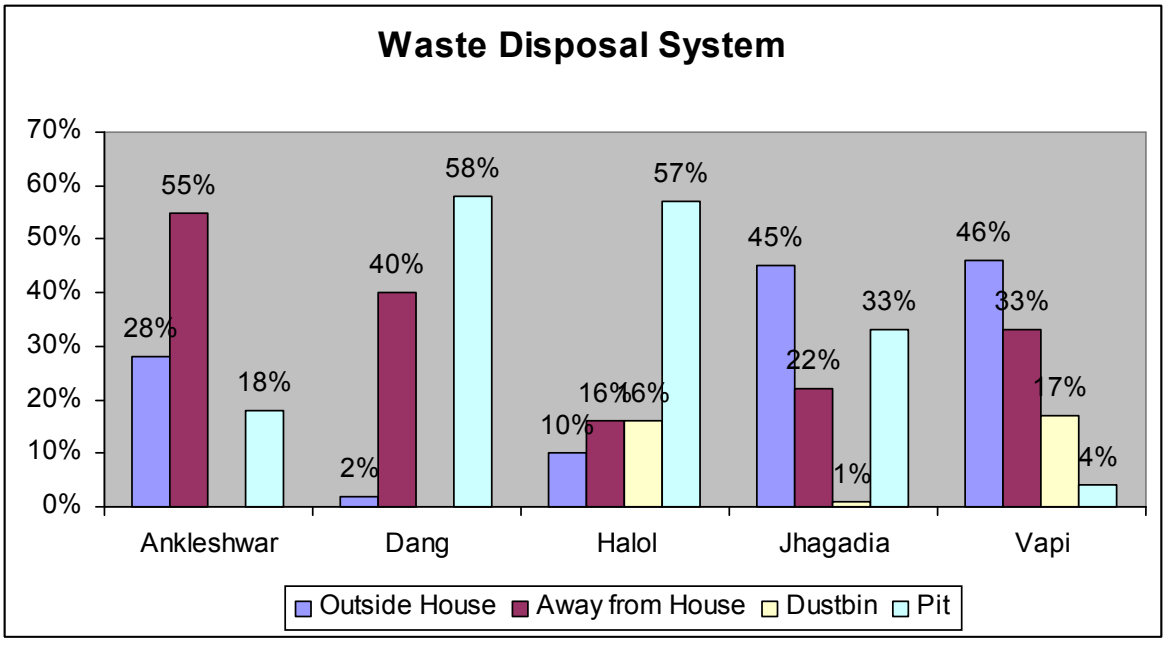


Concern	Apart from Vapi, rest of the 4 clusters has alarming levels of households having no access to toilet.
Primary Cause	A majority of the HHs where income level is less than 50k per annum didn't have toilet. Example, 210 HHs in Ankelshwar has income less than 50k and do not have toilet. Similarly in Jhagadia 128 HHs had annual income less than 50k and no toilet. The trend is same for Halol, Dang and Vapi
	Kachha House also is a cause for no toilet facility. For example in Ankleshwar, only 6 kachha houses have a toilet while 76 kachha houses do not have a toilet. Similarly in Halol only 1 kachha house had a toilet while 68 had none.
Secondary Cause	A closer look at the data reveals some interesting trend. A substantial number of HHs live in pakka houses, but still have no toilet facility. Eg. Ankleshwar has 70 pakka houses with no toilet. Similarly there are 58 pakka houses in Halol with no toilet.
	This means a SOCIO CULTURAL ISSUE with respect to use of toilet. Hence a need to address the issue from a different perspective.

Need: To target the issue of open air defecation from 2 perspectives – economic and socio-cultural. Economic perspective would include making toilets affordable and technologically feasible for the villagers. Social perspective would include awareness generation on the benefits of toilets.

Indicator: Waste Disposal System

The national figures for India reveal that close to 88% of the total disease load is due to lack of clean water and sanitation and the improper solid and liquid waste management.
5 of the 10 top killer diseases of children aged 1-14 in rural areas are related to water and sanitation. On the other hand, safe disposal of wastes can lead to:
• Low degree of contamination of the environment.
• Economic benefits through reuse/recycling of products that would have been discarded as waste.



Concern	Improper disposal of waste. Most of the HHs in Vapi and Jhagadia are disposing waste outside home or at a small distance from home Dangs, Halol and Jhagadia have no drainage system at all
Primary Cause	There is a lack of an institutional arrangement for waste disposal and drainage system as collected from secondary data
Secondary Cause	Secondary data also suggests that there is low importance given to cleanliness and hygiene

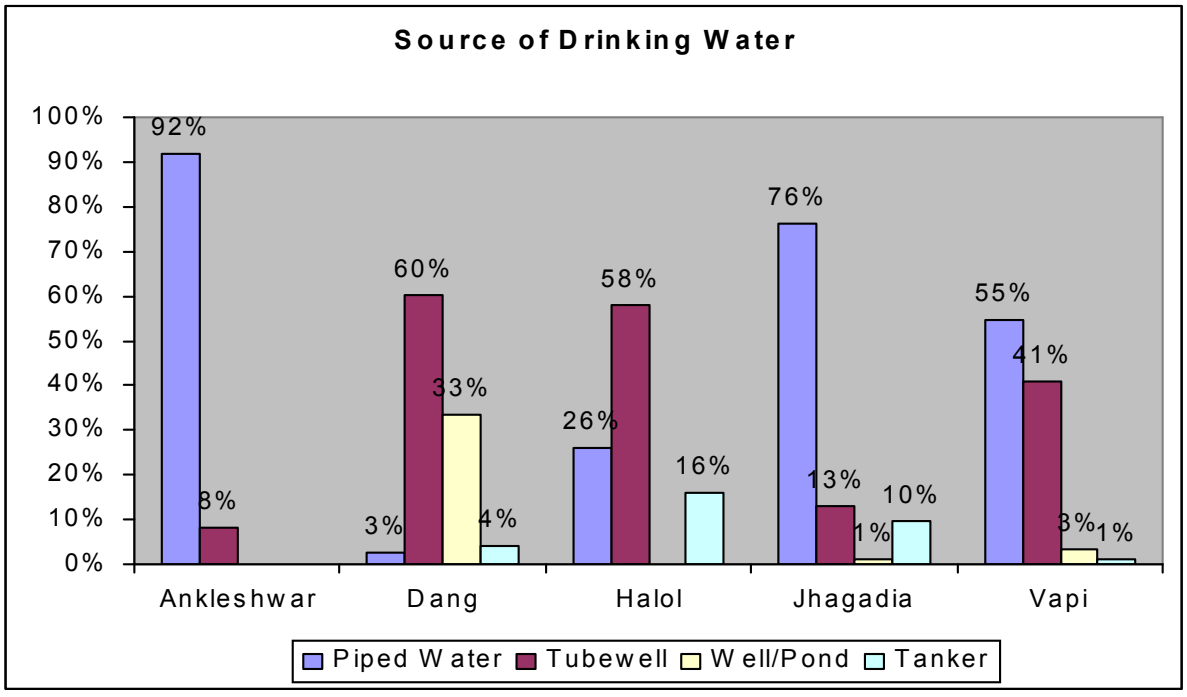
Sanitation Indicator	**Gujarat**	**India**
Waste disposal arrangement	49.6%	32%
Improved drainage facility	26.1%	31.7%

Need: To work upon various institutional arrangements for planning and implementing a comprehensive waste management program in the above areas.

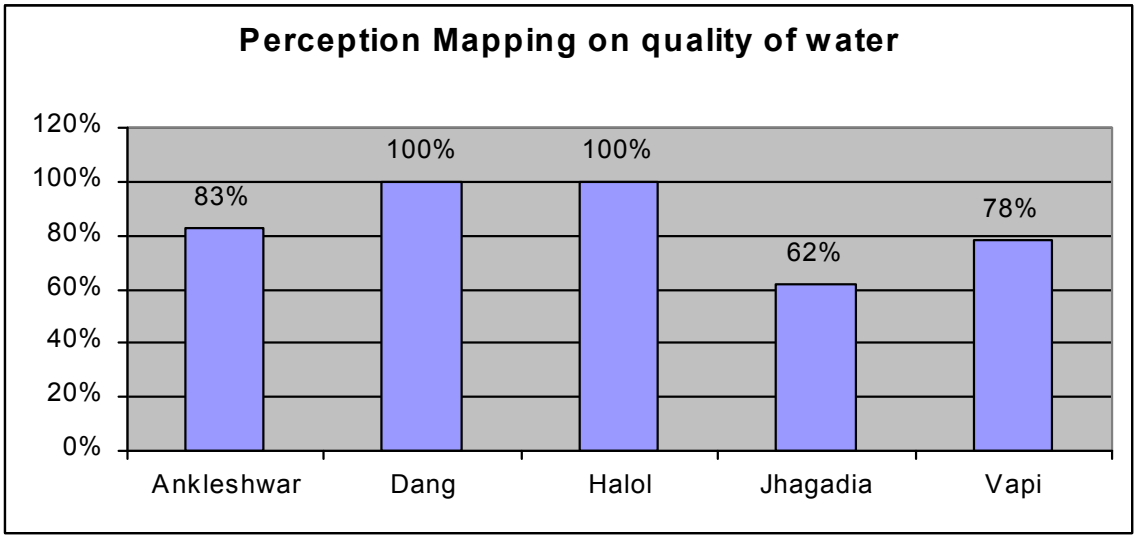
Awareness drives need to be conducted on the importance of cleanliness and hygiene

Indicator: Source and Quality of Drinking Water

Clean and potable drinking water is an absolute necessity for human beings. Various diseases are directly linked to dirty water like diarrhea and cholera. These diseases are easily preventable by ensuring cleanliness of water. Cleaning contaminated water and making it usable is a cost to the economy.



Perception about quality of drinking water



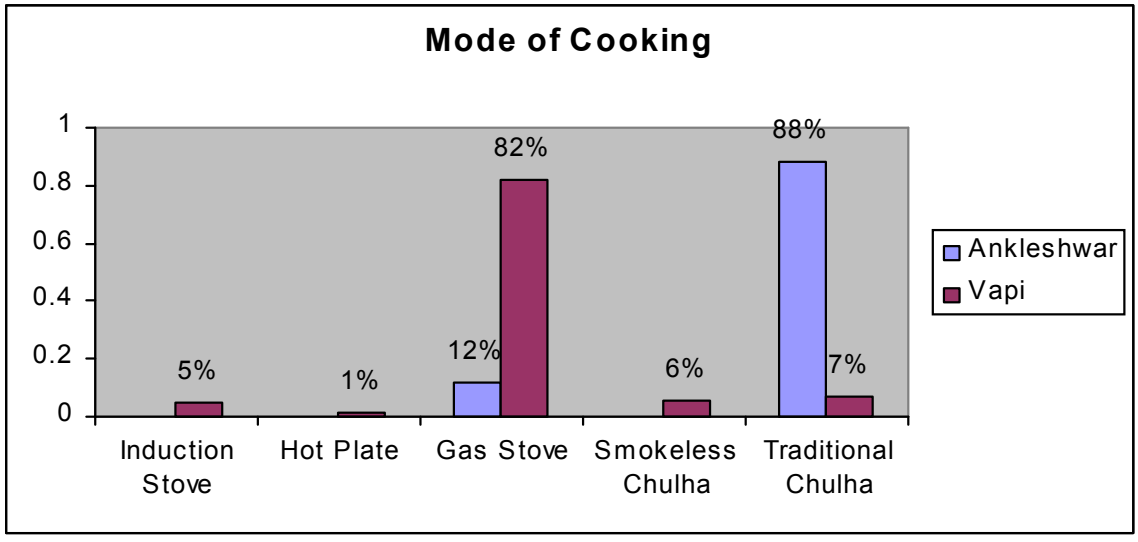
% of population having access to improved source of drinking water in Gujarat is 89% and India is 88%.

Concern	62% HHs in Jhagadia feel that water is of potable quality.
Primary Cause	Perception about quality of drinking water could be a possible cause for the same.

Need: There is a need to ascertain whether the perception of people about water quality is based on facts or is it merely popular opinion. A study can be conducted for the same.

Indicator: Mode of Cooking

20-30% of a rural woman's productive time is spent in cooking on a traditional chulha. The traditional or conventional chulhas have a thermal efficiency of 8-10%. Hence such chulhas consume more fuel (cow dung, wood, coal, bio mass etc) and produce a lot of smoke and ash.



Dangs, Halol and Jhagadia – Close to 100% of the Sample Households use traditional chulha for cooking.
Even in Ankleshwar an alarming 88% HHs use traditional chulha.

85% of rural Indian households use traditional chulha for cooking purpose.

Concern	A majority of the population uses traditional chulha and hence is susceptible to above mentioned ill effects
Primary Cause	Statistics suggest that the primary determinant for traditional chulha is income levels. In Vapi, where the income levels are highest (45% HHs have annual income more than 1lac) the use of traditional chulha is lowest (only 12%)
	91% of HHs in Ankleshwar which have income less than 50k per annum uses traditional chulha. Similar figures for Dangs are 100% and Jhagadia- 89%.
Secondary Cause	Another determinant could be the literacy level of the population. Higher the numbers of literates lower the use of traditional chulha. In case of Vapi, the literacy level is again the highest amongst the clusters studied (72%)

Need: to promote improved versions of traditional chulha which are low cost but high on technology and efficiency.

Indicator: Availability of Primary health center (PHC) and medical facilities

PHCs in India focus primarily on the following services and hence they are very important for the rural community.

- Immunization for newborns
- Epidemic diagnostic and control
- Birth control programs
- Medical care for pregnancy and child birth
- Medical emergencies

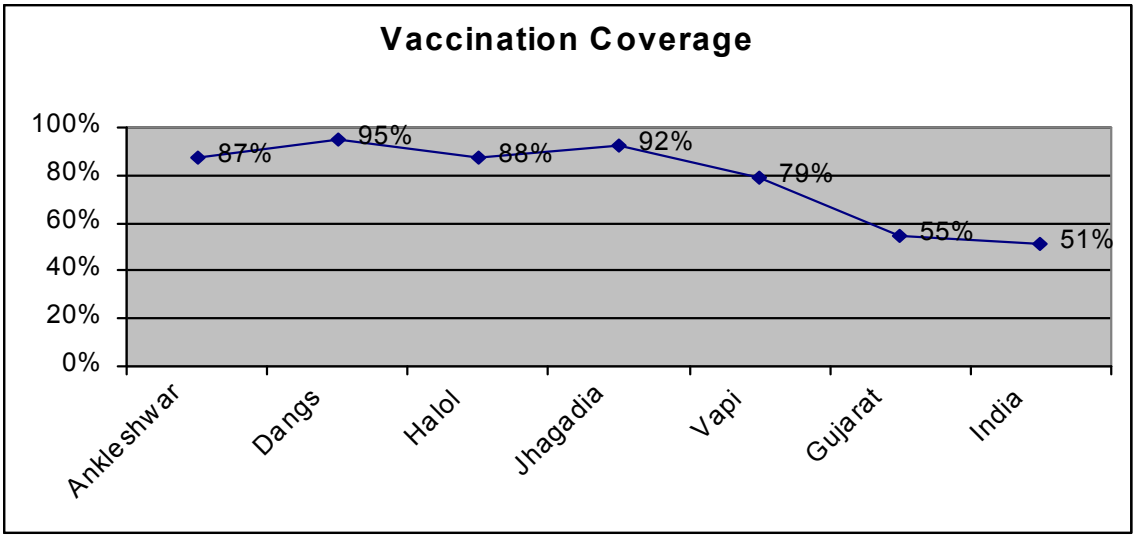
Clusters	Distance of PHC from Village(km)	Availability of Doctor	Availability of Pharmacy	Avg Annual cost on medical needs in INR
Ankleshwar	3	100%	100%	4709
Dangs	17	100%	100%	4934
Halol	4	100%	100%	947
Jhagadia	15	100%	100%	5638
Vapi	1	100%	50%	7550

Concern	Medical emergencies cannot be managed immediately in Dangs
Primary Cause	The nearest health facility for Dangs villages is 17kms away- the civil hospital in Ahwa. There is no Primary Health Center in any of the villages under study in Dangs

Need: An ambulance facility that can carry patients to the nearest medical facility in times of medical emergency is required.
Mobile clinics appear to be a necessity for Dangs villages

Indicator: Vaccination Coverage (Immunization)

Vaccination or Immunization protects the child from various preventable diseases like Pneumonia, Tetanus, Rubella, Polio etc. It prevents communicable diseases from spreading.As a result it reduces child mortality rates and makes the children more healthy and fit.



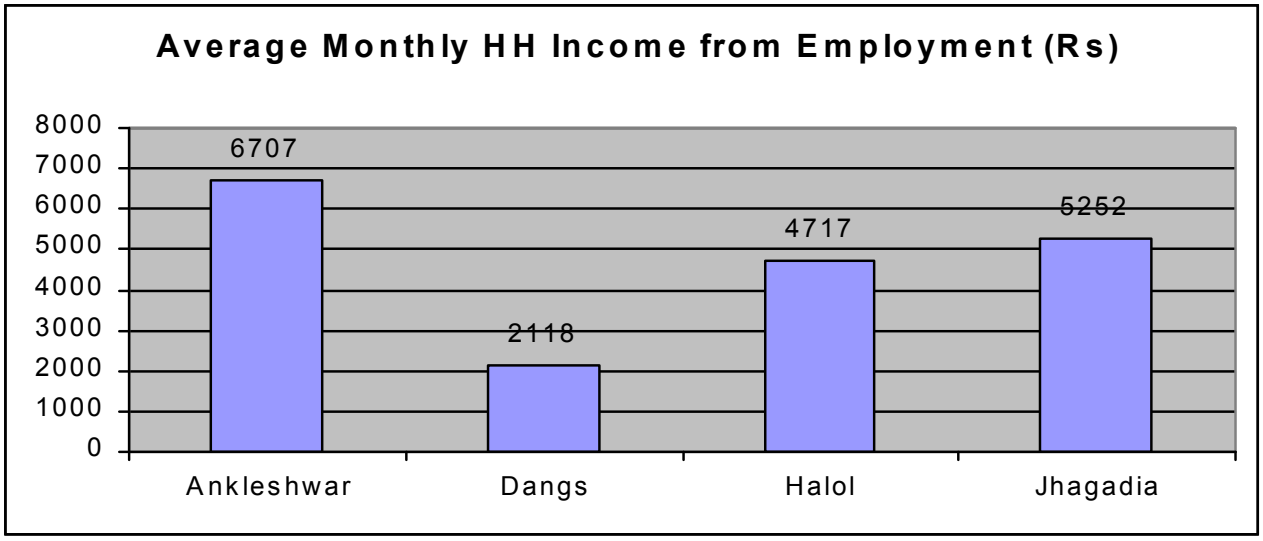
Concern	Vaccination coverage in Vapi is pretty low as compared to others
Primary Cause.	To establish causes for low immunization levels was not in the scope of the study.

Need: There is a need to find out the exact causes for low immunization in the villages. In the absence of the same, an appropriate intervention cannot be planned.

Assessment of Growth Needs

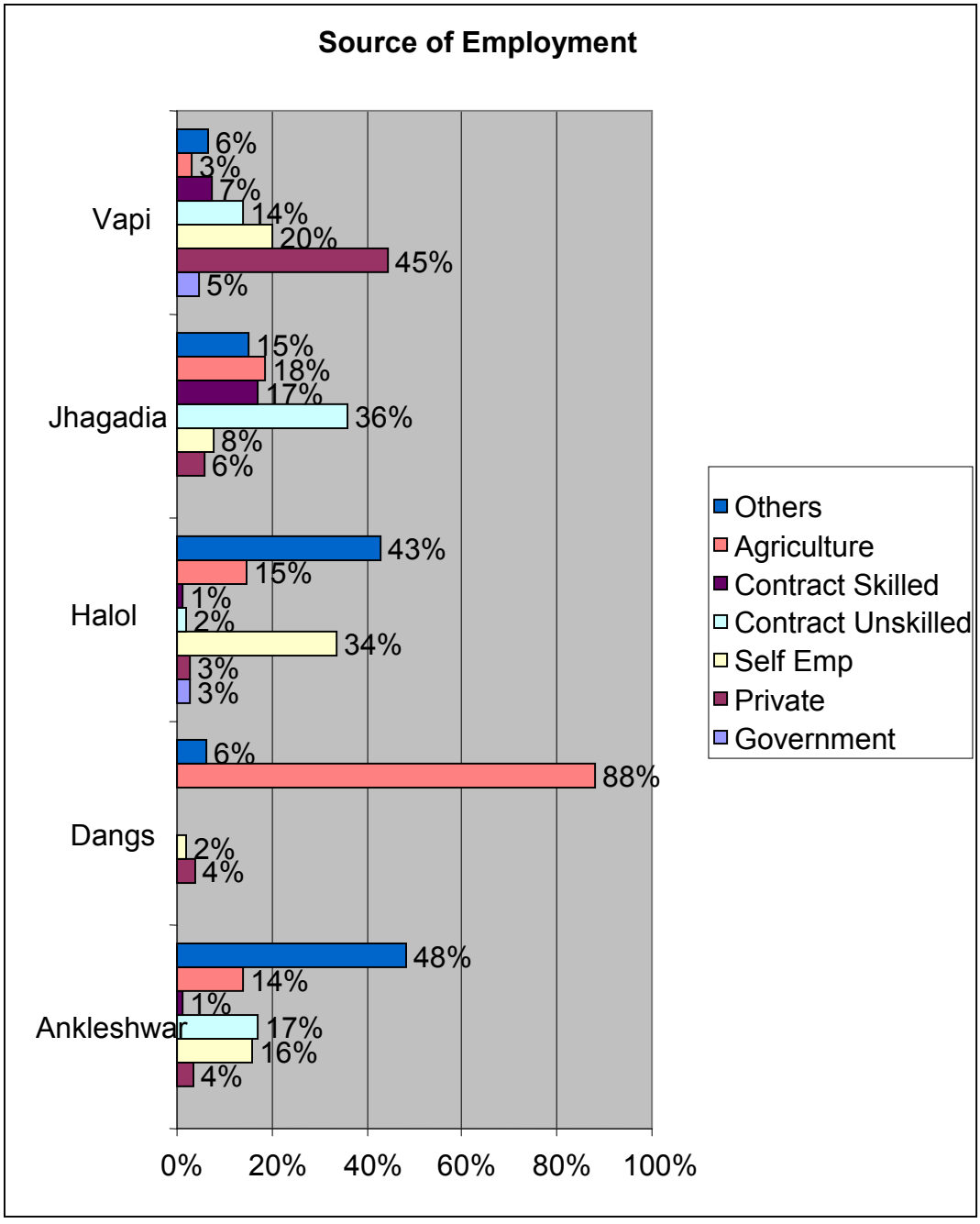
Indicator: Average Monthly Household Income (from employment)

Monthly HH income determines the consumption and savings pattern. Higher the monthly income better is the quality of life and vice versa.



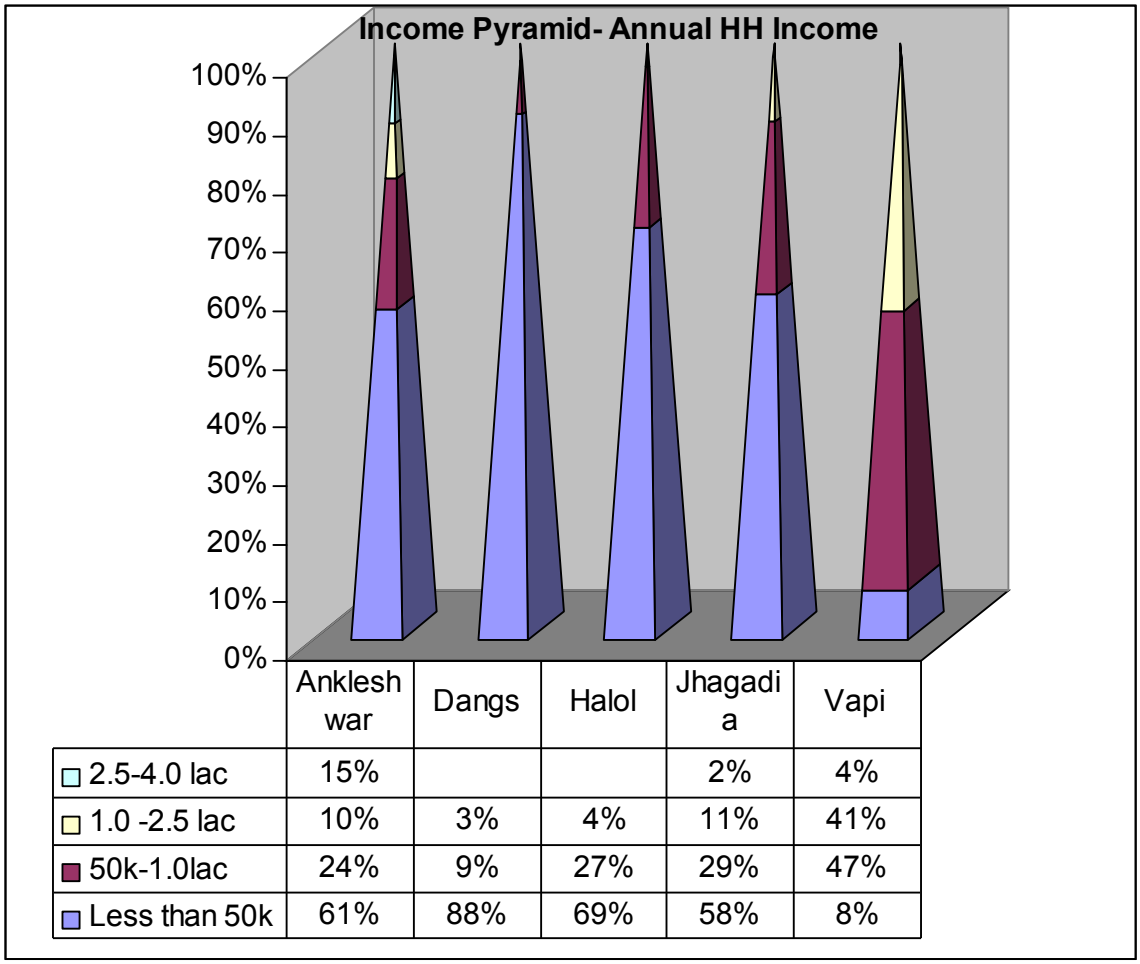
Note: Data for Vapi was not available for this indicator.

Concern	Low Monthly HH income from Employment
Primary Cause	Source of income from employment is the primary driver for a low average monthly HH income. The figure is lowest for Dang where 88% of the population is dependent on agriculture. Clearly agriculture is not giving good returns to those employed. The reasons for the same have been explored in the section on agriculture.
	Income levels are directly proportional to the level of literacy. Vapi has the highest literacy level (72%) and lowest % population in BPL bracket (54%),
Secondary Cause	Another cause for low income level is dependence on Unskilled employment which is pretty high in Jhagadia (36%) and Ankleshwar (17%)


Source of Employment
Vapi
6%
3%
7%
14%
20%
45%
5%
Jhagadia
15%
18%
17%
36%
8%
6%
Halol
43%
15%
1%
2%
34%
3%
3%
Dangs
6%
88%
2%
4%
Ankleshwar
48%
14%
1%
17%
16%
4%
0%
20%
40%
60%
80%
100%
Others
Agriculture
Contract Skilled
Contract Unskilled
Self Emp
Private
Government

Indicator: Annual Household Income

Annual Household Income is the sum total of income derived from all the sources viz. agriculture, industry, self employment, government job etc. It is the total income of all the family members. It determines the standard of living of the family and the quality of life therein.



	Anklesh war	Dangs	Halol	Jhagadia	Vapi
2.5-4.0 lac	15%			2%	4%
1.0 -2.5 lac	10%	3%	4%	11%	41%
50k-1.0lac	24%	9%	27%	29%	47%
Less than 50k	61%	88%	69%	58%	8%

The annual HH income is meager in most of the cases, with the situation being worst in Dang where 88% of the HHs surveyed have annual income less than INR 50,000.

In Halol, the situation is equally bad with 69% HHs falling under the lowest income bracket.
Vapi fares better with only 8% of HHs in the lowest income bracket.

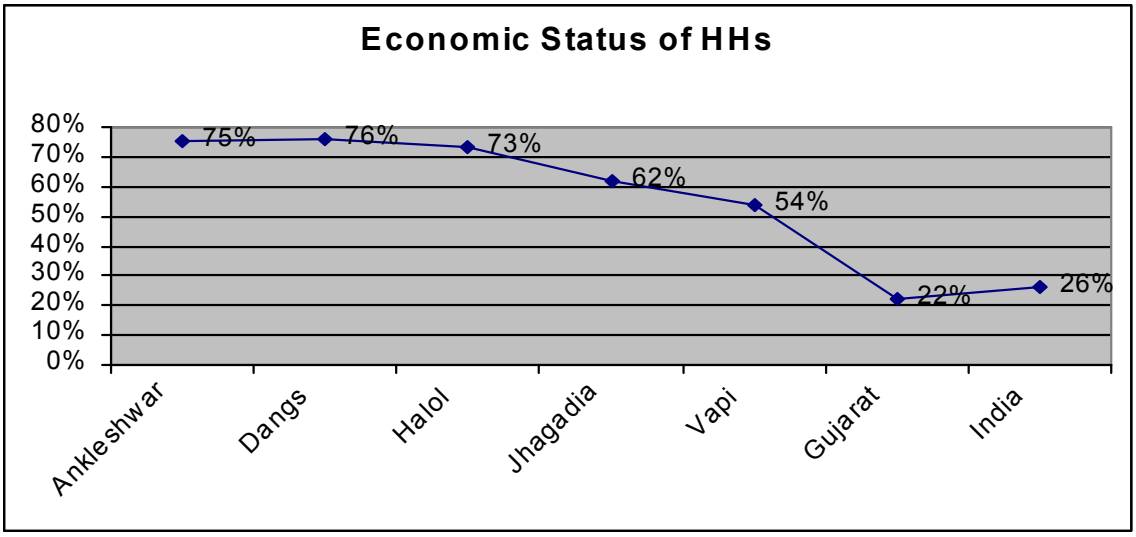
Need: Increase average monthly income of the population through a multi pronged strategy-

- reduce dependence on agriculture
- increase gains from agriculture
- increase the literacy levels
- improve skill sets of the working population.

Indicator: Economic Status of Households -% of HHs in Below Poverty Line (BPL) category

Below Poverty Line is an economic benchmark and poverty threshold used by the government of India to indicate economic disadvantage and to identify individuals and households in need of government assistance and aid. It is determined using various parameters which vary from state to state and within states.

In rural India, we consider BPL to have an annual household income of less than INR 160,000. This is equivalent to less than INR 13,333 monthly household income.



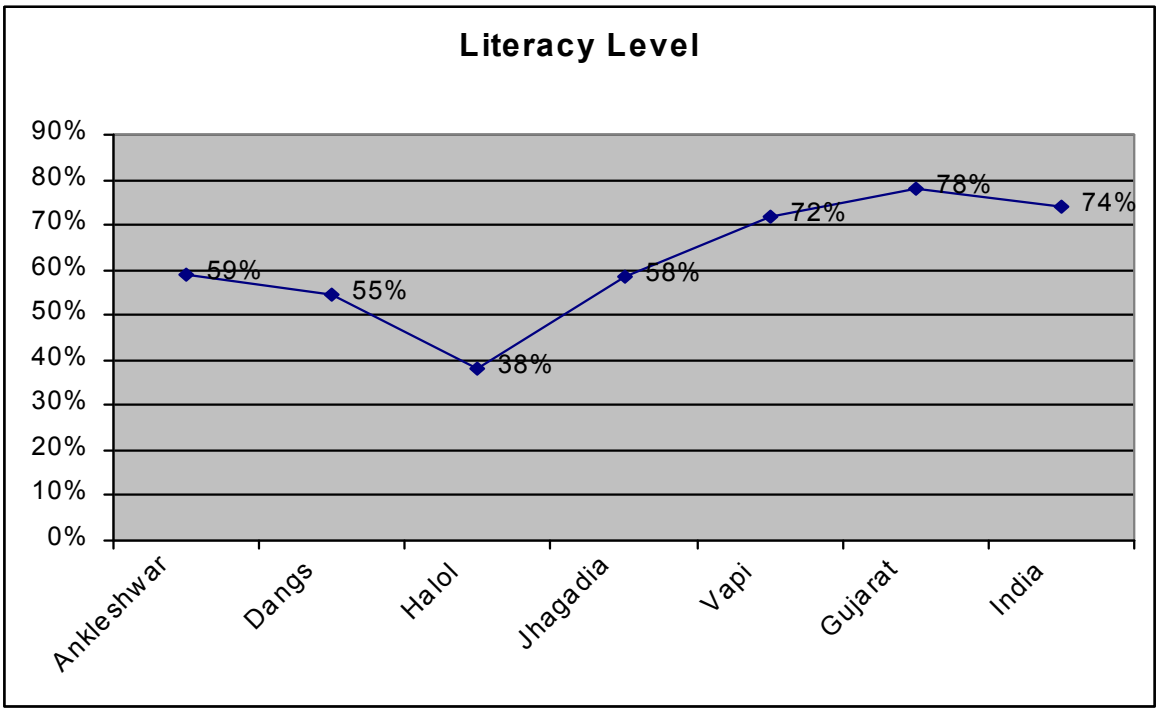
Reference Value: *Median Household Income in rural Gujarat is Rs 21000, while that of India is Rs 22,400.*

Concern	Incidence of poverty is very high in Dangs followed by Halol and Jhagadia.
Primary Cause	Source of income- Dangs has the highest BPL population. 88% of Dangs population is dependent solely on agriculture. Hence the prime cause of their poverty is overdependence on agriculture which is not giving good returns.
Secondary Cause	Large Family Size – Dangs which has the highest family size 6.7 persons per HH also has the highest incidence of poverty.
Concern	Poverty causes multiple socio economic problems
Primary Cause	Low Literacy level- 24% of the HHs in Ankleshwar has no literate member in the family and they fall in the lowest income bracket. Similarly in Halol and Jhagadia 56% and 22% of no literate families fall under lowest income bracket. This establishes an inversely proportional relationship between literacy and poverty
Secondary Cause	High dependency ratio- All the 5 clusters have a high dependency ratio. The figures are higher than the average figures for Gujarat and India

Need: To attack poverty with a multi dimensional socio economic approach.

Indicator: Literacy Levels (Adults)

Literacy is an important factor in the overall development of individuals and community. It enables them to understand their social, political and cultural environment better. It acts as a catalyst to strengthen any program undertaken towards population control, health, hygiene, environmental degradation control, employment etc.

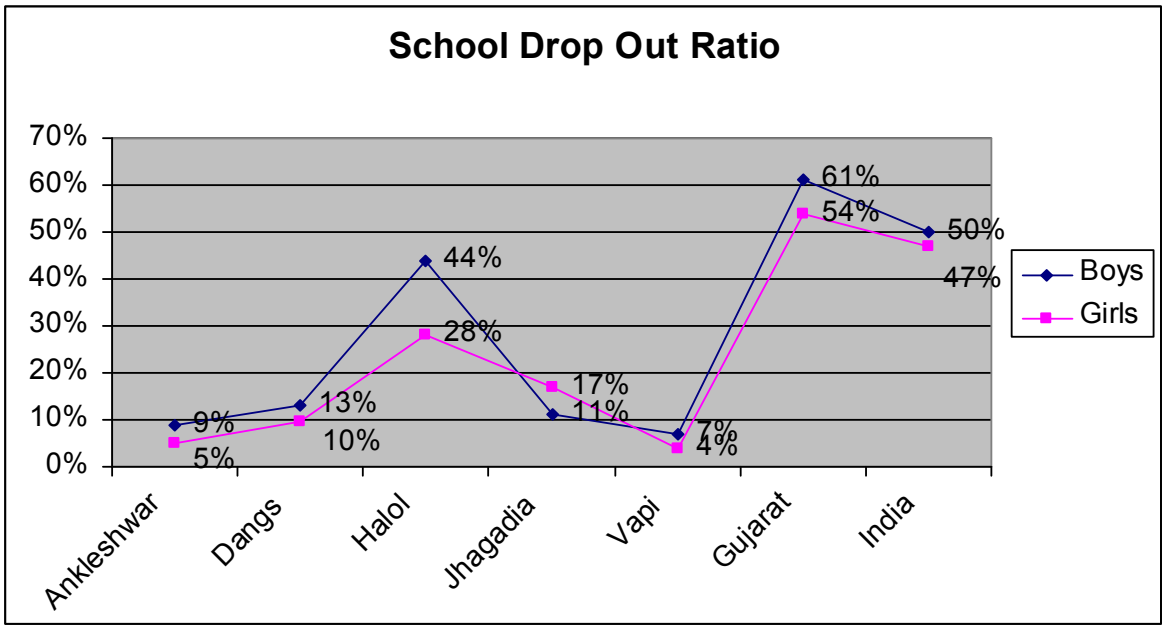


Concern	Alarmingly low literacy rates in Ankleshwar, Dangs, Halol and Jhagadia.
Primary Cause	Poverty appears to be a prime factor for low literacy. In Ankleshwar, 33% of the BPL families have zero literacy. Similarly in Halol 80% of BPL families have zero literacy and the figure for Jhagadia is 30%.
Secondary Cause	Though all the villages had a primary school, none of them had a middle and secondary school. Even the distance of these schools from the village was pretty high. The closest middle school in Ankleshwar is at a distance of 3 km. While in Halol and Jhagadia it is 8 kms and 10 kms respectively
Concern	The abysmal literacy rate in Halol (38%) is a cause for concern
Primary Cause	School Drop Out ratio is highest in Halol- 44% for boys and 28% for girls
Secondary Cause	Though the no. of children per HH is low (1.5) the dependency ratio is high (77%). This means that the % of elderly population is high in Halol as compared to others. This suggests that more and more people in the productive group including children leave education and start working.

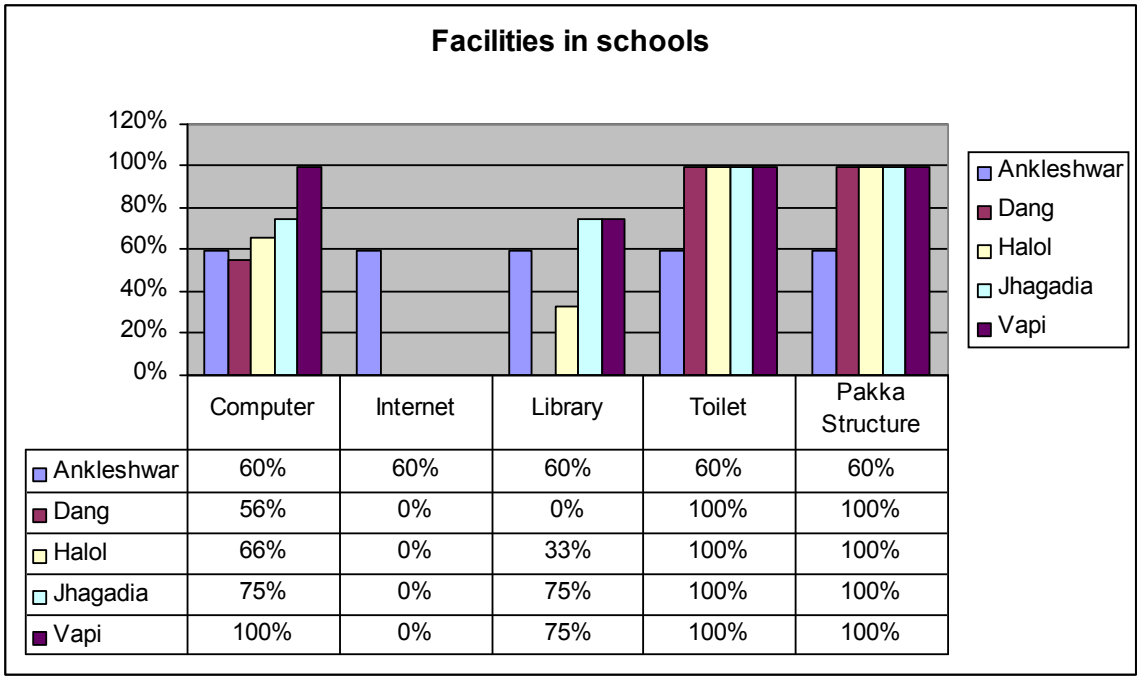
Need: To conduct a quick survey and find out the quantum of adults who would like to join an adult literacy program and work on a model that is appropriate for them.
It is required to work on Halol's literacy level as an independent project.

Indicator: School Drop out Ratio

Children are considered to be the most productive group of human resources. Development of a community or society depends largely on how its children are built and utilized. Providing the right education at the right time is the key. In this context, it becomes important to understand the drop out ratio in schools and its causes.
School dropout depends upon various factors such as poverty level, distance of school from home, transport facilities, quality of teachers, facilities available in the school, social environment and many others.



Concern	School drop out ratio is highest in **Halol** – 44% for Boys and 28% for girls.
Primary Cause	Poverty incidence is a prime cause for school drop out. The drop out ratio is higher for boys indicating that there is a preference to work rather than study amongst the boys.
	The distance of the middle and secondary school from Halol is more than 8 km. In Gopipura, it is more than 10-12 km.
Secondary Cause	The literacy level of parents also affects the literacy of children. In the case of Halol 62% of the adults are illiterate themselves.
	Library, computers and internet are not available in many of the villages. However they have pakka structure and a toilet. Refer the table below.



	Computer	Internet	Library	Toilet	Pakka Structure
Ankleshwar	60%	60%	60%	60%	60%
Dang	56%	0%	0%	100%	100%
Halol	66%	0%	33%	100%	100%
Jhagadia	75%	0%	75%	100%	100%
Vapi	100%	0%	75%	100%	100%

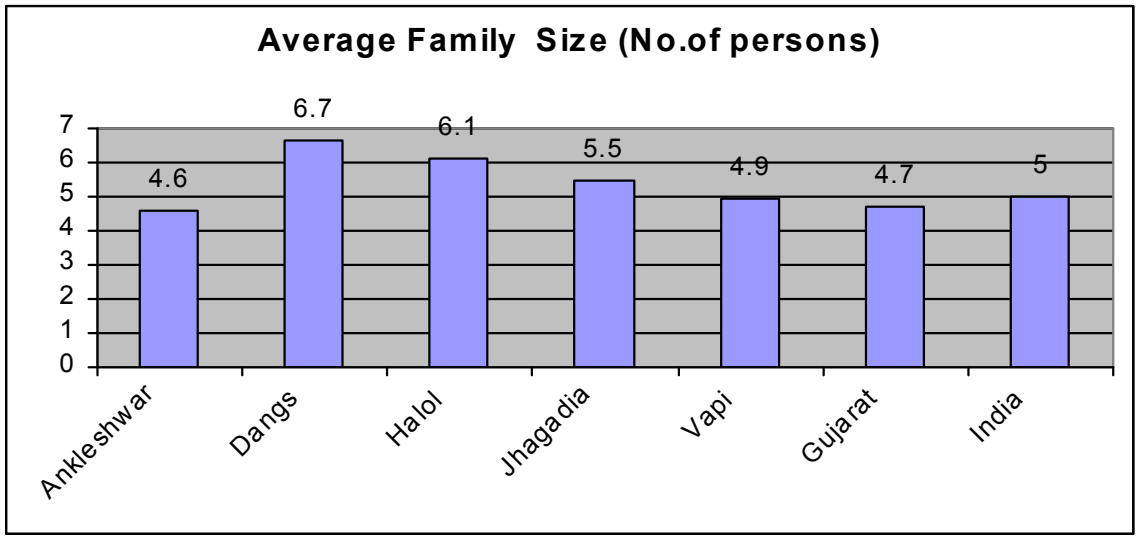
It must be noted that though most of the schools have a toilet, they are not in good operational condition.
Internet which has become a very important element of education and awareness in today's world is absent in majority of the schools.
In case of schools that have a library, it needs to be gathered what kind of books are available, their numbers and general upkeep.

Need: There is a need to work on a transportation model for carrying students from various villages to middle and secondary schools, which are mostly situated far and wide.

To work with all the stakeholders – students, parents, teachers, NGOs, government to improve the facilities in the school. Things like computers, internet, and library make the school very attractive to the students and can help in reducing school drop out ratio. Availability of a neat and clean toilet with basic facilities like water, bucket, mug, dustbin etc will help the girl students.

Indicator: Average Family Size

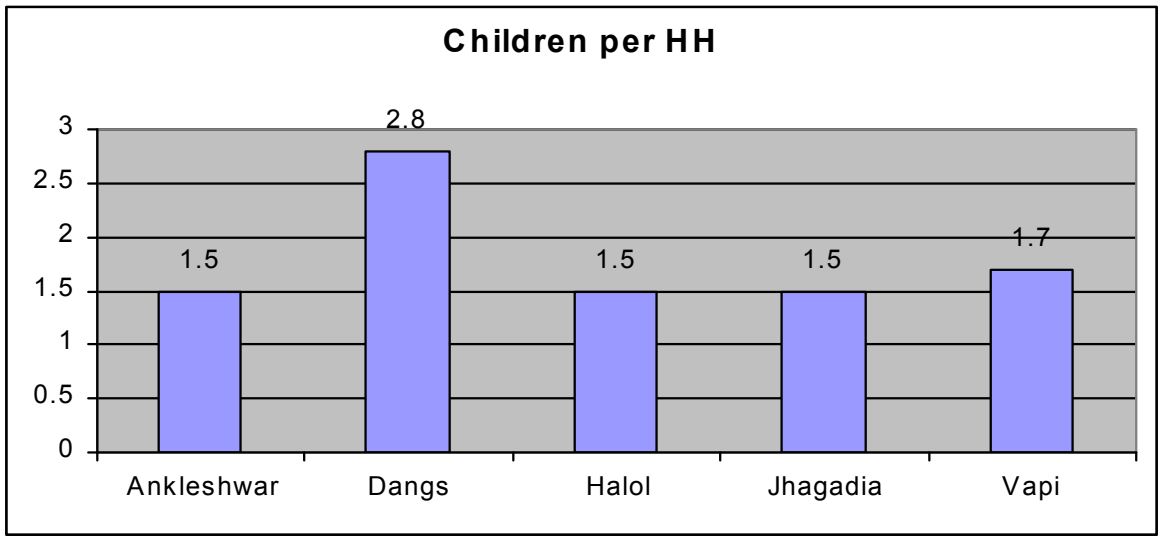
Larger the size of the family, lower is the per capita income and lower the standard of living. More people means more burden on scarce economic resources and hence lower productivity.



The incidence of poverty rises as family size increases, especially when the no. of children is also more in such families. In Dangs the average no. of children per HH is the highest (2.8). It must be noted that Dangs has the lowest Annual HH income.

Concern	Large family size is a cause of concern for Dangs
Primary Cause	More number of children appears to be the cause for large family size.
Secondary Cause	Dangs is primarily a tribal culture which has joint family system, which explains the large families
Concern	Large family size is a cause of concern for Halol too.
Primary Cause	More senior citizens in Halol make up large family size.

Indicator: Average No. of children per HH

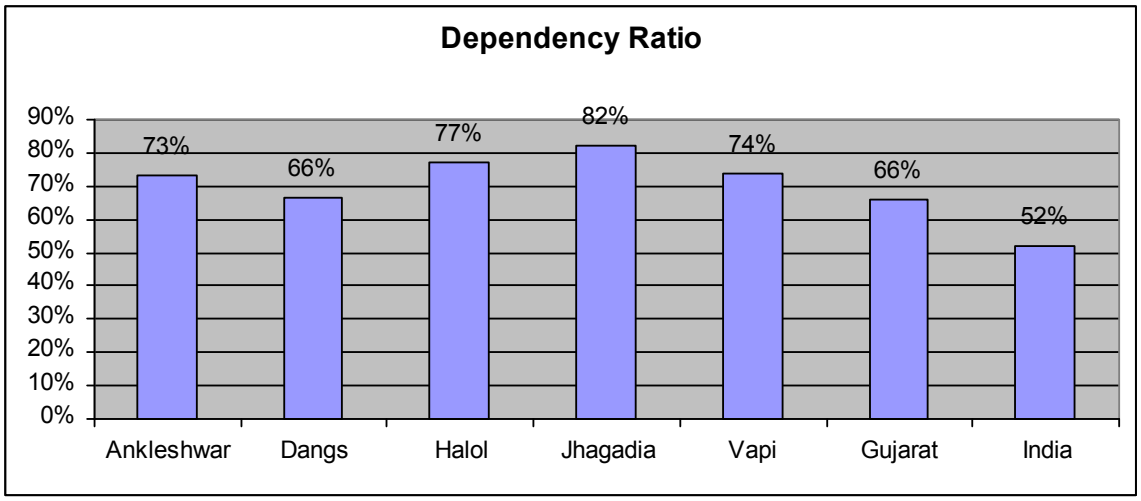


Concern	Dang has the highest no. of children per HH.
Primary Cause	Agricultural based economy appears to be the cause for large no .of children. Many children means more working hands in the farm.
Secondary Cause	Dangs is primarily tribal culture. It will be interesting to explore if tribal culture promotes having more children.

Need: There is a need to spread awareness in Dangs about the benefits of having fewer children. This issue needs to be addressed from a socio cultural perspective keeping in mind the sensitivity involved.

Indicator: Dependency Ratio

High dependency ratio causes economic pressure on the household. In the absence of age wise demographic profile, this study has defined dependency ratio as the ratio between nonworking population to working population. This would include elderly as well as children.

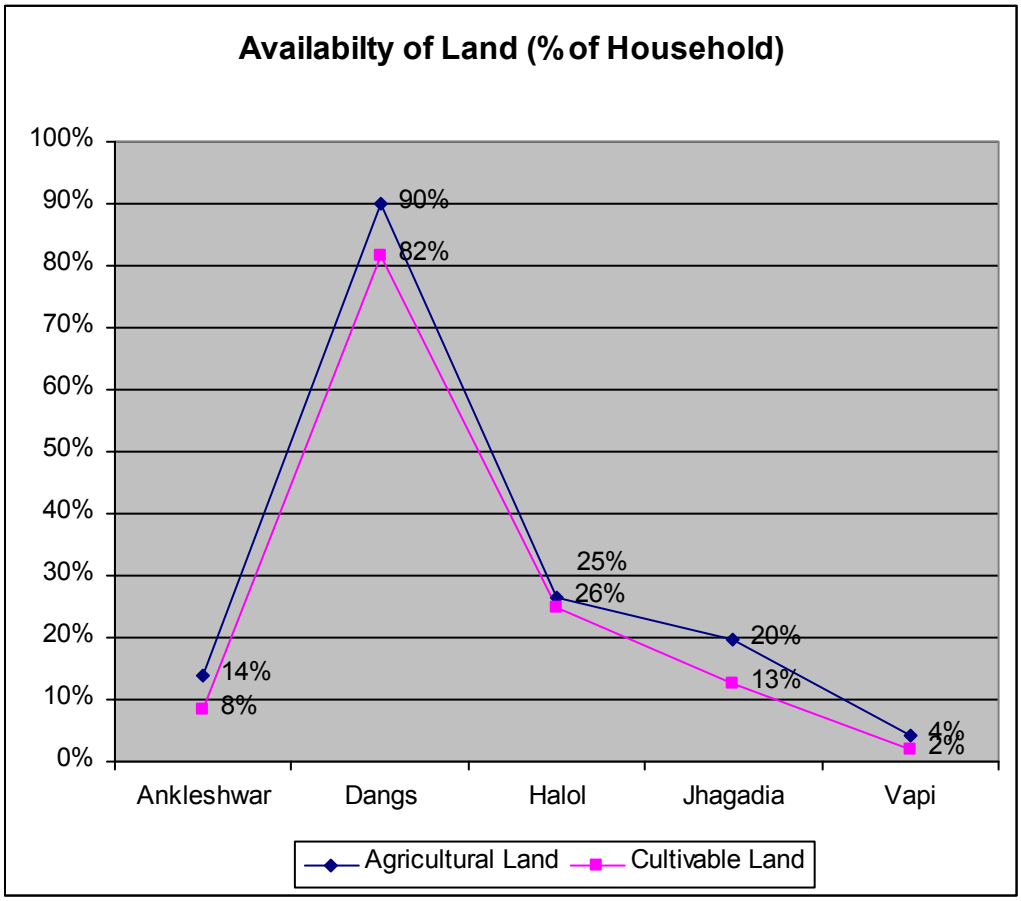


Concern	High dependency ratio in all the clusters. (more than the figures for Gujarat and India)
Primary Cause	More number of children in Dangs is the main reason for high dependency ratio. In the other 4 clusters, the elderly population must be high to drive the dependency ratio upwards.
Secondary Cause	In this analysis, we have not taken any women in the productive age group as dependents. We have assumed that they are productive in various ways be it through household chores or working in the farms.

Need: There is a need to encourage the elderly population to take up some sort of gainful employment in order to reduce the pressure on the current working population.
Women's contribution to the actual household income needs to be ascertained to find out their contribution. A small sample study can be done for the same.

Indicator: Availability of cultivable land

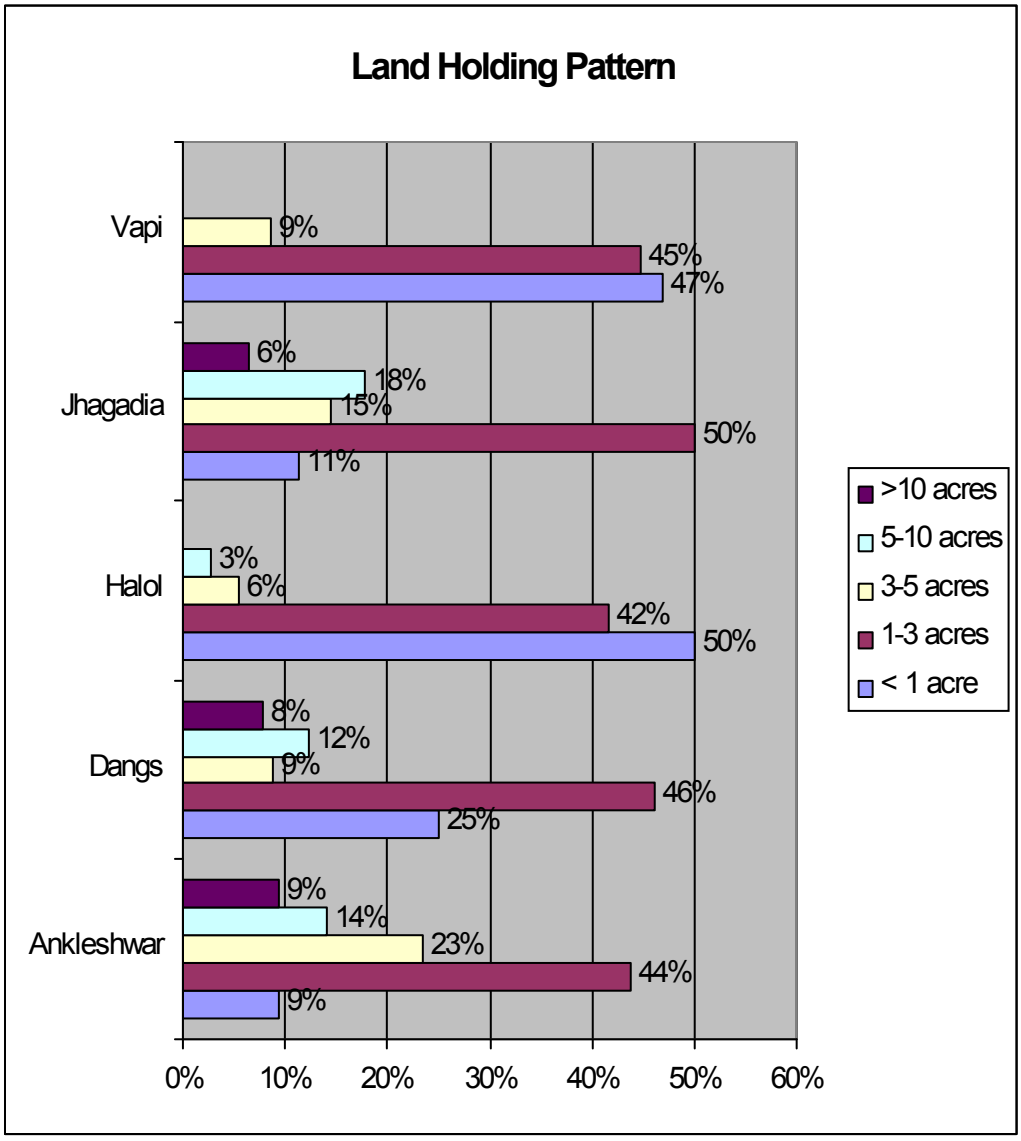
Agricultural land is land capable of being ploughed and grows crops.
Cultivable land is land that is actually being farmed (at minimum every five years) with crops that are sown and harvested within the same agricultural year.



Dangs being a predominantly agricultural economy, the availability of land per HH is the highest. The % of cultivable land is also significant (82%). This means that most of the agricultural land in being used for active farming.

Indicator: Land Holding Pattern

Size of the land holding is a prime factor for agricultural productivity. All the other variables like use of agricultural inputs, mechanization, etc depend on the size of the holding.
Since Dangs is a predominantly agricultural economy, we will focus on Dangs under this indicator.



- 25% of HHs have less than 1 acre of agricultural land in Dangs
- 46% of HHs have 1-3 acres of agricultural land in Dangs

This means that a majority of the population has very small sized land holdings.

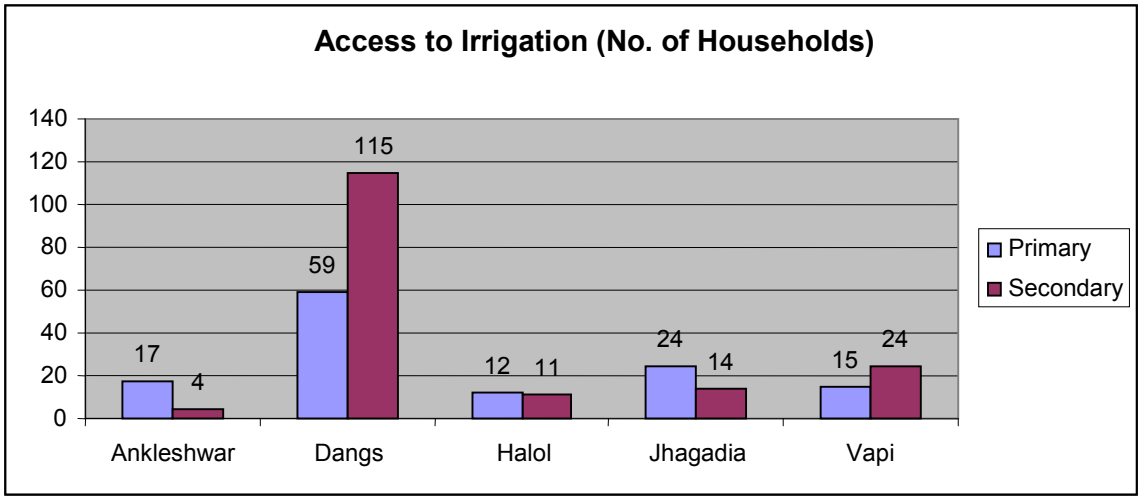
However the overall productivity of a farm depends on various other factors like

- the use of yield enhancing inputs like fertilizer, pesticides etc
- access to irrigation,
- technology,
- crop intensity and
- choice of crops (crop pattern) grown at the farm.

Need: A more comprehensive study of the entire agricultural scenario needs to be done before establishing a relationship between land holding and productivity.

Indicator: Access to Irrigation

It is important to supply water to the agricultural land at the right moment in an appropriate volume. Irrigation ensures proper growth of the plants and leads to maximum yields. It also includes clearing away of excess water from the agricultural land.



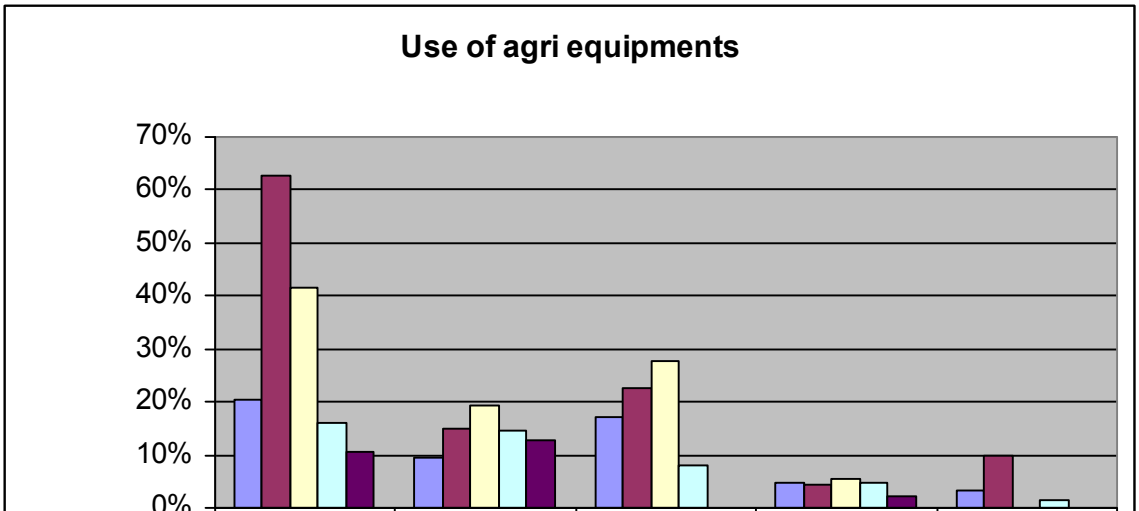
- 34% of agricultural HHs in Dangs uses primary irrigation as main source of irrigation. This means that still 1/3 rd of the HHs are totally dependent on monsoon for irrigation.
- 66% use secondary irrigation sources.

Concern	34% of population in Dangs is dependent on monsoon for irrigation
Primary Cause	Size of Land holding seems to be the driving cause. 81% of the HHs having less than 1 acre of land are dependent on monsoon.

Need: Chikhatia, Dhulmod and Nadagkhadi are the 3 villages that are totally dependent on monsoon. Secondary data needs to be collected to understand the reason for the same. Once the causes are established, interventions can be planned.

Indicator: Use of agri equipments (%of total Households engaged in agriculture)

Use of technological tools drives agricultural production.



	Bullock cart	Tractor	Electric Pump	Diesel Pump	Sprinkler
Ankleshwar	20%	9%	17%	5%	3%
Dangs	63%	15%	23%	4%	10%
Halol	42%	19%	28%	6%	
Jhagadia	16%	15%	8%	5%	2%
Vapi	11%	13%		2%	

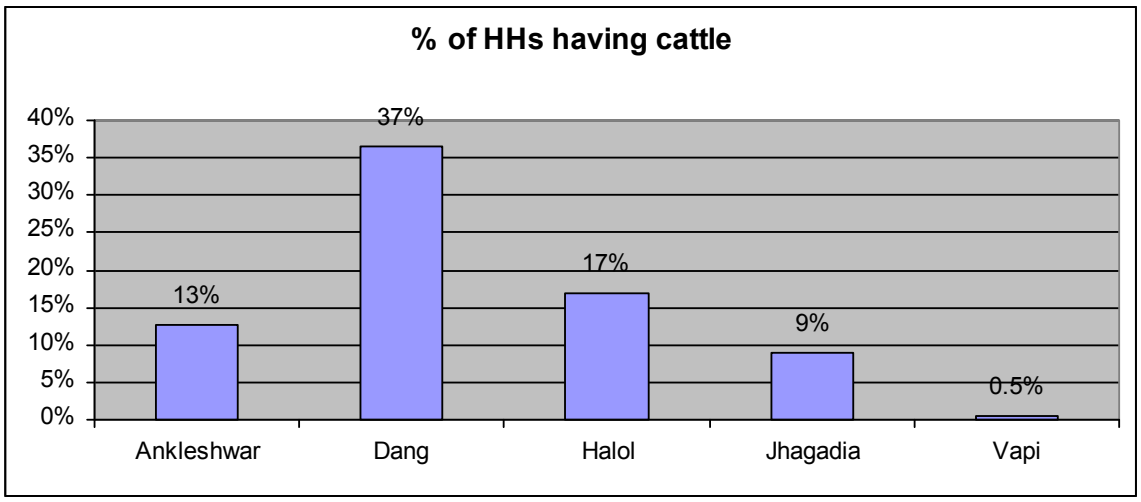
Concern	63% of Dangs farmers use bullock cart for ploughing purposes
Primary Cause	Since the land size for 61% HHs is less than 3 acres, it makes economic sense to use bullock carts.
Concern	Only 23% use electric pump
Primary Cause	Only 15 HHs having less than 3 acres of land use electric pump. While 26 HHs that used electric pumps had more than 3 acres of land.

Clearly, the study suggests that the use of agri equipments is dependent on size of land holdings. Greater is the land holding, more is the use of technologically advanced equipments on the farm.

Need: There could be multiple causes for not using technologically advanced equipments on small farms like affordability, feasibility, availability etc. Once the cause is established through farmers' group discussions, the need can be worked upon in a systematic manner.

Indicator: % of HHs having cattle (Cow, Buffalo, Goat)

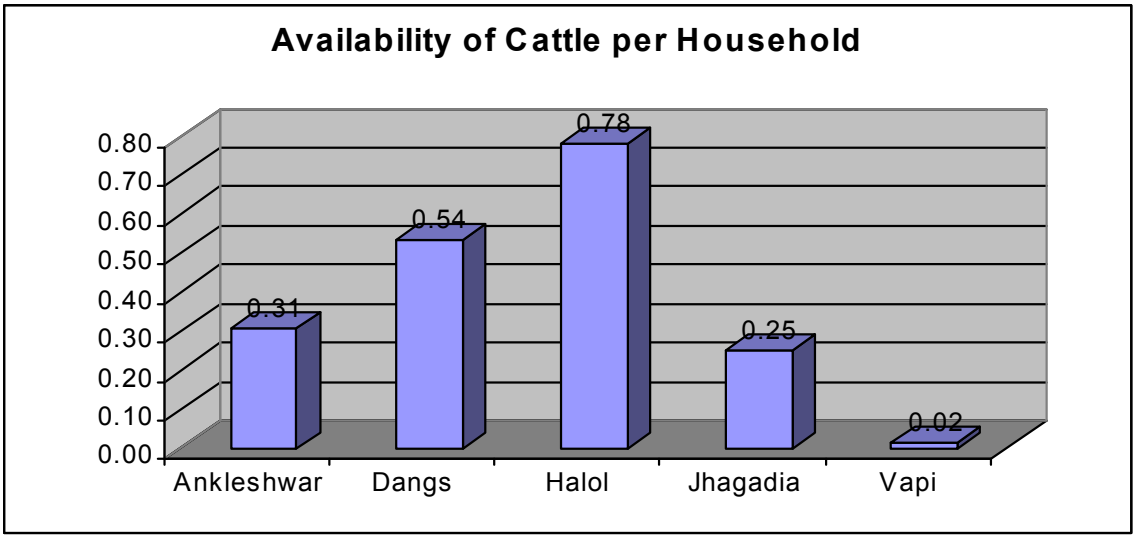
Several studies indicate that livestock rearing has significant positive impact on socio economic households. Cattles provide several food based products like milk, egg, meat etc along with various non food based products like skin and bones for the industrial sector.
They are a good source of supplement income in the rural areas.



Concern	Apart from Dangs, the other 4 clusters have few HHs having cattle
Primary Cause	Mostly agrarian economy supports and requires cattle rearing. Hence the other clusters where dependence on agriculture is low possess few cattles.
Concern	Only 37% of HHs in Dangs have cattle
Primary Cause	Poverty fuelled by low income levels is the primary cause for low cattle availability in Dangs

Indicator: Availability of cattle per Household (Cow, Buffalo and Goat-all inclusive)

The degree of contribution of cattle or livestock in the rural economy depends on their number and productivity.

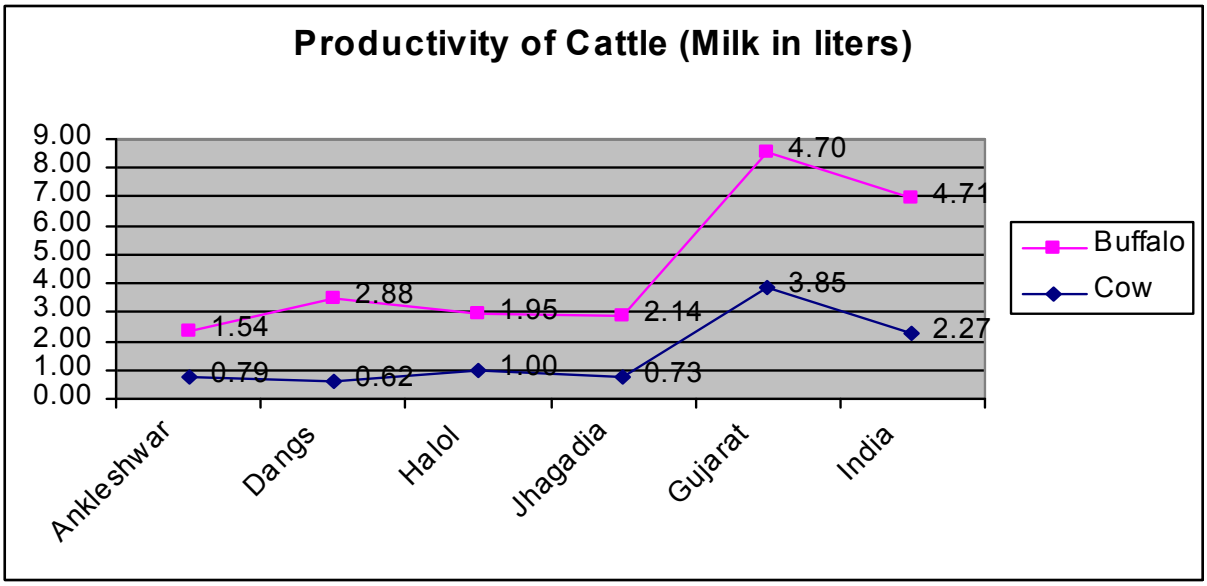


Concern	The per capita availability of cattle is very low. Lower than even 1 cattle per household
Primary Cause	Low average is due to the fact that very few households have cattle
	But if we look at the average no. of cattles in the HHs that have cattle, the figure is pretty high. Ankleshwar – 2.4 Dangs -1.5 Halol-4.6. Jhagadia -2.8 Vapi- 3.6

Need: More Households should be encouraged to own cattle and financial options should be explored to do the same. Cattle rearing as a lucrative and alternative source of income should be promoted in all the clusters except Vapi, where it is not required.

Indicator: Productivity of Cattle

Cattles contribute to the economy in multiple ways including food and non food products. Here we have focused on their productivity in terms of milk only.



Concern	The productivity of both Cow and Buffalo is low in all the 5 clusters. Gujarat and India figures for productivity are much higher.
Primary Cause	This study has not focused on finding the causes for low productivity of cattle.

Need: There is a need to improve the productivity of cattle in terms of milk production.
A separate study needs to be conducted to ascertain the causes for low productivity.

Indicator: Availability of Roads and Connectivity

Roads are the major channels of transportation for carrying goods and passengers.
Roads become especially crucial for farmers for carrying their perishable farm products for sale.

	Paved road in villages	***Distance from nearest state highway (Kms)***	***Distance from nearest national highway (Kms)***
Ankleshwar	100%	1	4.1
Dangs	100%	43	NA
Halol	100%	6	50
Jhagadia	75%	9	18
Vapi	100%	9	10

Concern	Dangs is the remotest of all the clusters under study
Primary Cause	Distance from the nearest State Highway is 43kms
Secondary Cause	Most of the villages in Dangs lie in hilly terrain and hence connectivity becomes a concern

Need: To establish transport channels for Dangs villages, Example ambulance for patients, pick up trucks for farm produce, etc

Indicator: Women empowerment measured through self help groups

Self Help Groups are an instrument for socio economic empowerment of women in rural areas. The core indicators of the SHGs reflect their impact on the rural woman's life.

The parameters studied and data collected has been summarized in the table below:

	No. of SHGs	***Average no of members***	***Average corpus in INR***	***Economic Activities***	***Age of SHG (Min and Max)in years***
Ankleshwar	10	12	30,000	None	1, 6
Dangs	37	12	NA	None	NA
Halol	2	15	40,000	None	6
Jhagadia	6	13	30,000	None	1,6
Vapi	13	15	62,500	Yes	1,2

List of villages where there are no women SHGs:

Ankleshwar	Naugama, Motali
Halol	Bhikhapura, Nurpura

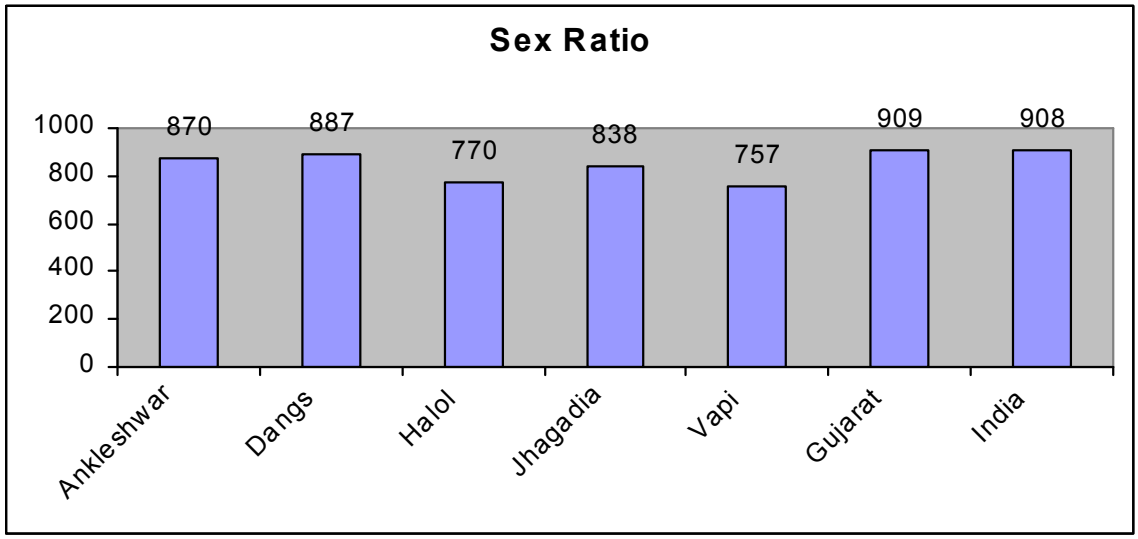
Concern	Economic activity is absent from all the clusters except Vapi.
Primary Cause	Lack of Motivation appears to be the primary cause for not undertaking economic activities. The SHGs are meeting all the other requirements like they have good membership, corpus is also decent, and they are pretty old too.
Secondary Cause	The other reason could be lack of skills and knowledge about entrepreneurial activities.

Need: To encourage SHG members to take up economic activities.
To provide various kinds of trainings, skills, knowledge, workshops and exposure visits for such groups.

Assessment of Development needs

Indicator: Sex Ratio (Adults)

Sex Ratio is an important indicator of status of women in the society. A low sex ratio reflects preference for male child to female child. A low sex ratio leads to various socio cultural problems like non availability of girls for marriage, increased crime towards women etc.

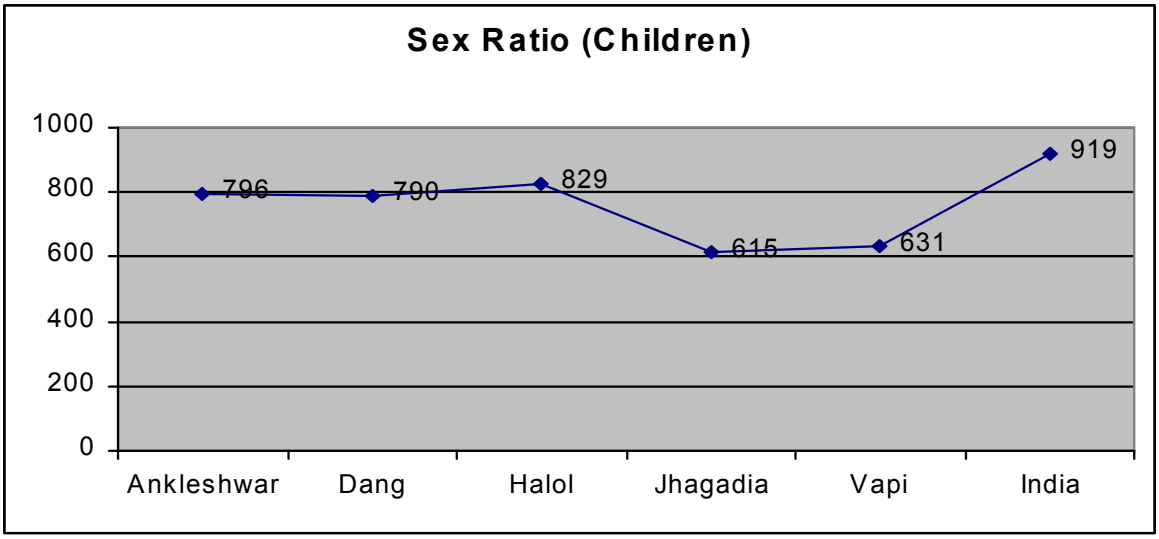


Concern	Very low Sex Ratio in all the 5 clusters.
Primary Cause	Ascertaining the cause of low sex ratio was not in the scope of this study.
	However various studies available for pan India figures suggest that selective terminations of pregnancy and female infanticide are the main reasons for low sex ratio in India. The other reason is the malnourishment of the girl child leading to disease and death.
Secondary Cause	The various reasons for preference of a male child over female child in India are: A belief that boys are more capable as income earners. Girls leave home after marriage and can't take care of parents in old age. One has to pay huge dowry to get them married Girls need more protection from unwanted elements in the society

Need: Social and Economic empowerment of women will help them take their own decisions

Indicator: Sex Ratio (Children)

Normal sex ratios at birth are found to lie between 943 and 971 females per 1000 males. On this basis, the average sex ratio should be 953 females per 1000 male children.

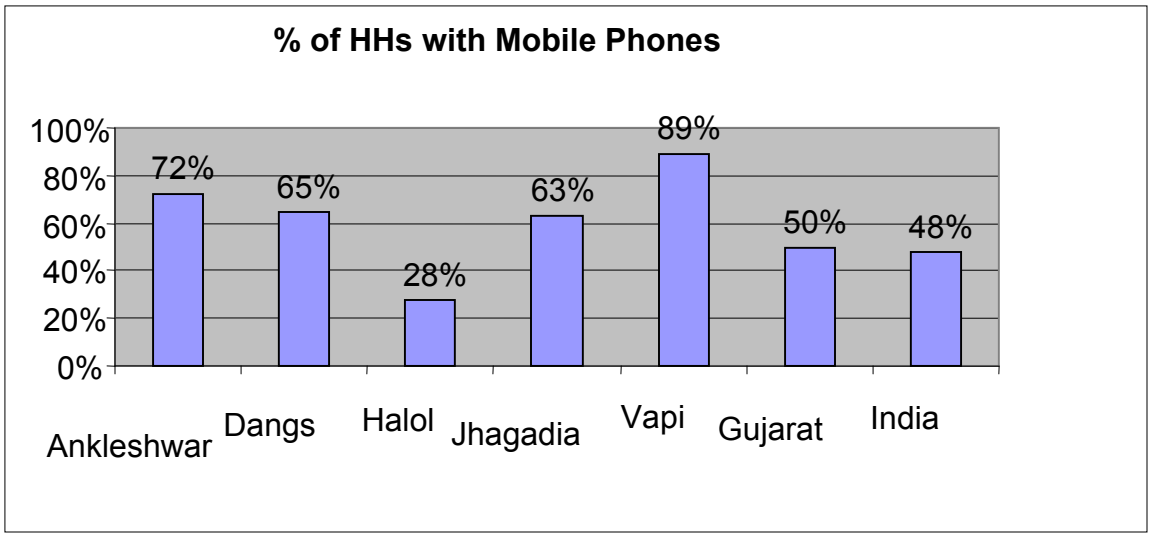


Concern	In the case of above 5 clusters, the sex ratio is way below the normal level
	They are much below the all India figure too.
Primary Cause.	As stated above, ascertaining the cause for low sex ratio was not in the scope of this study.
	However several studies have suggested that there is a deep rooted discrimination against girl children in our society. The reasons for the same have been stated above.

Need: Awareness generation program for protecting girl child.
Special programs for making girl children more educated and skilled.

Indicator: Technology Penetration - % of HHs having mobile phones

More number of people using mobile phones is an indicator that people are spending on non food items and services in huge numbers. This is a considerable shift for rural India where technology is penetrating rapidly.

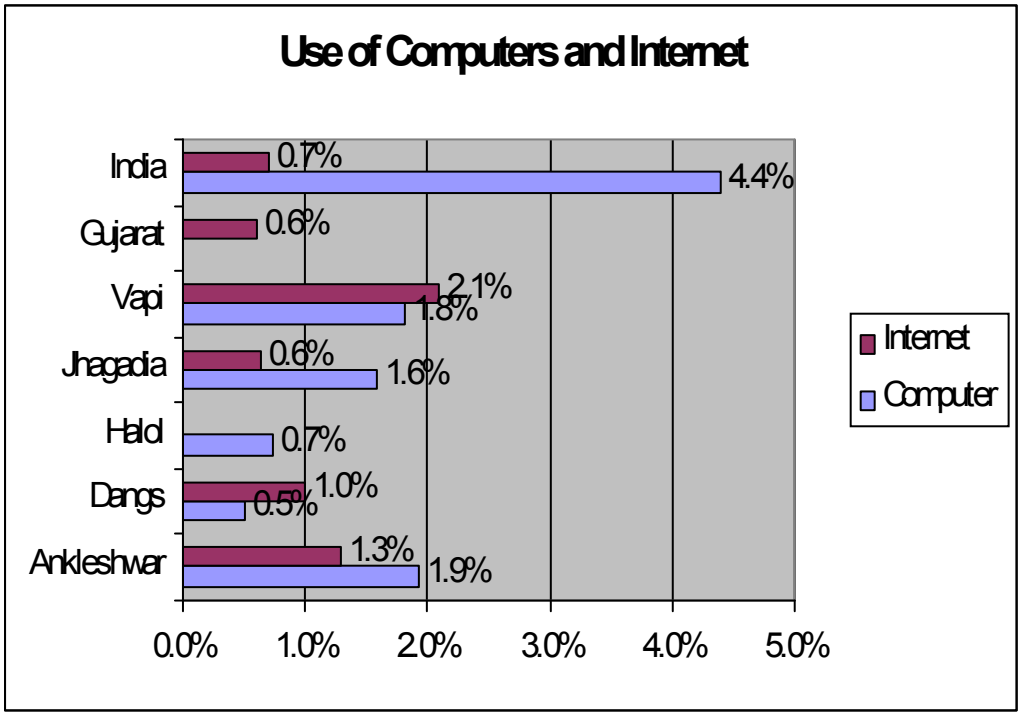


The figures for Mobile penetration are pretty impressive for all the clusters, except Halol (only 28%).

Concern	Mobile penetration is low in Halol, even lower than Gujarat and India figures
Primary Cause	Income level appears to be the primary cause. Only 10 HHs who had annual income less than 50k owned a mobile. While 28 HHs with higher incomes owned a mobile.
Secondary Cause	It is interesting to note that monthly HH income for Halol (INR 4717) is greater than Dangs(INR 2118). Still mobile penetration is lower than Dangs. Usage could be a cause behind this. Since Dangs has an agricultural economy, their need for faster communication is more than Halol.

% of HHs with Computer and Internet

Computers and Internet have become synonymous with development in today's world which is driven by communication and information. Technology reaches the remotest corner of the world through computers and internet and makes life better.

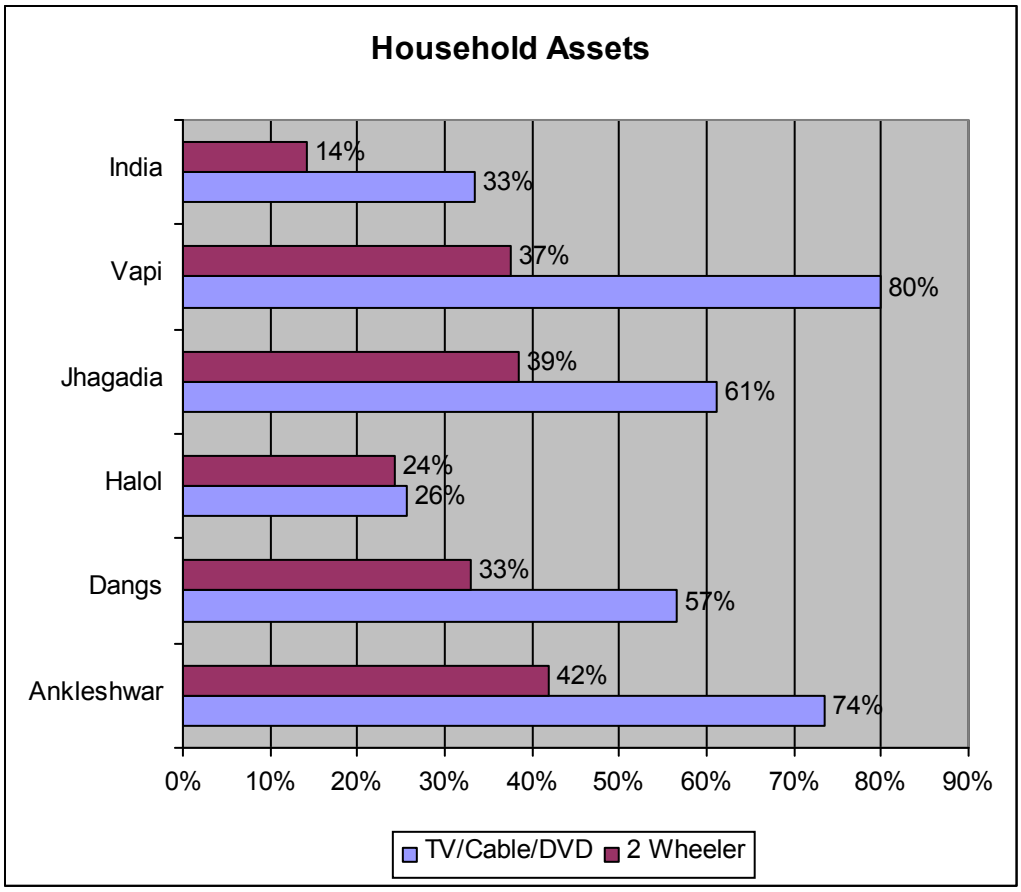


Concern	Low Internet penetration and hence its limited use
Primary Cause	Closeness to city life and exposure to internet facilities appears as a primary cause to drive internet usage. Ankleshwar and Vapi both are industrial centers and have widespread access to technology.
	Accessibility and affordability of internet.
Secondary Cause	Lack of awareness about the benefits of internet.
	Very few people are using internet through their phone. Ankleshwar-1 Dangs-1 Halol-None Jhagadia-2 Vapi-5

Need: To bring information, education and communication closer to the villagers through internet.

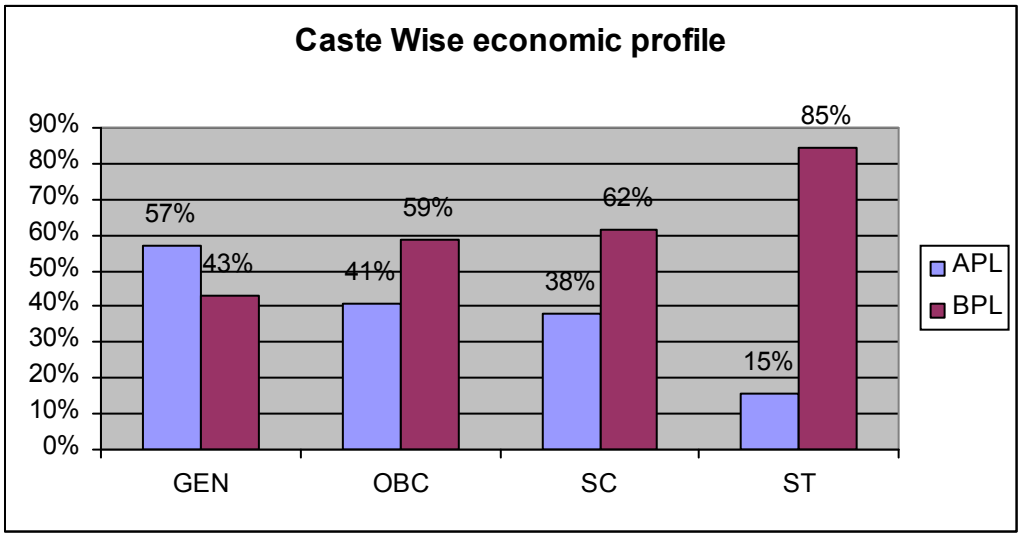
Indicator: Availability of Household Assets

Household assets are a better indicator of a household's long term economic standing than annual measures such as income. They also reflect the development of local infrastructure.
Example Televisions will be of no use, if the village does not have electricity. Similarly motorcycles will be useless, if there are no roads and poor connectivity.

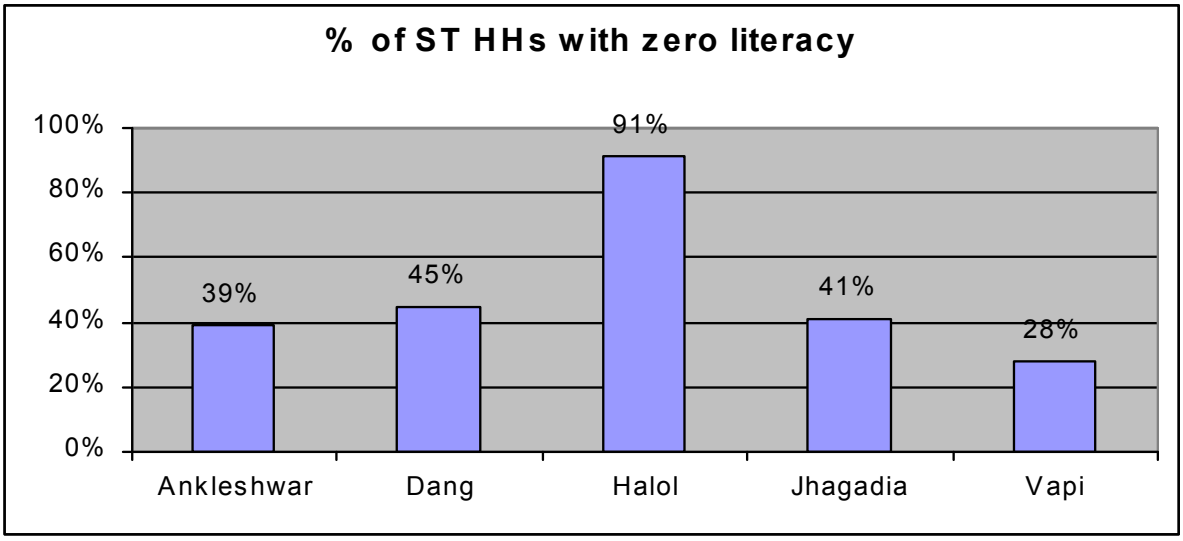


The availability of a 2 wheeler is pretty high in all the 5 clusters as compared to the all India figure (14%)
The statistics for Television is also better than India figure of 33%. Only Halol fares worse with only 26% HHs having a Television.

Indicator: Discrepancy in economic status due to racial background (if any)



Concern	85% of the ST households belong to BPL category. This is definitely indicating the backwardness of the particular race.
Primary Cause	If we look at the primary occupation of the ST households in the area under study, they are majorly into agriculture with very low per capita land and minimal use of agri equipments.
Secondary Cause	Illiteracy levels are also very high among the ST HHs. The figures for the 5 clusters are given in the chart below.



Need: Projects which are focused on the needs of the ST community are required in order to raise the community's development indicators

Indicator- Availability of community assets (physical)

A community asset is any resource that can be used to improve the quality of life of the community. It can be a person, a physical structure or place, a community service, an industry, etc.
Identifying and utilizing community assets enables the community to take care of its long term development.

Availability of Physical Assets:

	Community Hall/Clubs	Library	Sports Facility/Playground
Ankleshwar	None	Only at Block level	None
Dangs	None	None	None
Halol	None	Only at Block level	None
Jhagadia	None	Only at Block level	None
Vapi	YES	None	None

Need: There is a need to construct community halls in all the 5 clusters except Vapi.
There is a need for a mobile library which can cater to the educational needs of all the 5 clusters.
There is a need to construct play grounds for all the 5 clusters with community participation.

Indicator- Socio- cultural groups

Socio cultural groups can play a very important role in the development of the village community. A group is a summation of independent people who share a common goal.
In the development scenario, such groups can spearhead development for the entire community.
Self Help Groups and Dudh Mandi (Milk Federations) are good examples of socio cultural groups.
SHGs are operational in all the 5 clusters.
Dudh Mandi is working in Dangs

Need: There is a need to start various types of socio cultural groups in all the 5 clusters. Example- adult education group comprising of members who volunteer to educate the adult illiterates. Youth sports group which will work towards identifying and nurturing sports talent at the village level. Many more such groups can be created based on the requirement of the respective villages./ clusters.

Indicator- Institutional support

Various institutions work independently in rural areas for the development of the community. Each institution has its unique strengths and collaboration between such institutions can spearhead all development efforts.

Institutional support available to all the 5 clusters was tabulated and studied.
They have been listed as:

- Non Government Organizations working in the area
- Offices of local, state and central government
- List of Hospitals
- List of Educational institutes
- List of Industries

The complete list is available with the CSR team.

It is interesting to know that a horde of institutions are working in the 5 clusters. A lot of the development needs can be met by a complete utilization of services provided by these institutions.

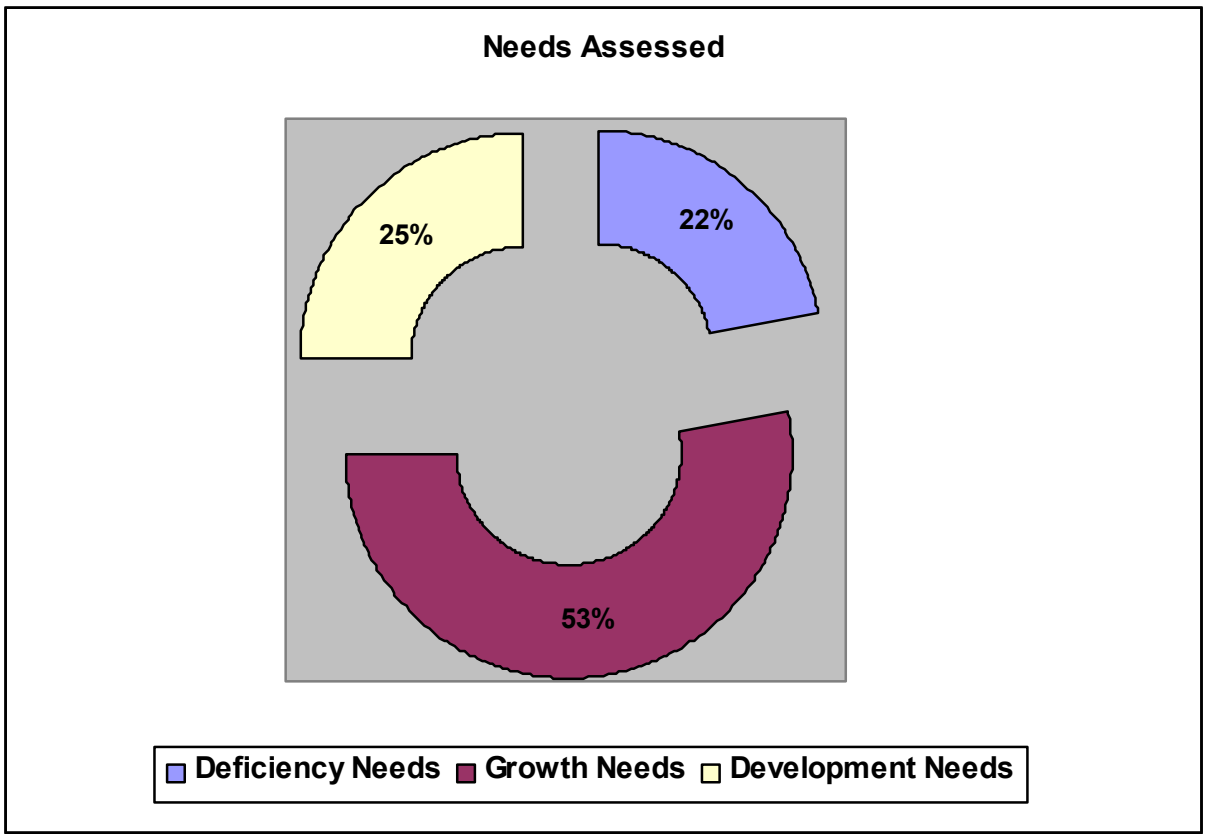
Need: A separate study needs to be conducted to ascertain the service utilization levels of these institutions and the reason for non or under utilization (whatever the case may be).

Need Assessment Synopsis

Based on the information generated from the indicators and causal analysis, 40 needs were assessed. Based on our classification the needs have been listed below:

Deficiency Needs	Growth Needs	Development Needs
Address Housing Issue in Dangs	Reduce dependence on agriculture	Social & Economic empowerment of women
Need to have toilet facility in all homes	Increase gains from agriculture	Awareness generation to protect girl child
Generate awareness on the multiple benefits of toilets	Increase the literacy levels	Make girl children more educated and skilled
Make Institutional arrangement for waste management program	Improve skill sets of the working population	To bring IEC closer to the villagers through internet.
Create awareness for a clean community	To attack poverty with a multi dimensional approach	Projects focused on the needs of ST community
A study to ascertain the perception about quality of water	Focused study to assess need for an adult literacy program	Community Halls
To promote improvised traditional chulha	Special literacy drive for Halol	Need for a Mobile Library
Ambulance facility	Need for a transportation model for carrying students	Sports facility
Mobile clinics	Improve facilities in schools	Start various socio cultural groups
	Spread awareness in Dangs for containing population growth	Study to ascertain service utilization of various facilities
	Encourage elderly population to take up economic activity	
	A study to find out women's contribution to HH Income	
	A comprehensive study of the agricultural scenario	
	Small study in Chikhatia, Dhulmod and Nadagkhadi to understand irrigation needs	
	Conduct Farmers meet on the need for advanced equipments	
	Encourage HHs to own cattle	
	Various financial options for cattle purchase	
	To improve productivity of Cattle	
	To establish transport channels for Dangs	
	To encourage SHG members to take up economic activities	
	To provide various kinds of trainings, skills, knowledge etc	

Study result at a glance



Criticality and Complexity Analysis

Criticality: The objective of a need assessment study is to understand the needs of a community and then address them in a structured manner. The needs assessed vary in their relative importance for the overcall development of the community.

Criticality analysis attempts to measure the contribution of the need in the overall development of the community. 5 facets of development have been chosen for the same.

- Natural Resource Development
- Human Resource Development
- Capital Formation
- Technological Development
- Socio Cultural Development

We score the needs with respect to the impact they have on the above 5 facets of development.

Relative Impact	Score
High	3
Medium	2
Low	1

Complexity: Addressing a need requires planning and resources. Hence we do a complexity analysis to understand the requirement of various resources to address different needs. The more the requirement of resources, the more complex it becomes to address the need.

We have taken 5 resources for our study:

- Man- Manpower
- Money- Financial resources
- Material- Physical Objects
- Management- Planning and Implementation
- Motivation- Community's involvement and drive

Relative Requirement	Score
High	3
Medium	2
Low	1

Criticality and Complexity Analysis – Deficiency Needs

	Criticality						*Complexity*					
Need	**Natural Resource Development**	**Human Resource Development**	**Capital Formation**	**Technological Growth**	**Socio Cultural Development**	**Total Score**	**Man**	**Money**	**Material**	**Management**	**Motivation**	**Total Score**
Address Housing Issue in Dangs	3	1	2	1	3	**10**	3	2	3	3	2	**13**
Need to have toilet facility in all homes	3	3	1	1	3	**11**	1	2	2	3	3	**11**
Generate awareness on the multiple benefits of toilets	3	3	1	1	3	**11**	3	1	2	2	3	**11**
Make Institutional arrangement for waste management program	3	2	1	2	2	**10**	3	1	2	3	3	**12**
Create awareness for a clean community	3	1	1	1	2	**8**	3	1	2	2	3	**11**
A study to ascertain the perception about quality of water	3	2	1	1	1	**8**	3	1	2	1	1	**8**
To promote improvised traditional chulha	3	2	1	2	3	**11**	1	2	3	2	3	**11**
Ambulance facility	1	3	1	1	1	**7**	3	1	3	3	1	**11**
Mobile clinics	1	3	1	1	1	**7**	3	3	3	3	1	**13**

Criticality and Complexity Analysis – Growth Needs

	Criticality						*Complexity*					
Need	**Natural Resource Development**	**Human Resource Development**	**Capital Formation**	**Technological Growth**	**Socio Cultural Development**	**Total Score**	**Man**	**Money**	**Material**	**Management**	**Motivation**	**Total Score**
Reduce dependence on agriculture	3	2	1	1	1	**8**	3	1	3	3	3	**13**
Increase gains from agriculture	3	2	3	3	1	**12**	3	3	3	2	2	**13**
Increase the literacy levels	1	3	2	2	3	**11**	3	1	3	2	3	**12**
Improve skill sets of the working population	1	3	3	3	2	**12**	3	3	3	2	2	**13**
To attack poverty with a multi dimensional approach	1	3	3	2	2	**11**	3	3	1	3	1	**11**
Focused study to assess need of an adult literacy program	1	3	1	1	3	**9**	1	1	1	2	1	**6**
Special literacy drive for Halol	1	3	1	1	2	**8**	3	1	2	2	3	**11**
Need for a transportation model for carrying students	1	2	1	1	1	**6**	1	3	1	3	1	**9**

	Criticality						*Complexity*					
Need	**Natural Resource Development**	**Human Resource Development**	**Capital Formation**	**Technological Growth**	**Socio Cultural Development**	**Total Score**	**Man**	**Money**	**Material**	**Management**	**Motivation**	**Total Score**
Improve facilities in schools	1	3	1	1	3	**9**	1	3	3	2	1	**10**
Spread awareness in Dangs for containing population growth	1	3	2	1	2	**9**	1	1	3	1	3	**9**
Encourage elderly population to take up age appropriate economic activity	1	3	3	1	2	**10**	3	1	2	2	3	**11**
A study to find out women's contribution to Household Income	1	2	1	1	2	**7**	1	1	1	1	1	**5**
A comprehensive study of the agricultural scenario	3	1	1	1	1	**7**	3	2	3	3	2	**13**
Small study in Chikhatia, Dhulmod and Nadagkhadi to understand irrigation needs	3	1	1	2	1	**8**	1	1	2	2	2	**8**
Conduct Farmers GD on the need for advanced equipments	2	1	2	3	1	**9**	1	1	1	1	1	**5**

	Criticality						*Complexity*					
Need	**Natural Resource Development**	**Human Resource Development**	**Capital Formation**	**Technological Growth**	**Socio Cultural Development**	**Total Score**	**Man**	**Money**	**Material**	**Management**	**Motivation**	**Total Score**
Encourage community to own cattle	2	1	2	1	1	**7**	1	2	2	1	3	**9**
Various financial options for cattle purchase	2	1	2	1	1	**7**	1	2	2	3	1	**9**
To improve productivity of Cattle	2	1	3	1	1	**8**	2	2	2	2	2	**10**
To establish transport channels for Dangs	1	3	3	3	2	**12**	3	3	3	3	1	**13**
To encourage SHG members to take up economic activities	1	3	3	2	3	**12**	1	2	2	1	3	**9**
To provide various kinds of trainings, skills, knowledge etc	1	3	3	3	3	**13**	3	2	3	2	3	**13**

Criticality and Complexity Analysis – Development Needs

	Criticality						*Complexity*					
Need	**Natural Resource Development**	**Human Resource Development**	**Capital Formation**	**Technological Growth**	**Socio Cultural Development**	**Total Score**	**Man**	**Money**	**Material**	**Management**	**Motivation**	**Total Score**
Social & Economic empowerment of women	1	3	3	2	3	**12**	1	2	3	2	3	**11**
Awareness generation to protect girl child	1	3	1	1	3	**9**	2	1	2	3	3	**11**
Make girl children more educated and skilled	1	3	1	1	3	**9**	1	3	3	2	3	**12**
To bring IEC closer to the villagers through internet.	2	3	2	3	3	**13**	2	2	3	3	3	**13**
Projects focused on the needs of ST community	1	3	1	1	3	**9**	2	1	2	3	3	**11**
Community Halls	1	2	1	1	3	**8**	1	3	3	3	1	**11**
Need for a Mobile Library	1	3	1	1	3	**9**	1	2	3	3	1	**10**
Sports facility	1	3	1	1	3	**9**	3	3	3	3	1	**13**
Start various socio cultural groups	1	3	1	1	3	**9**	3	1	2	2	2	**10**
Study to ascertain service utilization of various facilities	1	2	1	1	1	**7**	2	1	1	2	1	**7**

Summation of Criticality and Complexity Scores

Need	*Criticality Score*	*Complexity Score*
Address Housing Issue in Dangs	10	13
Need to have toilet facility in all homes	11	11
Generate awareness on the multiple benefits of toilets	11	11
Make Institutional arrangement for waste management program	10	12
Create awareness for a clean community	8	11
A study to ascertain the perception about quality of water	8	8
To promote improvised traditional chulha	11	11
Ambulance facility	7	11
Mobile clinics	7	13
Reduce dependence on agriculture	8	13
Increase gains from agriculture	12	13
Increase the literacy levels	11	12
Improve skill sets of the working population	12	13
To attack poverty with a multi dimensional approach	11	11
Focused study to assess need of an adult literacy program	9	6
Special literacy drive for Halol	8	11
Need for a transportation model for carrying students	6	9
Improve facilities in schools	9	10
Spread awareness in Dangs for containing population growth	9	9
Encourage elderly population to take up age appropriate economic activity	10	11
A study to find out women's contribution to Household Income	7	5
A comprehensive study of the agricultural scenario	7	13
Small study in Chikhatia, Dhulmod and Nadagkhadi to understand irrigation needs	8	8
Conduct Farmers GD on the need for advanced equipments	9	5
Encourage community to own cattle	7	9
Various financial options for cattle purchase	7	9
To improve productivity of Cattle	8	10
To establish transport channels for Dangs	12	13
To encourage SHG members to take up economic activities	12	9
To provide various kinds of trainings, skills, knowledge etc	13	13
Social & Economic empowerment of women	12	11
Awareness generation to protect girl child	9	11
Make girl children more educated and skilled	9	12
To bring IEC closer to the villagers through internet.	13	13
Projects focused on the needs of ST community	9	11
Community Halls	8	11
Need for a Mobile Library	9	10
Sports facility	9	13
Start various socio cultural groups	9	10
Study to ascertain service utilization of various facilities	7	7

Inference from criticality scores:

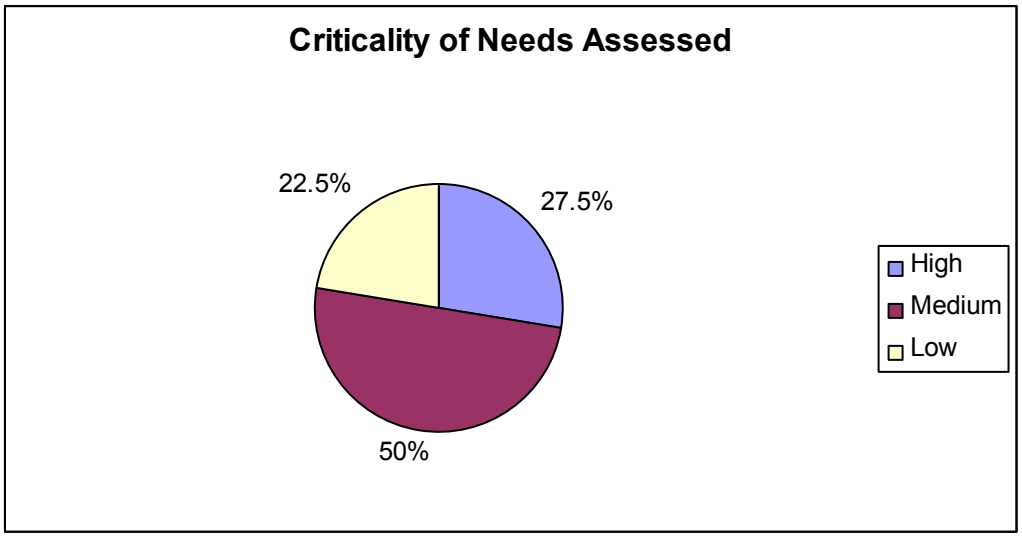
All the needs have specific scores with respect to their criticality. The scores have been listed in the table above.

The scores have been divided into 3 categories as per the table below.

- Needs that have a score of 11 and above have been categorized as High.
- Needs with a score between 8-10 are medium on criticality
- Needs with a score between 1-7 are low on criticality

Critical	Total Criticality Score	No. of Needs
High	11- 15	11
Medium	8-10	20
Low	1-7	9

- There are 11 needs which are highly critical; hence they need to be addressed on a priority basis.
- 21 needs are less critical but important none the less. Hence attention needs to be given to them too.
- 9 needs are low on criticality. Hence they can either be outsourced to an external agency or taken up later.



Inference from Complexity Score:

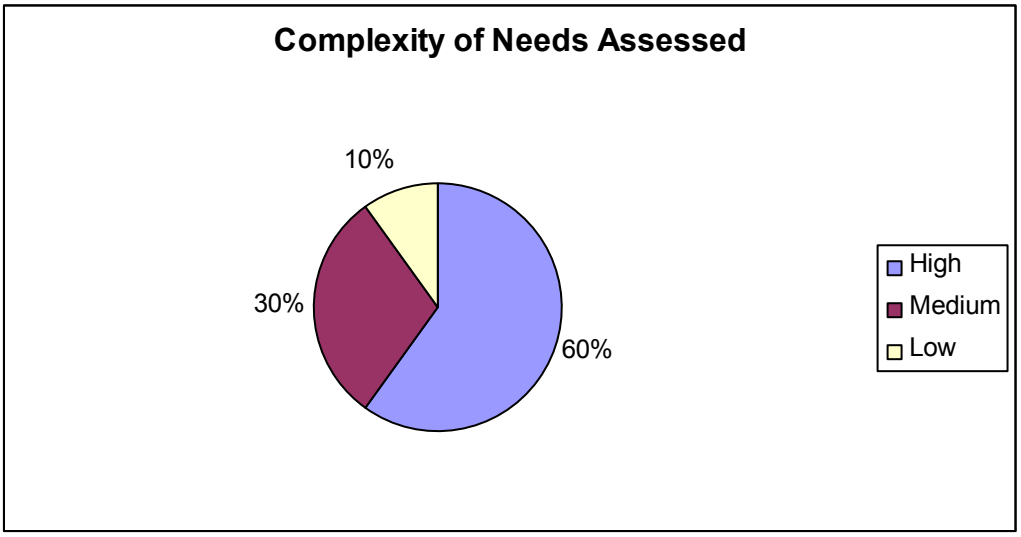
The complexity score has been listed in the above table.

The score has been categorized as below:

- Needs that have a score of 11 and above have been categorized as High on complexity.
- Needs with a score between 8-10 are medium on complexity
- Needs with a score between 1-7 are low on complexity

Complex	Total Complexity Score	No. of Needs
High	11- 15	24
Medium	8-10	12
Low	1-7	4

- Out of 41 needs, 23 fall under highly complex category. This means that they will require multiple partners and huge resources.
- 13 needs fall in the medium complex category. Hence they would not be very difficult to undertake.
- 5 needs fall under low complexity and hence can be easily addressed.



Plan of Action

Action plan can be made to address the needs, based on their criticality and complexity.

1. Needs that are high on criticality and low on complexity can be addressed immediately

- To encourage SHG members to take up economic activities

2. Needs that are high on criticality and high on complexity need a lot of planning and proper implementation and hence should be taken up after thorough preparation.

- To attack poverty with a multi dimensional approach
- Need to have toilet facility in all homes
- Generate awareness on the multiple benefits of toilets
- To promote improvised traditional chulha
- Increase gains from agriculture
- Increase the literacy levels
- Improve skill sets of the working population
- To establish transport channels for Dangs
- To provide various kinds of trainings, skills, knowledge etc
- Social & Economic empowerment of women
- To bring IEC closer to the villagers through internet.

3. ***Needs that are low on criticality, but high on complexity, require special agencies/ partners to carry out the programs. Hence a lot of tie ups with specialized agencies is required to address them.***

- Make Institutional arrangement for waste management program
- Create awareness for a clean community
- Ambulance facility
- Mobile clinics
- Reduce dependence on agriculture
- Special literacy drive for Halol
- Encourage elderly population to take up age appropriate economic activity
- A comprehensive study of the agricultural scenario
- Awareness generation to protect girl child
- Make girl children more educated and skilled
- Projects focused on the needs of ST community
- Community Halls
- Sports facility
- Start various socio cultural groups
- Study to ascertain service utilization of various facilities

4. Needs that are low on criticality and complexity can be addressed by making short term projects.

- A study to ascertain the perception about quality of water Focused study to assess need of an adult literacy program
- Need for a transportation model for carrying students
- Improve facilities in schools
- Spread awareness in Dangs for containing population growth
- A study to find out women's contribution to Household Income
- Small study in Chikhatia, Dhulmod and Nadagkhadi to understand irrigation needs
- Conduct Farmers GD on the need for advanced equipments
- Encourage community to own cattle
- Various financial options for cattle purchase
- To improve productivity of Cattle
- Need for a Mobile Library

After word

I have included this short After word in order to highlight some interesting information that was not in the scope of this study, but nonetheless got generated in the process.

The study has generated a rich baseline for the CSR unit. A Baseline is the standard against which we measure all subsequent changes brought about by CSR programs. To plan a truly effective program one needs to know the exact level of the problem. This study has successfully generated baseline measures against a wide range of indicators. This will be helpful in comparing results in the future.

Another interesting bye product of the study was the concerns survey. A concerns survey is an assessment where the community members are asked to identify what they see as the most important issues facing their community. It was interesting to see that most of the concerns stated by the community have emerged as the needs assessed in the study. Hence the study has been effective in capturing the sensitivity of the community. This will be very helpful in building a community census in future.

I would also like to take into account 2 limitations of the study.

Firstly, the study lacked qualitative assessment of data. Even though it was a quantitative study, some indicators required more qualitative understanding. For example, the reasons and motivations for people's behavior or how they operate in various situations could have helped in understanding certain issues better.

Another limitation of the study pertains to lack of collecting Photo Voices. A Photo Voice is a process in which we gather photo images to capture various aspects of the community's environment. The pictures reflect the real situation without the prejudice of the researcher. These photo voices can be used by the policy makers in effective planning.

Above all the study has been successful in capturing a straightforward demographic approach to need assessment. The organization now needs to prioritize and plan its activities based on its capabilities, resources, responsibilities and interests.

RUBI SINGH

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