DISTRICT HUMAN DEVELOPMENT REPORT

JUNAGADH

Gujarat Social Infrastructure Development Society
General Administration Department (Planning)
Government of Gujarat

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GUJARAT

GUJARAT SOCIAL INFRASTRUCTURE DEVELOPMENT SOCIETY (GSIDS)

GENERAL ADMINISTRATION DEPARTMENT (PLANNING)

GOVERNMENT OF GUJARAT, INDIA

DISTRICT HUMAN DEVELOPMENT REPORT: JUNAGADH

The report is prepared by Nirma University
Under a tripartite MoU between
Member Secretary, Gujarat Social Infrastructure Development Society (GSIDS), District Collector, Junagadh
and Director, Institute of Management, Nirma University, Ahmedabad

CHIMANBHAI SAPARIYA

सत्यमेव जयते

No. Agriculture, Energy
Minister,
Agriculture, Energy,
Government of Gujarat,
1st Floor, Swarnim Sankul-1,
Gandhinagar-382010.
Phone No.: 23250211, 23250212
Fax No. : 23250215,
Date : / /20

Gujarat enjoys the reputation of being the most progressive and well-administered State in the country. The State Government is aware that although progress has been achieved in various sectors since the State's inception much remains to be done in many fields. The Government is, therefore, making strenuous efforts to provide basic minimum services to the people, including drinking water, housing, health, education, livelihood opportunities, etc. The issues like securing peoples participation, poverty alleviation, social protection to the poor, removal of regional imbalances, good governance are also high priority areas of focus on the agenda of the Government. We are committed to the cause of Human Development.

I compliment Nirma University for collaborating with the State Government in preparation of the District Human Development Report, which provides an objective, in-depth analysis of the present status of various aspects of human welfare in the district.

I am sure, the comprehensive document, so meticulously prepared, providing a realistic assessment of the current status of the district and will serve as a guide for future planning in various fields which leads towards inclusive development of the people of the district.

I appreciate the endeavor.

(Chimanbhai Sapariya)

Resi.: Minister Bungalow No 5, Sector-20, Gandhinagar. Ph : 59660, 61, 23232453

MESSAGE

Human Development is a development paradigm which is beyond mere rise or fall of national incomes. It is about creating an environment where people can develop their full potential and lead productive, creative lives in accordance with their needs and interests. People are the real wealth of nation. Development is thus about expanding the choices people have to lead lives that they value.

The District Human Development Report is a Document which gives the present status of Human Development in different talukas of the District. Human Development requires focus on the basic as well as crucial indicators of Human Development. Thus this report has highlighted three important pillars which are: Education, Health and Livelihood.

I commend the efforts put in by stakeholders in preparing this publication and hope that this will be useful to all the state & district level officials, policy makers and planners in working towards improving Human Development scenario of the District.

(S. Aparna)
Principal Secretary (Planning) and
Chairperson, GSIDS

Dr. Rahul Gupta I.A.S.
Collector & District Magistrate

Office of The Collector & District Magistrate,
Junagadh - 362 001.
Office : (0285) 2636100 / 2630100
Fax : (0285) 2635599
Resi : (0285) 2650203
E-mail : collector-jun@gujarat.gov.in

PREFACE

"People are the real wealth of a nation" – a statement of far fetching significance & consequence, rightly coined by the UNDP.

Human development focuses on improving the lives of people rather than assuming that economic growth will automatically lead to greater wellbeing for all. Income growth is seen as a mere means to an end.

Human development report covers three broad aspects related to Human Development: (1) Long and healthy life, (2) Decent standard of living and (3) Education.

The objective of District Human Development Report (DHDR) of Junagadh district is primarily to serve as a status report presenting the achievements in areas of greatest interest for the Development and welfare of individuals at District level.

A detailed analysis of the sources of employment, levels of employment, sector-wise growth of employment, distribution of employment spatially over the District, over sectors, over gender and other indicators/parameters has been done in this report which will help District level authorities in proper planning and proper allocation of the resources.

Junagadh District had a rich history going back several centuries and has been a major trading centre in the region. Junagadh has been and continues to be dominated and driven by rural economy. More than two third population lives in rural area and more than two third workers work in agriculture and allied activities.

I hope that this report, based on a set of significant indicators, will be helpful in Identifying the needs of the District and its constituents and accordingly will act as a guiding tool for planning and policy makers to optimize the resource allocation and thus raising Human Development status of the District.

Rahul Gupta

(Collector, Junagadh)

Ajay Prakash
I.A.S
District Development Officer

DISTRICT PANCHAYAT BHAVAN
BEHIND SARDARBAUG, OPP. SHASHIKUNJ,
JUNAGADH - 362001.
Tel. Off. : (0285) 2635315 / 2535316
Resi. : (0285) 2651002
Fax No. : (0285) 2636317
E-mail : ddo-jun@gujarat.gov.in

FOREWORD

The Human Development approach arose in part as a result of growing criticism to the leading development approach, which presumed a close link between national economic growth and the expansion of individual human choices. As of 1990, the human development concept was applied to a systematic study of global themes, as published in the yearly Global Human Development Reports under the auspice of the UNDP.

The Human Development story of India is unique in its kind. India initiated Human Development issues during 8th Five Year Plan (1992-97). In order to integrate Human Development into state planning in India, the preparation of reports at state level has been started. Now-a-days the Gujarat State is on the fast track of development. Planning Commission-Government of India and UNDP had partnered Strengthening State Plan for Human Development (SSPHD) Programme, under which the Government of Gujarat had initiated the process of integrating Human Development in planning and policy documents.

Human Development is increasingly becoming an area of concern and priority is given to the development of a strategy which conceptually goes beyond per capita income as a measure of development. The preparation of District Human Development Report (DHDR) marks the beginning of the process whereby people are mobilized and actively participate in the developmental process.

The DHDR is expected to be an important document for formulating the District Human Development Plan. The report has studied the status of Human Development in different talukas of Junagadh District. The report depicts the present status of the district with available information for various indicators of Education, Health, Nutrition and Livelihood.

I hope this report will form a milestone in the overall planning and development of the district. DHDR will also be very useful to concerned State and District level Officials, policy makers, decision makers and NGOs.

District Devlopement Officer
Junagadh

ACKNOWLEDGEMENT

This District Human Development Report for Junagadh District, Gujarat is possible only because of immense contribution of several organizations and individuals who wholeheartedly worked, provided inputs, discussed critical issues, compiled, collated and analysed data, inspired and contributed in other positive ways.

The Report is result of the initiative, joint desire and efforts of UNDP, the Government of India and the Government of Gujarat. We are grateful to the Honourable Chief Minister of Gujarat, Honourable Central and State Ministers, officers of UNDP and of the Central and State Governments and the Experts for their initiative, enthusiasm, tireless efforts and support, financial and otherwise, to bring out this Report.

The State Government has appointed GSIDS as a nodal agency for the District Human Development Reports. We are indeed indebted to the Principal Secretary (Planning) of the Government of Gujarat Ms. S. Aparna, also Chairperson, GSIDS who has conceptualized the Study. Director and Member Secretary GSIDS, Mr. K. D. Vashi and Deputy Director Mr. Leuva and Ms. Khushboo Patel (SPAC), who are responsible for implementation and successful execution, have appointed the Institute of Management, Nirma University to prepare the Report. Both of them have been a source of constant inspiration and have guided the project at every stage. We are deeply indebted to them. The team of GSIDS has actively participated in execution and preparation of the Report. We thank them for their valuable contribution.

The District Collector Dr. Rahul Gupta, District Development Officer, District Planning officer Mr. R. M. Gambhir, District Statistical Officer Mr. Patel have provided all the support at the district level. SPAC Mr. Manish Joshi and SPA Ms. Bhumi & Ms. Tejal (SPA) have collected and compiled the data. We are grateful to all of them.

Equally, various line department officers of the District Administration provided the data and discussed the issues, achievements and shortfalls and possible future direction. We owe them a special thanks. Numerous other government and private organizations and individuals also helped in providing data and preparation of the Report. The list is really large and we thank them all.

We have also used data from Reports prepared by different organizations and we wish to acknowledge our gratitude to all of them. Some of these organizations are, MSME, Department of Agriculture, Department of Animal Husbandry, Ministry of Health, Ministry of Education, Ministry of Urban, CEPT and the data from Census

2011 and Census 2001 as well as several Reports of different ministries in the Central Government and the erstwhile Planning Commission.

We thank the Director General of the Nirma University, Dr. Singh and the Director Dr. Garimmella for their faith and support. Lastly, our gratitude to the guiding force of this Report, Advisor Dr. R.J.Mody,

Yogesh Doshit
Professor
Institute of Management,
Nirma University
Ahmedabad

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EXECUTIVE SUMMARY

1. The present DHDR is primarily a status report, presenting the achievements in areas of greatest interest for the development and welfare of individuals: Education, health and Income generation.
2. The Report, jointly prepared by the Government of Gujarat and the designated University, is an outcome of the concerted efforts of the Government of India to examine level of development at a micro level than the state and identify unique needs and the possibility of growth.
3. The Report will be helpful in identifying the needs of the district and its constituents and accordingly optimize the resource allocation.
4. Junagadh district has had a rich history going back several centuries and has been a major trading centre in the region. It has unique offers in form of Asiatic lions and famous pilgrimage centres (Jain temples on Mount Girnar). It has a rich architectural heritage.
5. However, it has not been at forefront of a transformation and has remained static in time. It was a trade and agriculture driven economy and it still is.
6. The population growth rate of Junagadh district has been less than one percent per annum in the decade 2001-2011, much lower than the State average as well as the Country average. It has a population of 1.5256 million (2011). It has a sex ratio of 945, comparatively good. Child sex ratio is 885, marginal improvement over 2001 (868). Lower growth rate is partly a reflection of lower fertility rate and partly due to migration as Junagadh supplies productive human capital to other districts and cities.
7. Child population is declining, both in absolute terms and as a relative proportion. Child population of 181250 in 2001 (13.05 %) has reduced to 1,56,987 in 2011 (10.69 %). It would result in lower required resources, lower number of jobs required. But it may also result in growth of "low productive human assets". Guarding against this possibility should be the major focus. That is possible only if strong inputs (e.g., education) are given and quality jobs are created.
8. Junagadh, with a landmass of 5093.36 Sq. km, is comprised of 9 talukas, with 524 inhabited villages. Level of urbanization is 37.59 percent (2011), up from 33.82 percent in 2001. Urban rate of growth is 2.02 percent per annum and CAGR for rural growth is 0.36 percent. Largest city is Junagadh, with a population of 319462 (2011).

9. Junagadh city, also a capital of the district, is on main rail line from Mumbai via Ahmedabad, to Somnath, a major pilgrimage. It is well connected by Rail and Road network to all regional towns as well as beyond the state,

- Schedule Caste population, 151971, is 9.96 % of the total whereas Schedule Tribe population, at 37810, is 2.48%.
- Major growth centre is Junagadh. Other than Junagadh town, most towns are smaller in area largely with trading activity.

2. STADARDS OF LIVING *

- Total number of households are 311002, with 192682 in rural area and 118320 in urban areas.
- 68.7 % HH live in good houses, with further 29.7 % in houses which are livable. 58.8 % have enclosed bathroom facility at home whereas 34.6 % have no bathroom facility at home as per census 2011.
- Only 31.2 % waste water outlet is connected to drainage and even in urban areas only 65 % HH have waste water connection to drainage.
- PGVCL, distributor of electricity, provides round the clock electricity, with few outages only, to almost all areas of the district. Few remote areas, where providing electricity would be costly, have solar power. However, 4.5 % HH still use kerosene as source of lighting. There is no electricity generation in the district, but solar power is slowly being adopted. 21 villages are still not electrified (2011).
- Firewood is still the dominant fuel for cooking. As per the census-2011, 53.2 % use firewood for cooking, 46.3 % HH use LPG/PNG as a source of cooking fuel. 27.4 % use LPG or equivalent. 7.2 % use cow dung.
- In the district as a whole, 83.9 percent households have drinking water available within or nearby the living premises. Of these, 60.3 percent have water available on their own premises. In rural areas this percentage is 80.5 and 54.7 percent whereas in urban it is 90.6 percent and 71.2 percent respectively.
- One of the biggest challenges today is providing adequate water and toilet facility at home. As per 2011 Census, about 60 percent households had toilet facility within the premises.

(*: This Analysis is for the combined Junagadh district, as it existed in 2011).

3. INCOME

- Junagadh has been and continues to be dominated and driven by rural economy. More than two third population lives in rural area and more than two third workers work in agriculture and related activities.
- There are a few large industrial units but few and far between. MSME units are a mainstay of industrial units.
- 40.97 percent population is workers comprising of 44. 8 percent in rural area and 33.2 percent in urban area. 57.1 % male and 24 % female participate in workforce. 73.25 % of all workers work in rural area and 26.75 % work in urban area. Agriculture dominates the economic activity.
- 45 to 50 percent cultivated land is used to produce groundnut. Another about 20 percent is used to produce cotton. This has remained stable over the years. Around 15 to 20 percent is for cereals of which the major produce are wheat and bajra. Land for pulses has steadily increased from 1.85 % in 2008-09 to 6.11 % in 2012-13. Junagadh produces more than 50 % of all coconuts in the State. It is also major producer of some fruits (mango and chiku-about 15 % each) and onions (13%) and garlic (15%). Recently, large tracts of land is used to produce coriander, with, both, land and output increasing by 300 % in last 5 years. Junagadh now produces more than 50 % coriander. As a result, lesser land is for cereals.
- Total food-grains per capita, especially cereals, is, on an average, higher than the state average. However, it has fluctuated widely over time.
- Production of pulses per capita is generally lower by 10 to 15 percent vis-à-vis state average.
- Year 2012-13 has been particularly hard as the output has drastically decreased.
- Since agriculture is the mainstay of the economy, performance better than the state average is expected.
- More than 80 percent land is cultivated. Cropping intensity has remained one of the highest in Gujarat but has dropped in recent times, to 128.69 % in 2014-15. Irrigated land had been less than 50 % but recently it has gone up. Still, it is largely rainfall driven agriculture as the irrigation is predominantly through wells and other forms of irrigation is around 6 %. Rainfall is average 1050 mm but has large deviations. This has direct bearing on agriculture. Micro irrigation is gradually increasing but at a slow pace.
- Industry is mainly MSME. Water inadequacy has been a problem. Manufacturing expansion is not enough to absorb surplus labour generated every year. Service industry does exist, majorly tourism. Junagadh offers

excellent prospects for tourism and can emerge as a tourism driven economy. Girnar and nearby Gir, along with architectural delights in form of mosques, etc., in Junagadh, can and should be used to propel the economy.

4. EDUCATION

- Junagadh has a strong tradition of culture and education, though education was largely in urban area. In last few years, the government has made special efforts, under SSA and other to increase literacy and level of education. Private sector has also been encouraged. Now a university has been established in 2015.
- Literacy rate has gone up from 59.63 % in 1991 to 75.8 % in 2011. Male literacy rate is 84.38 %, female literacy rate is 66.86 %. Gender gap has reduced from 25.6 % in 1991 to 17.5 % in 2011. Urban literacy rate is 82.21 % and rural 72.61 %, with geographical gap of 9.6 %.
- Mangrol (74.3%) and Malia Hatina (73.2 %) requires special attention to improve literacy rate.
- Female literacy rate is low in Malia Hatina (62.6%) and Mangrol (63.9 %). Especially in urban area of Mangrol, female literacy rate is just above 52 %. Thus, though substantial achievements on literacy front, more efforts are required. Literacy among schedule tribes female is the lowest among all groups.
- School enrolment is nearly 100 %. However, total enrolment is falling as child population decreases. The inflow of children to elementary schools is likely to stabilise or even decrease in the years to come. The evidence is apparent. Enrolment was 404439 in 2005-06, and 391767 in 2014-15.
- Girls are little less than 47 percent in total enrolment at primary level, the share remaining stable over time. Gender parity index has remained at around 0.87 to 0.89, reflecting the sex ratio.
- Gujarati continues to be preferred medium of instruction, with 94 % studying in Gujarati medium.
- Dropout rates have reduced at primary level but increased at upper primary level and is a cause of concern.
- Monitoring of schools could be improved and greater emphasis on soft skills required.
- Over time, Pupil teacher ratio has improved and is better than the State average.
- Physical amenities are good as they have improved over the last 5 years. Electricity and toilets are now universal. Junagadh having 2126 schools (2014-

15) almost all of which have electricity and compound wall. However, only 86 % have playground and 67.52 % have computer labs.

- Secondary and higher education is well established though college education is fully urban centric. Recently a new University has been established and Junagadh can act as a magnet for regional education aspirants.

5. HEALTH

- Junagadh being largely a rural centric, public health system is important.
- Though two third population lives in rural area, it accounts for only about one third of the new born. On the other hand though they do account for almost 60 percent of total death, they are still lower than the population share.
- The lower fertility, as indicated by NRGP is a result of low birth rate in rural areas of Junagadh district. NRGP in rural area is only 4.6, astonishingly low compared to the district average of 13.9. Both, male fertility and female fertility rates are low and hence not a result of preferences for a male child.
- NRGP has reduced since 2011. The reduction is more for the state as a whole as compared to the district. Nonetheless, both have reduced.
- Low birth rate in rural Junagadh needs to be assessed seperately.
- Junagadh has well established rural health care system.
- As on 31st March 2016, the district has 409 sub centres (236 in Junagadh and 167 in Gir Somnath) and 63 primary health centres as a part of rural health facility (25 in Gir Somnath and 38 in Junagadh). Number of community health centres are 18 (10 in Junagadh and 8 in Gir Somnath).
- Number of anganwadis are 2599 as on 31st March, 2015.
- A major shortcoming is inadequate number of medical professionals-both doctors and nurses. Inadequacy of child specialists and gynaecologists is of particular concern.
- 1st Trimester registration to Total ANC Registrations is 67.8 percent in 2014-15 in Junagadh. It is a high of 100 percent in Bhesan, and low of 37.3 percent in Junagadh city. Most talukas have achievement of 85 to 90 percent.
- Pregnant Woman received 3 ANC check-ups to Total ANC Registrations is 76.4 percent in Junagadh
- Percentage of institutional deliveries was 90 percent as recent as 2010-11. It is now consistently above 98 percent. Sustained efforts have indeed paid good dividends. Malia, though, is disappointing with 93 % institutional delivery.
- Child care has a major improvement in recent times. Number of mal-nourished children has reduced to about 5 % from 15 %. However, full immunization

remains to be achieved and there are talukas which are particularly non-achievers.

- Full immunization was only 83.93 % in 2014-15. This needs to improve. Vaccination programme has yet to achieve results even close to 100 percent in certain areas.
- Private healthcare in rural areas is largely absent. Strong reliance on public health system is a necessity but that system is not able to attract qualified staff and/or retain them.
- Information about available healthcare facilities need wider dissemination and continuous updation.

6. BPL

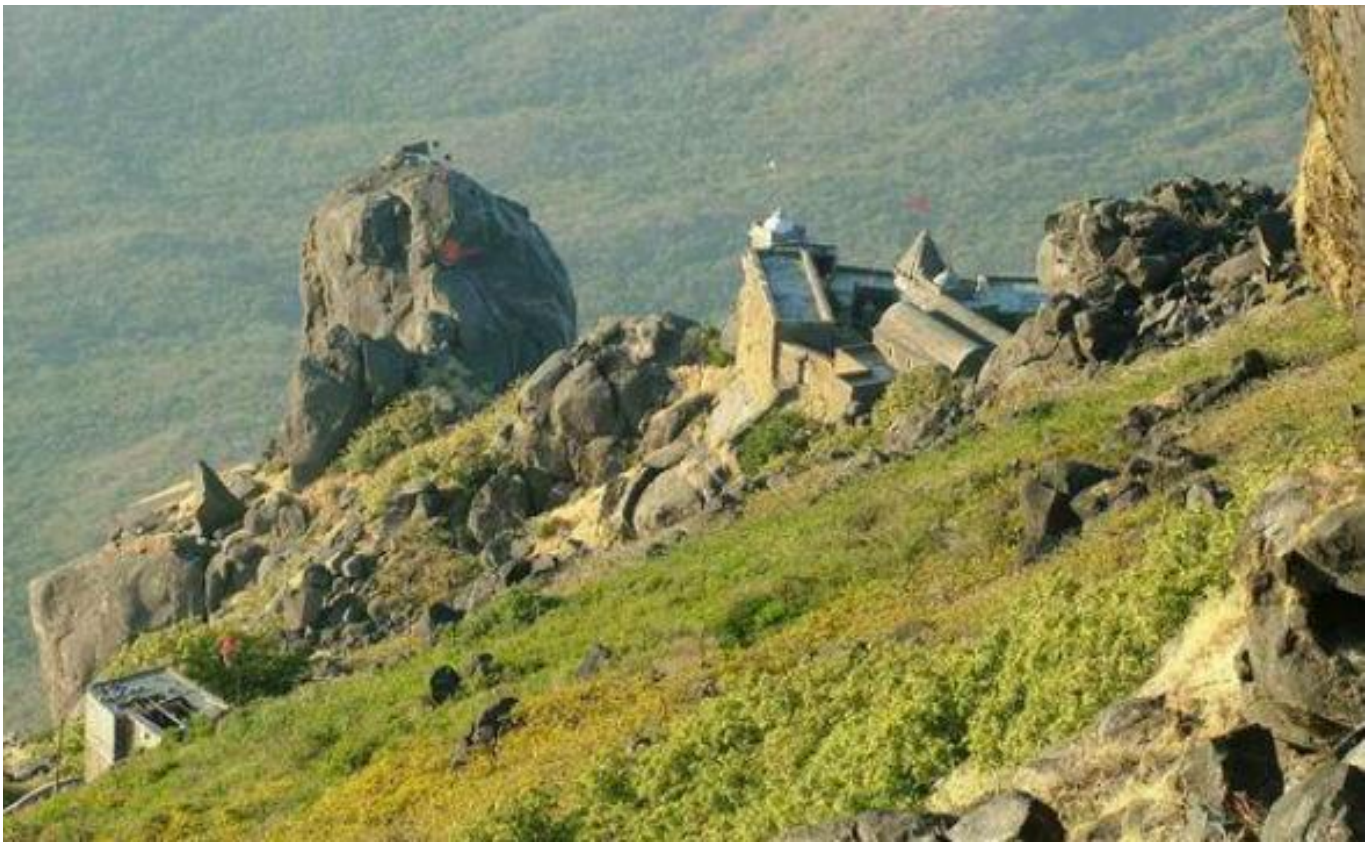
1. BPL population in the district (based on deprivation criteria) in rural area is estimated 7.33 percent (extremely poor) and 17.7 percent (poor).
1. Total number of extremely poor rural BPL families is 20803 and poor families is 50252 as on 1.4.2016. This is a substantial reduction in the last two years.
2. Mangrol (11.32 %) has the highest percentage of extremely poor BPL families, followed by Malia (10.32 %) and Bhesan (9.94%).
3. Mangrol also has the highest number of poor families, 25.5 %.It is followed by Malia at 21.49 % and Visavadar at 20.19 %.
4. As in April 2016, number of households classified as BPL, on the basis of income, is 23.17 percent of the population. Assuming that all non-classified families in June, 2012 were BPL, then the percentage of BPL families has remained almost unchanged.
5. However, as the population has increased, with percentage remaining unchanged, absolute number of BPL families has increased.
6. The number of APL-2 families, at high end of the income, has decreased by about 3400 people.
7. Compared to the State, number of BPL population is almost 10 percent lower.
8. Total population living in slums is estimated 32040 in 2011. That is 1.2% of total population. However, in Junagadh city, 7.59 percent population lives in slums. Similarly Keshod and Manavadar also have slums.

7. WAY FORWARD

1. Short term priority areas for improvement are:
    a. Children Immunization, Improvement on ANC for pregnant women and PANC and staffing at medical institutions.
    b. Focus on reduction of drop outs in secondary schools.
    c. Job creation.
2. Medium to Long Term focus need be:
    a. Creating alternatives to agriculture as a source of income
    b. Development of dairy industry, textile garments, gems and jewellery, diamond cutting business, processing of agriculture produce (especially ground nut, coconuts and spices), tourism are some of the focus areas. There could be others.
    c. Strong development of MSME sector to provide larger employment opportunities. This would require additional vocational training centres.

Chapter 1

Introduction, Objectives and Methodology



1.1 Overview of the Report

Wellbeing of all member human beings within an organization is the primary objective of all voluntary organizations, be it a family, be it a company, be it a society, or be it a country. All individuals in an organization are not equal: either in their endowments or in terms of opportunities they have (may be partly because of lack of endowments). However, they have a right to aspire to the same level of wellbeing and happiness. Emotional factors in happiness cannot be either determined or regulated from outside. But an organization (just as in family) has an obligation that all members have the opportunity to acquire capabilities and lead a good life, without too much sacrifice of efficiency.

A measure which can be used as a proxy for happiness is useful to understand the existing reality, to compare different individuals/organizations and help develop policies to improve the standards of living. Thus, from policy perspective a right measure is imperative.

Per Capita Gross National Income (PC-GNI) or Per Capita Gross Disposable Income (PC-GDI) have long been used as indicators of wellbeing. They do have substantial contribution to an individual happiness, as more income can result in more options. However, this measure, though important, has several known limitations. Economists have tried to develop a better measure of happiness but have realized that no single measure can capture all the dimensions that can capture wellbeing. One such measure, now widely used is Human Development Index (HDI) which is a composite of three parameters, only one being income, education and health being others.

Concept of Human Development Index was first developed by Prof. Haq and Prof. Amartya Sen (and later improved/modified by others without losing the essence of original measure). They argued that GDP per capita is a static concept, has a wide variation, does not necessarily capture happiness, say of a blind man. A better measure should be a combination of the income with two other parameters: Education (a proxy for both equality with others and of capability to sustain the level of happiness and enhance it) and health (a proxy for ability to get maximum happiness out of the income). Thus, HDI is a composite measure of three parameters.

United Nations Development Programme (UNDP) started compiling data and determine country level HDI for different countries from 1990. Index is determined annually and published as a public document. Latest available index is for 2014. The index is widely used for comparison and policy formulation. India on its own started compiling data and calculating HDI. First published HDI was in 2000. Later HDI has

been determined for the years 2011. Erstwhile Planning Commission (now, NITI Aayog) was the lead agency for HDI determination.

Later it was realized that HDI at an aggregated country level was useful but there was wide variation between their individual components across the states. For example, net per capita state income at current price (NSDP-PC) was Rs. 133427 in Haryana, Rs. 106831 in Gujarat, Rs, 65974 in Rajasthan, Rs. 36250 in Uttar Pradesh, with an Indian average of Rs. 71380 in 2013-2014. Same is true for education and health measures. Thus, what we get at a national level is an average measure with large dispersion. Any policy based on an average would not be useful for an appropriate response in individual cases. Hence idea of state-wise HDI was mooted and each state has periodically determined state level HDI. Last calculated HDI for Gujarat is for 2004.

In the same vein, it was realized that within a state there is a wide variation in income, health and education parameters. State-wide policy may not be optimal for all different regions within the state. So an idea for district-wise HDI was mooted by UNDP and accordingly the Planning Commission (NITI Aayog) of India requested each state to develop district-wise Human Development Index.

1.2 Objectives

Primary objective of the study is to assess the status and development of the district in terms of material happiness of the people of the district, availability of choices and capability to choose among the available choices.

The objectives of the study may thus be elaborated as:

To have an overview of the district, its historical evolution and development in terms of population, education levels, health status, employment, major contributors of income, levels of income and its distribution over time.

Detailed analysis of the sources of employment, levels of employment, sector-wise growth of employment, distribution of employment spatially over the district, over sectors, over gender and other indicators/parameters.

Study of Health sector, investment in the sector, present status, priorities , NRHM goals and achievements, availability of inputs (e.g., Doctors, Nurses, Hospitals, emergency care, medicines at affordable prices), indicators of health levels , especially for children and women (with a focus on maternal women), institutional set up, role of public sector and private sector, availability of emergency health care, speciality hospitals and specialists, distance from primary healthcare centre, hospital, and speciality hospital. Required priorities and investment, measurement of achievements

over time and goals. All these would be studied cross sectionally over space, and over time.

Study of Education sector, literacy levels and its growth over time, gender literacy, physical facilities, over space and time, enrolment rates and dropout rates, all these gender-wise and population segment wise. Study would focus on taluka wise facilities, distance to nearest school/college, private sector and public sector contributions.

Study of Urbanization. Growth and level of urbanization, spread over the district, existing and potential growth centres, reasons for urbanization, urban facilities, comparison across urban centres.

The Report is expected to be a basic input for preparation of District Human Development Plan for the coming years.

1.3 Methodology

Extensive literature search was conducted to identify the focus areas, different indices developed over time and their relevance to this study, the models used by others and status of human development in different countries over time, and different regions of our country, India.

Focus areas including, education, health, income generation, employment, women and child development, safety and security of people and others, were studied in depth. Development on each of these over time, present status, goals in near and long term were analysed.

Areas requiring immediate attention were identified. In addition, the broad focus on long term needs and action plan has been indicated.

1.4 Data Collection, Compilation and Validation

The Report is based on the data collected and compiled from various sources. Mostly secondary data, collected routinely over time by the government and compiled by various government agencies, form the basis of this Report.

To maintain the integrity of the Report, only official governmental data are used. Data published by the Government of India through its various departments have been the primary source. Census 2011 publications have been extensively used. Directorate of Economics and Statistics, Government of Gujarat, have several publications on wide range of areas, e.g., agriculture, Income, etc. These data are extensively used in this report.

1.5 Human Development Indices

Several authors/researchers have suggested different dimension as a necessary measure of human development. Some of these are:

- Community Well being
- Economic Security
- Empowerment (say, of the deprived class/individuals)
- Environmental Conditions
- HDI itself- Includes a measure of income (say per capita GDP), a measure of health and a measure of education
- Leisure Conditions
- Mental Well Being – Psychological state of an individual
- Political Freedom
- Political Security
- Social Relations
- Work Conditions

Though each one of the above has relevance for the individual wellbeing, not all of them have identical significance, and not all of them can be easily measurable and made operational.

On the other hand, several different other indices have been proposed which are relevant, can be relatively easily computed and can add value to the basic human development index. Some of these indices are:

- Human Development Index (HDI)
- Child Development Index (CDI)
- Composite Taluk/District Development Index (CTDI)
- Food Security Index (Taluka Wise)
- Gender Development Index (GDI) (District)
- Inequality Adjusted Human Development Index (Taluka wise)
- Multi-Dimensional Poverty Index (Taluka Wise)
- Poverty Index (PI)
- Urban Development Index (UDI)

This Report has not calculated any specific Index.

1.6 Contents of the Report

This report is a Status Report and not a Research report. It examines the status of various areas which affect the wellbeing and human development. This report studies various sectors of the district economy, including agriculture, industry and services which contribute to economic activity and income. Education and Health sectors are examined in detail. Women and child development is a major focus of human development, especially in developing countries and accordingly they are discussed separately. Similarly, a separate focussed study of Schedule Caste and Schedule Tribes, an important but under-privileged sections of the society is made and reported. Urbanization is an indicator of the future growth potential. It helps transfer surplus labour from rural areas to more productive use and generate income. But as urbanization takes place, equally important is the service delivery for the wellbeing. District's urbanization and associated issues are studied in some depth.

Government, Central and State, have initiated and funded several welfare and developmental schemes, targeted at specific sectors and/or specific segments of the society. These schemes have made a positive impact on the development process.

However, nine talukas of the district have experienced different level of development. Talukas have different resource base, opportunity for economic activities are different, level of supply of public utilities, urbanization level and resource commitment are different. As a result, there is a variation in level of achievement across talukas. Hence, taluka-wise data and analysis are presented wherever possible.

Finally, the Report concludes with the observations and suggestions for Way Forward which will be helpful in policy making.

1.7 Report Structure

The Report comprises of seven Chapters and Annexures.

The first chapter is the introduction to this study with a backdrop under which the study has been carried out. It briefly describes the objectives, methodology and the Report structure.

Chapter two gives an overview of the District. It is divided in four sections, the first section traces the history of the district and its headquarters, its geographical location, salient features and its uniqueness. It also gives an overview of the administrative set up. The second section details the population, growth in population, sex ratio, etc. Thus it covers the demographics of the district. The third section reports the growth and level of urbanization in the district and summarizes the level of urbanization in

different talukas of the district. The fourth section analyses the standard of living of the district populace in terms of well-defined and internationally accepted parameters.

Chapter three is a detailed description of the resources, income levels, and employment in the district. The details are given sector wise. It also discusses the transformation of the district over the period.

Chapter four discusses the education sector and chapter five talk over the health sector in the district.

Chapter six details level of households below poverty line over the years.

Chapter seven concludes the report coupled with observation, inferences and suggestions for way forward.

Chapter 2

District's Overview

2.1 History of the District

Junagadh District is one of the twenty-six[1] districts of the State of Gujarat in India. It is located in the Western part of Gujarat in region called Saurashtra.

History indicates that Junagadh, then known as Girinagar, was a major town and provincial capital of ruling dynasties of North India till about 800 AD. It was ruled by Chudasma Dynasty, thereafter, for about 600 years till 1472 AD. Mohmmed Bagda, others, and later Moghuls ruled Junagadh Kingdom till 1747. From 1747 to the Indian Independence, Junagadh State was ruled by Sherkhan Babi and his successors.

Before the independence in 1947, Saurashtra was divided in several princely states, Junagadh being just one of them. Each princely state controlled and ruled a part of land in Saurashtra. On independence all these states merged into India and so did Junagadh. Junagadh district was formed in 1949, from the Princely state of Junagadh and other nearby princely states, namely Bilkha, Manavadar, Mangrol, Sardargadh, Porbandar, and Sultanabad. The district was named after the main city, Junagadh.

In 1956, when the state of Bombay was formed Junagadh district became a part of Bombay state. In 1960, on formation of Gujarat, Junagadh district became a part of Gujarat. Later, on 2nd April, 1997, the district was bifurcated in two districts: Junagadh and Porbandar. Again, it was bifurcated on 15th august, 2013 in two districts: Junagadh and Gir-Somnath. Now Junagadh district has original nine talukas (and one municipal corporation):

1. Bhesan,
2. Junagadh,
3. Keshod,
4. Manavadar,
5. Mahgrol
6. Malia Hatina
7. Mendarda,
8. Vanthli and
9. Visavadar.

Municipal Corporation: Junagadh City

[1] Now Gujarat has 33 districts. Junagadh has been bifurcated into two districts. This Report is based on new post 2013 district but has extensively used data of combined pre-2013 district.

Newly formed Gir-Somnath district has remaining five original talukas (now reorganized into six):

1. Gir-Gadhada (new).
2. Kodinar,
3. Sutrapada,
4. Talala,
5. Una and
6. Veraval.

Since the administrative functions are now fully bifurcated, this Report is for the Junagadh district as it exists today in 2016 but does rely on data of the pre-2013 district, comprising of 14 talukas.

Junagadh is an important pilgrimage centre. Somnath Temple by the side of Arabian Sea is one of the most revered temples in India. Junagadh is home to famous Girnar Mountain, with Jain temples at a height of 1000 m. Gir forests of the district are home to Asiatic lions, the only natural lion habitat in Asia.

The district has one Municipal Corporation (Maha Nagarpalika-MNP), Junagadh; and 7 Municipalities: (Nagarpalikas-NP): Bantwa, Chorwad, Keshod, Manavadar, Mangrol, Vanthli, and Visavadar, and 524 inhabited villages.

2.2 Location, Weather and Administrative Set Up

Junagadh district is located in the Southern part of Saurashtra region, which itself is the western part of Gujarat State. It is located at longitude of 20.47 N to 21.45 N and a latitude of 70.15 E to 70.55.

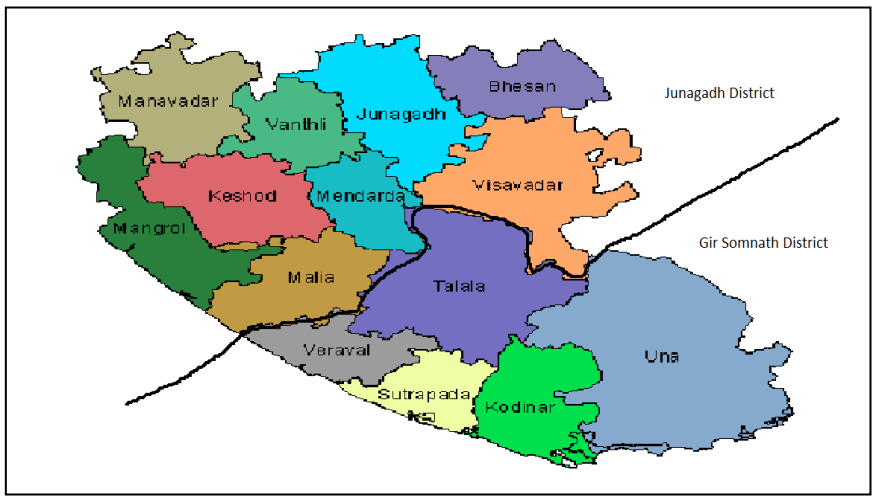


Figure-2.1: Junagadh District: Division in Two Districts: Junagadh and Gir Somnath

Climate of the district is typically tropical with three distinct seasons. Summer season is the most prominent, typically from March to June, followed by rainy season from late June to *September. October is again hot before winter sets in November and typically lasts till February. Average high temperature in summer is 33^{0}C, and could go beyond 40^{0}C on several days. Similarly average low and high temperatures in the winter are 13^{0}C and 27^{0}C, with possibility of night temperature below 5^{0}C on some days.

Average annual rainfall is 1260 mm, but there is variation among talukas, with some talukas having average rainfall of up to 1600 mm. There could be large variation in rainfall from year to year, and it affects both water availability and agricultural output.

2.2.1 Administrative Set Up

The district panchayat as the elected wing and The Collector as the administrative head run the administration. The district is divided in nine talukas which are administered by elected taluka panchayats, and one municipal corporation. The district has 7 municipalities and is comprised of 547 villages, of which 524 are inhabited and 23 have no population. 489 Gram Panchayats (GP), of which 10 are group Gram Panchayat (comprising of more than 1 village), run the village administration. The summary details are shown in the table below.

Table 2.1: Administrative setup of Junagadh District

Sr. No.	Particulars	2001	2011	2015 (Bifurcated)
1	Area (Sq. Km)	8,831	8,831	5093.36
2.1	Population	24,48,173	27,43,082	15,25,605
2.2	Population Density	277	311	300
3	Urbanization %	29.10% (Old Dist.)	33.04 % (Old Dist.)	37.59% (New Dist.)
4.	Number of Talukas	14	14	9
5.	Taluka Panchayats	---	14	9
6.	Gram Panchayats	---	821	489
7	Villages			
	Total	1038	1029	547
	Inhabited	923	901	524
	Uninhabited	115	128	23
8	Towns			
	Municipal Corporation	0	1	1
	Municipality	12	12	7
	Census Town	0	2	1
	Total	12	15	8
9	Households			
	Total	432884	527326	311002

	Rural	--	347702	192682
	Urban	--	179624	118320

Note: Data for 2015 are abstracted from District Statistical Outline, 2014-15, District Panchayat, Junagadh which states population as 1554498.
As per 2011 Census, population is 15,25,605. Difference is due to minor reorganization of taluka in 2013.

Source: Census of India – 2001 & 2011, Registrar General of India

1. Census of India-2001 & 2011, *District Census Handbook, Junagadh,* Directorate of Census Operations, Gujarat, Series 25, Part-XII-B, Published in 2014.
2. DES (2016), Statistical Outline, Gujarat, 2014-15, Government of Gujarat)
3. District Statistical Outline: 2014-15, Junagadh District Panchayat, 2016.

Total area of the district is 5093 square kilometres, with population density of 300 per sq. km. The district has 8 towns with population of more than 15000, and 1 town with population of more than 5000 (Census Towns). Number of households are 311002, with average family size of 4.90 (4.84 in urban and 4.94 in rural). Rural households are 61.96 percent and rural population is 62.41 percent of the total. (As per 2011 Census).

Number of inhabited villages are 524, with average population of 1817.

2.3 Demographics of the district

2.3.1 Long Term Population Growth

Population changes over the last 50 years show a continuous declining trend. Though the population is increasing at a decreasing rate all over the State, decline is steeper in Junagadh district, a clear indicator of relatively declining opportunities.

Table 2.2: Population Growth Rates over Time

Sr. No	State/District	Percentage Decadal Variation				
		1961-1971	1971-1981	1981-1991	1991-2001	2001-2011
1	Gujarat	29.4	27.7	21.2	22.7	19.3
2	Junagadh	34.0	28.8	15.3	17.1	12.0

Source: Census 2001 and 2011, Registrar General of India, New Delhi.

The population growth has lagged behind that of Gujarat since 1981. Though the decadal growth rate has shown downward trend over the years for both Gujarat and Junagadh district, the reduction is marked in the case of Junagadh district. The differential growth rate, 5.9 percent in 1981-1991, has increased to 7.3 percent in 2001-2011 period. One reason is lower fertility rates, and net new born per 1000 population, and additionally clear and disturbing implication is the lower growth in economic activity, lower marginal labour productivity forcing migration from the district, resulting in lower population growth.

2.3.2 Total Population

As per Census 2011 of the Government of India, Population of Junagadh in 2011 was 1.526 million, about 2.52 percent of total Gujarat Population (down from 2.74 percent in 2001). Population density is 300 persons per sq. km., roughly the same as for Gujarat (308). Population grew by 9.87 percent over a ten year period, 2001-2011 (17.07 percent in 1991-2001 period). This is just above half the population growth of India (17.63 percent) and less than half that of Gujarat (19.17 percent).

Table 2.3: Demographics of Junagadh District (in Numbers & %)

Particulars	Unit	Persons		Male		Female	
		2011	2001	2011	2001	2011	2001
Population – Gujarat		6,04,39,692	5,06,71,017	31491260	26385577	28948432	24285440
Population-Junagadh District	No	1525605 (2.52 %)	1388498 (2.74 %)	784330	713175	741275	675323
	%	100	-	51.20	-	48.80	-
Urban	No	573403	469625	293927	242800	279476	226825
	%	37.59	33.82	37.47	34.04	37.70	33.59
Rural	No	952202	918873	490403	470375	461799	448498
	%	62.41	66.18	62.53	65.96	62.30	66.41
Decadal Growth Rate (2001 to 2011)							
-Total	%	9.87	-	9.98	-	9.77	-
-Urban	%	22.10	-	21.06	-	23.21	-
-Rural	%	3.63	-	4.26	-	2.97	-
CAGR of Population Growth							
-Total	%	0.946	-	-	-	-	-
-Urban	%	2.02	-	-	-	-	-
-Rural	%	0.36	-	-	-	-	-
Source: Register General of India, census 2001 and 2011							

Population of the district as a whole has growth at 0.946 percent per annum, in the decade, 2001 to 2011, and is likely to grow at smaller rate in the future. Rural population has grown at even smaller rate and is likely to flatten by 2025.

Sex ratio, at 945, has remained almost stable, and improved in the urban area, worsened in rural area.

2.3.3 Child Population

Table 2.4: Child Population in Junagadh district							
Child Population							
Particulars	**Unit**	**Persons**		**Male**		**Female**	
		2011	**2001**	**2011**	**2001**	**2011**	**2001**
Total Population	No.	1525605	1388498	784330	713175	741275	673323
Child Population Total	No.	156987	181250	82163	102817	74824	78433
	%	10.29	13.05	10.48	14.42	10.09	11.65
Child Population Urban	No.	58506	57457	29947	31016	28559	26441
	%	37.27	31.70	36.45	30.17	38.17	33.71
Child Population Rural	No.	98481	123793	52216	71801	46265	51992
	%	62.73	68.30	63.55	69.83	61.83	66.29
Change in Child Population		-24263	-	-20654	-	-3609	-
Decadal Growth Rate of Child Population (2001 to 2011)							
Total	%	-13.36	-	-20.09	-	-4.60	-
Urban	%	1.82	-	-3.45	-	8.01	-
Rural	%	-20.44	-	-27.28	-	-11.02	-
Child Population as % of Total Population	%	10.29	13.05	10.48	14.42	10.09	11.65
Source: Register General of India, census 2001 and 2011							

Child Population 2011 (Age group 0 to 6 years) shows that number of children has declined from 181250 in 2001 to 156987 in 2011 despite overall population growth. Child population was 10.29 percent of total population in 2011, down from 13.05 percent in 2001.

In fact, rural child population has decreased by more than 20 percent. Overall reduction is 13.36 percent. Urban child population has increased by about 1.82 percent, much lower than overall urban population growth. As the population growth decreases, urbanization increases and longevity increases, child population, both in absolute number and in percentage will decline over time. This has important implications for required resource allocation.

2.3.4 Workers

Working population is 40.97 percent of the total population. The details, as per 2011 Census (for the district as in 2011) are shown below.

Table 2.5: Workers in Junagadh district

Workers							
Particulars	**Unit**	**Persons**		**Male**		**Female**	
		2011	**2001**	**2011**	**2001**	**2011**	**2001**
Total Workers	No	1123709	1000812	801859	683676	321850	317166
	%	40.97	40.88	57.10	54.59	24.04	26.52
Urban Workers	No	300584	217203	253881	188178	46703	29025
	%	33.17	30.53	54.71	51.28	10.56	8.42
Rural Workers	No	823125	783639	547978	495498	275147	288141
	%	44.82	45.12	58.28	55.96	30.69	33.85
Non-Workers							
Total Non-Workers	No	1619373	1447331	602497	568674	1016876	878657
	%	59.03	59.12	42.90	45.41	75.96	73.48
Urban Non-Workers	No	605728	494325	210204	178758	395624	315567
	%	66.83	69.47	45.29	48.72	89.44	91.58
Rural Non-Workers	No	1013545	953006	392293	389916	621252	288141
	%	55.18	54.88	41.72	44.04	69.31	33.85

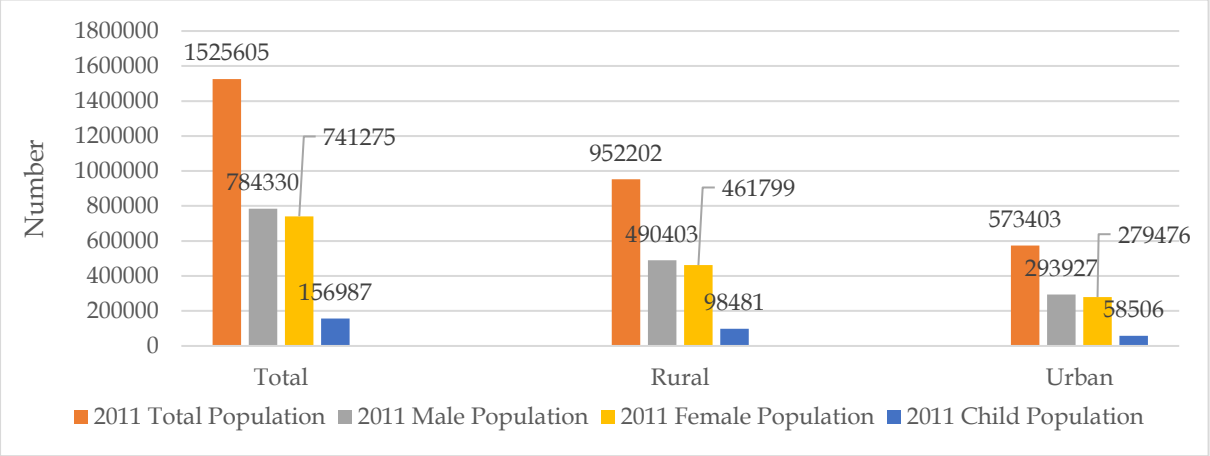
Source: Register General of India, census 2001 and 2011

2.3.5 Sex Ratio and Gender Composition

Sex ratio in the district was 945 (female per 1000 male) in 2011 (947 in 2001). This compares with sex ratio being 920 for Gujarat and 940 for India. Thus, Junagadh district has better sex ratio than that of either the state or the country, though there is a marginal decline over 2011-2011 period.

Urban sex ratio has increased from 934 in 2001 to 951 in 2011. Rural sex ratio has declined from 953 in 2001 to 942 in 2011.

Figure 2.2: Gender Composition (2011) in Junagadh District



Source: Registrar General of India, census 2001 & 2011

2.4 Taluka-wise Demographics

Junagadh taluka* has the highest population, 439420, 28.80 percent of the total. It is followed by Mangrol with 13.96 percent of the district population and Keshod with 12.77 percent. Mendarda, with a population of 68531, has lowest at 4.49 percent of the district population.

Whereas, Junagadh has large population due to higher urbanization, Una has very large geographical area though low urbanization.

Table 2.6: Taluka-wise population in the Junagadh District

Sr. No.	District / Taluka	Area, Sq. Km	Persons	Number of Inhabited Villages And (Cities)	% of District Population	Male	Female
	Junagadh District	5093.36	1525605	524 (8)	100%	784330 (51.41%)	741275 (48.59%)
1	Bhesan	438.60	79712	44 (0)	5.22%	40711 (51.07%)	39001 (48.93 %)
2	Junagadh	686.91	439420	69 (1)	28.80%	225794 (51.38%)	213626 (48.6%)
3	Keshod	556.61	194746	53 (1)	12.77%	100239 (51.47 %)	94507 (48.53%)
4	Malia	539.69	160181	63 (1)	10.50%	82075 (51.24 %)	78106 (48.76%)
5	Manavadar	591.70	132830	55 (2)	8.71%	68702 (51.72 %)	64128 (48.28 %)
6	Mangrol	621.16	212973	63 (1)	13.96%	109066 (51.21 %)	103907 (48.79%)
7	Mendarda	363.86	68531	45 (0)	4.49%	35440 (51.71 %)	33091 (48.29%)
8	Vanthali	393.15	97189	46 (1)	6.37%	50481 (51.94%)	46708 (48.6%)
9	Visavadar	901.68	140023	86 (1)	9.18%	71822 (51.29 %)	68201 (48.71 %)

Source: Registrar General of India, Census2011

- Absolute decline in rural population in Junagadh taluka: -10.75 %. in 2001-2011 period.
- CAGR for rural population is 0.36 % (2001-2011) and for urban population is 2.02 % (2001-2011). Malia (1.06%) has the highest rural CAGR.
- Overall total population CAGR is 0.946 % (2001-2011), much below the State Average and country Average.

- The change in population is not similar in all talukas. Highest population growth is in Junagadh at 15.37 percent followed by Mangrol at 12.85 percent. On the other extreme, Vanthli taluka has had decrease in total population. Two talukas have population growth between 0 and 5 percent, and two more have between 5 and 10 percent.
- Overall, no one taluka has the population growth comparable to the state average or even the national average. Clearly, lower fertility is a cause but the employment opportunities have also dictated population growth.

Table 2.7: Decadal Change in Population of Taluka by Place of Residence in Junagadh District, 2011														
Sr No	Taluka	Population-2001			Population-2011			Percentage decadal variation 2001-2011			CAGR 2001-2011			Percentage urban Population
		Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	2001	2011
1	Bhesan	73737	73737	0	79712	79712	0	8.10	8.10	0.00	0.78	0.78	0.00	0.00	0.00
2	Junagadh	380872	128764	252108	439420	114919	324501	15.37	-10.75	28.72	1.44	-1.13	2.56	66.19	73.85
3	Keshod	176099	112842	63257	194746	118553	76193	10.59	5.06	20.45	1.01	0.49	1.88	35.92	39.12
4	Malia	144975	123735	21240	160181	137461	22720	10.49	11.09	6.97	1.00	1.06	0.68	14.65	14.18
5	Manavadar	127516	84735	42781	132830	86689	46141	4.17	2.31	7.85	0.41	0.23	0.76	33.55	34.74
6	Mangrol	189053	132733	56320	212973	143194	69779	12.65	7.88	23.90	1.20	0.76	2.17	29.79	32.76
7	Mendarda	66068	66068	-	68531	68531	-	3.73	3.73	0.00	0.37	0.37	0.00	0.00	0.00
8	Vanthali	97325	81467	15858	97189	82635	14554	-0.14	1.43	-8.22	-0.01	0.14	-0.85	16.29	14.97
9	Visavadar	132853	114792	18061	140023	120508	19515	5.40	4.98	8.05	0.53	0.49	0.78	13.59	13.94
District Total:		**1388498**	**918873**	**469625**	**1525605**	**952202**	**573403**	**9.87**	**3.63**	**22.1**	**0.946**	**0.36**	**2.02**	**33.82**	**37.59**
Source: Registrar General of India, Census 2001 & 2011														

2.4.1 Child Population:

Table 2.8: Taluka-wise Child population in the district (in No.s & %)

Sr. No.	District / Talukas	Total Population 2011	Child Population (0 to 6 Years)					
			Child Population No.		% of Total	% of Total Child Population	Male	Female
		2011	2001	2011	2011	2011	2011	2011
	Junagadh District	1525605	181250	156987	10.29	100	83266 (53.04%)	73721 (46.96%)
1	Bhesan	79712	8488	7992	10.03	5.09	4315 (53.99%)	3677 (46.01%)
2	Junagadh	439420	46353	40950	9.32	26.08	21977 (53.67%)	18973 (46.33%)
3	Keshod	194746	23216	19498	10.01	12.42	10380 (53.24%)	9118 (46.76%)
4	Malia	160181	21810	18214	11.37	11.60	9528 (52.31%)	8686 (47.69%)
5	Manavadar	132830	16113	12434	9.36	7.92	6507 (52.33%)	5927 947.67%)
6	Mangrol	212973	29895	27846	13.07	17.74	14487 (52.03%)	13359 (47.97%)
7	Mendarda	68531	8499	6521	9.52	4.15	3513 (53.87%)	3008 (46.13%)
8	Vanthali	97189	12394	9566	9.84	6.09	5122 (53.54%)	4444 (46.46%)
9	Visavadar	140023	14482	13966	9.97	8.90	7437 (53.25%)	6529 (46.75%)

Source: Registrar General of India, Census-2001 & 2011

Child population has seen a drop both as a percentage of the total as well as in absolute number.

Child sex ratio is also much lower than the sex ratio of the adult population. Total child population is, only 10.29 percent of the population, down from 13.05 percent in 2001. The decline is across all talukas. Child population has increased by 1.71 percent in urban area over a ten year period (2001 to 2011), whereas declined by 21.73 percent in rural areas. This has strong implications for future planning and resource allocation.

2.4.2 Sex Ratio

Bhesan has the highest sex ratio at 958, whereas the lowest sex ratio is in Vanthli at 925. Overall, rural and urban sex ratio are 942 and 951 respectively, reversal from 953 and 934 respectively in 2001.

Table 2.9 Taluka Wise Sex Ratio in Junagadh District

Sr No	Region	2001 Sex Ratio: All Ages			2011 Sex Ratio: All Ages		
		Total	Rural	Urban	Total	Rural	Urban
Junagadh District		**947**	**953**	**934**	**945**	**942**	**951**
1	Bhesan	998	998	-	958	958	-
2	Junagadh	933	933	932	946	924	954
3	Keshod	937	939	932	943	943	943
4	Manavadar	944	951	929	933	938	925
5	Malia	943	945	935	952	952	951
6	Mangrol	950	947	959	953	946	967
7	Mendarda	949	949	-	934	934	-
8	Vanthali	922	931	880	925	921	949
9	Visavadar	995	1002	952	950	953	931

Source: Registrar General of India, Census-2001 & 2011

Table 2.10 Taluka Wise Child Sex Ratio in Junagadh District

Sr No	Region	2001 Sex Ratio: Child:0 to 6 Yrs.			2011 Sex Ratio: Child:0 to 6 Yrs.		
		Total	Rural	Urban	Total	Rural	Urban
Junagadh District		**868**	**875**	**862**	**885**	**886**	**884**
1	Bhesan	870	870	-	852	852	-
2	Junagadh	842	866	828	863	849	869
3	Keshod	881	905	837	878	903	840
4	Manavadar	849	841	865	911	913	907
5	Malia	887	891	854	912	905	951
6	Mangrol	916	904	941	922	920	926
7	Mendarda	866	966	-	856	856	-
8	Vanthali	838	838	838	868	853	845
9	Visavadar	868	875	852	878	877	882

Source: Registrar General of India, Census-2001 & 2011

Child sex ratio is improved from 868 in 2001 to 885 in 2011. Child sex ratio has wide variation among talukas. It is as low as 849 in Junagadh rural, 852 in Bhesan rural and 840 in Keshod urban area as well as 845 in Vanthli urban areas. Several areas, rural and urban, have child sex ratio less than 870. Though overall the sex ratio has improved, it is marginally less than the State average (890). Rural area child sex ratio

of 886 is considerably less than the State average (914) and has shown only marginal improvement. This is at least partly due to poorer health of women & children in rural area and partly due to desire for male child. Urban child sex ratio has improved but is still inadequate.

2.5 Culture and Religion

Population of Junagadh is typically conservative, family oriented with strong family ties, with patriarchal and hierarchical set up. Population is very diverse, largely follows Hindu religion (about 88 percent), with strong presence of Muslims with small fraction belonging to other religions, e.g., Jains. They all live in great harmony with tolerance and brotherhood to all. Population is very religious and a large number of temples and mosques are a testimony to the same.

Junagadh boasts of several annual festivals, mostly religious but also cultural. Some of these, e.g., Maha Shivratri, attract more than half a million on pilgrimage. It also boasts of several experts in traditional dance and culture and linguistics.

Junagadh does not have any strong local newspaper though some Gujarati local newspapers (e.g., Junagadh Today) do command some circulation. Newspapers, Gujarati and English, from Ahmedabad and Rajkot, have local edition or are supplied from Rajkot edition.

Television ownership is widespread and due to cable network, practically all parts of the district have access to various national and even international channels.

As in most of India, cricket is the most popular sport and is played all across the district. Junagadh Gymkhana was established before independence by Nawab of Junagadh. It has various sports facilities. Junagadh also has Horse riding club run by Junagadh Police.

2.6 Urban Population and Growth in Urbanization

2.6.1 Urban Population in Junagadh District

Level of Urbanization and quality of urbanized life are major indicators of human development and wellbeing. All over the world, urbanization increases as the country prospers. Alternately, higher level of urbanization is an indicator of higher prosperity. In most developed countries, urbanization is more than 80 percent. In India, urbanization was 31.16 percent as per 2011 Census, up from 27.74 percent in 2001. Percentage of urban population in Gujarat was 42.58 percent in 2011 (36.02 percent in 2001).

In Junagadh district, urban population constitutes 37.59 percent of the total population. Out of a population of 1,525,605, urban population is 573403 people who live in towns with population above 5000. The urban population is spread over 8 statutory (Population above 15000 each) and 1 census towns (population above 5000 each) with average population being less than 72000 per statutory town. Population growth rate in urban areas was 22.4 percent over 2001-11 period. Though impressive, it is lower than the all India average growth rate of 31.8 percent in the same period.

Junagadh, with a population of 319462 (in 2011) is the largest city, also a district headquarter.

Sex ratio in urban areas was 951 (2011) for the entire population. For child population (0 to 6 years), constituting 10.2 percent of the total urban population, sex ratio was 884.

Literacy rate in urban area was 84.44 percent as against 76.52 percent for the district as a whole.

2.6.2 Junagadh District Rural Population 2011

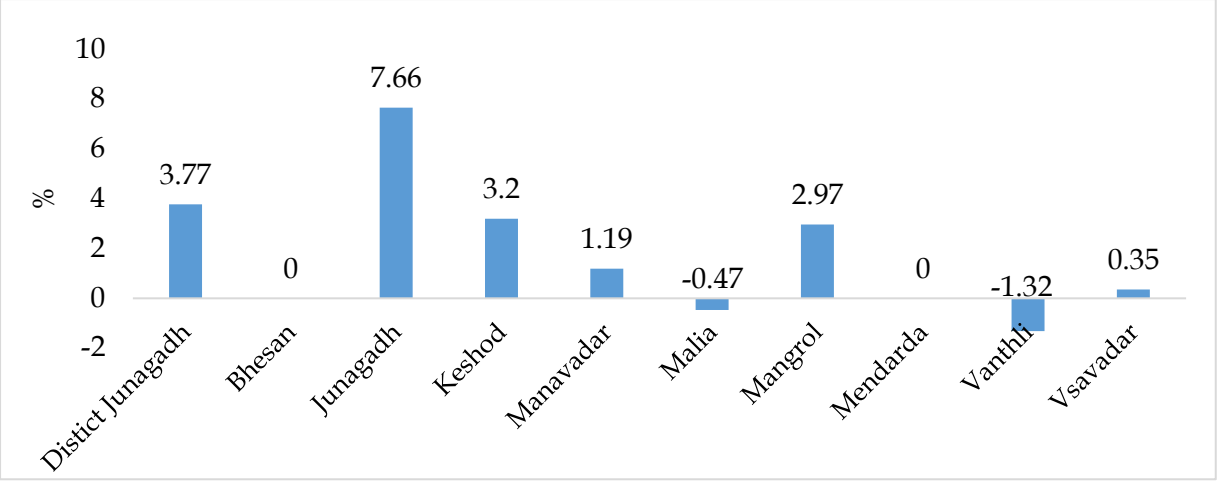
As per 2011 census, 62.41 % population of Junagadh district lives in rural areas/ villages. The total Junagadh district population living in rural areas was 9, 52,202 of which males and females were 4, 90,403 and 4, 61,799 respectively. In rural areas of Junagadh district, sex ratio is 942, down from 953 in 2001. Rural child sex ratio is 886 (875 in 2001). Rural child population in the age 0-6 years was 98,481 in rural areas of which males were 52,216 and females were 46,265. The child population comprises 10.34 % of total rural population of Junagadh district. Literacy rate in rural areas of Junagadh district is 72.61 % as per census data 2011.

Table 2.11: Taluka wise Urbanization (2011) : Junagadh District

Sr No	District/ Talukas	Population Distribution: 2001		Population Distribution: 2011		Change in Urbanization	Number of Gram Panchayat	Municipalities/ Corporation
		Rural	Urban	Rural	Urban	2001-2011		
		%	%	%	%	%	No.	
Junagadh district		66.18	33.82	62.41	37.59	3.77	489	
1	Bhesan	100	0	100	0	0	37	---
2	Junagadh	33.81	66.19	26.15	73.85	7.66	58	Junagadh
3	Keshod	64.08	35.92	60.88	39.12	3.2	53	Keshod
4	Manavadar	66.45	33.55	65.26	34.74	1.19	55	Bantva &Manavadar
5	Malia	85.35	14.65	85.82	14.18	-0.47	64	Chorwad
6	Mangrol	70.21	29.79	67.24	32.76	2.97	60	Mangrol
7	Mendarda	100	0	100	0	0	39	---
8	Vanthli	83.71	16.29	85.03	14.97	-1.32	46	Vanthli
9	Vsavadar	86.41	13.59	86.06	13.94	0.35	77	Visavadar

Source: Registrar General of India, Census-2001 & 2011

Figure 2.3: Change in Urbanization (2001-2011) in Junagadh District, %



Source: Census–2011, Registrar General of India

As is clear from the above diagram, overall urban growth is 3.77 percent. Level of urbanization is higher than the Country average but lower than the State average.

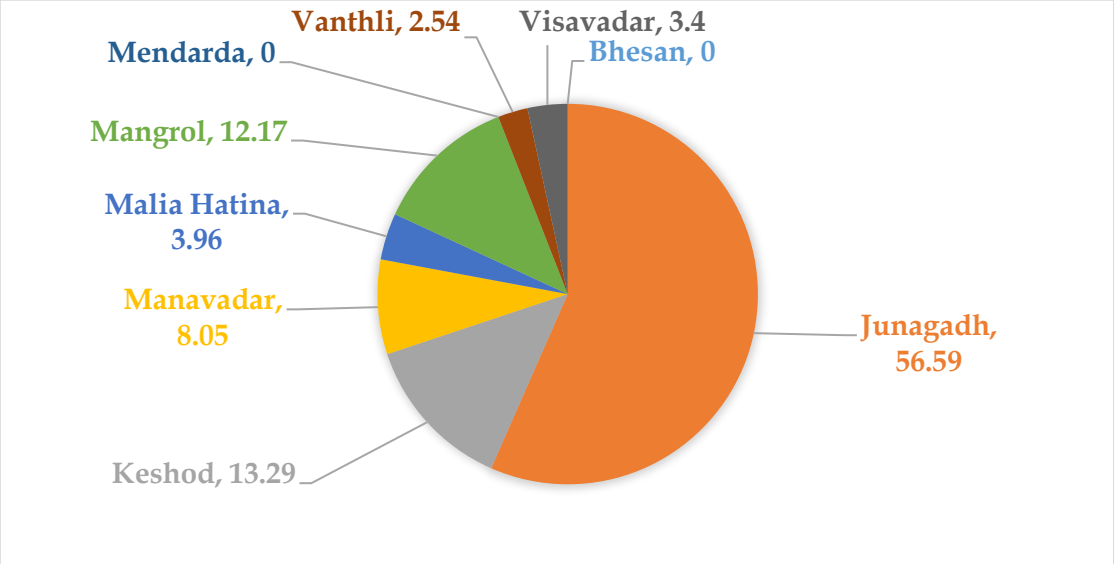
Urbanization is strong only in one taluka, Junagadh taluka. Two talukas have no urban areas. Level of urbanization has in fact decreased in other two talukas.

Table 2.12: Taluka Wise Urban Population in Junagadh District (2011 Census)

Taluka	Total Population	Rural Population	Urban Population	Urban HHs	Urban Population per Household	Urban Population as % of Total Taluka Population	Urban Population as % of Total District Population
Bhesan	79712	79712	0	0	0	0	0
Junagadh	439420	114919	324501	69195	4.69	73.85	56.59
Keshod	194746	118553	76193	16069	4.74	39.12	13.29
Manavadar	132830	86689	46141	9794	4.71	34.74	8.05
Malia Hatina	160181	137461	22720	4368	5.20	14.18	3.96
Mangrol	212973	143194	69779	11759	5.93	32.76	12.17
Mendarda	68531	68531	0	0	0	0	0
Vanthli	97189	82635	14554	3062	4.75	14.97	2.54
Visavadar	140023	120508	19515	4073	4.79	13.94	3.40
Total	**1525605**	**952202**	**573403**	**118320**	**4.85**	**37.59**	**100**

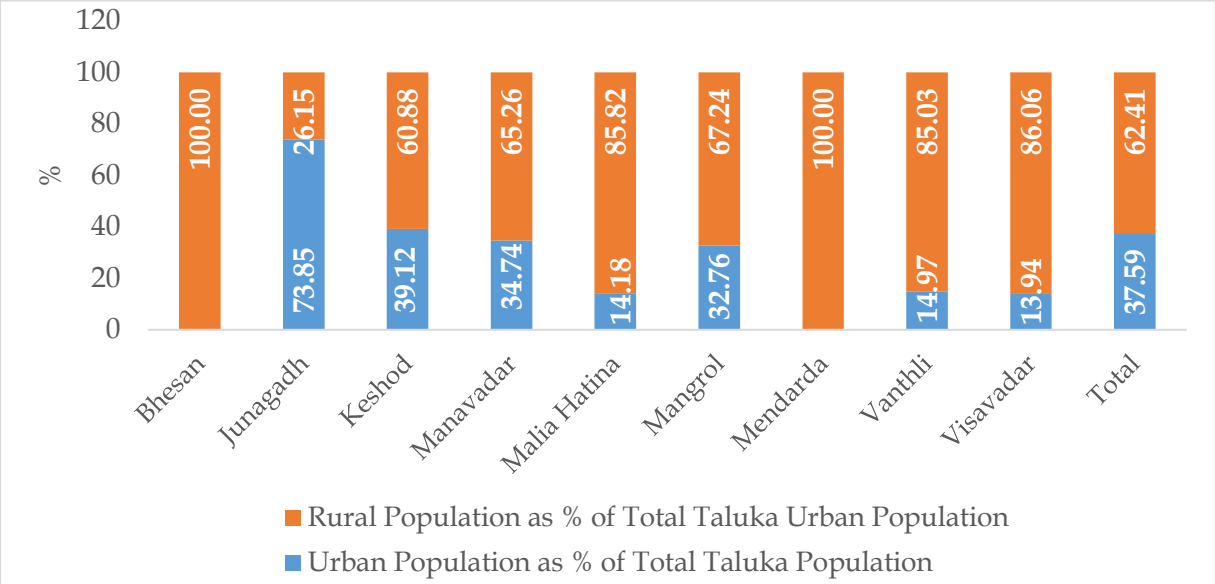
Source: Registrar General of India, Census 2011

Figure 2.4: Taluka Wise Urban Population as % of Total Urban Population



Source: Registrar General of India, Census 2011

Figure-2.5: Taluka-wise Rural-Urban population distribution



Source: Census of India –2011, Register General of India

2.6.3 Urban Centres in Junagadh District

Junagadh has one Municipal Corporation (a town declared as Municipal Corporation by State Statute) and has 12 other (statutory) towns.

Table 2.13: List of Urban Areas: Municipalities and Municipal Corporation in Junagadh District						
Sr. No.	**Town**	**Taluka**	**Type of Urban Centre**	**Urban Population 2001 (In No.)**	**Urban Population 2011 (In No.)**	**Growth Rate Of Urban Population 2001-2011 (In %)**
A. STATUTORY TOWNS						
1	Junagadh	Junagadh	Municipal Corporation	252108	319462	26.72
2	Bantva	Manavadar	Municipality	15218	15291	0.48
3	Chorwad	Malia	Municipality	21240	22720	6.97
4	Keshod	Keshod	Municipality	63257	76193	20.45
5	Manavadar	Manavadar	Municipality	27563	30850	11.93
6	Mangrol	Mangrol	Municipality	56320	69779	23.90
7	Vanthali	Vanthali	Municipality	15858	14554	---
8	Visavdar	Visavdar	Municipality	18061	19515	8.05
B. CENSUS TOWNS						
1	Dungarpur	Junagadh	Junagadh CT	0	5039	100
TOTAL				**469625**	**573403**	**22.09%**
Source: Registrar General of India, Census,2001 and 2011						

The largest town is Junagadh, the District Headquarter. The total population of the balance 7 towns was 248902, with average population of 35,557. Population growth rate of Junagadh district was 9.87 per cent in 2001-2011 period, lower than that of the State (19 percent). During the same period urban population grew by 22.09 percent. This is much lower than the growth in urbanization of the state. In sum, the percentage of rural area in the district is more than that of urban area.

2.6.4 Issues in Urbanization

Junagadh faces a real challenge in increasing the pace of urbanization. It is not only an issue of lower urbanization than that of the State itself, but the fact that Gujarat is rapidly urbanizing and Junagadh district is not, the gap between levels of urbanization is likely to increase over time.

If other districts/ other states urbanize faster, as it has happened in the past, educated individuals will migrate to these districts / states and Junagadh would further suffer. This is exactly what has happened in the past.

Urbanization requires one or more of the following:

1. Non-agricultural employment opportunities
2. Civic amenities in urban areas
3. Clean environment

A major reason for lack of adequate urbanization is lack of employment opportunities. Industrial development in the district has lagged that of other districts. With bifurcation of the district, and loss of sea shore and mineral rich areas, it would further make it difficult to industrialize. Junagadh is basically agriculture driven district. It does not have adequate perennial water sources to meet industry needs. Hence, many industries requiring water (e.g., chemical industry) were not be set up, at least in large number. Junagadh does not have minerals that can be exploited further.

The very fact that the population growth in 2001-11 period is lower than that of the State, and fertility rates being lower but not enough lower to explain low population growth, is a clear indicator of large scale migration which would otherwise be urbanised.

Large rural population also means lower per capita income growth. Assuming agricultural long term growth rate to be around 4 percent per annum, and industry and service sector growth rate to be an average 10 percent per annum, per capita income growth would definitely be lower in the next, say, two decades.

Some salient points of urbanization process are:

1. The increase in agricultural productivity has limits. Also, agricultural land is in almost fixed supply. Thus, growth is invariably from non-agricultural sectors, namely, manufacturing and service sectors. These sectors are largely in urban centres. Thus, new jobs and more productive jobs are in urban centres.
2. Once, basic food needs are satisfied, income is spent on other goods and services (e.g., entertainment, travel, etc.). These are all urban based.
3. Since urban population tends to have a higher per capita income and/or higher number of people above median income, they demand higher level of civic services (e.g., water supply, roads) and require higher level of public services (e.g., public transport). An urban centre would have economies of scale in supplying these services and hence would result into higher level of wellbeing.
4. Though urbanization is low; its contribution to GDP was more than 60 percent (as per all India research), clearly indicating that average productivity in urban area is 3.26 times that of rural areas.
5. Urbanization in Gujarat was 43 percent in 2011, 5th most urbanized state in India. But all the districts do not have the same level of urbanization nor do they have the same level of urban facilities. Out of an urban population of 2.3 crores, with 159 urban areas, eight metropolis alone account for population of 2 crores. Thus, a total urban population in the balance 151 municipalities is only 30 lacs, a mere 20000 per urban centre. These urban centres do not have the same civic amenities as the metropolitan areas.

6. Thus, urbanization could have a darker side in terms of large population being deprived of basic needs like clean water supply, housing and sanitation, higher crime rate, etc. All of these have effects on welfare of the society. HDI itself is a concept beyond just income and hence must look at provisions of these basic facilities in urban area.
7. Mere urbanization and large urban population does not necessarily create a true and desirable urban character. True urban character is one where the quality of urban infrastructure meets the minimum benchmarked standards and possibly matches the best in the world. Hence, Human Development Report may reflect upon the service benchmarks and the actuals. And, therefore, it is important to consider urban indicators in arriving at HDI at the sub-district level also.

Hence it is imperative that new sources of urban income are found and developed based on specific strengths of Junagadh economy. These are discussed in Chapter 3 of this report.

2.6.5 Service Delivery Issues

Primary focus in urban areas are liveability, service delivery and municipal finances. Liveability will include density, green area, level of pollution, traffic density and facilities of public transport, slum areas and facilities in slums. Municipal finances are important as the service delivery would depend on ability to raise finances from local sources to meet expenditures.

This Report is not a detailed report on urban local bodies and hence is limited in scope to discuss urbanization. However, since it has an impact on human development, a brief review is undertaken.

2.6.6 Education Facilities

Education facilities for schooling and college providing undergraduate education (Basic Bachelor degree in Arts/Science/Commerce) are adequate in number and are expected to grow with the demand.

These facilities, at higher secondary and college level not only satisfy local urban needs but also needs from nearly rural areas.

2.6.7 Medical Facilities

Medical facilities are adequate, both public and private together. However, large public facilities, like district hospital, are few. Specialist doctors are, in general, few or non-existent. Most urban centres, barring a couple, need much stronger public medical facilities.

2.6.8 Electricity, Water and Sanitation

Entire Junagadh district has 24*365 hours' electricity supply which is adequate. Adequate, timely and continuous availability of water and facilities for sanitation are pre-requisite for, both human development and growth in urbanization.

Presently, the government is committed to provide at last 135 LPCD of water to every citizen of urban areas and facilities have been created for the same though internal distribution is the responsibility of respective urban local authorities and local administration.

Also, underground covered sewerage drainage system is under implementation (where not available) for all urban areas.

2.6.9 Sports and Cultural Facilities

Major centres, like Junagadh city, have cinema halls, Public Library, Sports grounds, etc. However, most other urban centres do not have all or some of these sports and cultural facilities. A major reason is the minimum economic scale and ability of the local population to pay. However, the government is committed to provide quality public library and reading room and a sports ground with necessary facilities to promote sports and culture.

2.6.10 Slums

The slum population is estimated 32040, or 5.01 percent of the total relevant urban population. Ratio is as high as 7.59 percent for Junagadh.

2.6.11 Roads

The cities in Junagadh do not have an internal public transport system. Junagadh did have a city bus facility, which has not really been successful. It is partly due to the fact that the roads in old city, where most of the commerce and major trading is carried out are too narrow for buses to ply. And buses only for outer areas may not be economical.

The roads in most cities are narrow in old city area. However, in newer parts of the city roads are sufficiently wide and in good condition. However, they still need to be improved at many a place and this is a must to provide good living conditions.

2.6.12 Social Issues

Harmony between communities and peace are largely prevalent in all the communities. Religious animosity is absent and there is a close camaraderie between different communities, different social strata or different religion.

2.6.13 Municipal Finances

Municipal finances are crucial in level and efficiency of service delivery. A separate study by the Gujarat State 3rd Finance Commission details the municipal finances of selected municipalities in Gujarat. Broad conclusions are:

1. The municipalities are not self-sufficient in their own resource generation. They are heavily dependent on State Grants and Central Grants. Central Finance Commission has ensured that for several heads of expenditure sufficient central grants are available. State Government also devolves funds.
2. The property tax are the primary source of own funds.
3. Other than property tax, entertainment tax, pilgrimage tax, water tax, sewerage charges, road tax, etc., are levied. It is observed that these charges are very low and at times do not cover even the revenue expenditure of providing the services.
4. Net result is that the service delivery is either inadequate or inefficient.

2.6.14 Observations & Inferences on Urbanization

Junagadh is getting more urbanized. Urbanization in Junagadh is 37.59 % in 2011.

- If district urbanization is compared to the State average, Junagadh is less urbanized. Its urbanization at 37.59 percent compares lowers to that of State average of 42.59 percent (2011). But if compared with average of the country, it fares satisfactorily.
- Out of the 9 talukas, two talukas have no urban centres at all.
- Additional three talukas have urbanization rate of less than 20 percent, less than the district average.

Inferences-Junagadh

- Relatively low urbanization is due to two reasons:
    - One, low and only slowly rising contribution from industry and consequently the service sector. This has implied low rise in employment opportunities beyond farm sector
    - Second, as a consequence of the first reason above, there has been poor human capital formation as the educated people tend to migrate to larger urban centres, e.g., State Capital, and even cities outside the state. It is a fact that large population from Junagadh district lives in Mumbai and even in centres like Kolkata, Chennai, either as professionals or as traders.

- If no special efforts are made, in near future, say next two decades, urbanization may not happen as desired. Junagadh is likely to remain relatively poorly urbanized.
- Urbanization, per se, is not necessary for high human development. Rural areas can have amenities and incomes as good as that of urban areas. However, fact is that the land is limited and hence, unless the surplus labour from agricultural sector finds gainful employment beyond agriculture, income growth and consequent human development is likely to be poor.
- Good education and good health facilities ALONE would not result in long term benefits as it would only result in higher "brain drain".
- Urbanization, being consequence of job creation and good urban living conditions, both these, in urban centres, should be top priority.

2.7 Schedule Caste and Schedule Tribe Population

Special emphasis on the development of certain sections of the society, who have been marginalized in the past, is one of the priorities of development process in any society. Due to prevalence of certain structures and systems in India, in the past, some of the segments of the society have been largely deprived of education, freedom in income generation resulting in very large fraction of such population being poor and facing general neglect. The governments, in the last 60 years, have made conscious efforts to integrate these sections in the mainstream through providing special opportunities to catch up with others.

Holistic approach presupposes all round growth of all the segments of the society. Society, made up of differently abled and differently endowed individuals, must address growth of all individuals and calls for all the individuals to participate proactively in the development processes with the ability and attitude for contribution to the developmental process. Their ability to contribute and actual contribution would lead to not only their own individual growth but also to the growth for all.

With sustained efforts directed at the enrolment of such segments in the development process, HDI can be improved in each village, taluka, district, state and the country as a whole. Enlargement of canvass at individual level, motivation and empowerment are the keys. The need of the time is, to progress from enlargement of canvass to motivation and from motivation to empowerment.

This section examines the development status of two such segments: Schedule Caste People (SC) and Schedule Tribe People (ST). Their achievements in terms of some basic development indicators, e.g., literacy, employment etc. are compared with that

of general population to gain insights and act as a guide for future directed efforts to speed up the development process and bring about equality, at least that of access to opportunities.

For the purpose, population is divided in three categories: 1. Schedule Caste People, 2. Schedule tribe people and 3. All other, called General Category people. Six areas are identified for analysing the differences, if any, among different population groups.

1. Proportion in Population, Sex Ratio
2. Rural Urban Distribution
3. Education: Literacy, Enrolment
4. Health: Longevity.
5. Employment Status
6. Incidence of Poverty

This chapter examines and compares some of the above dimensions to determine the differential developments and consequences of the same. These would be useful in designing specific targeted strategies for bringing about equality.

2.7.1 Population of Schedule Caste

Total Schedule caste population was 151971 in 2011, constituting 9.96 percent of the total. This compares with 9.62 percent in 2001. Compared to Indian SC population of 16.63 percent, it is much lower, but higher than Gujarat proportion of 6.74 percent.

The SC population, as a percentage of total population, has remained almost the same. That is, they had the same population growth as the district as a whole.

The SC population is not uniformly distributed among the talukas. It is a low of 7.79 percent in Visavadar and a high of 14.19 percent in Manavadar. In every taluka, the increase or decrease is marginal (as a percentage), except for Manavadar (1.38 percent) and Junagadh (0.89 percent).

Following three tables give Proportion of Schedule Caste population in the district, in different talukas of the district and sex wise urban rural divide of SC population. (2011 Census data).

Table 2.14: Schedule Caste Population in Junagadh District-2011							
Sr. No	Particular	Gujarat State			Junagadh District		
		Total	Urban	Rural	Total	Urban	Rural
1	Total Population	60439692	25745083	34694609	1525605	573403	952202
2	SC Population	4074447	1792874	2281573	151971	41897	110074
	- *Male*	2110 331	934224	1176107	78407	21484	56923
	- *Female*	1964116	858650	1105466	73564	20413	53151
3	SC Sex Ratio (Total)	931	919	940	938	950	934
5	SC Sex Ratio (0-6yrs)	900	874	918	959	960	959
Source: Registrar General of India, Census-2011							

Table 2.15: Taluka Wise Schedule Caste Population in Junagadh District -2011					
Sr. No	Region	Total Population 2011	Total Schedule Caste Population 2011	SC Population as % of Total Country/State/ District/Taluka Population 2011	SC Population as % of Total District/ Taluka Population 2011
India		1,210,854,977	201,378,0	100	16.63 (16.2)
Gujarat		6,04,39,692	4,074,447	2.02 % of Country SC Population	6.74 (7.09)
Junagadh District		1525605	151971	3.73 % of State SC Population	9.69(9.62)
1	Bhesan	79712	7254	4.77	9.1
2	Junagadh	439420	37461	24.65	8.53
3	Keshod	194746	22127	14.56	11.36
4	Malia	160181	13153	8.65	8.21
5	Manavadar	132830	18851	12.4	14.19
6	Mangrol	212973	21780	14.33	10.23
7	Mendarda	68531	7479	4.92	10.91
8	Vanthali	97189	12963	8.53	13.34
9	Visavadar	140023	10903	7.17	7.79
Source: Registrar General of India, Census-2011					

Figure-2.6: Taluka-wise Schedule Caste population to Total Population, (in %)

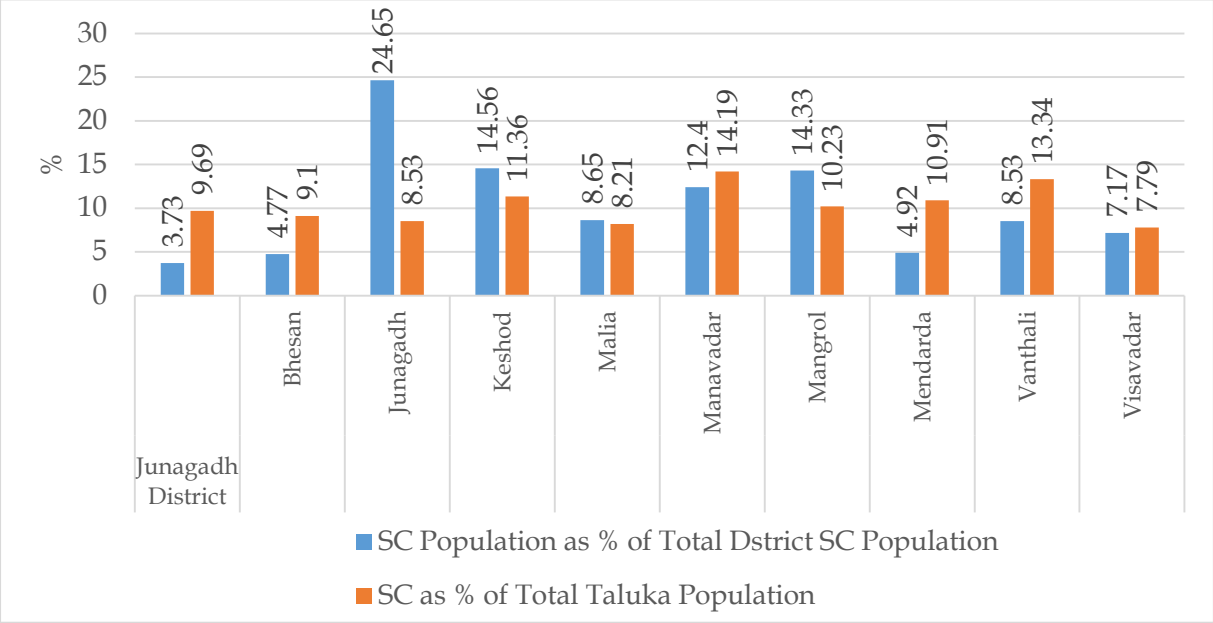


Table 2.16: Taluka Wise, Gender Wise Schedule Caste Population in Junagadh District - 2011

Sr. No	Particular	Total SC Population			SC Urban Population			SC Rural Population		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Junagadh District		**151971**	**78407**	**73564**	**41897**	**21484**	**20413**	**110074**	**56932**	**53151**
Taluka										
1	Bhesan	7254	3755	3499	0	0	0	7254	3755	3499
2	Junagadh	37461	19254	18207	24921	12780	12141	12540	6474	6066
3	Keshod	22127	11340	10787	5719	2944	2775	16408	8396	8012
4	Malia	13153	6781	6372	1222	618	604	11931	6163	5768
5	Manavadar	18851	9780	9071	3986	2056	1930	14865	7724	7141
6	Mangrol	21780	11275	10505	3811	1954	1857	17969	9321	8648
7	Mendarda	7479	3843	3636	0	0	0	7479	3843	3636
8	Vanthali	12963	6783	6180	1147	585	562	11816	6198	5618
9	Visavadar	10903	5596	5307	1091	547	544	9812	5049	4763

Source: Registrar General of India, Census-2011

It can be observed from the above three population tables that:

1. Schedule Caste population , as a proportion of total population has remained stable over the 2001-2011 period (9.62 percent in 2001 to 9.69 percent in 2011)
2. Schedule Caste population, at 9.69 percent, is higher than that of schedule caste population in the State (6.74 percent) but much lower than the proportion in the country (16.63 percent).

3. Growth rate of SC population is similar to the overall growth rate of population of the district. Growth in urban areas is much higher than in the rural areas, indicating the general migration to the cities. Similar to the entire population, growth rate is lower than the overall population growth in the state and indicative of similar migration of SC population out of the district as that of the population as a whole.
4. Schedule caste population ranges from 6 percent to 16 percent in the talukas. More urbanized talukas have lower than 10 percent schedule caste population whereas predominantly agriculture driven talukas have higher proportion of schedule caste population. This is probably an indicator that growth in urban SC population, though higher than that of the growth in rural SC population, is not a result of rural SC population migrating to urban areas. It is probably due to conversion of large villages to urban centres (due to natural overall population growth).
5. If this prognosis is correct, then it implies that schedule caste population has not really become urban centric and its migration is not driven by more productive skills.

2.7.2 Schedule Tribe Population

Total Schedule Tribe population was 37810 in 2011, just above 2 percent.
Proportion of Schedule Tribe in different talukas are reported in the tables below (2011 Census data).

Table 2.17: Schedule Tribe (ST) Population in Junagadh District - 2011

Sr No	Particular	Gujarat State			Junagadh District		
		Total	Urban	Rural	Total	Urban	Rural
1	Total Population	60439692	25745083	34694609	1525605	573403	952202
2	Schedule Tribe Population	8917174	895326	8021848	37810	12119	25691
	- *Male*	4501389	458696	4042691	19448	6148	13300
	- *Female*	4415785	436628	3979157	18362	5971	12391
3	ST Sex Ratio (Total)	981	952	984	944	971	932
4	ST Sex ratio (0-6yrs)	953	924	956	913	904	917

Source: Registrar General of India, Census-2011

Table 2.18: Taluka wise Schedule Tribe Population in Junagadh District -2011							
Sr No	**Region**	**Total Population**	**Total Schedule Tribe Population**	**ST Population as % of Total District ST Population**	**ST Population as % of Total District ST Population**	**ST Population as % of Total District/ Taluka Population**	**ST Population as % of Total District/ Taluka Population**
		2011	**2011**	**2001**	**2011**	**2001**	**2011**
Junagadh		**1525605**	**37810**	**100 (0.25%)***	**100 (0.62%)***	**0.77 %**	**2.48 %**
Taluka							
1	Bhesan	79712	281	6.58 %	0.74%	0.74 %	0.35 %
2	Junagadh	439420	5344	37.62 %	14.13%	0.83 %	1.22 %
3	Keshod	194746	8390	14.02 %	22.19%	0.66 %	4.31 %
5	Malia	160181	5075	10.08 %	13.42%	0.58 %	3.17 %
6	Manavadar	132830	2691	5.68 %	7.12%	0.37 %	2.03 %
7	Mangrol	212973	13405	9.99 %	35.45%	0.44 %	6.29 %
8	Mendarda	68531	188	5.07 %	0.50%	0.64 %	0.27 %
13	Vanthali	97189	1410	1.65 %	3.73%	0.14 %	1.45 %
14	Visavadar	140023	1026	9.3 %	2.71%	0.58 %	0.73 %
*: 0.25 % and 0.62 % are ST population of the district as % of ST population of the State in 2001 and 2011 respectively. Source: Registrar General of India, Census-2001 & 2011							

Table 2.19: Taluka Wise, Gender Wise Schedule Tribe Population in Junagadh District -2011										
Sr. No	Particular	Total Schedule Tribe Population			Schedule Tribe Urban Population			Schedule Tribe Rural Population		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Junagadh District		37810	19448	18362	12119	6148	5971	25691	13300	12391
Talukas										
1	Bhesan	281	142	139	0	0	0	281	142	139
2	Junagadh	5344	2718	2626	4725	2401	2324	619	317	302
3	Keshod	8390	4253	4137	4015	2015	2000	4375	2238	2137
4	Malia	5075	2660	2415	990	520	470	4085	2140	1945
5	Manavadar	2691	1399	1292	1030	536	494	1661	863	798
6	Mangrol	13405	6919	6486	1149	569	580	12256	6350	5906
7	Mendarda	188	99	89	0	0	0	188	99	89
8	Vanthali	1410	715	695	160	79	81	1250	636	614
9	Visavadar	1026	543	483	976	515	461	50	28	22
Source: Registrar General of India, Census-2011										

Observations:

a. Schedule Tribe forms a small proportion (2.48 percent) of the population of the district.
b. Schedule Tribe population of the district is only 0.62 percent of the ST population of the State.
c. Substantial growth in ST population is observed in four talukas: Keshod, Malia, Manavadar and Mangrol.
d. Mangrol taluka has the highest ST population, about 35 percent of total district ST population,

2.7.3 Sex Ratio-Schedule Caste and Schedule Tribe

Sex Ratio is an indicator of preference for specific gender, namely male gender. Sex ratio has remained below 1000 (number of women per 1000 male) in Junagadh district. The ratio has declined over time. Sex ratio are indicated in the tables above. One may conclude that:

a. For schedule caste, Sex ratio, for both, the entire population and child population, are high, and similar or higher than that of the State.
b. For schedule tribe also, the sex ratio is similar or higher than that of the *general population.
c. It appears that the schedule tribes and schedule caste population in the state is not particularly averse to the girl child.

2.7.4 Observations on SC and ST Population

Schedule caste population in Junagadh district is relatively small. A much larger proportion belongs to Other Backward Class (OBC) category.

Schedule tribe population is even smaller.

A remarkable phenomenon is that child sex ratio among SC population, at 959, is much higher than 885 of the population as a whole. Discrimination against female gender appears to be lower for SC population.

Their pattern of development, is similar on some counts and different than the population as a whole on other counts.

Literacy rates are lower. It is lower in women and in rural areas as well.

Work participation rate is similar. One third of ST workers and two thirds of SC workers are in agriculture.

2.8 Standards of Living

2.8.1 Overview

Human development is an abstract construct. But behind that is the belief that primarily we are all driven towards human happiness and that happiness accrues to each and every citizen is the supreme goal. Beyond Income, Education and Health are also necessarily primary drivers of human development. However, they alone may not capture the development.

What is measured as income is an average level of income. That in itself is not necessarily an adequate measure of wellbeing for all.

- Income varies across individuals and households and Average income hides the data on poor and extremely poor due to distribution of income.
- Apart from cross sectional variation, income also varies across time. Thus , an individual/household may have more than minimum level of income (by some measure, say poverty line) at one point in time but that income may be lower than that threshold limit at some other point in time. At such times, such an individual would not be able to buy minimum level of necessities.
- Such distribution across time may be widespread among people who do not have permanent job, who are daily wage earners or who are marginal workers. Such people may not have accumulated wealth to tide over bad times.
- Thirdly, income may not be adequate enough in face of natural calamities. For example, floods, very heavy rainfall earthquake, etc. (e.g., if houses are not pucca, they may not survive heavy rainfall or suffer heavy damages).

- Even assuming that there is a stable income, neither distributed across cross section or across time, what is an adequate measure of income is unclear. Some type of poverty measure, say poverty line, is used as a minimum required income, a threshold limit. But the poverty line is too inadequate an income if considered from wider perspective of development. At best it is an "extreme measure", a minimum required for survival, not for measuring development.
- Income measure , if compared with poverty measure, may appear adequate, but that level of income may not be enough to buy goods which are now deemed useful for well-being,e.g., ownership of certain assets like own transport vehicle, availability of drinking water and sanitation facility. Thus, even an income level, much above poverty line, may hide lack of development, lack of even basic requirements, say, Non availability of clean and safe drinking water every day.

Thus a need exists to go beyond income and to find what does that money buy, and more importantly, whether basic amenities are available and/or affordable. Hence this chapter examines the "Standards of Living". Actual standard of living is not captured but whether a level of standard of living is achieved or not is the focus. Thus, similar to "Poverty Line", a "Standard of living Line" is measured, a minimum required threshold for wellbeing. It is a measure distilled from similar measure used by UNDP and others.

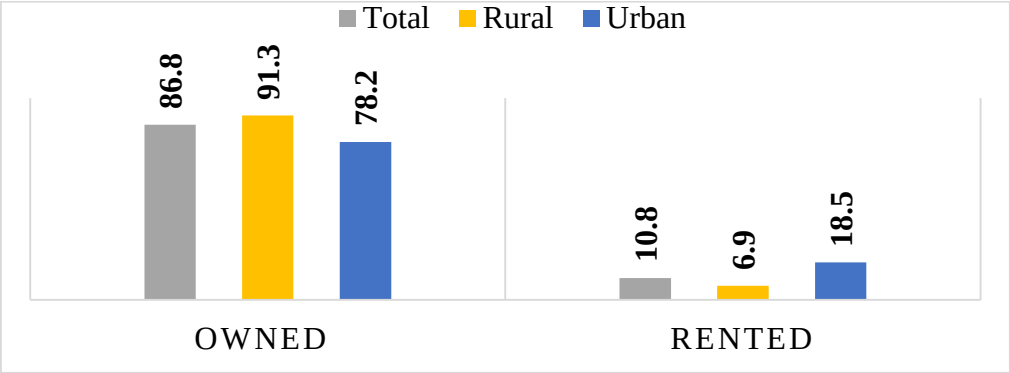
Following parameters are used to determine the standard of living. The parameters are developed under UNDP and are accepted all over the world.

1. Housing status
    - Households with Pucca Houses(+)
    - Households without proper Houses (-)
2. Household Asset Status
    - Ownership of Bicycle
    - Ownership of motorized vehicle
    - Ownership of phone
    - Ownership of Computer
    - Ownership of TV
3. Electricity availability
4. Drinking Water Availability
5. Sanitation Facility
6. Fuel Used

A Comparative Summarized Table, below, for the State and the district Junagadh is reproduced.

2.8.2 Ownership and Status of Residential Houses

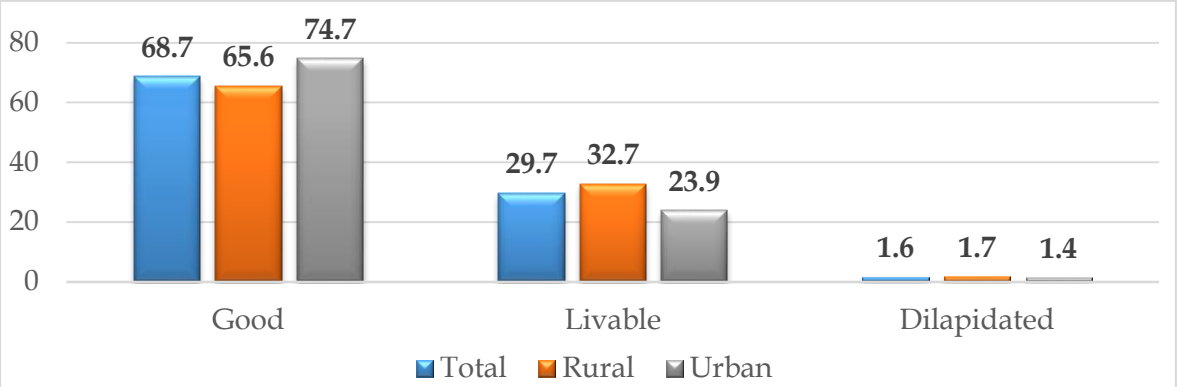
Figure-2.7: Households by Ownership Status – Census 2011 (in %age)



Source: Registrar General of India, Census 2011

- 86.8 percent of the household live in their own house, with 91.3 percent in rural area and 78.2 percent in urban area. Most households, in rural area, have their own house, however small.
- In urban area, 18.5 percent households live in rented place.
- However, only two thirds of houses are in good condition in rural area and almost three fourths in urban area. 1.6 percent households, about 50000 people, live in dilapidated houses.

Figure 2.8: Households with condition of Census House –Junagadh Dist.- Census 2011 (in %age)



Source: Registrar General of India, Census 2011

2.8.3 Bathing Facility

Overall, only 58.8 percent households have bathing facility on their own premises. In rural area, more than 50 percent of the population take bath outside their own premise. Since it is given that more than 90 percent rural households have their own home, more than one third of total population, i.e. about 13-14 lac people, take bath in shared bathrooms or in open (say, near well).

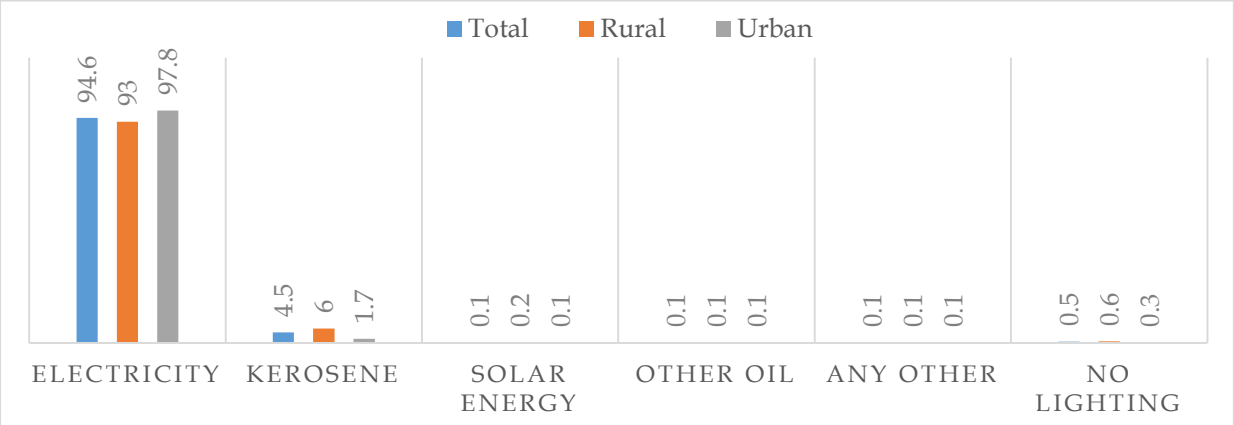
Table 2.20: Households having bathing facility within the premises – 2011 (in %)							
State / District	Total/ Rural/ Urban	Number of households having bathing facility within the premises			Waste water outlet connected to		
		Yes		No	Closed drainage	Open drainage	No drainage
		Bathroom	Enclosure without roof				
Junagadh District	Total	58.8	6.7	34.6	18.7	12.5	68.9
	Rural	46.4	8.8	44.8	5.9	7.6	86.5
	Urban	82.7	2.5	14.8	43.2	21.8	35
Gujarat State	Total	56.5	11	32.6	37.3	9.4	53.3
	Rural	33.6	15.4	51	11.5	6.4	82
	Urban	85	5.4	9.5	69.4	13.2	17.4
Source: Registrar General of India, Census – 2011							

Junagadh district certainly fares better than the average of the State. Though in urban area, both the district and the state fare similarly, in rural area, Junagadh district is almost one third better than the state.

2.8.4 Source of Lighting

Power in Junagadh district is adequately supplied by PGVCL. Main source of lighting is electricity.

Figure 2.9: Main Source of lighting – Census -2011 (in %age)



Source: Registrar General of India, Census -2011

93 percent rural and 97.8 percent urban households have electricity as a primary source of lighting. Gujarat is fortunate in having electricity available for 24 hours all year around. It is possible that some remote areas may not be accessible or prohibitively costly to provide electricity. Details of supply of electricity as on 1.4.2015 are given in the tables below. 508 out of 533 villages are electrified in Junagadh district (new) and 339 of 367 villages are electrified in Gir-Somnath district. Out of a total of 847 electrified villages, 830 villages are supplied three phase power.

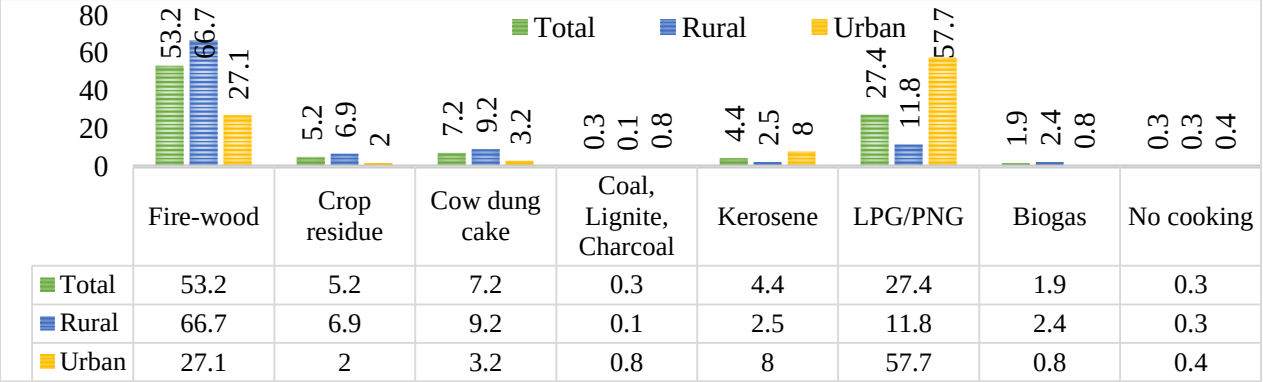
Table-2.21: Taluka Wise Status of Electricity Supply in Rural Areas in Junagadh District (As on 1.4.2015)							
Sr. No	**Taluka**	**Village**	**No. of villages are electrified**	**No. of Electricity Connection for Domestic Purpose**	**No. of Electricity Connection for Industrial Purpose**	**No. of Electricity Connection for Agricultural Purpose**	**No. of villages having Solar Street Light Facility**
1	Bhesan	44	40	13895	9	7088	9
2	Junagadh	73	66	23009	1104	9816	62
3	Keshod	53	53	22474	302	11024	9
4	Malia	63	63	20039	2144	10873	58
5	Manavadar	55	55	18634	517	7590	53
6	Mangrol	63	54	22583	119	8972	54
7	Mendarda	45	45	14261	1729	5690	48
8	Vanthali	46	46	18202	965	6593	6
9	Visavadar	82	80	18817	159	8354	38
10	**Total**	**524**	**508**	**171914**	**7048**	**76000**	**337**
Source: (1) PGVCL for no. of villages electrified & (2) Village Profile as on 1.4.2015 for rest of data							

Of the 524 villages, all of them have electricity connection. Almost all villages that are connected get 24 hour a day power supply. 337 villages have Solar street light facilities.

2.8.5 Type of Fuel Used

Use of fire wood is wide-spread as per Census-2011. Though usage of modern fuels is increasing, the increase is slow and disappointing.

Figure 2.10: Households by Type of Fuel used for Cooking – Census 2011 (in %)



	Fire-wood	Crop residue	Cow dung cake	Coal, Lignite, Charcoal	Kerosene	LPG/PNG	Biogas	No cooking
Total	53.2	5.2	7.2	0.3	4.4	27.4	1.9	0.3
Rural	66.7	6.9	9.2	0.1	2.5	11.8	2.4	0.3
Urban	27.1	2	3.2	0.8	8	57.7	0.8	0.4

Source: Registrar General of India, Census – 2011

Though usage is predominant in rural areas, fact than almost two third population lives in rural area, usage of traditional fuel is among more than 40 percent households. This is probably due to tradition but also an indicator of low income levels of large percentage of households.

Cooking fuel is an indicator of both income and "modernity". A massive 53.2 percent of all households use firewood as cooking fuel even today. Only 31.8 percent use modern cooking fuel (kerosene is included with LPG/Electricity).In rural areas only 14.3 percent use modern cooking fuel and 65.8 percent in urban areas.

Since availability of LPG is not a constraint, clearly, past tradition and lack of sufficient income drive the choice of fuel. At least in urban area, vast majority of non-users of modern fuel are poor or fall in lower income group (past tradition may not drive the choice in most households in urban area). This is another indirect indicator of "poverty".

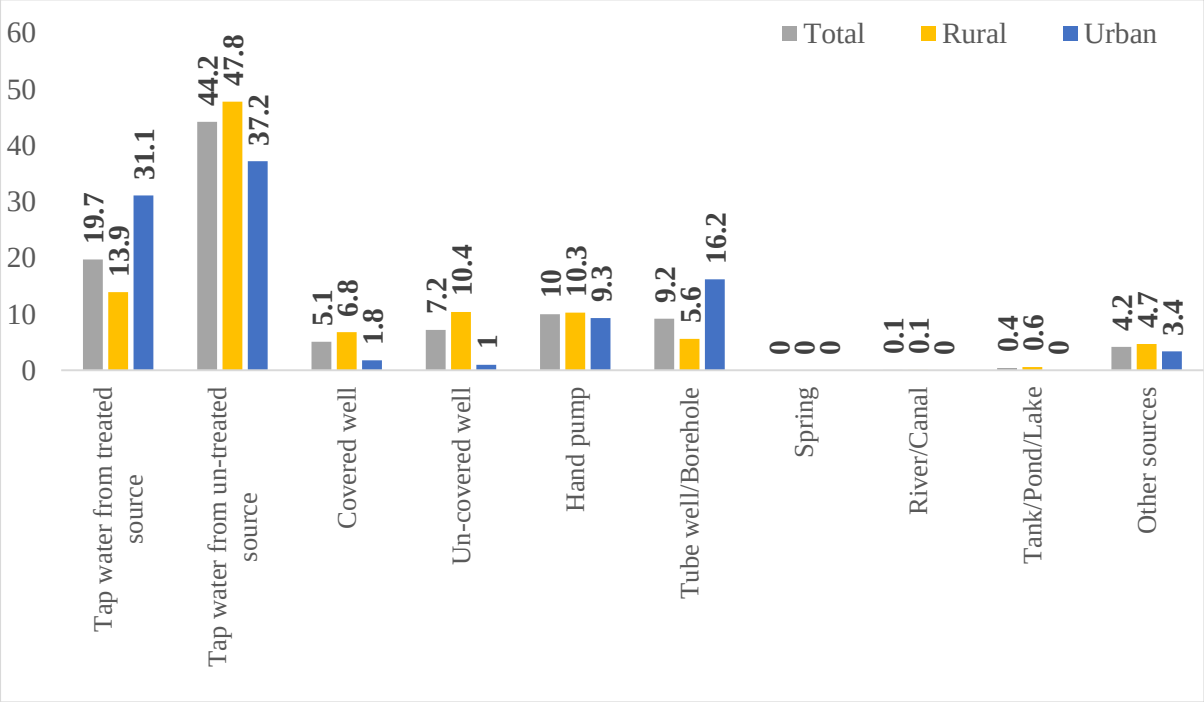
2.8.6 Drinking Water

2.8.6.1 Drinking Water Supply

1. As per 2011 Census, in the district as a whole, 83.9 percent households have drinking water available within or nearby the living premises. Of these, 60.3 percent have water available on their own premises. In rural areas, the percentage of households having drinking water availability within and nearby premises, is 80.5 and 54.7 percent whereas in urban it is 90.6 percent and 71.2 percent respectively.
2. Thus, almost 40 percent of the households do not have water availability in the living premise itself and about 24 percent (including 19.4 percent in urban area) have to fetch water from nearby the premise.

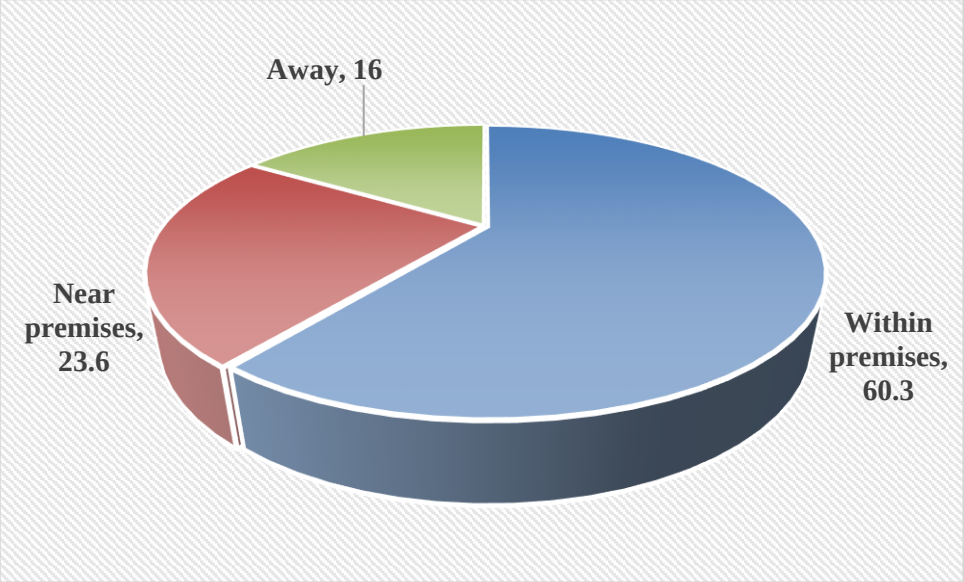
3. Only 19.7 percent household get drinking water that is treated. Even in urban areas, only 31.1 percent households have treated water supply.
4. 19.5 percent households in rural area have to fetch even drinking water from far away places. Even in urban areas 9.5 percent have to get drinking water from places away from own home.
5. Recently, the government is committed to supply minimum quantity of water to all citizens. Accordingly, GWSSB has been entrusted with the task of ensuring sufficient supply of water to all villages up to the village boundary and then the WASMO with task of water supply to each individual house (in consultation and with approval of village panchayat). Village panchayats form "Pani (water) Samiti" which oversees the execution of this project.
6. Similarly, GWSSB has made provision to supply water to all the municipalities and Municipal Corporation.

Figure 2.11: Main Source of Drinking Water – Census 2011 (in %age)



Source: Registrar General of India, Census-2011

Figure 2.12: Location of drinking water source



Sources: Registrar General of India, Census – 2011

2.8.6.2 Drinking Water Connections

About 60 percent of the households have drinking water connections within premises.

Recently, the government is committed to supply minimum quantity of water to all citizens. Accordingly, GWSSB has been entrusted with the task of ensuring sufficient supply of water to all villages up to the village boundary and then the WASMO with task of water supply to each individual house (in consultation and with approval of village panchayat). Village panchayats form "Pani (water) Samiti" which oversees the execution of this project.

As of 1st April, 2013, 227320 households out of 303781 (74.8 percent) households in rural area have been provided with tap water at home, up from 60.3 percent in 2011. 89.63 percent villages have Pani Samiti. 383 community managed water supply programme have been sanctioned, of which 287 are already implemented by 1.4.2013.

2.8.7 Sanitation Facility

One of the biggest challenges today is providing adequate water and toilet facility at home. As per 2011 Census, total about 60 percent households only had toilet facility within the premises which is better than the State average. As per 2011 Census,

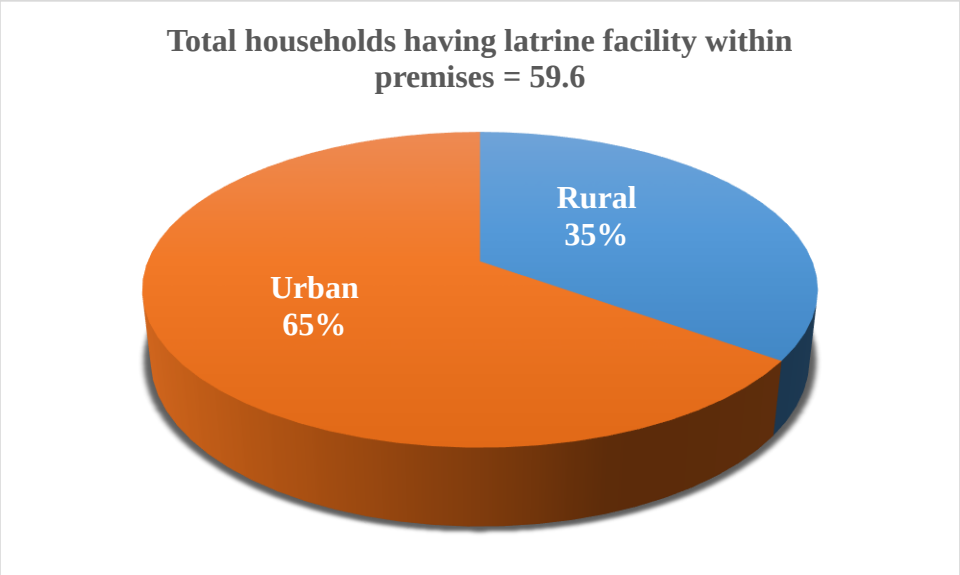
1. Sanitation facilities are critical not only for well-being, they provide healthy environment, help prevention of disease which could be result of open defecation, and help nutrition absorption due to better hygiene conditions.
2. Number of households having latrine facility on their own premise is only 46 percent in rural areas, and 85.7 percent in urban areas. Overall, around 60

percent households have own latrine facility. That is, 38.4 percent of population, more than 10 lakh people defecate in open, creating a serious public health problems.

3. The administration is conscious and the government has initiated several schemes for sanitation. However, sanitation is coupled with piped water availability on a continuous (at least few hours a day) basis.
4. A large population fraction does not have tap water at home. Only 60.3 percent households have drinking water source in their own premise.
5. Tap drinking water is available for 63.9 percent households. However, only19.7 percent households have treated tap water at own residence. Even in urban area, only 31.1 percent urban households have treated water at home.
6. 12 percent of rural households (5 percent urban HH) have to get their drinking water far away from home.

Graphs below indicate the status as in 2011.

Figure 2.13: Households having latrine facility within the premises-Census-2011 (in %age)



Source: Registrar General of India, Census - 2011

Table 2.22: Households having / not having latrine facility within the premises – Census 2011 (in %age)					
State / District	Total / Rural/ Urban	Number of households having latrine facility within the premises	Number of households not having latrine facility within the premises	Alternative source	
				Public latrine	Open
Junagadh	Total	59.6	40.4	2.0	38.4
	Rural	46.0	54.0	1.4	52.6
	Urban	85.7	14.3	3.3	11.1
Gujarat	Total	57.3	42.7	2.2	40.4
	Rural	33.0	67.0	1.2	65.8
	Urban	87.7	12.3	3.6	8.7

Source: Registrar General of India, Census - 2011

More recent status, as on 1st April, 2015 shown below is only reinforcing the obvious conclusion that a lot more needs to be done in the area of sanitation.

2.8.8 Current Status of Water Connections and Sanitation

2.8.8.1 Current Status of Water Supply and Sanitation in Junagadh District

Table-2.23 Tap Water Connection in Own Premises as on 1.4.2015- Junagadh District (Rural Area)				
Sr No.	Taluka	Total no. of households	Household Connectivity up to March 2015	connectivity in %
1	Bhesan	16034	12183	75.98
2	Junagadh	25295	21361	84.45
3	Keshod	24653	18385	74.58
4	Malia	25337	17304	68.30
5	Manavadar	19149	15882	82.94
6	Mangrol	26299	17647	67.10
7	Mendarda	14832	12143	81.87
8	Vanthali	17623	14262	80.93
9	Visavadar	24725	18872	76.33
	TOTAL	193947	148039	76.33
Source: District Panchayat, Junagadh.				

Overall connectivity is 76.33 percent in rural areas of the district.

2.8.8.2 Current Sanitation Facility (Rural)

Current status (1st April, 2016) of sanitation is summarized below.

Table-2.24: Sanitation Facility (Rural Area)

Block	Total HH Requiring Toilets	Total HH Covered	01-04-2016 Remaining Target	
			Number HH	%
Bhesan	13582	10886	2696	19.8
Junagadh	10815	7587	3228	29.8
Keshod	5150	5150	0	0.0
Kodinar	18665	7497	11168	59.8
Malia	11887	3380	8507	71.6
Manavadar	9706	8052	1654	17.0
Mangrol	4696	1831	2865	61.0
Mendarda	2681	2421	260	9.7
Vanthali	6559	3232	3327	50.7
Visavadar	13842	8642	5200	37.6
TOTAL	78918	51181	27737	35.15%

Source: District Panchayat, Junagadh.

Total number of households which still do not have toilet at home as on 1.4.2016 is 27737. This is 8.92 percent of total 311002 households.

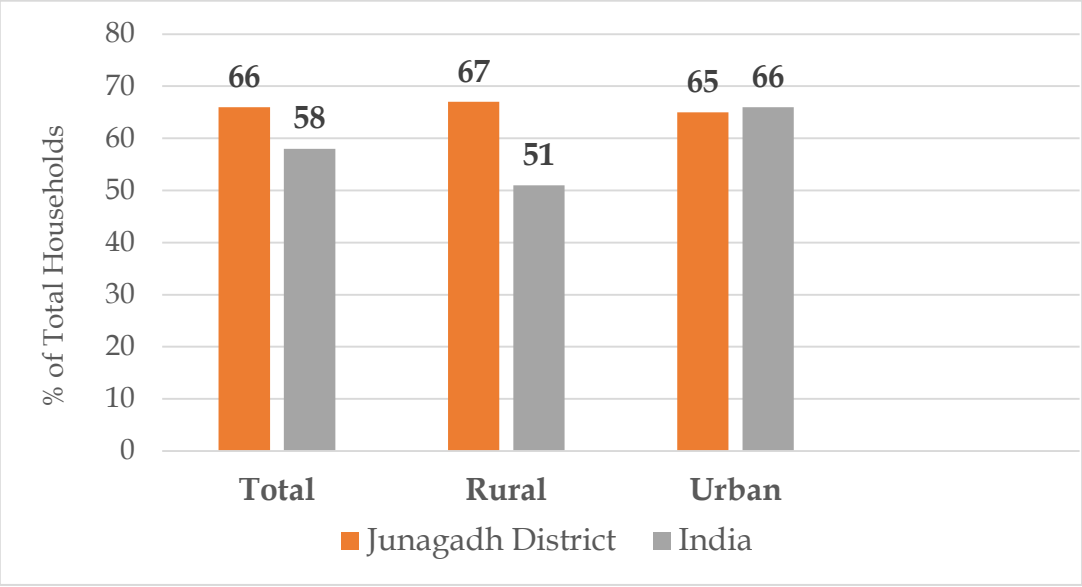
2.8.9 Ownership of Assets

1. Mobile phone is owned by about 70 percent, both in rural and urban areas.
2. Ownership of TV is also substantial at 52.7 percent in rural area and 75.8 percent households in urban area.
3. Ownership of computer, almost considered essential in this age of internet and knowledge, is very low. Only 9.6 percent urban households have computer. In rural areas only 2.8 percent households own computers. With levels of income and a large section being rural and dependent on agricultural income, increase in computer ownership is unlikely to increase substantially, at least in rural areas.
4. 6.8 percent urban households have computer and phone and TV and a motorised vehicle. The number of rural households who have all these assets is 1.1 percent. Overall, only 3 percent households have all these four assets. Since computer ownership, even in urban areas is very low (9.6 percent), ownership of four assets by a single household would obviously be low. However, since other three assets are expected in all upper middle class and rich people, low ownership of all four indicate that number of households who

are better off are relatively few in number and are generally non educated, say rich farmers. Either income or education or both are inadequate for most households.

5. 36 percent household have bicycle, 34.4 percent in rural area and 39.1 percent in urban area. Similarly, 37.7 percent have two wheelers, of which 34.7 are rural households and 41.8 urban households. Since most geographical areas are small, a vehicle, even a bicycle, may not be necessary. However, those who work (say on farms) have a large distance to travel and would need own vehicle in absence of public transport system. It is very likely that most owners of bicycle and motorized two wheelers overlap. Hence, though ownership is more than one third (or even more id there is no overlap), it is still inadequate.
6. Banking Services: 66 percent of population make use of banking facility. This compares favourably with 58 percent average for the State. Usage is almost similar in both rural and urban area. Yet, fact is that one third of the population is not using banking facility. This would be especially true for poor and uneducated people. Recent development and drive for inclusions may have improved this number substantially.

Figure 2.14: Households availing banking services – Census 2011 (in %age)



Source: Registrar General of India, Census 2011

2.8.10 Housing Status

Almost 75 percent residences in the district are two rooms or less. Whereas 32.3 percent urban households are three rooms or more, 21.5 percent rural households are 3 rooms or more. . Since average number of people in one household exceeds five, there houses may be termed as "relatively crowded living conditions".

1. 34.1 percent households live in one room only, an indicator of poor living conditions. It is also an indirect indicator of poverty.
2. Whereas 88.5 percent urban households have bath facility at home, only 56.8 percent rural households have bath facility within the premises.

2.9 Crime in the District

Table-2.25 Crime Statistics, Junagadh District

Gujarat		Description	Junagadh					
2009	2013		2009	2010	2011	2012	2013	2013
	615.9	Mid-Year Population, Lacs			27.43			% of State
1020	1118	Murder	11	9	10	18	36	3.22
	603	Attempt to Commit Murder					19	3.15
	49	C.H. Not Amounting to Murder					1	2.04
	732	Rape					29	3.96
1420	1429	Robbery	4	2	3	8	5	0.35
4488	4980	Burglary	44	26	30	51	24	0.48
19069	15313	Theft	76	49	76	67	65	0.42
1539	1715	Riots	11	9	13	7	21	1.22
1256	1172	Criminal Breach of Trust	19	9	13	7	21	1.79
1014	1324	Cheating	6	16	10	12	10	0.76
9456	9917	Hurt	97	83	82	68	86	0.87
5178	5864	Death by Negligence	63	38	41	49	41	0.70
60758	100638	Other Crime	553	531	459	491	441	0.44
105198	144854	TOTAL	884	772	737	778	799	0.55

Source: Crime in India, Statistics, 2009,2010,2011,2012,2013, National Crime Records Bureau, Government of India

Crime rate in the district is lower than that in the State. CAGR of total crimes is in fact negative.

Chapter 3

Income and Employment

3.1 Introduction and Overview- Income and Employment

Income is the primary driver of human happiness and hence of the Human development. Employment and consequent income are the most important factor which tells the true story about the human development. Education help people to get employment but it will not necessarily result in high standard of living. Standard of living dimension is measured by the consumption which is derived from income. Therefore it is necessary to know the level of income, and drivers of income and growth of income over the time. HDI focuses not only on health and education but also included is the per capita income.

Income may be generated in one of the three sectors: Agriculture, Industry and/or the service Sector. In India, agriculture which used to contribute more than 60 percent of the income, has been replaced by services as the leading income generator. At current prices, gross value added by the service sector is estimated 57 percent, industry 26 percent and agriculture only 17.01 percent. In USA, service sector contributes about 80 percent of GDP, followed by industry at more than 19 percent, and agriculture contribution is less than 2 percent. Similarly, in Germany, services contribute about 70 percent to GDP, industry about 29 percent and agriculture less than 1 percent.

Long run growth in agriculture sector is about 4 percent whereas manufacturing growth is around 8 percent and service sector more than 12 percent. Clearly, manufacturing sector and/or service sector would be the drivers of long term growth and have to develop to drive long term growth of 6 to 9 percent per annum.

Hence growth in industrial sector and subsequently or concurrently service sector are important.

Equally important is the aspect of Employment. A population which is not gainfully employed would result in highly skewed income distribution as well as a large section of society not earning enough income. A technology which is highly productive but is capital intensive, would not require large employment of labour. Equally, a highly labour intensive technology (e.g., agriculture) which has only limited productivity would have large employment but poor income generation per capita.

3.1.1 Overview of the Economy of the District

The economy of Junagadh district is largely agriculture driven. Of the total labour force, almost 68 % is engaged in primary sector, 24% in secondary sector and 8% in tertiary sector.

Groundnut, Bajra, wheat, cotton, sugarcane, are major crops. Fruits like mango are abundantly produced and even exported. Fish processing and animal husbandry also

contribute to the economy. Dairy industry, though largely in small private hands, is also developed.

Large industry is based on minerals like limestone and processing of food for value added products. Major industry of Junagadh district includes, Mineral based industries such as, cement & soda ash, Agriculture based industries like edible oil, groundnut processing units, solvent plants and oil cakes and Marine based industries like fish processing units and frozen fish. Large number of small and medium scale industry also exist. Tourism is well developed with popular places like Mount Girnar (Jain temples), Gir forest (Asiatic Lions) and Somnath Temple.

Junagadh is the largest producer of Groundnut and Garlic in the State contributing 26% and 16% to total production respectively. Junagadh is the 4th largest producer of Cereals in the State. Junagadh produces more than 50 percent of coconuts and coriander in the state. Its production of onions is more than 13 percent and of fruits chikoo and mango about 15 percent.

Most of the medium and large scale industries are concentrated in Veraval, Junagadh, Manavadar and Kodinar talukas of the district. At least one third of the talukas do not have much of industry. As a result, the district population largely resides in rural areas and are dependent on agriculture produce.

3.2 Occupation Status and Workforce Participation

3.2.1 Overview

Employment of people is the total number of individuals who are actually working for consideration. The people can be further classified as Main Workers and Marginal Workers. They are also classified in terms of sex (male and female) and geographical area (urban/ rural).

Workforce participation rate is the measure of active participation from the labour in the economy. It shows the number of people directly or indirectly getting employment and those who aspire for the work.

Taluka wise share of workers of Junagadh district and their ranking with census 2011 data are presented and discussed below. It also covers the occupational structure, details of work force participation rate according to Urban/Rural Classification and Gender. Taluka wise data for the same are presented.

Of the total population of 2,743,082 (before bifurcation), people engaged in work are 1123709 i.e. 40.97 percent of the total. While after bifurcation, 648173 people out of 1525605 i.e. 42.49 percent of the total are engaged in work.

73.25 percent of the total workforce is employed in rural areas (rural population 66.96 percent), and 26.75 percent in urban areas (population 33.04 percent). In comparison, for the Gujarat State as a whole, 62.86 percent of the workforce is employed in rural area and 37.14 percent in urban areas.

Workforce participation has marginally increased from 40.88 percent in 2001 to 40.97 percent in 2011. These are shown in the table below.

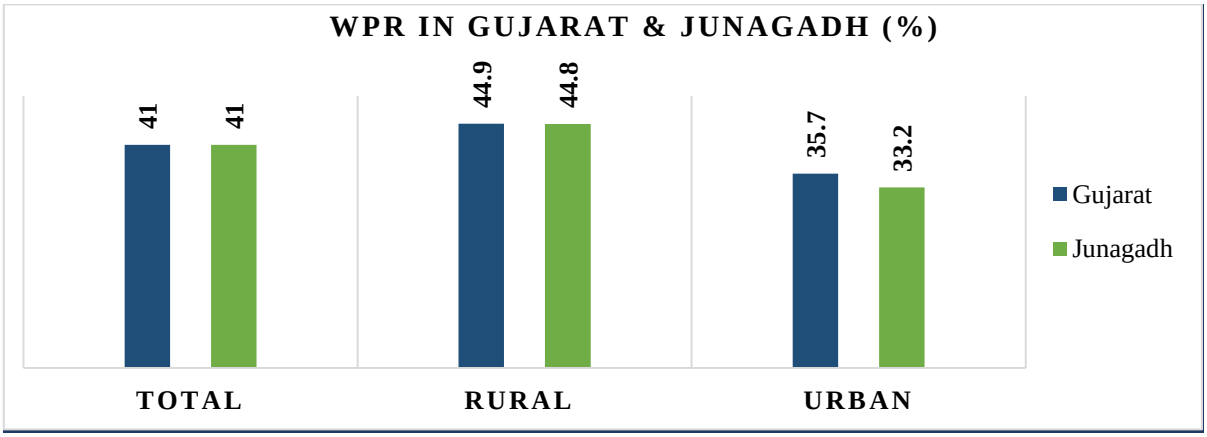
Table 3.1: Gender wise Workforce Participation Rate (Rural / Urban) in Junagadh (Pre-bifurcation) (Figures are in %age)

Sr. No	Particulars	2001			2011		
		Person	Male	Female	Person	Male	Female
A 1	**Work Force Participation Rate**						
1	Total	40.88	54.59	26.52	40.97	57.10	24.04
2	Rural	45.12	55.96	33.85	44.82	58.28	30.69
3	Urban	30.53	51.28	8.42	33.16	54.71	10.56
A 2	**Distribution of working Population in 2011**						
		Persons	**Male**	**Female**			
4.1	- Rural Area	44.82	58.28	30.69			
4.2	- Urban Area	33.16	54.71	10.56			

Source: Census of India-2011, Registrar General of India

- Since the workforce is predominantly in agriculture, as can be deduced by level of urbanization, it can be inferred that pattern of work has not changed in the decade.
- This implies that the distribution of income generation has not changed much.
- Male participation has increased by about 2.51 percent, and female participation has decreased by 2.48 percent. Since female workers are mainly uneducated and in agriculture, 2.48 percent additional employment generation in urban area, above the population growth.
- That is, as population has increased by 12 %, and sex ratio being 953, female population increase is 5.72 percent. Earlier 26.52 of women were working, now only 24.04 women are working. Thus total number of women working has decreased though overall number of workers has increased. This would happen as demand from agriculture decreased, more educated women who are not working. This is most probably due partly to mechanization of agriculture, partly reduction in total crop area and partly larger contribution of non-agriculture rural economy (e.g., services) where males dominate.

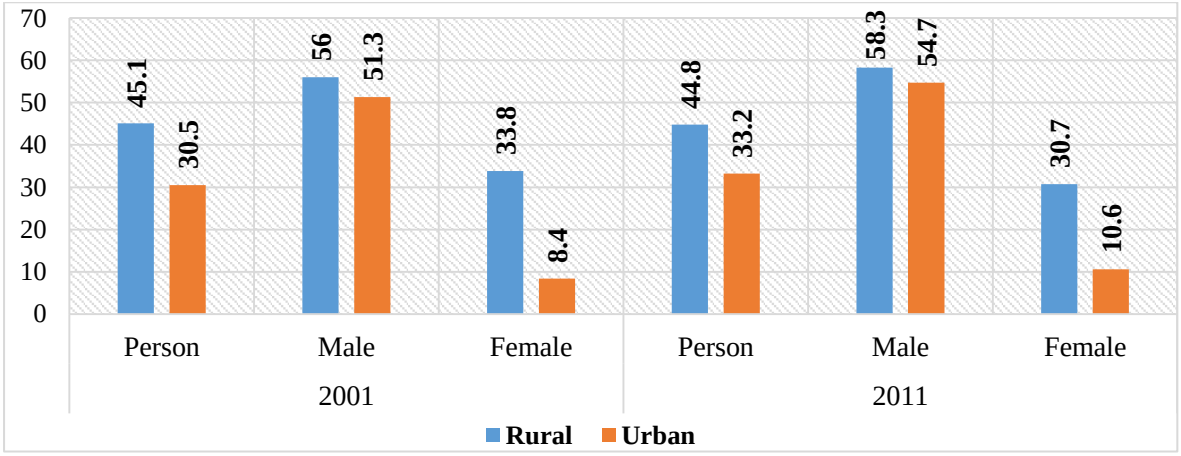
Figure-3.1: WPR in Gujarat and Junagadh, %
(Pre-bifurcation)



Source: Census of India-2011, Registrar General of India

Workforce participation in urban area of Junagadh is about 2.5 percent lower than that in the State though total workforce participation is similar. Clearly, Junagadh is less urbanized and has fewer job opportunities in urban area relative to the State as a whole. Since rural participation is similar, the rural productivity is not very different.

Figure- 3.2: Gender Composition of workforce participation rate (Rural / Urban) in the Junagadh District (in %)
(Pre-bifurcation)



Source: Census of India – 2011, Register General of India

Gender composition of workforce in Junagadh district is almost similar to that of Gujarat where 71.36 percent of the total workforce is male and 28.64 percent female. Similarly, gender composition in urban and rural areas are similar for both Junagadh district and for Gujarat. In urban area, ratio of male to female is 2.49 whereas the ratio in rural area is 1.99. Thus female participation in work in the rural area is almost double that of urban area. Since rural area has less literacy and is predominantly agriculture based, most women work in low productivity agriculture work (if they do not own the land).

Table 3. 2: Taluka Wise Workforce Participation Rate, 2011 Junagadh District						
District / Taluka	Work Participation Rate, Junagadh District					
	2001			2011		
	Total	Rural	Urban	Total	Rural	Urban
Junagadh –Pre 2013	40.9	45.1	30.5	41.0	44.8	33.2
Junagadh (Post 2013)	**42.84**	**48.85**	**31.08**	**42.49**	**47.95**	**33.41**
Bhesan	51.3	51.3	-	47.3	47.3	-
Junagadh	35.4	46.6	29.7	36.7	48.7	32.5
Keshod	42	48.6	30.4	44.4	50.9	34.3
Malia	48	48.7	43.5	46.4	46.5	45.6
Manavadar	47.7	53.7	35.8	44.3	48.4	36.6
Mangrol	39.6	44.2	28.6	38.4	42.5	30
Mendarda	51	51	-	47.6	47.6	-
Vanthali	46.1	48.5	33.9	48.9	51.3	35
Visavadar	48.3	50.9	32.3	48.1	50.3	34.4
Gir Somnath Dist.						
Kodinar	35.6	37	28.5	37.5	38.9	31.1
Patan-Veraval	34.9	42	29.4	35.5	39.8	32.3
Sutrapada	41.9	41.9	-	39.7	39.9	38.6
Talala	42.7	42.7	-	44.5	46.7	32.6
Una	39.8	41.6	30	40.8	42.3	32.6
Source: Census of India-2001 & 2011, Registrar General of India						

Table 3.3: Taluka wise Gender Wise Distribution of Workforce (2011), %									
Region	TOTAL			RURAL			URBAN		
	All	Male	Female	All	Male	Female	All	Male	Female
Gujarat	42.75	58.95	25.12	47.41	59.62	34.55	36.47	58.09	11.9
Junagadh Pre-2013	40.97	57.1	24.04	44.82	58.28	30.69	33.16	54.71	10.56
Junagadh (Post 2013)	**42.49**	**59.00**	**25.02**	**47.95**	**61.21**	**33.87**	**33.41**	**55.30**	**10.40**
Bhesan	47.34	62.6	31.4	47.34	62.6	31.4	0	0	0
Junagadh	36.73	56.92	15.38	48.67	63.17	32.97	32.50	54.68	9.25
Keshod	44.44	59.96	27.97	50.93	62.18	38.99	34.33	56.50	10.83
Manavadar	44.33	61.2	26.24	48.44	62.90	33.03	36.59	58.04	13.41
Mangrol	38.41	55.71	20.26	42.52	57.59	26.59	29.99	51.83	7.40
Mendarda	47.55	62.08	31.99	47.55	62.08	31.99	0	0	0
Vanthli	48.88	62.15	34.54	51.33	62.85	38.82	34.97	58.13	10.57
Visavadar	48.12	62.4	33.08	50.34	63.16	36.89	34.41	57.78	9.31
Gir Somnath Dist.									
Kodinar	37.51	53.91	20.74	38.93	54.08	23.48	31.10	53.13	8.29

Sutrapada	39.7	53.59	25.36	39.94	53.72	25.77	38.60	53.03	23.56
Talala	44.49	57.57	30.63	46.68	58.31	34.42	32.61	53.63	9.54
Una	40.81	55.46	25.59	42.26	55.67	28.37	32.65	54.25	9.73
Veraval	35.48	53.61	16.62	39.80	53.45	25.52	32.30	53.72	10.11
Source: Census 2011, Registrar General of India, New Delhi.									

Though overall work participation rate is 40.97 percent, the rate varies from a low of 36.73 percent in Junagadh taluka to 48.88 percent in Vanthli taluka. More urbanized the taluka, less is the work participation. This is probably due to the fact that in villages even women work in agricultural activity whereas educated city dwelling women prefer to look after family at home. This is likely a result of social norms and income level differentials.

Similarly, female participation could be a high of 34.54 % in Vanthli and 33.08 % in Visavadar, it could be as low as 15.38 % in Junagadh. This is a result of urbanization coupled with tradition of women not working even if educated but not highly educated.

Above data are a pointer to structural transformation that is taking place on the district, albeit slowly.

- Work participation is almost 2 percent lower than the average of Gujarat State. 2 percent of population equals about 55000 people. Distribution of these is similar across urban and rural areas. This, added to the fact that population growth in Junagadh district is considerably lower than the state average (which is unlikely solely due to lower net birth rate), is a pointer to lack of employment opportunities in the district. Large segment of Educated and employable population is migrating out of the district.
- Work participation in rural area has decreased over the 2001-11 period. Rural work force was about 80 percent in 2001, which has decreased to about 75 percent in 2011. It is a positive indicator and a part of the transformation observed over all the nations. More mechanized farming is also necessary to free the rural labour force to increase the labour productivity.
- Women participation in work is almost one third in urban areas vis-à-vis rural areas. It is unlikely that rural women are more employable than urban women. Most likely, lot of the women in rural areas work on farms with almost negligible marginal productivity. It is unmistakable that lot of rural labour needs to be more productively employed. Job creation is the number one priority if rapid transformation is to take place.
- Curiously, WPR is low where there is large urbanization, e.g., Junagadh and even industrialized talukas like Sutrapada and Kodinar. One reason is that

women do not participate (as much) in work in urban areas. The productive assets have not created as many jobs as one would like. The factories do not seem to have strong linkages for others to cone up. Mere education has not helped and has only resulted in migration to outside district. Lack of strong competitive advantages is obvious.

3.2.2 Main and Marginal Workers

Occupational distribution can be demonstrated by the working population and work participation rate of the district. This information is useful in determining the domestic product or income.

However, quality of employment is also important. A person may participate in work but may not be fully employed. E.g., some work requires only seasonal employment. Some work employ people only on daily wages basis. This section details the data for main and marginal worker, separately for urban/rural area and compares the same with state statistics. Main workers' data highlights who worked permanently and marginal include the temporary worker and those who worked for less than three months.

Of the total workforce of 1123709 people, 842709 are main workers (83.9% of total) and 181000 (16.1 % of total) are marginal workers.

Table 3.4: Main & Marginal Workforce participation Rate in Junagadh District

Region	Main			Marginal		
	Person	Male	Female	Person	Male	Female
Pre Bifurcation						
Total	83.89	94.33	57.88	16.11	5.67	42.12
Rural	81.08	94.33	54.70	18.92	5.67	45.30
Urban	91.59	94.34	76.59	8.41	5.66	23.41
Post Bifurcation						
Total	82.95	94.32	54.58	17.05	5.68	45.42
Rural	79.42	94.37	50.72	20.58	5.63	49.28
Urban	91.35	94.21	75.37	8.65	5.79	24.63

Source: Registrar General of India, Census-2011

Of the total work force, 16.11 percent are marginal workers (2011 data). More than 85 percent of this marginal work force is rural. Junagadh district has lower marginal workforce (as a percentage of total work force) compared to Gujarat average. Largely agricultural talukas, namely Vanthli (25.81 percent), Keshod (20.66 percent) and Malia (20.02 percent) have more than 20 percent work force that is marginal labour. Of the total work force, 73.25 percent is rural, and of that 13.86 percent (18.92 percent of total) is marginal. As against that, of the 26.75 percent of labour force that is urban, only 2.25 percent (8.41 percent of total) is marginal labour.

Of the total work force, 71.36 percent is male and 28.64 percent is female. However, of the 16.11 percent of marginal work force, 12.06 percent is female (74.86 percent of total). Out of 83.89 percent of work force that is main work force, male constitute 67.32 percent, 80.24 percent of the total.

3.2.3 Classification of Workers

Workers are classified in four major groups:

1. Cultivators
2. Agricultural Labourers
3. House Hold Industry Workers
4. Other Workers

First two groups cover the major category of workers in rural area: agriculture sector work force.

Table 3.5: Taluka Wise Distribution of Workers by Economic Activity (2011) (All values in %)

Sr No	Region	Cultivators	Agricultural Labourers	Total Agriculture Workforce	Household Industry	Others
Junagadh District Pre-2013		32.69	29.72	62.41	0.86	36.73
Junagadh District Post-2013		**35.29**	**27.91**	**63.21**	**0.84**	**35.95**
1	Bhesan	51.52	30.64	82.16	0.96	16.88
2	Junagadh	15.88	13.65	29.53	1.02	69.45
3	Keshod	36.87	27.34	64.21	0.78	35
4	Malia Hatina	41.75	38.41	80.16	0.82	19.02
5	Manavadar	40.71	31.6	72.31	0.76	26.93
6	Mangrol	34.35	36.25	70.6	0.69	28.7
7	Mendarda	48.89	31.14	80.03	0.57	19.4
8	Vanthli	41.07	36.08	77.15	1.09	21.77
9	Visavadar	49.34	29.05	78.39	0.62	20.99
Gir Somnath						
1	Kodinar	28.05	36.59	64.64	0.81	34.55
2	Sutrapada	37.08	31.3	68.38	1.43	30.19
3	Talala	36.38	38.42	74.8	0.81	24.39
4	Una	28.99	37.2	66.19	0.81	33
5	Veraval	22.4	19.09	41.49	0.82	57.69

Source: Registrar General of India, Census 2011

Of the total workforce, 62.41 percent are in agriculture (either as cultivators or as agricultural labourers).Of these 39.41 percent are male and 23 percent are female. Thus, almost 40 percent of the total agricultural work force is female. 36.73 percent of

work force is classified as other, including manufacturing sector, service sector and agricultural allied activities. Of these, 31.34 percent (85.3 percent) is male and the rest female (14.7 percent). 412757 people are classifies in "other" category. In Bhesan, Malia and Mendarda, more than 80 percent workforce is engaged in agriculture either as cultivator or as agricultural labourer. Talala (74.8), Vanthli (77.15) and Visavadar (78.39) are other three where almost three fourth work force is in agriculture.

3.3 Agriculture

Junagadh district economy is primarily an agriculture and rural economy. Most of the work force is engaged in agriculture.

3.3.1 Input to Agriculture

Agriculture production basically depends upon the following major inputs:

1) Land
2) Labour
3) Water
4) Fertilizers
5) Seeds, Machines, etc.

3.3.1.1 Land as input to agriculture

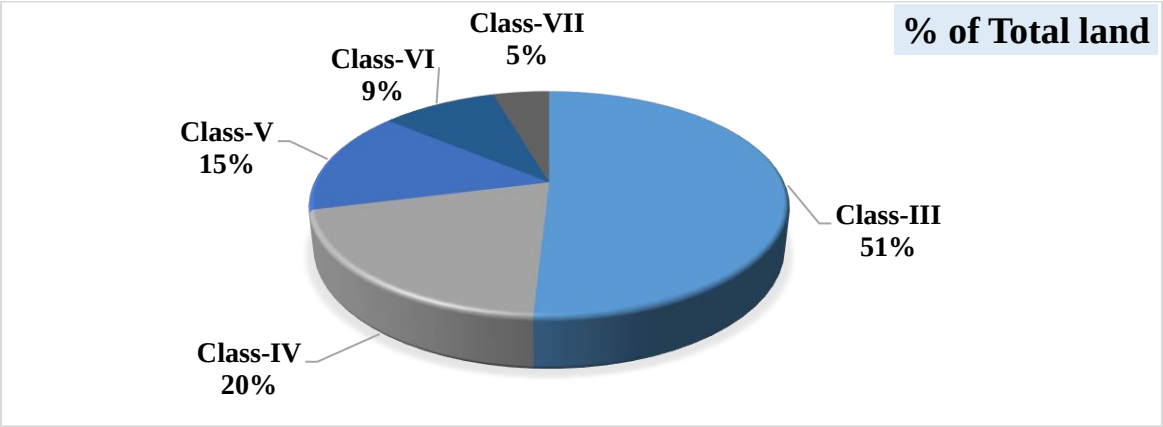
Land is a main input to agriculture production. Almost 60 percent of the land within geographical area is used for agricultural production. Following table shows the quality of land. Large tracts of land are plains and are cultivable.

Table-3.6 Quality of Land

Sr. No	Classification of land	Area, Hectares	% of Total land	Characteristics of the Class
1	Class-III	444051	50.19	Moderately Good Cultivable Land
2	Class-IV	176315	19.94	Fairly good land, suitable for occasional cultivation
3	Class-V	130027	14.72	Nearly level land, Not suitable for cultivation
4	Class-VI	82013	9.29	Steep Slopes, Shallow soils, Erosion Prone
5	Class-VII	39847	4.50	Steel Slopes with severe Soil Erosion
6	TOTAL	884788	100	---

Sources: JAU, "Comprehensive District Agriculture Plan (C-DAP)., Junagadh District, Department of Agriculture and Co-Operation, Government of Gujarat, Gandhinagar, August,2012, pp. 190

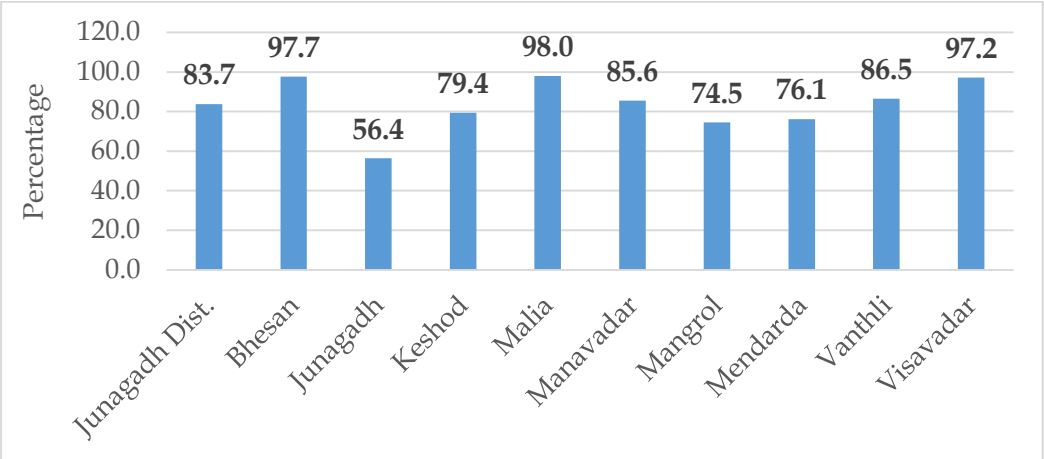
Figure-3.3: Land Quality



- The district does not have measurable quantity of Class-I and Class-II, highest cultivable quality of land.
- As the table above shows, of the total geographical area of 884788 hectares, 444051 hectares, 50.19 percent of the total, is moderately cultivable land.
- Another 19.94 percent land is fairly good and can be used for occasional cultivation.
- 28.51 percent land is not suitable for cultivation.

Table-3.7: Taluka wise Land Utilization Pattern in Junagadh District,2014-15												
Hectares/% of Total	**No. / %**	**Total Area**	**Forest Area**	**Non-Agriculture Use**	**Cultivable Waste**	**Permanent Pasteur**	**Current Fallows**	**Barren-Unsuitable for Cultivation**	**Net Sown Area**	**more than Once Cultivated**	**Gross Cropped Area**	**Cropping Intensity**
Junagadh Dist.	No.	513893	26709	17209	3326	25148	3953	0	430361	175200	553826	128.69
	%	100	5.2	3.35	0.65	4.89	0.77	0	83.75			
Bhesan	No.	55502	0	0	532	0	0	735	54235	0	35866	66.13
	%	100	0	0	0.96	0	0	1.32	97.72			
Junagadh	No.	66080	17965	6525	20	3609	62	658	37241	20875	58116	156.05
	%	100	27.19	9.87	0.03	5.46	0.09	1	56.36			
Keshod	No.	52913	234	2663	105	5894	1017	987	42013	41016	83029	197.63
	%	100	0.44	5.03	0.2	11.14	1.92	1.87	79.4			
Malia	No.	35363	0	0	55	0	0	658	34650	52085	86735	250.32
	%	100	0	0	0.16	0	0	1.86	97.98			
Manavadar	No.	67735	659	4415	10	3520	391	758	57982	10721	68703	118.49
	%	100	0.97	6.52	0.01	5.2	0.58	1.12	85.6			
Mangrol	No.	48715	1296	2286	270	6445	1331	786	36301	32824	69125	190.42
	%	100	2.66	4.69	0.55	13.23	2.73	1.61	74.52			
Mendarda	No.	47658	6510	1280	244	1680	669	991	36284	5698	41982	115.7
	%	100	13.66	2.69	0.51	3.53	1.4	2.08	76.13			
Vanthli	No.	40741	45	40	54	4000	483	869	35250	11981	47231	133.99
	%	100	0.11	0.1	0.13	9.82	1.19	2.13	86.52			
Visavadar	No.	99186	0	0	2036	0	0	745	96405	0	63039	65.39
	%	100	0	0	2.05	0	0	0.75	97.2			
Source: District Statistical Outline, 2014-15, Junagadh District panchayat, Published June, 2016.												

Figure-3.4 Net Sown Area (2014-15) (in %)



Source: District Agriculture Office, Junagadh

- As the above table shows, 83.75 percent land is used for agriculture (net sown area).
- 5.2 percent land is forest area.
- 3.35 percent land is used for non-agriculture purpose. 0.65 percent is cultivable but waste.
- 4.89 percent land is permanent Pastures, used for grazing.

3.3.1.2 Land Holdings

Size of land holdings is important determinant of efficient use of mechanized farming, economies of scale, and economies of scope. Holdings are broadly divided in four categories:

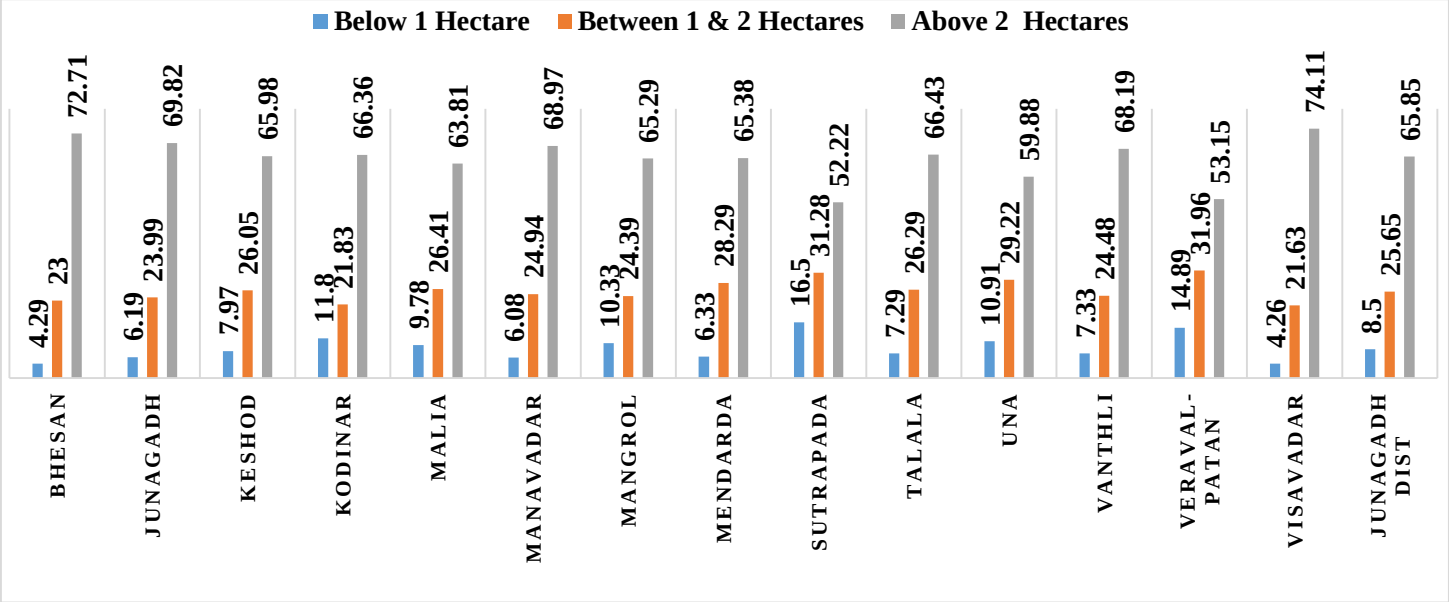
1. Marginal holdings, less than 1 hectare in size,
2. Small holdings, equal to or more than 1 hectare but less than 2 hectares in size
3. Semi medium, 2.0 hectares and above but less than 4.0 hectares
4. Medium- 4.0 hectares and above but less than 10.0 hectares
5. Large- 10.0 hectares and above. It includes mostly institutional holdings

Total number of holdings, spread over 513654.9 hectares, are 267998. Thus average size is 1.92 hectares (down from 2.12 hectares in 2005-06).

Table 3.8: Land Holdings in Junagadh district															
Size Class	Year	Institutional		Scheduled Caste		Scheduled Tribe		Others		All Social Group		Avg. Land Holding per person (all Social Groups)	% size against Total Area	% Holding of SCs	% Holding of STs
		No	Area	No	Area	No	Area	No	Area	No	Area				
Marginal	2005-06	55	20.34	4068	2826.76	740	492.64	69774	44394.84	74637	47734.62	0.64	8.50	5.45	0.99
	2010-11	44	20.54	4153	2850.7	761	494.22	77892	49245.41	82850	52610.87	0.64	10.24	5.01	0.92
Small	2005-06	30	47.65	3422	4774.98	796	1122.68	94294	138063	98542	144008.3	1.46	25.65	3.47	0.81
	2010-11	67	94.36	3139	4398.34	742	1046.27	97829	142649.5	101777	148188.5	1.46	28.85	3.08	0.73
Semi Medium	2005-06	34	95.96	1551	4086.7	509	1416.1	59347	164443.9	61441	170042.7	2.77	30.29	2.52	0.83
	2010-11	49	141.21	1269	3327.48	444	1223.52	56693	156077.9	58455	160770.1	2.75	31.30	2.17	0.76
Medium	2005-06	23	144.69	436	2487.9	149	823.94	27631	157422.9	28239	160879.5	5.70	28.66	1.54	0.53
	2010-11	45	259.69	270	1471.44	101	576.69	23181	130119.5	23597	132427.4	5.61	25.78	1.14	0.43
Large	2005-06	42	2619.25	47	915.37	12	376.12	2189	34818.7	2290	38729.44	16.91	6.90	2.05	0.52
	2010-11	38	3147.11	9	107.08	3	37.49	1269	16366.35	1319	19658.03	14.90	3.83	0.68	0.23
All Classes	2005-06	184	2927.9	9524	15091.73	2206	4231.5	253235	539143.4	265149	561394.5	2.12	100	3.59	0.83
	2010-11	243	3662.91	8840	12155.04	2051	3378.19	256864	494458.7	267998	513654.9	1.92	100	3.30	0.77
Source: Directorate of Agriculture, Gandhinagar															

Notes:
Marginal - Below 1.0 hectare
Small- 1.0 hectare and above but less than 2.0 hectares
Semi-medium- 2.0 hectares and above but less than 4.0 hectares
Medium- 4.0 hectares and above but less than 10.0 hectares
Large- 10.0 hectares and above. It includes mostly institutional holdings

Figure-3.5: Taluka Wise Distribution of Land Holding



Source: Directorate of Agriculture, Gandhinagar

10.24 percent (8.5 % in 2005-06) of the area under cultivation is below 1 hectare, 28.85 percent (25.65 in 2005-06) is above 1 hectare but below 2 hectares, 31.30 percent (30.29 %) of the area between 2 hectares and 4 hectares, 25.78 percent (28.66 % in 2005-06) of the area between 4 hectares and 10 hectares, and 3.83 percent (6.90 % in 2005-06) is above 10 hectares.

Area above 4 hectares has come down from 35.56 % to 29.61 % whereas area below 2 hectares has increased from 34.15 % to 39.09 %. Thus there is a strong trend towards smaller farm size which results in diseconomies of scale.

However, distribution of farmers among these holdings is just the reverse. Though holdings less than 1 hectare are only 10.24 percent, 30.91 percent of farmers own/work on these land. Farmers holding less than 2 hectares of land are 68.89 percent though they have only 39.09 percent land.

Though average size is 1.92 hectares, if medium and large holdings are excluded (more than 4 hectares), then 35.15 percent land is distributed among 65.31 percent farmers and their average land holding is 1.49 hectares and 68.89 percent farmers have average holding of 1.08 hectares.

3.3.1.2.1 Distribution of Land according to size Among Different Social Classes of population

The land distribution, by size, among different classes of the society is shown in the table.

Table 3.9: Taluka wise Number and Area of Operational Holdings among different Social Classes in Junagadh District – 2011

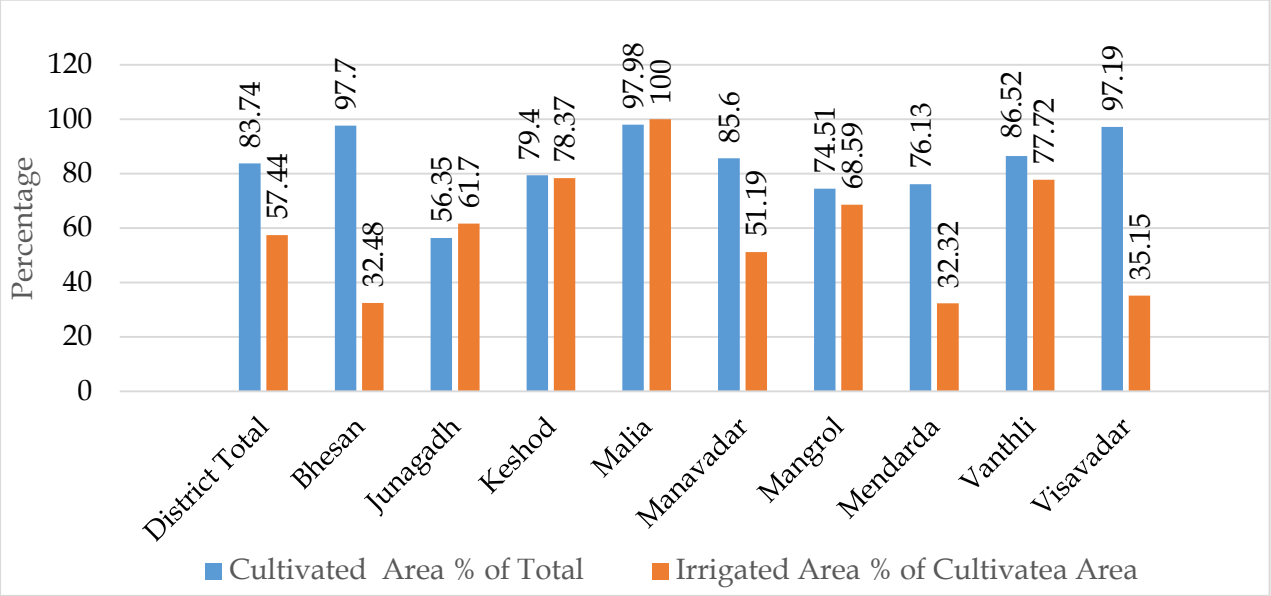
Sr. No	Taluka	Unit	Marginal (Below 1.0 Ha)					Small (1.0 to 2.00 Ha)					Other (More than 2.0 Ha)				
			Inst	SC	ST	Other	Total	Inst	SC	ST	Other	Total	Inst	SC	ST	Other	Total
1	Junagadh	No.	0	79	2	4183	4264	1	60	3	6745	6809	17	26	10	6167	6220
		Area	0	54	2	2747	2802	2	83	4	9934	10023	133	104	33	23154	23423
2	Mendarada	No.	8	74	3	2432	2517	9	84	5	4792	4890	8	68	12	3548	3636
		Area	3	57	3	1691	1754	12	122	7	7055	7196	128	224	39	12812	13204
3	Talala	No.	1	172	132	3923	4228	2	253	172	5564	5991	5	81	72	3927	4085
		Area	0	128	86	2491	2705	4	345	240	8091	8680	97	240	205	14678	15220
4	Patan-veraval	No.	2	337	129	6858	7326	15	223	128	5518	5884	19	98	108	3479	3704
		Area	1	204	78	4032	4313	20	318	181	7935	8455	356	289	420	11771	12837
5	Maliya-hatina	No.	9	232	37	6249	6527	0	112	33	6927	7072	0	50	22	5288	5360
		Area	5	177	28	3896	4106	0	151	47	10046	10244	0	166	70	19881	20117
6	Mangarol	No.	5	254	33	8273	8565	15	219	60	7626	7920	29	74	106	6383	6592
		Area	2	194	17	4900	5113	21	285	89	10964	11359	505	225	342	24480	25552
7	Kesaod	No.	0	558	48	5728	6334	0	282	40	8967	9289	4	86	20	7245	7355
		Area	0	420	37	3856	4314	0	382	56	13096	13534	30	258	68	27207	27563
8	Manavadar	No.	11	340	26	4688	5065	0	209	30	8708	8947	0	87	7	7793	7887
		Area	6	267	20	3239	3533	0	288	40	12793	13121	0	247	20	29948	30214
9	Vanthali	No.	0	171	47	3783	4001	3	110	23	5595	5731	8	24	14	5177	5223

		Area	0	130	35	2546	2711	4	148	29	8162	8344	42	63	57	19865	20027
10	Bhesan	No.	2	107	20	2613	2742	5	84	12	5743	5844	5	57	15	6252	6329
		Area	1	78	15	1708	1801	8	115	18	8566	8707	87	179	47	23903	24217
11	Visavadar	No.	1	87	25	4316	4429	2	144	30	9058	9234	5	109	32	9688	9834
		Area	0	66	16	2894	2976	2	216	45	13483	13746	95	318	122	37415	37949
12	Una	No.	0	456	215	11909	12580	10	453	173	13330	13966	24	221	112	9151	9508
		Area	0	305	139	7791	8236	14	645	241	19277	20178	2036	693	357	32277	35363
13	Sutrapada	No.	1	400	35	5452	5888	5	269	28	4155	4457	6	106	11	2686	2809
		Area	0	241	14	3154	3409	8	382	39	5932	6361	32	336	34	8981	9384
14	Kodinar	No.	4	886	9	7485	8384	0	637	5	5101	5743	2	461	7	4359	4829
		Area	2	530	6	4300	4838	0	919	8	7315	8242	7	1565	22	16192	17786
15	Total	No.	44	4153	761	77892	82850	67	3139	742	97829	101777	132	1548	548	81143	83371
		Area	21	2851	494	49245	52611	94	4398	1046	142650	148189	3548	4906	1838	302564	312856
Source: Directorate of Agriculture, Gandhinagar																	

3.3.1.2.2 Cultivable Area and Irrigated area:

Cultivable area in different talukas are different. Fraction of the cultivable area which is provided with irrigation facility is also different among talukas. These *are indicated in the table below as per 2011 census.

Figure-3.6: Taluka Wise Cultivable area and Irrigated area among Talukas, 2014-15



Source: District Statistical Outline-2014-15

Table 3.10: Net and Gross Cropped Area, 2014-15

Territory	Total Area	Net Sown Area	more than Once Cultivated	Gross Cropped Area	Cropping Intensity
	Ha	Ha	Ha	Ha	%
Junagadh Dist.	513893	471377	175200	553826	128.69
Bhesan	55502	54235	0	35866	66.13
Junagadh	66080	37241	20875	58116	156.05
Keshod	52913	42013	41016	83029	197.63
Malia	35363	34650	52085	86735	250.32
Manavadar	67735	57982	10721	68703	118.49
Mangrol	48715	36301	32824	69125	190.42
Mendarda	47658	36284	5698	41982	115.7
Vanthli	40741	35250	11981	47231	133.99
Visavadar	99186	96405	0	63039	65.39

Source: District Statistical Outline,2014-15, Junagadh

In 2014-15, net sown area was 471377 hectares and cropping intensity was 128.69 percent. Total gross cropped area was 553826 hectares. Cropping intensity was high of 250.32 percent in Malia and low of 65.39 % in Visavadar.

Though average cropping intensity was one of the highest in the state, it could be improved in talukas, with low intensity, mentioned above.

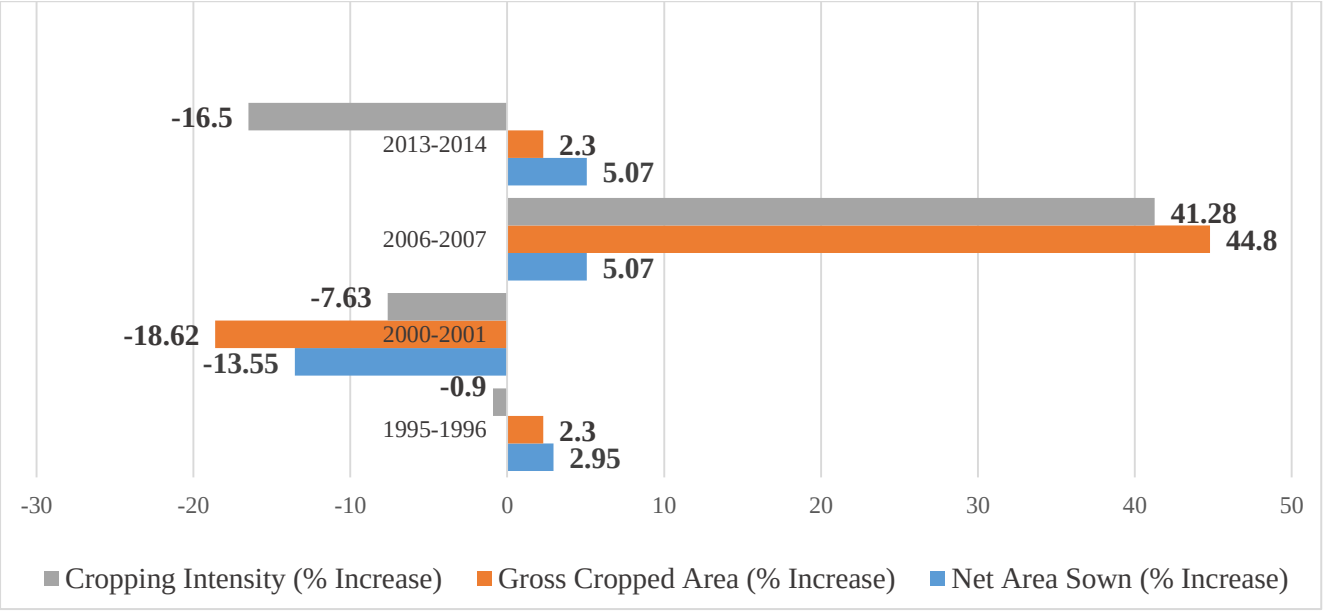
Table-3.11: Cropping Intensity Over Period in Junagadh District

Sr. No.	District / Taluka	2009-10		2014-15	
		Net Area Sown (Ha)	Cropping Intensity (%)	Net Area Sown (Ha)	Cropping Intensity (%)
1	Bhesan	55545	100	54235	66.13
2	Junagadh	36385	170.01	37241	156.05
3	Keshod	42103	137.88	83029	197.63
4	Malia	35980	152.75	34650	250.32
5	Manavadar	48000	122.58	57982	118.49
6	Mangrol	37031	155.65	36301	190.42
7	Mendarda	23012	201.9	36284	115.7
8	Vanthali	30894	161.99	35250	133.99
9	Visavadar	110919	100	96405	65.39
	District Total	636823	134.28	471377	128.69

Sources-Directorate of Agriculture, Gandhinagar, Junagadh

Area under cultivation has decreased over time. Junagadh district is one of the leaders in cropping intensity. But cropping intensity has decreased marginally from 134.28 percent in 2009-10 to 128.69 percent in 2014-15. Additionally, at least two taluka have cropping intensity of less than 100%. Thus, entire agricultural land is not used fully even once. This has direct bearing on the output and income.

Figure-3.7: Cropping Intensity over Time



Source: Season and Crop Report, Directorate of Agriculture, Gujarat.

As per the 2007-08 Season and Crop Report of the Directorate of Agriculture, Gujarat State, intensity of irrigated area in the State in 2007-08 was 132.62 percent, and in

Junagadh district it was 135.93 percent. Junagadh district has one of the highest cropping intensity among all the districts of the state. As the above data shows, despite bifurcation (and formation of a separate Porbandar district), the district has consistently improved cropping intensity, from 114.08 percent in 1990-91 to 134.28 percent in 2009-10, decreasing to 128.69 percent in 2014-15.

3.3.1.3 Water and Irrigation

3.3.1.3.1 Water as Input to Agriculture

Water requirement of the district for agriculture is basically fulfilled by the direct rainfall, groundwater, canal water, wells. Irrigation facility is provided through the water from dams, check dams, and water from the Narmada canal. Major source of irrigation is ground water obtained from well. 92.75 percent irrigation is from well/tube well water.

3.3.1.3.2 Rainfall

Current rainfall and previous water table are the primary drivers of water supply. As the ground water level depends on the rainfall in the district, following are taluka wise summarized data for the rain fall for the last 15 years.

Table 3.12: Rain Fall: Summary of Last 15 years in Junagadh District

Area	Rainfall, mm (2000 to 2014)			
	Average	Max	Min	Std Deviation
Junagadh Dist.	1058	1592	-	269
Bhesan	748	1158	247	247
Junagadh	1047	1530	354	354
Keshod	965	1543	323	323
Kodinar	1181	2035	371	371
Malia	1095	1829	395	395
Manavadar	953	1686	355	355
Mangrol	989	1901	452	452
Mendarda	964	1746	348	418
Veraval	1066	1855	512	512
Sutrapada	956	1584	374	374
Talala	1247	2020	480	480
Una	1047	1493	176	176
Vanthali	1016	1539	339	339
Visavadar	1112	1669	425	434
Source: District Disaster Branch, Junagadh				

The rainfall data shows wide variation over time. Though 15 year average is 1058 mm, standard deviation is 269 mm. In Veraval, on an average of 1066 mm, standard deviation is 512 mm.

Clearly, the rainfall is highly erratic which results in large variation in food grain production. It affects food security, income generation and poverty.

3.3.1.2.3 Irrigation

Table-3.13:Sources of Irrigation 2014-15 Junagadh District (In Hectares)

District / Taluka	Sources							
	Government Irrigation Canals	Private/ Panchayat Canals	Lakes	Other Check Dams	Wells	Other	Cultivated Area	Irrigated Area %
District Total	0	0	0	0	295204	0	513893	57.44
Manavadar	0	0	0	0	34673	0	67735	51.19
Vanthli	0	0	0	0	31666	0	40741	77.73
Junagadh	0	0	0	0	40776	0	66080	61.71
Bhesan	0	0	0	0	18028	0	55502	32.48
Visavadar	0	0	0	0	34865	0	99186	35.15
Mendarda	0	0	0	0	15407	0	47658	32.33
Keshod	0	0	0	0	41469	0	52913	78.37
Mangrol	0	0	0	0	33415	0	48715	68.59
Malia	0	0	0	0	44905	0	35363	126.98

Source: District Statistical Outline, 2014-15, Junagadh

Total area under irrigation (through wells) is 295204 hectares in 2014-15, 57.44 percent of the total cultivated area. Thus large part of the cultivated area is primarily dependent on rainfall.

Length of canal in the district for supply of irrigation water was 277 km for Unified Junagadh. There are 24 major and medium dams in the district for supply of water to the canals. Some of these dams are Ambajal, Hiran I & II, Janjeshwri, Machhumdri, Madhivanti, Megharadi, Ozat, Rawal, Shingroda and uben. Uben, Ozat, Madhuvanti and Raval are major irrigation projects. 36 other medium and minor irrigation dams and 17 minor irrigation schemes supplant the major dams. Few minor irrigation schemes are added every year. In normal times canal irrigation covers about 14000 hectares, less than 3 % of cultivated area.

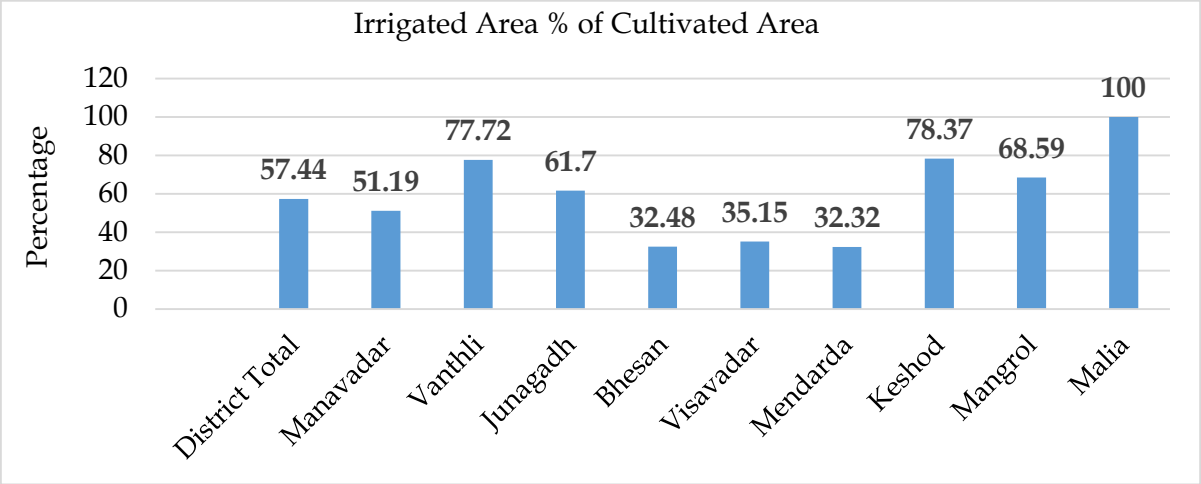
Narmada canal network is also important resource for the irrigation of the crop in the agriculture. It also support for drinking water.

As seen from the table above, total irrigation facility can be as low as 32.33 percent .In normal times, 92.75 percent of irrigation facility is through wells and tube wells, i.e.,

depends on water table and rainfall. Canals and other sources provide only 6.82 percent of irrigation facility.

Another major problem is salinity in coastal area of Junagadh district. Salinity in coastal groundwater may be a result of various factors, including inherent salinity, tidal effect, irrigation by saltwater and by seawater intrusion due to extensive pumping. The irrigated area varies from year to year. In recent times average irrigated area lies between 35 to 50 percent.

Figure-3.8: Irrigated Area, 2014-15 Junagadh District



(Source: District Agriculture Department, Junagadh)

3.3.2 Agriculture output

Major produce are groundnut, cotton, wheat and bajra (coarse grain). Other major crops grown in Junagadh are pulses, castor, sugarcane, sorghum and sesame. Junagadh district is a major producer of ground nut in the country.

Junagadh district also produces a large variety of fruits and vegetable. Major horticultural products are mango, pomegranate, coconut, banana, sapota and guava. Brinjal, cabbage, cauliflower, tomato, and spinach are major vegetables.

Junagadh district also produces spices like turmeric, coriander, cumin, fenugreek, etc. Production is spread over kharif season (June-October) and rabi season (December-March). In kharif season, major produce are groundnut, cotton, pulses, bajra (coarse grain), castor, sesame, etc. Major crops in rabi season are wheat, gram, sugarcane, garlic, onions, vegetables, etc.

Groundnut and some pulses are also grown in summer season (April-June).

Table 3.14: Cultivated Area of Food Crops in Junagadh District								
Sr. No.	Particulars	Junagadh					State	
		2008-09	2009-10	2010-11	2011-12	2012-13	2012-13	2012-13 % of
		Area	Area	Area	Area	Area	Area	
		'00 Ha	'00 Ha	'00 Ha	'00 Ha	'00 Ha	'00 Ha	%
A.1	Total Wheat	1881	1205	2100	1523	397	10235	3.88
A.2	Total Bajra	129	192	171	173	112	5994	1.87
A.3	Total Jowar	30	40	39	56	2	796	0.25
A.4	Total Cereals	2048	1480	2640	1864	517	29247	1.77
A.	Cereals-% of Total	25.32	19.98	27.74	21.10	9.63	28.57	
B.1	Total Gram	80	69	100	135	82	1361	6.02
B.2	Total Mung	21	16	60	58	40	1150	3.48
B.3	Total Udad	38	35	87	97	92	948	9.70
B.4	Total All Pulses	150	131	265	301	219	6255	3.50
B	Pulses-% of Total	1.85	1.77	2.78	3.41	4.08	6.11	
C	Total Foodgrains	2198	1611	2905	2165	735	35501	2.07
D.1	Groundnut-Total	4230	4092	4426	4125	3079	12853	23.96
D.2	Other Oilseeds	45	29	469	396	47	11642	---
D.3	Total Oilseeds	4275	4121	4895	4521	3126	24495	12.76
D	Oilseeds-% of Total	52.86	55.64	51.43	51.17	58.25	23.93	
E.1	Cotton-Total	425	506	499	686	645	24572	2.62
E	% of Total	5.26	6.83	5.24	7.77	12.02	24.00	
F.2	Sugarcane-Total	146	101	88	128	14	1766	0.79
G	Vegetables	247	252	408	427	232	5376	4.31
H	Fruits	310	320	391	403	415	3994	10.39
I	Spices	485	495	329	502	196	6494	3.01
J	Flowers	1.1	1.1	2.2	2.4	2.5	173	1.46
K	Horticulture Area	1043.1	1068.1	1130.2	1334.4	845.5	16037	
K.1	Horti.-% of Total	12.90	14.42	11.88	15.10	15.76	15.67	
L	**TOTAL AREA**	**8087.1**	**7407.1**	**9517.2**	**8834.4**	**5366.5**	**102372**	**5.24**
Source: Directorate of Agriculture, Gandhinagar								

Table 3.15: Production of Food Crops in Junagadh District								
Sr. No.	**Particulars**	**Junagadh**					**State**	
		2008-09	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2012-13**	**2012-13**
		Prod	**Prod**	**Prod**	**Prod**	**Prod**	**Prod**	**Prod**
		'00 ton	**'00 ton**	**'00 ton**	**'00 ton**	**'00 ton**	**'00 ton**	**%**
	Population	2662605	2702544	2743082	2784228	2825992	62720927	4.51
1	Total Wheat	5516	4127	9059	5855	1226	29440	4.16
2	Total Bajra	327	365	326	417	135	10449	1.29
3	Total Jowar	46	72	78	84	3	1073	0.28
4	Total Cereals	5900	4622	10044	6476	1371	64419	2.13
A.	**Cereals-Per Capita**	221.59	171.0241	366.16	232.60	48.51	102.71	---
1	Total Gram	125	95	179	279	140	1331	10.52
2	Total Mung	9	6	31	27	17	515	3.30
3	Total Udad	23	20	53	71	36	601	5.99
4	Total Other Pulses	10	10	18	10	6	0	---
B	**Total All Pulses**	167	131	281	387	199	5419	3.67
C	**Total Foodgrains**	6067	4753	10325	6863	1570	69838	2.25
D	**Oilseeds**							
1	Groundnut-Total	8092	3722	9567	7350	1586	7626	20.80
2	Other Oilseeds	52	29	237	239	171	21368	---
3	Total Oilseeds	8144	3753	9804	7589	1757	28994	6.06
E	**Cotton-Total**	1930	2587	1880	2889	1345	49509	2.72
F	**Sugarcane-Total**	977	690	679	923	104	12613	0.82

Source: Directorate of Agriculture, Gandhinagar

Table 3.16 : Yield of Food Crops in Junagadh District								
Sr. No.	Particulars	Junagadh					State	
		2008-09	2009-10	2010-11	2011-12	2012-13	2012-13	2012-13
		Yield	Yield	Yield	Yield	Yield	Yield	% of State
		'000 Ha	'000 Ha	'000 Ha	'000 Ha	'000 Ha	'000 Ha	%
A.	**Cereals**							
1	Total Wheat	2932	3425	4314	3844	3088	2876	107.38
2	Total Bajra	2535	1901	1906	2410	1205	1743	69.15
3	Total Jowar	1533	1800	2000	1500	1500	1348	111.28
4	Total Cereals	2881	3123	3805	3474	2655	2203	120.52
B	**Pulses**							
1	Total Gram	1563	1364	1797	2064	1692	978	173.01
2	Total Mung	433	375	517	466	423	448	94.42
3	Total Udad	603	571	609	732	393	634	61.99
4	Total Other Pulses	667	1000	1000	500	0	--	---
5	Total All Pulses	1113	1000	1060	1286	910	866	105.08
D	**Oilseeds**							
1	Groundnut-Total	1913	910	2162	1782	515	593	86.86
2	Other Oilseeds	--	--	--	--	--		
3	Total Oilseeds	1905	911	2003	1679	562	1184	47.47
D	**Cotton-Total**	772	869	640	716	354	343	103.21
E	**Sugarcane-Total**	6700	6832	7716	7210	7176	7141	100.49
Source: Directorate of Agriculture, Gandhinagar								

- More than 50 percent of the crop area is used for oilseeds. Area under groundnut is almost 25 percent of the state groundnut area.
- Area for horticulture is gradually increasing over time.
- Major change in the last five years is more than 50 percent increase in area used for cotton and more than doubling of area under pulses.
- Both these increases have been at the expense of area under cereal production.
- Productivity of cereals is 20 percent higher than the state average in 2012-13. Overall productivity of pulses is also higher, though for individual pulses, it may be lower than the state average.
- Production fluctuates widely over time, reducing risk bearing capacity.
- In 2014-15, 45.83 % cultivate area was used for groundnut and 19.22% for cotton.

Distribution of Cultivated Area to Different Crops, Junagadh District (Pre-2013)																	
		2008-09			2009-10			2010-11			2011-12			2012-13			
No.	Product	Area '00 Ha	% of Sub Group	% of Total	Area '00 Ha	% of Sub Group	% of Total	Area '00 Ha	% of Sub Group	% of Total	Area '00 Ha	% of Sub Group	% of Total	Area '00 Ha	% of Sub Group	% of Total	
1.1	**Rice**	0	0		0	0		0	0		2	0.11		0	0		
1.2	**Wheat**	1881	91.85		1205	81.42		2100	79.55		1523	81.71		397	76.79		
1.3	**Bajra**	129	6.30		192	12.97		171	6.48		173	9.28		112	21.66		
1.4	**Jowar**	30	1.46		40	2.70		39	1.48		56	3.00		2	0.39		
1.5	**Total Cereals**	2048	100.00	**27.74**	1480	100.00	**22.30**	2640	100.00	**30.52**	1864	100.00	**23.04**	517	100	**10.97**	
2.1	**Gram**	80	53.33		69	52.67		100	37.74		135	44.85		82	37.44		
2.2	**Mung**	21	14.00		16	12.21		60	22.64		58	19.27		40	18.26		
2.3	**Udad**	38	25.33		35	26.72		87	32.83		97	32.23		92	42.01		
2.4	**Total Pulses**	150	100	**2.03**	131	100	**1.77**	265	100	**3.06**	301	100	**3.72**	219	100	**4.65**	
3	**Total Food grains**	2198	100	**29.77**	1611	100	**24.28**	2905	100	**33.58**	2165	100	**26.76**	735	100	**15.60**	
4.1	**Groundnut**	4230	98.95	**57.29**	4092	99.30	**61.66**	4426	90.42	**66.70**	4125	91.24	**62.16**	3079	98.46	**46.40**	
4.2	**Sesamum**	22	0.51		15	0.36		381	7.78		269	5.95		21	0.67		
4.3	**Total Oil Seeds**	4275	100	**57.90**	4121	100	**62.10**	4895	100	**56.58**	4521	100	**55.88**	3127	100	**66.36**	
5	**Other Products**																
5.1	**Cotton**	425	46.65	**5.76**	506	55.97	**7.63**	499	58.64	**5.77**	686	48.86	**8.48**	645	75.97	**13.69**	
5.2	**Cumin**	144	15.81		109	12.06		77	9.05		236	16.81		124	14.61		
5.3	**Garlic**	122	13.39		37	4.09		86	10.11		128	9.12		18	2.12		
5.4	**Sugarcane**	146	16.03		101	11.17		88	10.34		128	9.12		14	1.65		
5.5	**Total-Other**	911	100	**12.34**	904	100	**13.62**	851	100	**9.84**	1404	100	**17.35**	849	100	**18.02**	
		7384	**-**	**100**	**6636**	**-**	**-**	**8651**	**-**	**100**	**8090**	**-**	**-**	**4712**	**-**	**100**	
Source: Department of Agriculture, Government of Gujarat																	

- Excepting horticulture and spices, total actual cultivated area has been gradually increasing in the last 5 years to around 8000 hectares, though it dropped to just above 470000 hectares in 2012-13.
- Groundnut alone accounts for above 60 percent area (excepting 2012-13).
- Area under pulses has gradually increased from 2.03 percent in 2009-10 to 4.65 percent in 2012-13.
- Area under cereals has declined over the period, from 27.74 percent in 2009-10 to 23.04 percent in 2011-12.
- Area under cotton cultivation has increased by 50 percent in this period of three years. Similarly, area under cumin has also increased by more than 50 percent in the same period 2008-09 to 2010-12.

3.3 (a) Horticulture Output

By adopting scientific cultivation of horticulture crops, even small and fragmented land holdings can be transformed as economically viable and ecologically stable units. Horticulture and plantation also enrich waste lands and dry lands.

Junagadh district is a major producer of several fruits and vegetables. Junagadh accounts for about 12 percent of the state's horticulture output. Average, Production and Productivity of major fruits and vegetables for the three-year period 2011 to 2014 are shown in Tables 4.18 and 4.19 respectively. Little more than 40000 hectares are used for horticulture, of which more than 50 percent is for mangoes. Excluding coconut, output is more than 100 kg per capita per annum.

Table 3.17: Area, Production & Yield of Vegetables in Junagadh District

Sr No	Crops	2011-12			2012-13			2013-14			2014-15		
		Area Ha.	Prod Tonnes	Yield Ton/ Ha	Area Ha.	Prod Tonnes	Yield Ton/ Ha	Area Ha.	Prod Tonnes	Yield Ton/ Ha	Area Ha.	Prod Tonnes	Yield Ton/ Ha
1	Brinjal	10410	123879	11.9	4140	85178	20.57	4535	86165	19	3920	77616	19.80
2	Cabbage	2610	47372	18.15	2650	42058	15.87	2550	42075	16.5	2000	36400	18.20
3	Cauliflower	390	6724	17.24	150	2586	17.24	250	4310	17.24	305	5292	17.35
4	Cluster bean	3870	59753	15.44	1340	20690	15.44	1580	19750	12.5	1640	20746	12.65
5	Cowpea	2960	44981	15.2	1780	27050	15.2	1850	20720	11.2	1900	21185	11.15
6	Cucurbits	3377	23082	6.84	4125	21780	5.28	3900	57096	14.64	3925	57737	14.71
7	Okra	3860	67550	17.5	1690	29575	17.5	1800	31500	17.5	1700	29920	17.60
8	Onion	9800	294000	30	3150	94500	30	5680	163584	28.8	5000	146750	29.35
9	Tomato	3100	66278	21.38	1750	37415	21.38	2000	50760	25.38	2130	54528	25.60
10	Others	2322	37807	16.28	2410	65560	27.2	1900	23750	12.5	2000	25700	12.85
	TOTAL	**42699**	**771426**	**18.07**	**23185**	**426392**	**18.39**	**26045**	**499710**	**19.19**	**24520**	**475874**	**19.41**

Source: Director of Horticulture, Agriculture & Co Operation Dept., Government of Gujarat.

- Area under cultivation has reduced from 2011-12 and so has production.
- Yield has increased gradually over time.
- Production has fluctuated around 450000 tonnes in last three years which is about 450 gm/day/capita.

- Junagadh is a major producer of onions, accounting for around 20 percent of the State production. For several other vegetables, production is about equal to population share.
- However, overall, per capita production is less than the State average.

Table 3.18: Area, Production & Yield of Fruits in Junagadh District

Sr No	Fruit	2011-12			2012-13			2013-14			2014-15		
		Area Ha.	Prod. Tonnes	Yield Ton/ Ha.	Area Ha.	Prod. Tonnes	Yield *Ton/ Ha.	Area Ha.	Prod. Tonnes	Yield Ton/ Ha.	Area Ha.	Prod. Tonnes	Yield Ton/ Ha.
1	Aonla	115	699	6.08	118	699	5.92	115	699	6.08	115	707	0.74
2	Banana	1925	88550	46	1925	76550	39.77	1008	45360	45	1175	56988	1.32
3	Ber	285	1150	4.04	295	2540	8.61	285	2280	8	350	2450	2.03
4	Chiku	4890	45376	9.28	4910	46565	9.48	4916	46702	9.5	4925	49989	15.56
5	Citrus	572	3518	6.15	590	3629	6.15	614	4912	8	660	5425	1.17
6	Coconut (1000 nuts)	10810	118910	11	11250	131750	11.71	11570	114543	9.9	12060	119997	56.68
7	Custard apple	355	2166	6.1	368	2245	6.1	380	3135	8.25	385	3249	5.90
8	Guava	232	1230	5.3	235	1346	5.73	236	1251	5.3	236	1204	0.82
9	Mango	20529	156020	7.6	21030	84120	4	21320	176956	8.3	21810	182114	14.93
10	Papaya	383	19550	51.04	383	20550	53.66	452	22600	50	508	26924	2.30
11	Pomegranate	72	226	3.14	92	945	10.27	158	1422	9	180	1674	0.98
12	Others	133	2366	17.79	295	10410	35.29	429	2917	6.8	503	1682	6.29
	TOTAL	**40307**	**439763**	**10.91**	**41497**	**381351**	**9.19**	**41492**	**422784**	**10.19**	**30793**	**333790**	**4.01**

Source: Director of Horticulture, Agriculture & Co Operation Dept., Government of Gujarat

Table 3.19: Area, Production & State Share for Vegetables and Fruits in Junagadh District,2014-15							
Junagadh, Fruits ,2014-15				Junagadh, Vegetables, 2014-15			
Fruit	Area	Production	% of State Output	Vegetable	Vegetables	Production	% of State Output
Fruits-Dist.	30793	333790	4.01	**Dist. Total**	24520	475874	3.95
Fruits-State	392846	8328302		**State**	604966	12049249	
% of State	7.838441	4.0079		**% of State**	4.05	3.95	
Aonla	115	707	0.74	**Brinjal**	3920	77616	5.28
Banana	1175	56988	1.32	**Cabbage**	2000	36400	5.56
Ber	350	2450	2.03	**Cauliflower**	305	5292	0.98
Cashew Nut	6	8	0.03	**Cowpea**	1900	21185	6.58
Chiku	4925	49989	15.56	**Cucurbits**	3925	57737	4.53
Citrus	660	5425	1.17	**Clusterbean**	1640	20746	4.92
Coconuts	12060	119997	56.68	**Onion**	5000	146750	13.03
Custard Apple	385	3249	5.90	**Okra**	1700	29920	3.49
Date Palm	6	0	0.00	**Potato**	0	0	0.00
Guava	236	1204	0.82	**Tomato**	2130	54528	4.15
Mango	21810	182114	14.93				
Pappaya	508	26924	2.30				
pomegranate	180	1674	0.98				
Others	437	3059	6.29	**Others**	2000	25700	2.65
Total	30793	333790	4.01	**Total**	24520	475874	3.95
Source: Director of Horticulture, Agriculture & Co Operation Dept., Government of Gujarat							

Junagadh is a major producer of coconuts. More than 50 percent of state coconut production is from the district. It offers an opportunity to produce value added products, e.g., coconut oil.

Junagadh produces about 15 percent of mangoes in the State, including world famous Kesar. It also produces large quantity of custard apple and chiku.

Table 3.20 Area, Production & Yield of Spices in Junagadh District										
Sr. No	Name of Crop	2011-12			2012-13			2013-14		
		Area	Prod	Yield	Area	Prod	Yield	Area	Prod	Yield
		Ha.	Tonnes	Ton/Ha.	Ha.	Tonnes	Ton/Ha.	Ha.	Tonnes	Ton/Ha.
1	Cumin	23600	15576	0.66	11750	8825	0.75	20300	14210	0.70
2	Fennel	0	0	--	19	26	1.37	0	0	--
3	Chilli	2580	7688	2.98	850	5033	5.92	800	1280	1.60
4	Garlic	12900	70505	5.47	2050	11357	5.54	10000	65400	6.54
5	Coriander	10925	15332	1.40	4780	6990	1.46	26750	35310	1.32
6	Fenugreek	100	210	2.10	75	164	2.19	10	10	1.00
7	Isabgul	100	90	0.90	40	38	0.95	0	0	--
Total		**50205**	**50205**	**109401**	**2.18**	**19564**	**32433**	**1.66**	**57860**	**2.01**
Source: Director of Horticulture, Agriculture & Co Operation Dept., Government of Gujarat										

Table 3.21: Area , Production & State Share for Spices and Flowers in Junagadh District,2014-15							
Junagadh,Spices,2014-15				Junagadh,Flower,2014-15			
	Area, Ha	Production (Tonnes)	% of State		Area, Ha	Production (Tonnes)	% of State
Dist. Total	65825	94458	12.31	**District**	275	2438	1.37
Total State	450222	767630		**State**	18788	177632	
% share	14.62	12.31		**% Share**	1.46	1.37	
Cumin	11800	10148	4.04	**Rose**	94	775	2.11
Fennel	0	0	0.00	**Marigold**	194	888	1.13
Chilli	700	1099	4.08	**Mogra**	0	0	0.00
Garlic	1400	9478	15.87	**Lilly**	12	275	0.77
Coriander	51900	73698	51.40	**Others**	83	500	2.64
Ginger	0	0	0.00				
Turmeric	0	0	0.00				
Fenugreek	25	35	0.26				
Isabgul	0	0	0.00				

Ajwan	0	0	0.00				
Suwa	0	0	0.00				
TOTAL	**65825**	**94458**	**12.31**	**Total**	**383**	**2438**	**1.37**

Source: Director of Horticulture, Agriculture & Co Operation Dept., Government of Gujarat

- Junagadh has 12.31 percent of state share in spices production.
- Junagadh accounts for more than 50 percent of coriander production. It is also a major producer of garlic, contribution 15.87 percent to the State production in 2014-15.
- Production of coriander has increased fivefold in the period 2011-12 to 2014-15, a span of only 3 years. The area under cultivation has also increased fivefold.
- Junagadh is a fringe player for the production of flowers with only 1.37 percent of the State production.

3.3.4 Analysis of Agriculture Sector Performance

Agriculture sector being the main stay of district economy, it is imperative that it is efficient and continuously improves its productivity.

Table-3.22: Per Capita Food Production, Junagadh District, 00 tonnes

Particulars	2010-11	2010-11	2010-11	2011-12	2011-12	2011-12	2012-13	2012-13	2012-13
	Junagadh	State	%	Junagadh	State	%	Junagadh	State	%
Population-Estd.	2743082	60383628	4.54	2784228	61541182	4.52	2825992	62720927	4.51
Total Cereals	10044	93488	10.74	6476	84766	7.64	1371	64419	2.13
Total Pulses	281	7218	3.89	387	7800	4.96	199	5419	3.67
Total Food Grains	10325	100706	10.25	6863	92566	7.41	1570	69838	2.25
Total Output Of Foodgrains									
Total Wheat	9059	50134	18.07	5855	40721	14.38	1226	29440	4.16
Total Bajra	326	15009	2.17	417	16120	2.59	135	10449	1.29
Total Jowar	78	1390	5.61	84	1398	6.01	3	1073	0.28
Total Cereals	10044	93488	10.74	6476	84766	7.64	1371	64419	2.13
Cereals Per Capita, kg/year	**366.16**	**154.82**	**---**	**232.60**	**137.74**	**---**	**48.51**	**102.71**	**---**
Total Pulses	--			--			--	--	
Total Gram	179	1998	8.96	279	2733	10.21	140	1331	10.52
Total Mung	31	1282	2.42	27	1207	2.24	17	515	3.30
Total Udad	53	733	7.23	71	720	9.86	36	601	5.99
Total All Pulses	281	7218	3.89	387	7800	4.96	199	5419	3.67
Pulses Per Capita, kg/year	**10.24**	**11.95**	**---**	**13.90**	**12.67**	**---**	**7.04**	**8.64**	**---**
Total Foodgrains	10325	100706	10.25	6863	92566	7.41	1570	69838	2.25
Foodgrians Per Capita, kg/Year	**376.40**	**166.78**	**---**	**246.50**	**150.41**	**---**	**55.56**	**111.35**	**---**

Source: Directorate of Agriculture, Gandhinagar

Observations:

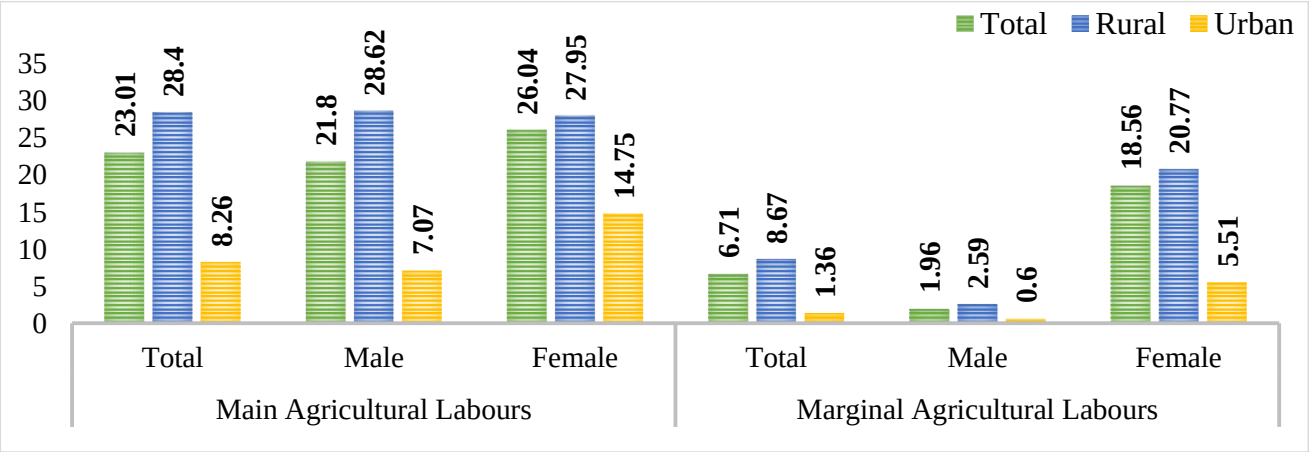
- Total food-grains per capita, especially cereals, is, on an average, higher than the state average. However, it has fluctuated widely over time.
- Production of pulses per capita is generally lower by 10 to 15 percent vis-à-vis state average.
- Year 2012-13 has been particularly hard as the output has drastically decreased.
- Since agriculture is the main stay of the economy, performance better than the state average is expected.

3.3.4.2 Employment and Productivity of Agriculture

Agriculture being the main stay of the district, it is a basic driver of wellbeing as most of the population derive their income from this sector. As abstracted earlier, 62.41 percent of work force is directly involved in cultivation as cultivators or agricultural labourers. In addition, another about and related activity.

Hence, productivity of the sector involves various activities to accommodate agricultural labour into it. Various agriculture work includes Land levelling and on farm development works (OFD), Soil reclamation and land improvement, integrated farm development, soil and water conservation, watershed development, water management, fodder development, etc. Organic farming is also encouraged to the farmers in the district which ultimately help to improve the quality of the soil. This section includes the productivity per capita, contribution of the main and marginal worker and gender wise breakup employment generation.

Figure 3.9: WPR of Main & Marginal Agricultural Labours in the district by residence



Source: Registrar General of India, Census 2011

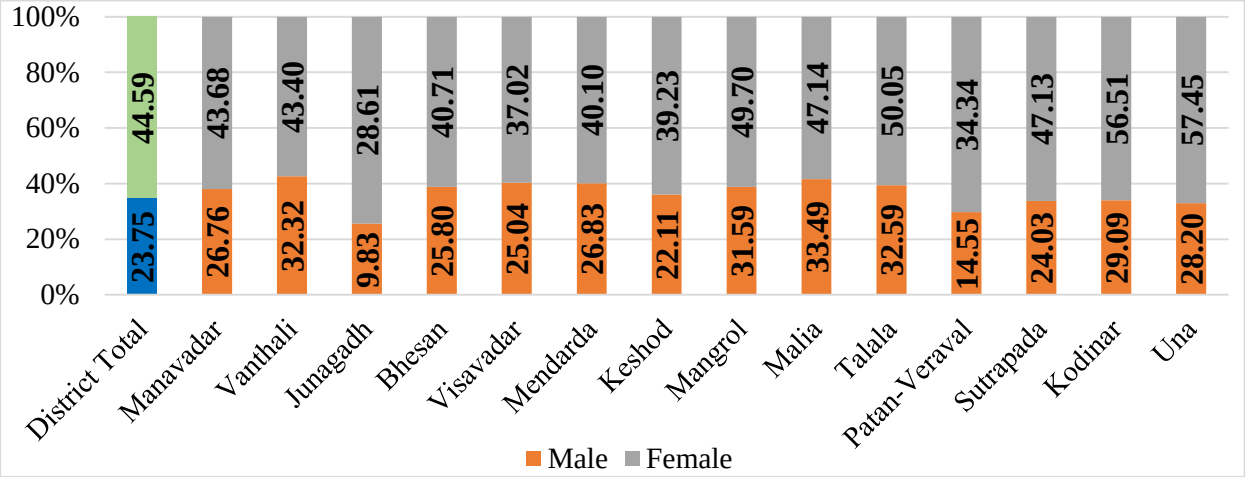
23 percent of the agricultural workforce is main labour. More than 80 percent of main workers are in rural areas with majority being female.

Table-3.23 Taluka wise Agricultural Labourers to total workers (in %age)				
Sr. No.	District/Talukas	% of Agriculture Labourers to total workers		
		Total	Rural	Urban
Junagadh District,2011 (Pre-bifurcation)		29.7	37.1	9.6
Junagadh District,2011 (Post-bifurcation)		**27.91**	**34.74**	**11.64**
1	Bhesan	30.6	30.6	**-**
2	Junagadh	13.7	32.7	**3.5**
3	Keshod	27.3	36.6	**5.9**
4	Malia	38.4	35.0	**59.3**
5	Manavadar	31.6	35.0	**23.2**
6	Mangrol	36.2	41.6	**20.7**
7	Mendarda	31.1	31.1	**-**
8	Vanthali	36.1	37.6	**23.3**
9	Visavadar	29.0	29.9	**21.5**
Gir Somnath				
10	Kodinar	36.6	41.1	**11.3**
11	Patan-Veraval	19.1	37.6	**2.4**
12	Sutrapada	31.3	34.2	**17.8**
13	Talala	38.4	41.9	**11.6**
14	Una	37.2	41.5	**6.1**
Source: Census 2011, Registrar General of India, New Delhi				

Almost 72.5 percent of all workers are either in agriculture or allied activities. Malia (38.4) and Mangrol (36.2) have more than or about 80 percent workforce related to agriculture activity. On the other hand, Junagadh (13.7) have less than 50 percent workforce in agriculture.

As the following figure shows, dominant agricultural workforce is female. They constitute more than 60 percent of agricultural workforce in all talukas. This work force is uneducated, marginal and with low productivity.

Figure 3.10: Taluka Wise Male-Female Agricultural workers (main + marginal workers) in the district



Source: Registrar General of India, Census 2011, New Delhi

3.4 Agriculture Allied Industries

Agriculture production is only one, though major, output from nature. Junagadh district also has large reserves of minerals like limestone, dense forests like Gir, mountainous range like Girnar (maximum height is 1031 metres), large coastline touching several talukas and rivers and dams which breed fish and aqua products.

Major extension of the agricultural activity, and whose output are part of output of agriculture and allied industries include dairy industry and livestock industry. In fact, as per CSO estimates, contribute more than 28 percent of agricultural GDP.

In addition, agricultural and allied output also include natural resource based industries like, forest based products, marine products. Industries based on agricultural output, which add value, e.g., edible oil manufacture, or even storage for future use (services) are obvious extension of economic activity to complement the agriculture. These are discussed under Industry.

3.4.1 Livestock Based Industry

Livestock sector is a major economic activity and creator of both employment and income. Major products of livestock industry are:

- Milk and Milk made products
- Eggs and Meat
- Wool

Livestock industry plays an important role in the economy. It contributes to the GDP, provides food rich in animal protein, and provides supplementary or even principal income to several families. Contribution of livestock industry to state GSDP in Gujarat is estimated 5.19 percent (pp.99, 31st Survey Report on Estimates of Major Livestock Products for the Year 2013-14, Gujarat State, Directorate of Animal Husbandry, Krishi

Bhavan, Government of Gujarat). It is estimated that 68 percent of income from the livestock sector is from milk and processed milk. In a largely un-mechanized agriculture sector, bullocks provide draught power on farms. Livestock sector can also provide hides and skins for leather industry. Tables below details the stock of livestock over the time.

Sr No	Taluka	Cow		Buffalo		Sheep		Goat		Total Livestock	Total Poultry
		2007	2012	2007	2012	2007	2012	2007	2012	2012	2012
1	Bhesan	16801	19679	15669	16592	5427	6182	4773	6424	48959	710
2	Junagadh	26140	23534	30537	27576	1711	1071	9916	8553	60885	6995
3	Keshod	48578	28391	51280	31034	5678	2679	13598	6267	68628	909
4	Malia	36144	39138	27229	30538	1357	897	7507	9451	80136	1199
5	Manavadar	16097	16710	22538	23707	1394	959	4287	3922	45458	5841
6	Mangrol	33572	30147	34607	42442	6002	5157	14666	16052	94098	47363
7	Mendarda	14286	15497	13648	15838	205	151	3338	3892	35438	20657
8	Vanthali	9716	12638	20930	26631	267	437	2985	5374	45206	9073
9	Visavadar	35013	39558	29013	33045	4736	4147	8463	10390	87363	1248
TOTAL-9 Taluka		**236347**	**225292**	**245451**	**247403**	**26777**	**21680**	**69533**	**70325**	**566171**	**93995**
CAGR/5-Yr Growth		**-0.95%**	**(-)4.68%**	**0.16%**	**0.80%**	**(-)2.18%**	**(-)19%**	**0.23%**	**1.14%**		
10	Kodinar	53214	72737	23690	46374	3765	3652	10808	15023	137824	15507
11	Sutrapada	43140	46906	19800	32333	3877	4220	7757	8712	92202	2351
12	Talala	35939	21980	26786	25430	503	590	3298	4165	52367	2869
13	Una	88839	100543	60101	75681	10963	9515	12415	17166	203129	25612
14	Veraval	47859	47314	27299	33069	3903	1008	9837	11449	92913	36340
TOTAL-14 Taluka		**505338**	**514772**	**403127**	**460290**	**49788**	**40665**	**113648**	**126840**	**1144606**	**176674**
Total CAGR			**1.13**		**1.7**		**-1.8**		**1.63**		
Total Growth 5 Years		**0.35%**	**1.87%**	**1.70%**	**14.18%**	**-1.80%**	**-18.30%**	**1.63%**	**11.61%**		

Source: Livestock Census, 2007 and 2012

Total livestock has gone up from 2007 to 2012. However, growth rate of cows is only 1.13 % per annum and number of sheep has actually decreased by (-) 1.8 CAGR. Resultant effect on wool production is to be expected. Number of Buffaloes has been increasing at CAGR of 0.80 %.

3.4.2 Dairy Industry

Gujarat is a major producer of milk. Milk production in Junagadh district increased from 322580 tonnes in 2003-04 to 555930 tonnes in 2013-14, growing at a CAGR of 5.18 percent over a 10 year period. Per capita milk production has increased from 348 gm per day in 2003-04 to 532 gm per day in 2013-14

Junagadh district is ahead of Gujarat (average) in milk production. Junagadh, ranked 5th in milk production in Gujarat in 2014-15, produced 4.81 % of the State milk production. Estimated daily milk production per capita is one of the highest in Gujarat.

Table-3.25 : Trend in Milk, Eggs, Meat and Wool Production-Junagadh

Year	District's Total Population	Meat (1000 kg)	Wool (1000 kg)	Egg (Lakh No)	Milk (1000 tonnes)	Per Capita (kg/day)
2003-04	2540000	812	26	20	322.58	0.348
2004-05	2570480	668	63	72	322.58	0.344
2005-06	2601330	780	68.2	58.85	335.77	0.354
2006-07	2632540	745	74.48	56.96	342.36	0.356
2007-08	2664130	724	76.99	57.07	365.4	0.376
2008-09	2696100	691	59.2	48.59	382.49	0.389
2009-10	2728450	789	60.55	47.39	399.68	0.401
2010-11	2761200	835	48.7	67.34	421.6	0.418
2011-12	2794330	748	50.22	84.38	457.32	0.448
2012-13	2827860	678	51.54	84.49	482.73	0.468
2013-14	2861800	522	46.81	84.82	555.93	0.532
2014-15*	2896500	396	49.34	82.37	562.74	0.532
CAGR 2003-04 to 2014-15		**Negative**	**Negative**	**1.23%**	**5.18%**	**(Guj:0.432)**
% of State Output in 2014-15		**1.16**	**1.91**	**0.50**	**4.81**	

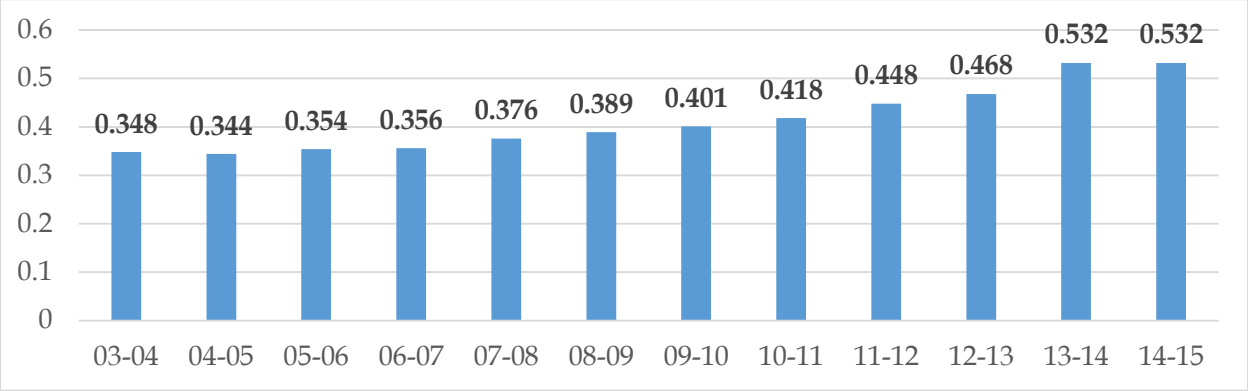
Source: 31st Survey Report on Estimates of Major Livestock Products for the Year 2013-14, and 32nd Survey Report on Estimates of Major Livestock Products for the Year 2014-15, Gujarat State, Directorate of Animal Husbandry, Krishi Bhavan, Government of Gujarat

* Provisional data

Per capita milk availability in Gujarat in 2014-15 is estimated 432 gm. Junagadh district production at 532 gm per capita availability is better by almost 22 percent.

Per capita milk production in Junagadh has increased from 348 gms/capita/day in 2003-04 to 532 gms/capita/day in 2014-15.

Figure-3.12: Per Capita Per Day Milk Production-kg-Junagadh District



(Source: 32nd Survey Report on Estimates of Major Livestock Products for the Year 2014-15, Directorate of Animal Husbandry, Krishi Bhavan, Government of Gujarat)

However, Junagadh district has one cooperative dairy but does not produce value added milk (20 different products are made by other dairies in the state, products like butter and ghee). Junagadh has not exploited the potential fully. Large quantity of milk is exported to other areas in Gujarat and beyond. The same could be used to manufacture value added products.

Gujarat has 165 lakh litres per day milk processing capacity in 2014-15 spread over 19 co-operative plants. Junagadh accounts for only 1 lakh litres per day. It procured average 1.586 lakh litres per day milk out of a total of 136.33 lakh litres state-wide. It has no cattle feed production plant. It has 397 milk cooperative societies but none is ISO certified and only 123 have Automatic Milk Collection System (AMCS) and only 7 have bulk milk cooler. Dairy has no chilling centres which are operational (2014-15).

3.4.2.1 Other Livestock Products:

The district is far behind in other livestock products. Its contribution to Gujarat is only 1.16 %, 1.91 % and 0.5% for meat, wool and eggs respectively.

Wool and meat production has in fact decreased in the period 2003-04 to 2014-15.

Junagadh with 82.37 lakh egg production in 2014-15, produced 0.55 percent of the state's total production and is ranked 17th among 26 districts. (Valsad district is highest with 14.4 percent)

Junagadh is not a major producer of eggs and meat as largely population is vegetarian. Thus local demand is low and so is the production. Production of eggs and meat is shown in the table above.

As per 2012 census, Junagadh district has 40665 sheep, an average of 4.6 sheep per km of area. With wool production of 49340 kg in 2014-15, Junagadh ranked 10th among districts in Gujarat. Per sheep yield of wool was 1213 gm in 2014-15.

3.4.2.2 Poultry:

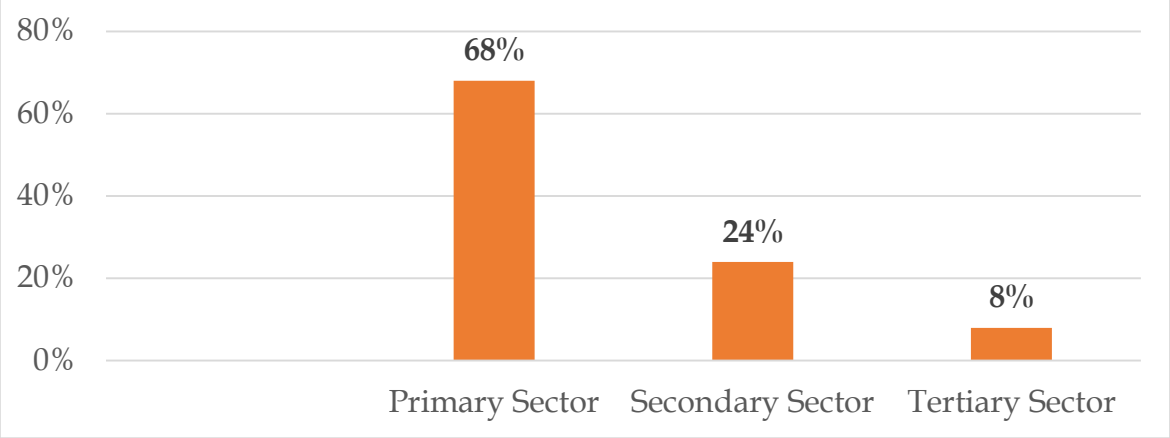
Junagadh could be a strong base for poultry farms, but as of today, it is only a marginal producer. Its poultry population is less than 1.2 percent of the total state population (176674 vs 15005751).

3.5 Industrial Sector

3.5.1 Overview

Junagadh district is largely an agricultural economy. Contribution of industrial sector to income generation is relatively low. 68 percent of the population is engaged in primary sector, 24 percent in secondary sector and 8 percent in tertiary sector.

Figure-3.13: Sector Wise Employment, Junagadh District, 2011



(Source: NSDC (2012), "District Wise Skill Gap Study for the State of Gujarat", New Delhi. Pp.120-127 (Courtesy: District Industry Centre, Data till 2012-13)

Junagadh district is abundant in some minerals, like limestone, which has resulted in mineral based industries (e.g., cement manufacturing), has large coast line, giving rise to fishing industry, agricultural processing industry and large cottage industry. It has pockets of large industrial activity, however due to several reasons it has not developed as a strong industrialized district. Most of the industrial activity is by small and micro enterprises.

There were 7157 MSME units at the end of 31.3.2006 with total investment of Rs. 76147.63 Lacs and employment of 7157, The progress thereafter is shown in the table below, Some of the units have closed down,

As on 31.3.2015, there were 8755 registered units, with employment of 50261 people and investment of Rs. 13.47 billion.

One can understand from the table that:

1. MSME sector has, on an average, generated 2500 to 3500 jobs every year. In absence of any large industries being set up, this number is inadequate to absorb the annual addition to the labour force.
2. Most of the units are micro enterprises, with some small enterprises, Only 6 medium size units have been set up since 2006.
3. There are some large units but many of them are transferred to Gir Somnath district.

Table-3.26 : MSME in JUNAGADH AND GIR-SOMNATH DISTRICTS													
Period	Micro Enterprises			Small Enterprises			Medium Enterprises			TOTAL			
	Units	Invest-ment Rs Lacs	Employ-ment	Units	Invest-ment Rs Lacs	Employ ment	Units	Invest-ment Rs Lacs	Employ ment	Units	Invest-ment Rs Lacs	Employ ment	Emp/Rs 10 Lacs
2.10.2006 TO 31.3.2017	31	472	343	16	1876	354	1	1183	746	48	3531	1443	4.09
1.4.2007 to 31.3.2008	68	1173.8	636	32	5176	2615	0	0	0	100	6349.8	3251	5.12
1.4.2008 to 31.3.2009	102	1810.29	1072	38	5190.1	2604	1	1001	70	141	8001.39	3746	4.68
1.4.2009 to 31.3.2010	81	1622.18	782	19	3720.5	1199	0	0	0	100	5342.68	1981	3.71
1.4.2010 to 31.3.2011	193	3296.2	1503	32	6392.57	1179	1	902	241	226	10590.77	2923	2.76
1.4.2011 to 31.3.2012	225	4031.56	1984	36	7134.59	1273	1	1171	166	262	12337.15	3423	2.77
1.4.2012 to-31.3.2013	193	4030.26	1513	24	3923.21	617	0	0	0	217	7953.47	2130	2.68
1.4.2013 to 31.3.2014	199	4353.73	1760	57	8277.87	1402	2	3019	383	258	15650.6	3545	2.27
1.4.2014 TO 30.11.2014	115	1897.85	1033	28	4725.3	554	1	677.72	11	144	7300.87	1598	2.19
1.12.2014 to 31.3.2015	58	800.78	563	20	3243.28	492	0	0	0	78	4044.06	1055	2.61
2015-16(Upto Dec) Gir-Somnath	7	166.7	55	7	1066.56	106	0	0	0	14	1233.26	161	1.31
Junagadh	64	998.62	482	20	2842.62	206	0	0	0	84	3841.24	688	1.79
TOTAL	1407	25819	12263	356	57478	12913	6	7276	1606	1626	83950	25195	
Source: Industries Commissioner, Government of Gujarat													

Number of MSME units registered with DIC, Junagadh are 8755 as on 31.3.2015 with a total investment of Rs. 1470.4 million, and employing 50261 people.

Thus average investment per unit (at historical cost) is Rs. 2.54 lakhs and average employment is only 6. In the period 2006-2015, 1598 units were registered with average investment of Rs. 2.36 lakhs employing 16 people per unit.

Thus additional employment generated in last 10 years is only 24836, averaging 2485 per year. With average population growth of 25000 per year, and with 40 % work participation rate, additional jobs required are 10000 per year. Since agriculture cannot absorb more people, all these addition to job market must work in service and manufacturing. It is clear that 75 % of new entrant to job markets are either working in unorganized sector or in government or are unemployed or are migrating out.

3.5.2 Taluka Wise Industrial Development

In the year 2014-15, taluka wise new units are shown below.

Table-3.27: New MSME Units in Junagadh District, 2014-15

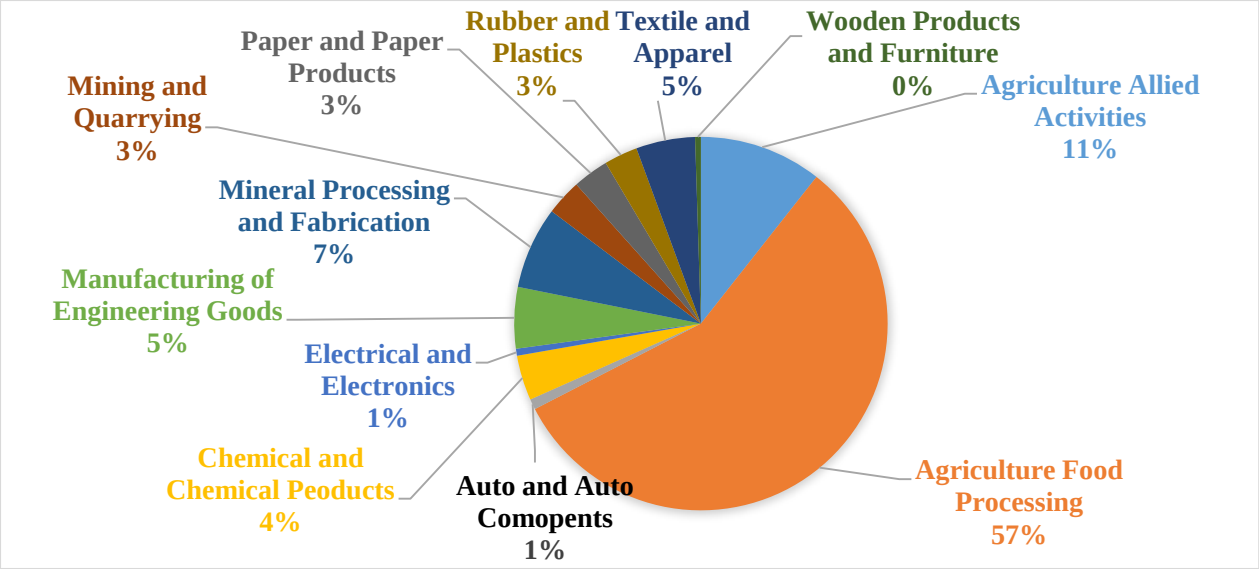
Taluka/Region	No. of Units (Number)	Investment (Rs Lacs)	Employment (Number)	Investment/Unit (Rs. Lacs)	Employment/ Unit (Number)
Bhesan	4	628.68	24	157.17	6
Junagadh	83	4327.65	844	52.14	10
Keshod	13	350.75	73	26.98	6
Malia	9	225.51	73	25.06	8
Manavadar	15	277.96	126	18.53	8
Mangrol	11	325.5	141	29.59	13
Mendarda	6	40.86	27	6.81	5
Vanthli	5	342.71	68	68.54	14
Visavadar	11	965.5	281	87.77	26
SUB-TOTAL JUNAGADH	**157**	**7485.12**	**1657**	**47.68**	**11**
Kodinar	12	90.5	75	7.54	6
Patan-Veraval	31	3054.81	774	98.54	25
Sutrapada	2	53	10	26.50	5
Talala	16	245.5	88	15.34	6
Una	4	416	59	104.00	15
SUB TOTAL GIR SOMNATH	**65**	**3859.81**	**1006**	**59.38**	**15**
TOTAL	**222**	**11344.93**	**2663**	**51.10**	**12**

Source: DIC, Junagadh

- Total expected employment generation is largely concentrated in Junagadh and Veraval. Most other talukas have very small level of job creation.
- However, these do not include unregistered units. Large number of small unregistered units may exist employing 1-2 people or even more.
- Service sector may employ the balance additional work force.

3.5.3 Sectoral Composition of MSME Units:

Figure 3.14: Composition of Investment in MSME Manufacturing Sector in the district



Source: NSDC (2012), "District Wise Skill Gap Study for the State of Gujarat", New Delhi. Pp.120-127 (Courtesy: District Industry Centre, Data till 2012-13)

Among the manufacturing based MSME units, Agriculture food processing, Textile & apparel and Mineral processing and Fabrication are the prominent in terms of number of units and account for almost 55 percent of all units. Agriculture food processing units alone account for more than 55 percent of MSME investment followed by agriculture allied activities.

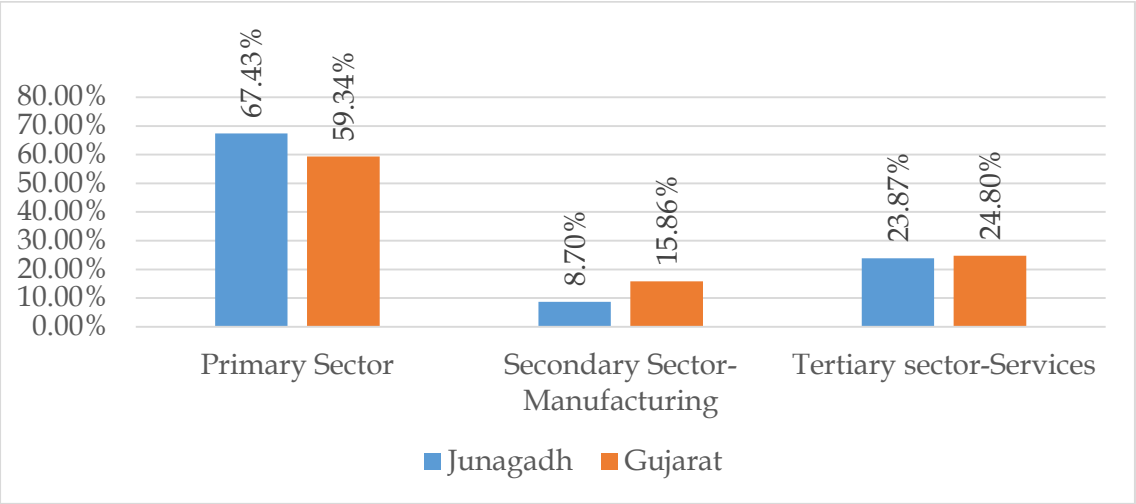
Thus, among MSME, agriculture based industry is the driver of MSME sector. Other industries are each relatively small and have small investment per unit.

Table-3.28: Sector Wise Work Force Distribution, Junagadh District,2011

Sr No	Particulars	Year	Junagadh District		Gujarat
			Number of persons	Percentage to Total	
			Number	%	%
1	Population	2011	2743082	100 %	100%
2	Labour Force Participation	2011	1557522	56.78%	59.27%
3	Work Force Participation	2011	1123709	40.88%	41.95%
4	Sector Wise Employment Distribution,2011				
4.1	Primary Sector (agriculture and Allied activities)	2011	757718	67.43%	59.34%
4.2	Secondary sector-Manufacturing	2011	97762	8.70%	15.86%
4.3	Tertiary sector-Services	2011	268229	23.87%	24.80%

Source: NSDC (2012), "District Wise Skill Gap Study for the State of Gujarat", New Delhi. Pp.120-127 (Courtesy: District Industry Centre, Data till 2012-13)

Figure-3.15: Sectoral Employment, 2012



67.43 percent workforce is employed in primary sector compared to average of 59.34 percent for the state. Less than 1 lakh of workers, from among more than 11 lakhs, work in manufacturing sector. Most of them work in MSME or in unorganized sector. Employment in large units is small.

Need for transfer of surplus agricultural labour cannot be minimized for long term sustainable high growth. That is not happening in Junagadh at least in manufacturing sector. Service sector is one growth avenue. But that is a by-product of either strong manufacturing sector, or in areas of strong competitive advantage. That has yet to happen in Junagadh. And that will happen only with identification of possible areas for growth and strong commitment and implementation.

3.6 Infrastructure

3.6.1 Rail Network

Junagadh is on the main broadgauge line from Delhi/Mumbai to Somnath via Ahmedabad. Junagadh district having 421 kms of railway line (both broad and narrow guage) connects the district with important towns in the region, Capital Gandhinagar, State towns and several important towns in the country.

Four talukas are not on the railway map, however they are well connected by roads to the nearest rail stations.

3.6.2 Airport

Junagadh district has one airport at Keshod, however it is not operational now.

3.6.3 Ports

Veraval is the major port in Junagadh district. It has railway connection with Junagadh town, Ahmedabad and beyond and road connectivity with all major towns in the region and beyond.

In addition, Sutrapada is being developed as a port to supplement Veraval port. Ambuja Cement has its own captive jetty at Muldwarka.

3.6.4 Water Supply for Industrial Use

Water supply can be obtained by having own bore wells, from canals, or even from GWSSB. However, it is true that getting large quantity of water supply on continuous basis is not easy. Rainfall is average but varying. There are no perennial rivers. Dams are generally used to supply drinking water. Water for irrigation through canal or for industry is almost non-existent.

3.6.5 Power

Junagadh district had one power generating company which is now closed. Power is obtained from Gujarat Electricity Board and its subsidiaries. Subsidiary of Gujarat Energy Transmission Corporation Limited (GETCO), a Government of Gujarat company, supplies electric power supplier has well developed and adequate network of distribution system. Power supply is adequate, continuous and can be easily managed.

A 400 MW power station is likely to be set up in near future. Alternate sources of energy, e.g, wind power, has not yet taken off in the district. As on 31st march, 2015, for 2014-15, the electricity connections and consumption were as follows.

Table-3.32: Electricity Connection and Consumption in Junagadh District,2013-14

Sr. No.	Name of Taluka/ Circle	Number of Domestic Connections, Lacs	Consumption of Units In lacs	Number of Industrial Connections, Lacs	Consumption of Units In lacs	Other Connections, lacs
1	**Bhesan**	0.14	10.13	0.01	2.22	0.09
2	**Junagadh**	1.09	81.29	0.23	69.19	0.18
3	**Manavadar**	0.22	8.95	0.03	9.86	0.07
4	**Mendarda**	0.14	6.70	0.02	2.10	0.08
5	**Sutrapada**	0.11	1.34	0.01	3.05	0.10
6	**Talala**	0.20	11.77	0.03	9.48	0.15
7	**Vanthli**	0.21	9.98	0.02	5.77	0.09
8	**Veraval**	0.43	29.98	0.09	26.63	0.14
8	**Visavadar**	0.23	13.44	0.03	4.23	0.14
	Total	**2.77**	**173.58**	**0.47**	**132.53**	**1.04**

Source: PGVCL, Junagadh

Electricity consumption in Junagadh circle is 58 % for household use and 42 % for industrial use. Industrial use is mainly in Junagadh and Veraval taluka.

3.7 Service Sector

Service sector contributes 50 to 60 percent in the Gross Domestic Product (GDP) in India and has emerged as a growth engine for the nation. Apart from the growth it is also a high employment creator and significant contributor in the foreign investment. Varieties of service are included into service sector. It includes information technology, transportation, trade, hotels/ restaurant, banking, finance, insurance, education, tourism etc.

This section discusses the service sector growth, income generation and employment opportunity.

Information technology, software services are contributing among the highest in the economy. Investment in the IT and IT enabled services in the Junagadh district is almost negligible.

In Junagadh district, major revenue is from Tourism, Hotels and Restaurants, Banking, finance and trade only.

3.7.1 Transportation and Infrastructure

Transportation is the movement of people, goods, animals etc. Good transportation is the essential requirement for trade between the people, between the companies and it necessary for the development of the civilization. In Junagadh different modes of transportation is used for people, tourist and for trade related activities. These include both public and private transportation facilities. Her we discussed the Rail/Road network in the district and connectivity of the district with other cities.

3.7.2 Public Transport

Public transport and Local Transportation – Local transport is managed by the District and Municipal Corporation but it has limited facility of city bus and people mainly rely on the auto rickshaws for local movement between and within the district. Gujarat State Road Transport Corporation (GSRCT) buses are main public transport facility to move between the talukas and have good connectivity with neighbourhood cities Ahmedabad, Rajkot, Jamnagar etc.

3.7.3 Utilities

3.7.3.1 Water Distribution

Water is the primary and necessities requirement of the people. Providing of the drinking water to each and every people in the Junagadh district is critical for the authority. Management of the water distribution is a difficult and complex process when water resources are limited in the Junagadh district. Junagadh district is mainly depends upon the ground water, Narmada water from canal, dams and water tanker for fulfil the need. Here we discuss the sourcing of drinking water and comparative figure with average of Gujarat.

3.7.3.2 Electricity

Electricity is essential commodity for development of the district. Without power one can't imagine the growth of the nation. Availability of power supply by 24 x 7 help to increase the trade, production; encourage the industrialist to invest into the new unit. For continuous supply of Power needs sufficient installed capacity, transmission and distribution network. Power sector (including Generation, Transmission, and Distribution) is always considered as major employment generator for technical people.

Gujarat Energy Transmission Corporation is the primary entity in the Junagadh district to transmit power into the substation. GETCO have 220/132/66 KV switchyard in the district and distribution of the power is managed by Paschim Gujarat Vij Company Ltd.(PGVCL) which is distribution power to industry at 33/11 KV total 209 substation and switchyard are operating in the Junagadh district for the continuous flow of power.

3.7.3.3 Gas Distribution

Junagadh district does not have a gas pipeline either for industrial users or for domestic users. It is very unlikely that such a pipeline would be laid at least in near future.

3.7.4 Communication Facility

3.7.4.1 Postal Facility

In the present age, communication is so widespread and so deep that it covers practically all the Junagadh has extensive facility for Postal Services, telecom and internet facility. A total of 384 post offices serve the district.

Table 3.33: Taluka wise Post Offices , 2014-15							
Sr No	Talukas	Population	Number of Main Office	Number of Sub Offices	Number of Branches	Total Number of Post Offices	Population Served Per Post office
1	Bhesan	79712	0	2	22	24	3321
2	Junagadh	439420	1	17	34	52	8450
3	Keshod	194746	0	5	35	40	4869
4	Kodinar	228809	0	4	25	29	7890
5	Malia	160181	0	3	41	44	3640
6	Manavadar	132830	0	0	0	0	0
7	Mangrol	212973	0	0	0	0	0
8	Mendarda	68531	0	1	13	14	4895
9	Patan-Veraval	322492	0	4	22	26	12404
10	Sutrapada	141968	0	2	6	8	17746
11	Talala	135731	0	3	33	36	3770
12	Una	388477	0	5	54	59	6584
13	Vanthali	97189	0	3	26	29	3351
14	Visavadar	140023	0	2	21	23	6088
District Total		**2743082**	**1**	**51**	**332**	**384**	**7143**
Source: GPO, Junagadh							

On an average one post office serves 7143 people.

3.7.5 Banking Services

District has a well-established banking facilities. State Bank of India is the lead bank.

Table 3.34: Taluka wise branch network of banks 1.4.2016							
Sr. No.	Talukas	Population	Number of scheduled Commercial Banks as on 1.4.2016	Number of Saurashtra Gramin Bank as on 1.4.2016	Number of Co-Operative Banks	Total Number of Banks	Population Served Per Bank
		2011			As on 1.4.2016		
1	Bhesan	79712	6	1	4	11	7247
2	Junagadh	439420	55	6	8	69	6368
3	Keshod	194746	21	2	3	26	7490
5	Malia	160181	7	3	3	13	12322
6	Manavadar	132830	14	2	7	23	5775
7	Mangrol	212973	12	4	2	18	11832
8	Mendarda	68531	5	2	4	11	6230
13	Vanthali	97189	9	5	4	18	5399
14	Visavadar	140023	16	1	3	20	7001
District Total		1525605	145	26	38	209	7300
Source: Lead Bank, Junagadh							

Average population served per bank is 7300.

Almost 85 percent are schedule banks, the rest being co-operative banks. Population served per bank is low of 5399 to high of 12322. Junagadh taluka has almost one third of all the banks. Though size of each bank is not identical, and geographical spreads are also unequal, number of banks does indicate, both, the extent of commercial activity as well as the income levels. Mangrol and Malia do appear to be lower in income levels.

3.7.6 Tourism Sector

Junagadh is a major tourist attraction. It has sea beaches, forests, and mountains. It is home to revered Somnath Temple. Girnar Hill, at about 1000 metre height, is an abode for several temples and religious places, including famous Jain temples. Junagadh towns itself has several historical monuments. During certain festivals (e.g., "Parikrama" and Mahashivratri) 6 to 10 lac people visit Junagadh.

Worldwide, tourism is estimated to contribute 9.6 percent to world GDP. Tourism contributes around 6.7 percent to India's GDP (2013), which is estimated to go upto 7 percent by 2023*. Direct contribution is estimated at 30.1 percent, indirect 54.80 percent and induced 15.10 percent. Thus tourism can be a great contributor to income and employment generation. Whereas world tourism industry is growing at around 9 percent per annum, India's tourism industry is growing at above 13 percent per annum for last one decade.

(*: Source: World Travel and Tourism Council, Annual Review, 2013)

As per a study made by Gujarat Industrial and Technical Consultancy Organization Limited (*GITCO*), total tourist flow in Gujarat in 2014 was 287.88 lacs, up from 79.81 lacs in 2003-04, a CAGR of 13.7 percent. Most tourists to Gujarat are for business purpose (Just about 70 percent).

Table-3.35 Tourism Flow to Junagadh District											
Sr. No	Particulars	Junagadh District (Excluding Veraval/Somnath)					State				
		2011-12	2012-13	2013-14	2014-15	2015-16	2011-12	2012-13	2013-14	2014-15	2015-16
1	**Number of Visitors**										
1.1	**Leisure**	172531	398003	489109	517251	526546		22363952	25409161	28787967	32690694
1.2	**Spiritual**	629704	643571	490456	609212	1308942		6536722	7228533	7389826	8258151
1.3	**Business**	388013	433300	458321	585858	620672		10157761	11939464	14594989	16306911
1.4	**Total**	1190248	1474874	1437886	1712321	2456160		39058435	44577158	50772782	57255756
2	**Category of Visitors, %**										
2.1	**Leisure**	32.6	29.38	31.87	34.21	25.27		57.26	57.00	56.70	57.10
2.2	**Spiritual**	52.91	43.64	34.11	35.58	53.29		16.74	16.22	14.55	14.42
2.3	**Business**	14.50	26.99	34.02	30.21	21.44		26.01	26.78	28.75	28.48
3	**Source. %**										
3.1	**Within Gujarat**	81.94	80.51	80.99	81.92	80.32	76.80	77.09	76.98	75.23	73.55
3.2	**From other States**	16.33	22.71	17.69	17.03	18.68	21.14	21.08	21.06	22.83	24.53
3.3	**NRI from Abroad**	1.34	1.19	1.09	0.81	0.74	1.28	1.15	1.17	1.19	1.11
3.4	**Foreigners**	0.39	0.30	0.22	0.24	0.26	0.78	0.68	0.79	0.75	0.81
3.5	**TOTAL**	100	100	100	100	100	100	100	100	100	100
Source: Information Provided by GITCO, Ahmedabad											

Table-3.36 Analysis of Growth of Tourists to Junagadh District						
		2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
A	**Junagadh**					
A.1	**Business**					
A.1.1	**Number of Visitors**	388013	433300	458321	585858	620672
A.1.2	**% Growth -yoy**	--	11.67	5.77	27.83	5.94
A.1.3	**% of Total Visitors (Business) -State**	3.82	3.63	3.14	3.59	3.43
A.1.4	**CAGR-5 Years**	**District = 12.46%**		**State = 15.50%**		
A.2	**Spiritual**					
A.2.1	**Number of Visitors**	629704	643571	490456	609212	1308942
A.2.2	**% Growth -yoy**	--	2.20	-23.79	24.21	114.86
A.2.3	**% of Total Visitors(Spiritual) –State**	9.63	8.90	6.64	7.38	11.64
A.2.4	**CAGR-5 Years**	**District = 20.07%**		**State = 14.51%**		
A.3	**Leisure**					
	Sasan					
A.3.1	**Number of Visitors**	172531	398003	489109	517251	526546
A.3.2	**% Growth -yoy**	--	130.68	22.89	5.75	1.80
A.3.3	**% of Total Visitors(Spiritual) –State**	27.57	40.77	0.00	0.00	0.00
A.3.4	**CAGR-5 Years**	**District = 32.17%**		**State = 21.24%**		
A.4	Total ALL (excepting Somnath /Veraval)					
A.4.1	**Visitors**	1190248.00	1474874.00	1437886.00	1712321.00	2456160.00
A.4.2	**% Growth-yoy**	--	26.17	4.93	11.07	29.13
A.4.3	**% of State Visitors**	5.32	5.80	4.99	5.24	6.41
A.4.4	**Total State Visitors**	22363952	25409161	28787967	32690694	38311503

A.4.5	**% Growth-yoy**		13.62	13.30	13.56	17.19
A.4.6	**CAGR-5 Years**			19.85%		
B	**Veraval-Somnath**					
B.1	**Business**					
B.1.1	**Number of Visitors**	278518	419015	555526	534080	567904
B.1.2	**% Growth -yoy**	--	50.44	32.58	-3.86	6.33
B.1.3	**% of Total Visitors (Business) -State**	2.74	3.51	3.81	3.28	3.14
B.2	**Spiritual**	--	27.99	8.46	-13.95	-4.08
B.2.1	**Number of Visitors**	500562	590726	613721	649382	715333
B.2.2	**% Growth -yoy**		18.01	3.89	5.81	10.16
B.2.3	**% of Total Visitors(Spiritual) –State**	7.66	8.17	8.30	7.86	6.36
B.3	**Leisure**	Part of the Sasan leisure visit could be ascribed to Gir Somnath District.				
C	**Total**					
C.1	**Total Visitors-Number-All Included**	1969328	2484615	2607133	2895783	3739397
C.2	**% Growth-yoy**	--	26.17	4.93	11.07	29.13
C.3	**% of State Visitors**	8.805814	9.778422	9.056329	8.858126	9.760507
C.4	**Total State Visitors**	22363952	25409161	28787967	32690694	38311503
C.5	**% Growth-yoy**		13.62	13.30	13.56	17.19
C.6	**CAGR-5 Years**	**District = 17.30%**		**State = 14.40%**		

Sources:

1 Annual Tourism Report, GITCO, Gandhinagar, 2014, http://www.gitco.co.in/

2 Indian Tourism Statistics, 2014, Ministry of Tourism, Government of India, New Delhi.

3 Data Provided by GITCO.

Observations

1. 2015-16
    a. **Total Tourists**

    Total tourists in the state were 383.11 lacs. Total tourists to Junagadh were 24.56 lacs, 6.41 percent (against a population share of 4.54 percent).

    b. **Business Category**

    Total business tourists in the state were 163.70 lacs. Total business tourists to Junagadh were 6.21 lacs, 3.34 percent of the state total. (against a population share of 4.54 percent).

    c. **Spiritual Visit**

    Total tourists for spiritual purpose in the state were 82.58 lacs. Total spiritual purpose tourists to Junagadh were 13.08 lacs, 11.64 percent of the state total.

    d. **Leisure Tourists**

    Total leisure tourists in the state were 326.91 lacs. Total such tourists to Junagadh were 5.26 lacs (Gir/Sasan).

    e. More than one third leisure tourists in the state visit Gir/Sasan. Of the total tourists to Junagadh district, most preferred destination for leisure in Gujarat, next being Saputara. Five years ago, Saputara was the most preferred choice.

    f. Business tourists, have reduced from 3.82 % in 2011-12 to 3.43 % in 2015-16. The decline is continuous. Relatively, Junagadh is less and less preferred business destination.
2. CAGR for tourists is higher for the district at 17.3 % compared to the state at 14.4 %.
3. Consistently, more than 80 % tourists are from the state itself. For the state, this ratio has declined to 73.55 percent in 2015-16.
4. Business Category

    In the Business category, CAGR is 12.46 % vis-à-vis 15.50 % for the state. As a percentage of the state, it is 3.43 % in 2015-16, down from 3.82 % in 2011-12. The share is less than the share in population of the state.
5. Of the total foreign visitors (NRI+ foreigners) of 5 lacs to the State, only 6888 visited Junagadh (little above 1.3%).

Detailed data are available for 2014. These indicate:

1. India's share of world tourists was merely 0.68 percent in 2014. Against 83.8 million tourists in France in 2014, number of foreign tourists in India were only 7.7 million.

2. Ministry of Tourism, Government of India, has estimated number of tourists in Gujarat at 309.12 lacs in 2014, whereas GITCO has estimated tourists at 287.88 lacs for the same period. Gujarat has mere 2.40 percent share of local tourists and 1.04 percent share of foreign tourists in India in 2014.
3. Total number of estimated tourists in Junagadh in 2014 were 20.51 lacs, 7.13 percent of total tourists in Gujarat, higher than total fraction of population of Gujarat. Tourists for business purpose were 4.58 lacs, 3.14 percent of total business tourists in Gujarat. Tourists for pilgrimage were 11.04 lacs, 14.94 percent of all pilgrims in Gujarat. Tourists for leisure were 4.89 lacs, 42.35 percent of all leisure tourists in Gujarat.
4. Among centrally protected monuments, Buddhist Caves, Junagadh had 76154 domestic visitors and 1058 foreign visitors in 2014, up from 51869 and 787 respectively in 2012. Asoka Rock Edict, Junagadh had 36316 tourists in 2012, 70082 in 2013 and 24885 in 2014.

Clearly, Junagadh district is a major tourist destination in Gujarat, both for pilgrimage and for leisure. With expected growth rate of more than 10 percent, Junagadh can further cement its position as a major tourist destination not only in Gujarat but also in India. Apart from Somnath, Girnar and Gir, Junagadh also has several renowned temples like Bhavnath, and architectural marvels in Makbara, beaches at Somnath and Chorwad.

Capitalizing these attractions and realising full potential, will make Junagadh a famous tourist destination. A strong tourist circuit, with world class restaurants and hotels can easily establish Junagadh as a dream destination. It needs necessary infrastructure, marketing and passionate commitment. In absence of any major competitive advantage, tourism can be a magnet and a major earner and provider of employment. It has strong linkages (hotels, transport, restaurants, shopping malls, etc). What is required is major push to develop tourism for both rich and not so rich. Quality and budget hotels, good roads connecting all major centres, and a specific offer covering major destinations can certainly enhance tourism industry.

It is imperative for long term development of the district.as it is one of the few genuine advantage, in absence of industry.

3.8 SWOC ANALYSIS – FOR INCOME AND EMPLOYMENT

3.8.1 SWOC Analysis of Industry and Services:

1. Over the years, before the formation of the State in 1960, Junagadh, as a princely state, was largely not an industrial state. It was predominantly agricultural and commerce based on unprocessed agricultural output. Local demand for industrial products was low and it did not have strong rail and road connectivity. Till a few years ago, Broad gauge rail line, dominant rail gauge connecting whole of India, was not connecting Junagadh. Junagadh did have rail connectivity to Ahmedabad through Meter gauge.
2. Junagadh does have some minerals and were largely used for low technology products, for small local demand. In the last 4 decades, two major plants for limestone based cement manufacturing have been established. Beyond that, there is not much large scale industrial activity.
3. Industry requires sufficient quality and quantity of inputs. Junagadh does not have strong competitive advantages, e.g., raw materials or strong, highly educated labour force, large ports, etc. Junagadh does have large agricultural products which has led to some agro based industry.

On the other hand, Junagadh does have several strengths which could be used to increase income generation through industry.

1. Strong history of trading and commerce
2. Continuous availability of electricity
3. Presently, Good infrastructure, Good roads and rail network
4. Government incentives in form of, say, subsidies, industrial estates with all infrastructure facility, etc.
5. Strong institutions –educational, hospitals, others

3.8.1.1 Strengths

- Junagadh has abundant minerals and large coast line. Both can be exploited for industrial development.
- Junagadh has some major tourist attraction which could be converted to a strong tourism industry.
- Strong liberal cultural traditions
- Successful history of efficient administrative structure.
- Peaceful labour

3.8.1.2 Weaknesses

- Junagadh does not have strong tradition or inclination for industry. 'Industry culture", and "industry work habits" (e.g. work 12 hours a day, day after day) are absent.
- Poor civic amenities even in urban areas, e.g., supply of water, sanitation and disposal systems.
- Brain drain to Mumbai and external world.
- Existing technology is largely primitive or at least not the state of the art.

3.8.1.3 Opportunities

- Junagadh offers large agricultural output which could be processed and value added products sold nationwide or even exported.
- Large coast line offers opportunity to develop strong sea food industry based on exports.
- Junagadh Agricultural University is unique and can be leveraged to develop high end technology driven products, e.g., enzymes, bio technology products, etc. Already established industrial structure can be upgraded to world scale to take advantage of global needs in the era of globalized economies.

3.8.1.4 - Constraints

- Major constraint is lack of strong advantages in terms of input availability. Except, agricultural products, there are no inputs which are available a plenty at affordable price. This is unlikely to ease at least for next decade or so and that also after sustained efforts.
- Water availability. Inadequate water quantity hampers growth of specific industries and acts as a deterrent to attracting and retaining human resources
- Inability to attract and retain highest quality manpower.
- Poor supply chains, especially for farm products.
- Poor educational and medical facilities compared to cities like Ahmedabad.
- Largely local culture, inhibits strong inward migration.
- Poor Technology base. Largely small scale and cottage industry exists which offers no technology which can be leveraged for other areas.

3.8.2 SWOC Analysis of agriculture Sector

Agriculture sector is the primary income generator of the district and hence its strengths must be exploited and weakness covered. Brief summary of SWOC follows.

3.8.2.1 Strengths

Junagadh has a strong agriculture, horticulture and even spices manufacture. The productivity is reasonably good, but could be enhanced. For products like groundnut and Kesar mangoes, Junagadh has a competitive advantage which appears to be sustainable.

Junagadh is endowed with natural resources (e.g. sea beach at Mangrol), forests and temples which offer a sustained source of both income and employment.

Many of the potentials –like dairy industry, world class fish processing, and world class tourism –are not fully exploited.

High level of capabilities does exist though in isolated pockets. For example, Agricultural University has a potential to offer solutions to agricultural problems and help enhance productivity.

3.8.2.2 Weaknesses

Junagadh has had been a trading centre. With technological advances, there has been a shift in trading pattern. When one can buy anything online, such trading has its limitations. Also, with geographical spread of income and mobility, small trading centres cannot survive on trading alone.

Water availability is erratic and not sufficient for higher productivity in agriculture. Large population is still in agriculture. Literacy rate is not enough of an indicator and hides the fact that large number of people are probably on the margin.

Civic amenities are poor to attract and retain talent-be it technocrats, be it doctors, be it entrepreneurs.

3.8.2.3 Opportunities

Junagadh does offer opportunities for long term sustained growth and that would mainly be in service sector and world class tourism facilities.

Manufacturing which requires physical inputs may not offer a competitive advantageous scenario. However, manufacturing where only human capability is supreme should be and could be developed. One example is diamond polishing. Recently, large number of people (probably more than 30000 over the district) have found employment. They may be migrant from villages. However, a specific thrust in this and other service sector (e.g., BPO) offers an opportunity.

Third, world class food processing is possible. This may include fruits, ground nut processing, fish and dairy.

Tourism can be further boosted by thrust.

3.8.2.4 Constraints

Employment generation has not been adequate. As a result, educated youth migrate out of the district. Human resource base is weak.

Civic amenities are generally poor. Though efforts have been made in recent times, lack of better roads, water and sewerage, garbage disposal, and general cultural outlook which tolerates public nuisance are breaks on better standards of living and inhibits talent growth.

Chapter 4

Education

4.1 INTRODUCTION

Education is a major focus of the governments. In many countries primary education is free and further education is free till certain secondary level in many countries. 2nd MDG Goal is ensuring that all girls and boys, world over, can complete primary education course fully.

This chapter discusses the status of education in Junagadh District.

Education system outcomes are measured by certain minimum required standards and certain proxies for the ability to earn income in future. The measures used are:

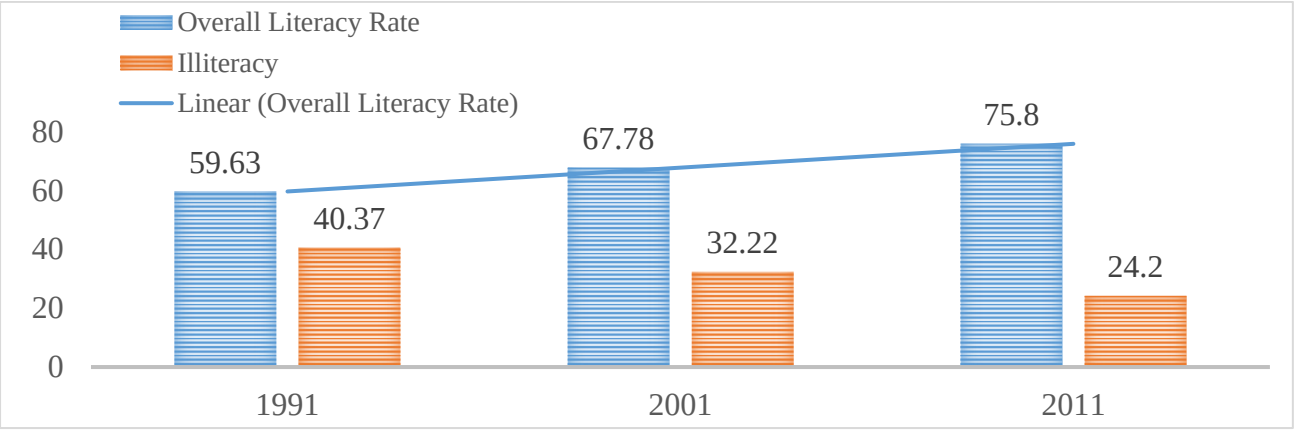
Indicators related to Literacy, Primary Education, Education infrastructure and Secondary and higher education

4.2 LITERACY

First focus of an education system is universal literacy. Junagadh district has made substantial progress in last 20-25 years towards universal literacy. Overall literacy rate, has increased from 59.63 percent in 1991 to 75.8 percent in 2011. Number of illiterates has been reduced by 40 percent over this period.

Tables and graphs below details the level of literacy, at aggregate level, at regional level, at gender level and at rural urban level.

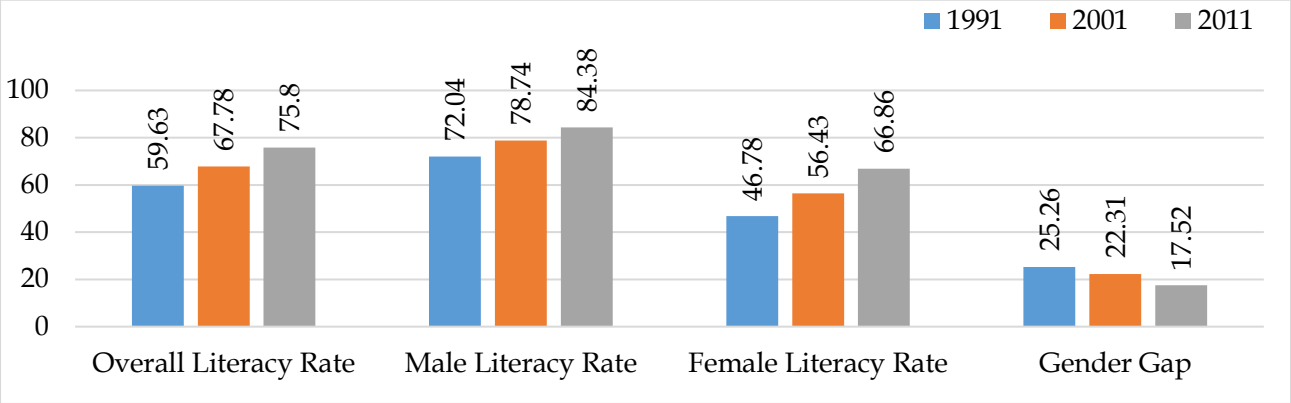
Figure 4.1: Status of Overall Literacy and Illiteracy in the district over the years (from 1991 to 2011)



Source: Registrar General of India, Census 1991, 2001 & 2011

From the above table it is visible that overall literacy is increasing decade by decade. As a result, Illiteracy has also decreased from 40.37% in 1991 to 24.2% in 2011.

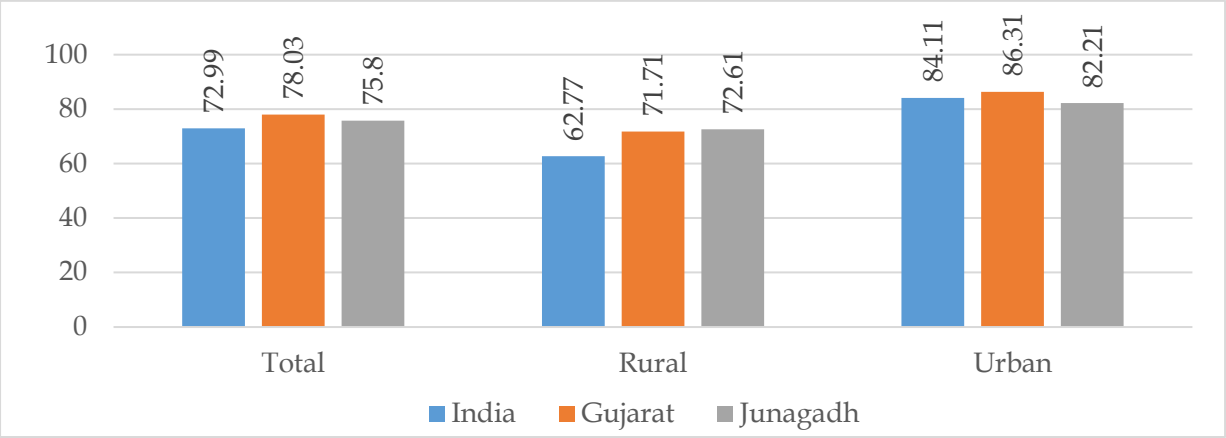
Figure-4.2: Literacy Rate and Gender Gap over Time



Source: Registrar General of India, Census 1991, 2001 & 2011

Figure 4.2 shows that in 1991, Male literacy rate was 72.04% while it has been increased to 84.38% in the year 2011. Whereas, female literacy has also increased from 46.78% in 1991 to 66.86% in 2011. The gender gap has also decreased to an extent i.e. from 25.26% in 1991 to 17.52 in 2011.

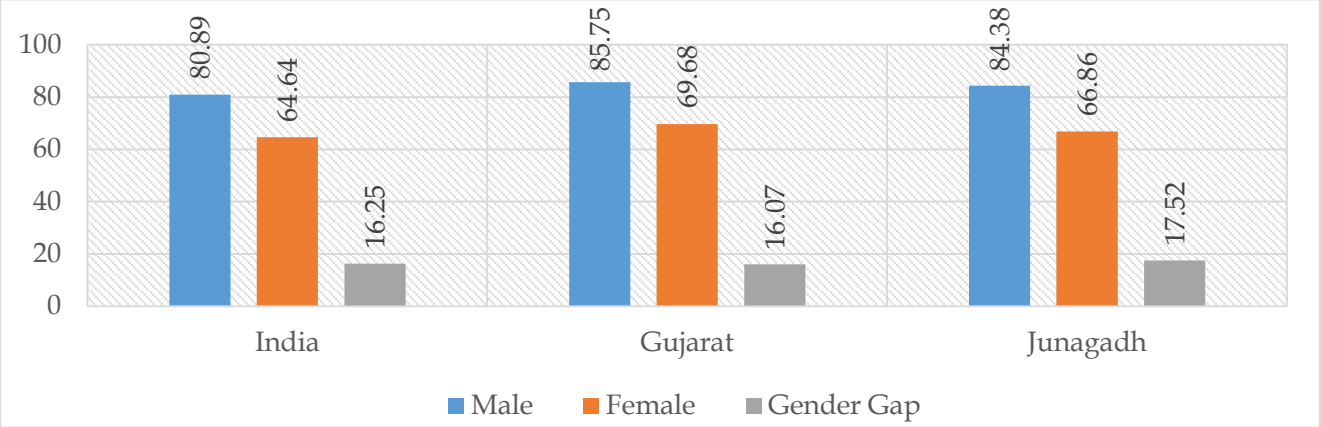
Figure 4.3: Comparative Literacy Rate-2011 (Residence-wise)



Source: Registrar General of India, Census 2011

The literacy rate in urban area of Junagadh district is 82.21% in 2011 (has increased from 71.07% in 1991) while in rural area it is 72.61% in 2011 (has increased from 71.07% in 1991). Whereas, the Rural & Urban literacy rate of Gujarat State is 71.71% and 86.31% respectively.

Figure 4.4: Comparative Gender Literacy & Gender Gap – 2011



Source: Registrar General of India, Census 2011

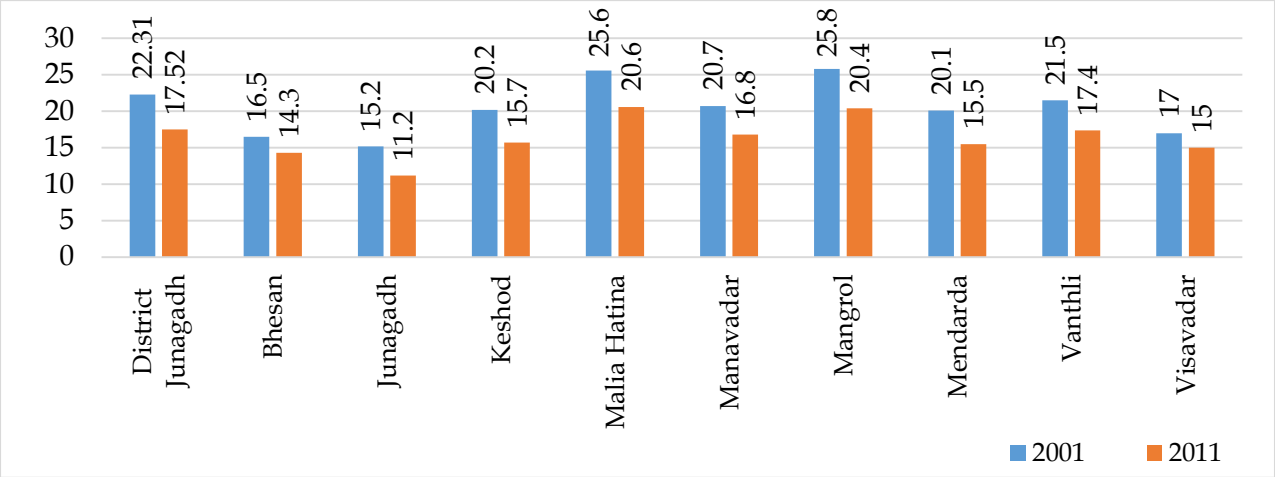
The Male & female literacy rate of both Gujarat & Junagadh is improved over the past decade. Moreover, gender gap has also decreased over the years. This might be due to continuous efforts of the government in education policy.

Table 4.1: Taluka wise Literacy Rate (2001 & 2011)

District/ Taluka	Gender	2001			2011		
		Total	Rural	Urban	Total	Rural	Urban
Junagadh District	**Total**	**67.78**	**63.67**	**77.57**	**75.8**	**72.61**	**82.21**
	Male	78.74	75.71	85.86	84.38	82.23	88.7
	Female	56.43	51.27	68.83	66.86	62.57	75.46
Bhesan	**Total**	**68.2**	**68.2**	**-**	**74.8**	**74.8**	**-**
	Male	76.5	76.5	-	81.9	81.9	-
	Female	60	60	-	67.6	67.6	-
Junagadh	**Total**	**79.2**	**70.1**	**83.8**	**84.9**	**77.2**	**87.6**
	Male	86.6	80	89.9	90.4	85.3	92.2
	Female	71.4	59.5	77.4	79.2	68.5	82.9
Keshod	**Total**	**73**	**68**	**81.7**	**78.7**	**74.9**	**84.6**
	Male	82.8	79.5	88.7	86.3	84.1	89.8
	Female	62.6	55.9	74.4	70.6	65.2	79.1
Malia Hatina	**Total**	**64.7**	**66**	**57.5**	**73.2**	**74.6**	**64.4**
	Male	77.2	78.3	70.7	83.2	84.5	75.4
	Female	51.6	53	43.5	62.6	64.3	52.8
Manavadar	**Total**	**72.7**	**70**	**78.1**	**78.2**	**76.6**	**81.1**
	Male	82.9	81.4	85.7	86.3	85.5	87.7
	Female	62.2	58.3	70	69.5	67.1	74
Mangrol	**Total**	**65.3**	**64**	**68.3**	**74.3**	**72.4**	**78.5**
	Male	77.9	76.7	80.8	84.3	82.7	87.7
	Female	52.1	50.8	55.2	63.9	61.5	69
Mendarda	**Total**	**71.3**	**71.3**	**-**	**77.9**	**77.9**	**-**

	Male	81.1	81.1	-	85.4	85.4	-
	Female	61	61	-	69.9	69.9	-
Vanthli	**Total**	**70.5**	**69.1**	**77.7**	**76.7**	**76**	**80.8**
	Male	80.9	79.8	86.1	85.1	84.8	86.8
	Female	59.4	57.7	68.2	67.7	66.5	74.5
Visavadar	**Total**	**68.2**	**66.4**	**79.6**	**74.4**	**73.1**	**82.5**
	Male	76.8	75.1	87.2	81.8	80.7	88.4
	Female	59.8	58	71.7	66.8	65.3	76.3
Source: Registrar General of India, Census 2001 & 2011							

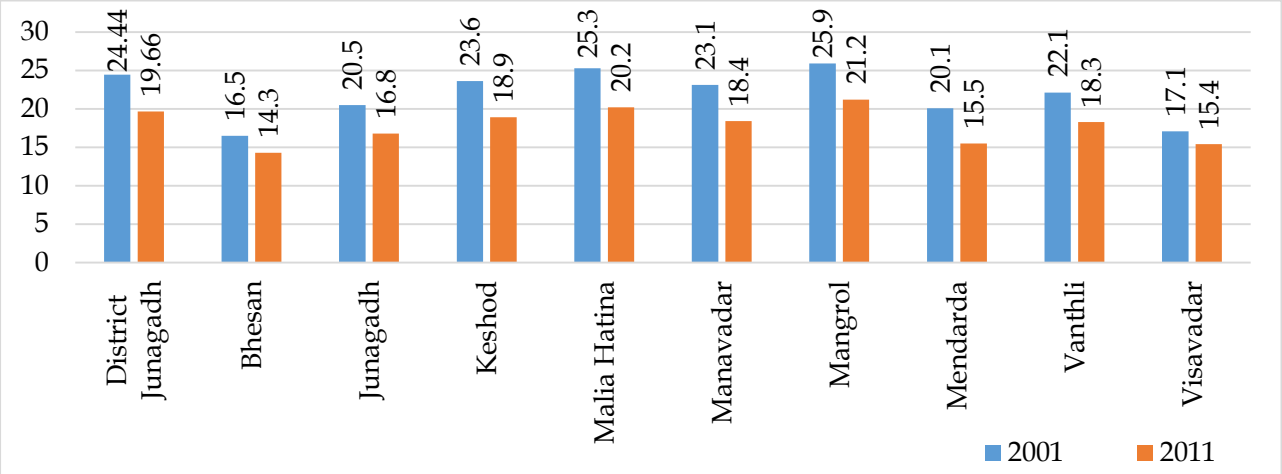
Figure 4.5: Talukawise gender gap in literacy rate (Total)



Source: Registrar General of India, Census 2001 & 2011

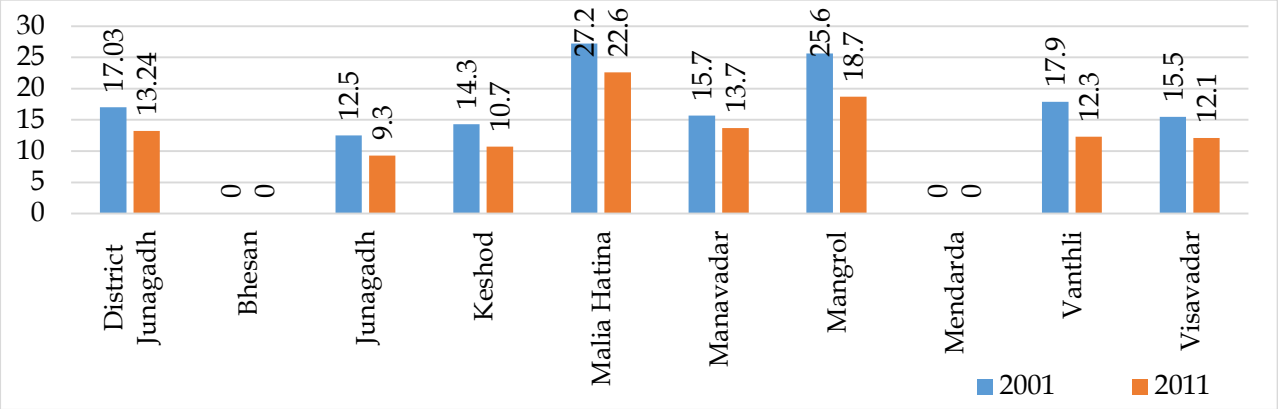
Gender gap in literacy is highest in Malia Hatina taluka. Gender gap is more than 20 percent in two talukas, and below 12 percent in only one taluka.

Figure 4.6: Taluka wise gender gap in literacy rate (Rural)



Source: Registrar General of India, Census 2001 & 2011

Figure 4.7: Taluka wise gender gap in literacy rate (Urban)



Source: Registrar General of India, Census 2001 & 2011

Remarkable is reduction in gender gap and rural-urban difference in literacy rate. Gender gap has reduced from 25.26 percent in 1991 to 17.52 percent in 2011. The difference *between rural and urban literacy has almost halved from 15.97 percent in 1991 to 9.6 percent in 2011.

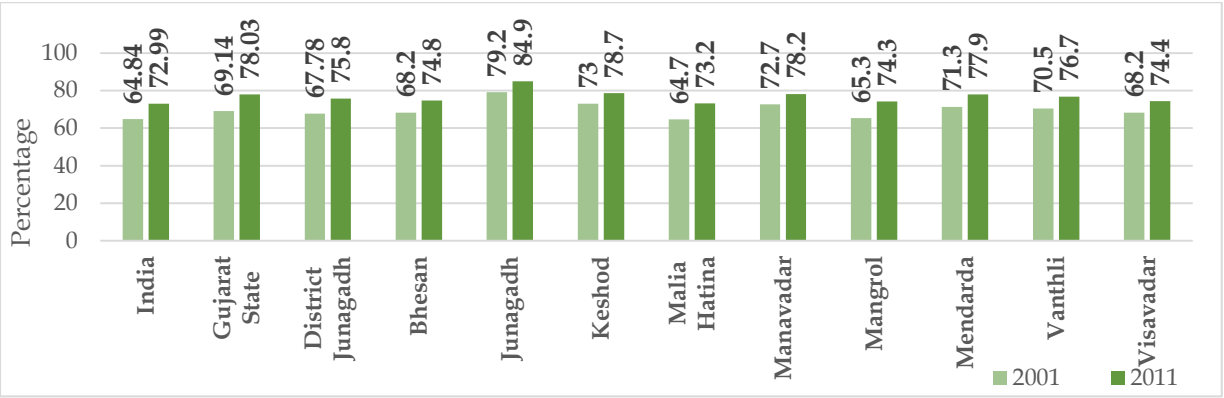
4.2.1 Challenges:

However, substantial and sustained efforts are still a necessity since the goal is achieving almost 100 percent literacy. It would be difficult to educate older illiterates and that part of illiteracy need not even be a focus as it will reduce by a natural process. More essential is that all children get reasonable education and especially all girls (because social norms may be against girl's education in some families). For that all three are focussed by the administration: Availability, accessibility and affordability.

Now villages have schools so that children have a school available and accessible. All government schools provide free elementary education with facilities for books and uniforms so that education is affordable.

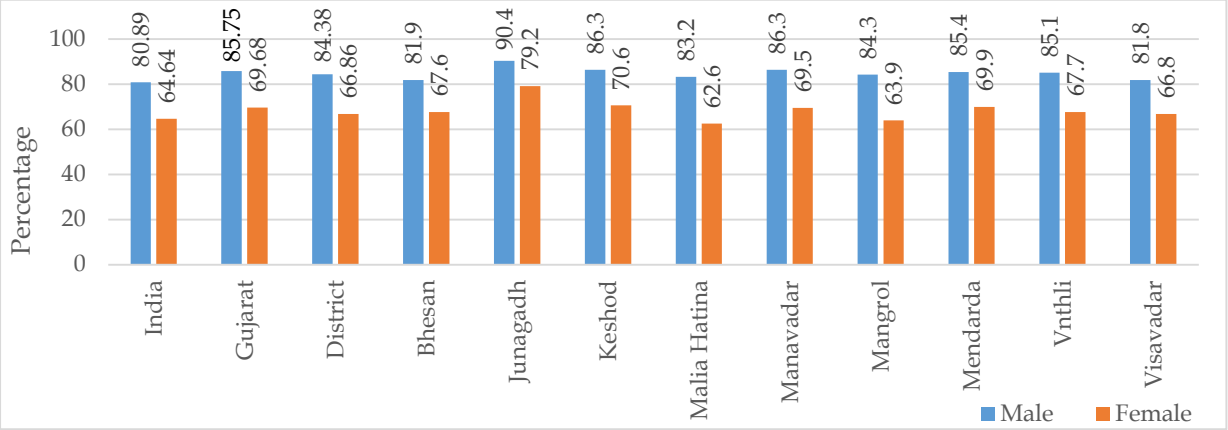
Taluka wise status of literacy, with geographical and gender breakup, is shown in the table below.

Figure 4.8: Taluka wise status of literacy – Census 2001 & 2011 (in %age)



Source: Registrar General of India, Census 2001 & 2011

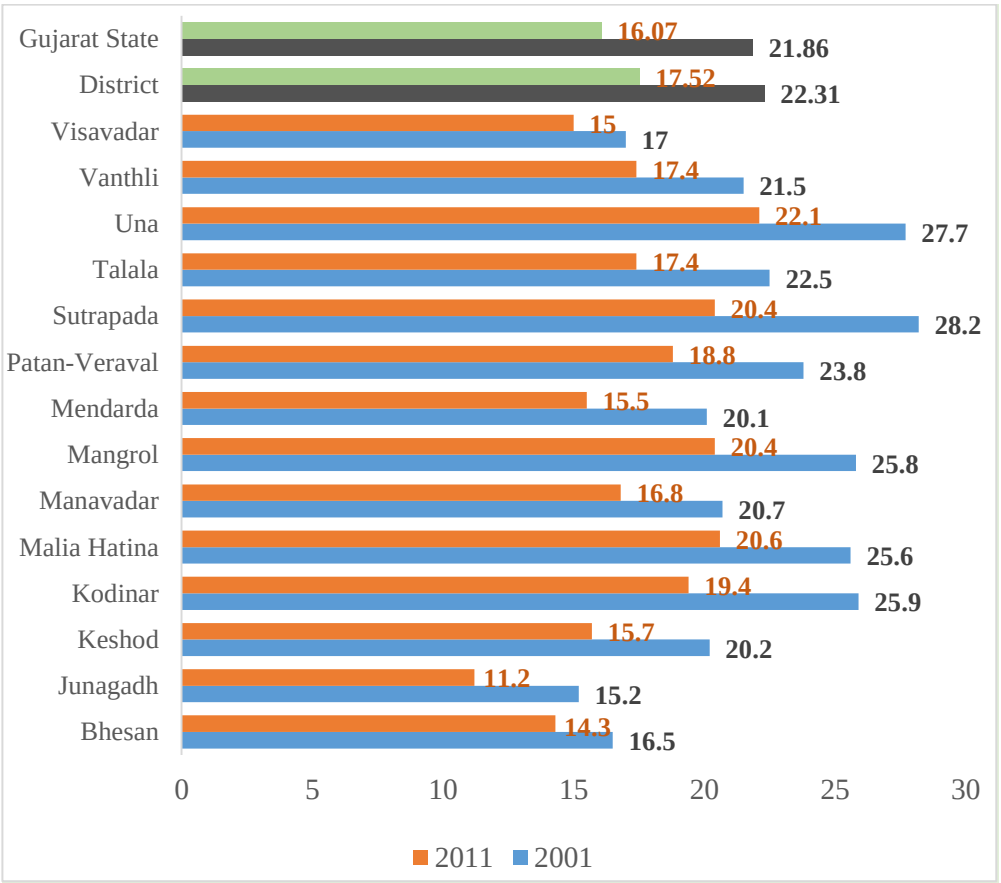
Figure 4.9: Taluka Wise Male-Female Literacy Rate – Census-2011 (in %age)



Source: Registrar General of India, Census 2001 & 2011

Overall male literacy rate of 84.38 percent compares well with the state average of 85.75 percent. More encouraging development is that both the male literacy rate and female literacy rate are higher than the all India average.

Figure 4.10: Taluka Wise Change in Gender Gap: 2001-2011 (in %age)



Source: Registrar General of India, Census 2001 & 2011

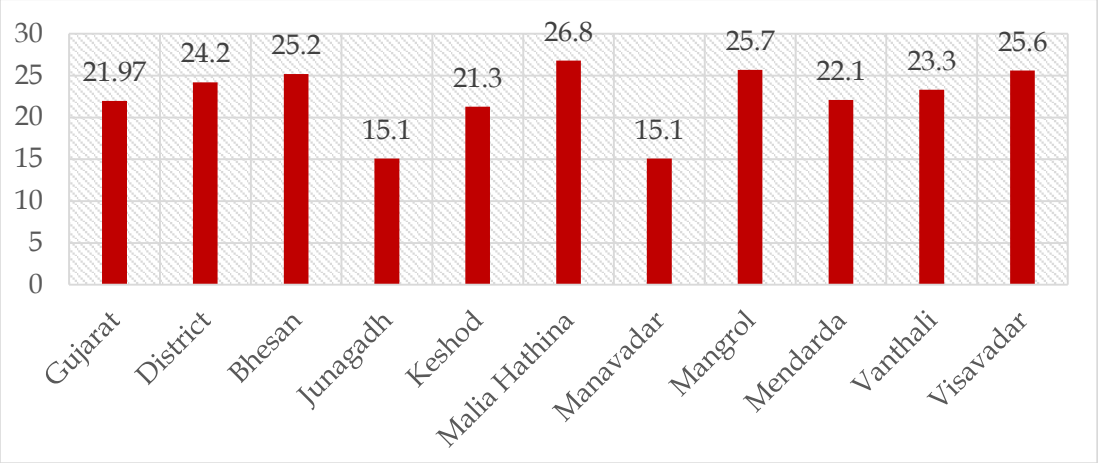
Gender difference of 17.52 percent is a clear indicator of direction of efforts required. However, it may be due to older people, who would be difficult to make literate.

Junagadh's urban literacy of 82.21 percent compares with Gujarat average of 86.31 percent. This is to be expected as Gujarat average would also include large metropolitan areas where literacy rates tend to be higher. Heartening feature is that rural literacy, though low at 72.61 percent compares well with the state average of 71.71 percent.

The regional gap (between urban and rural) is less than 10 percent in eight of fourteen talukas. Overall difference is less than 10 percent. But in certain talukas, like Malia and Una, difference is more than 15 percent.

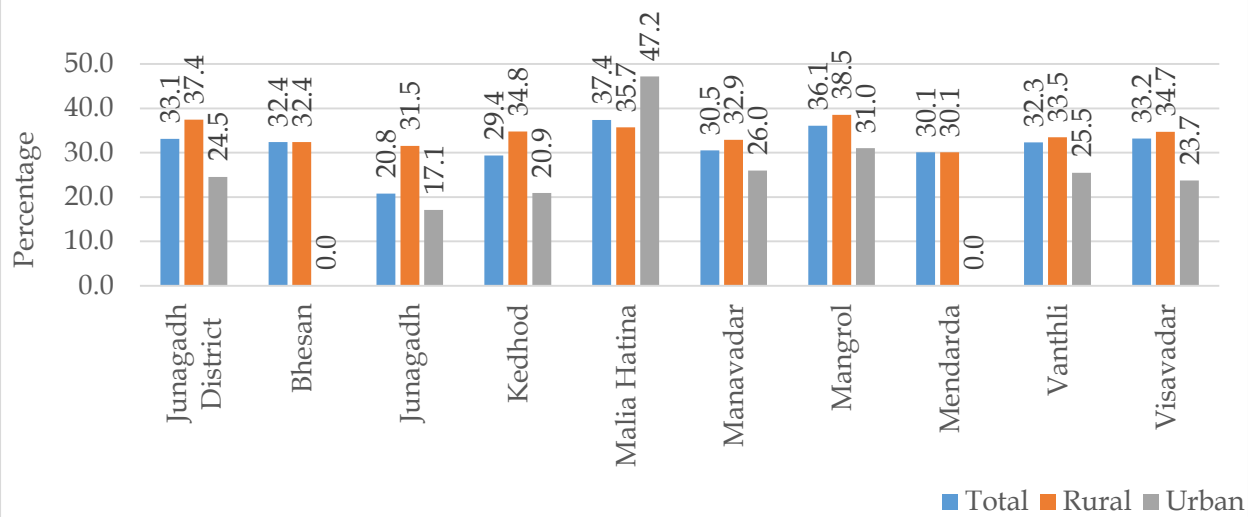
Gender gap Mean is 17.61 and standard deviation is 2.91. Coefficient of variation is 0.165. However, the range is (11.2, 22.1), showing that there is wide variation among talukas.

Figure 4.11: Taluka Wise Illiteracy in the district – Census 2011



Source: Registrar General of India, Census-2011

Figure-4.12: Taluka Wise Female Illiteracy Rate



Source: Registrar General of India, Census-2011

4.2.2 Observations:

Literacy rates have gone to 75.8 percent in 2011, up by 10.02 percent from 2001. This compares with 8.15 percent for India as a nation and 8.89 percent for Gujarat.

Change in literacy rate over the period 2001 to 2011 is substantial 10.02 percent. Percentage illiterates are 24.2 percent, lower than that of India at 27.1 percent, though higher than that of Gujarat at 21.97 percent.

Illiteracy rate is more than 25 percent in most talukas, and lowest in Manavadar and Junagadh talukas at 15.1 percent. Average reduction in illiteracy rate is 9 percent over a ten year period and is unlikely to be different in the decade 2011-2021. Hence, average illiteracy rate of 12 to 15 percent could be expected in 2021.

Reduction is partly difficult due to older illiterates. High poverty rates also makes it difficult to implement literacy for middle aged illiterates.

4.2.3 Literacy among Schedule Caste

Literacy rates for schedule caste, and comparison with general population is shown below.

Table 4.2: Literacy Rate-Schedule Caste Population in Junagadh District

Particulars	Total/ Rural/ Urban	Gujarat			Junagadh		
		Total	Male	Female	Total	Male	Female
Literacy Rate, 2001	**Total**	**70.5**	**82.56**	**57.58**	**63.67**	**76.8**	**49.77**
	Rural	65.59	79.16	51.17	61.78	75.38	47.45
	Urban	77.9	87.62	67.33	71.37	82.53	59.37
Literacy Rate, 2011	**Total**	**79.18**	**87.87**	**69.87**	**73.79**	**83.53**	**63.55**
	Rural	75.18	85.36	64.39	72.55	82.67	61.87
	Urban	84.17	90.98	76.79	77.88	86.33	69.02
Change in Literacy Rate, 2001 to 2011	**Total**	**8.68**	**5.31**	**12.29**	**10.12**	**6.73**	**13.78**
	Rural	9.59	6.2	13.22	10.77	7.29	14.42
	Urban	6.27	3.36	9.46	6.51	3.8	9.65

Source: Registrar General of India, Census-2001 & 2011

It is a pleasant surprise that Overall Literacy rate of schedule caste population almost matched with that of general population. Overall literacy rates of 75.80 percent for the entire population, and 73.79 percent for schedule caste population are low. Moreover, the difference between literacy rate for male gender and female gender is 15 to 20 percent for different population category, highest difference being for rural female population, be it general population or schedule caste population. However, it may be difficult to make "old" uneducated people literate.

4.2.4 Literacy among Schedule Tribe

The literacy rate of schedule tribe population is, unlike schedule caste population, substantially lower than that of the entire population.

Table 4.3: Literacy Rate-Schedule Tribe Population in Junagadh District

Particulars	Total/ Rural/ Urban	Gujarat			Junagadh		
		Total	Male	Female	Total	Male	Female
Literacy Rate, 2001	T	47.74	59.18	36.02	48.85	59.3	37.52
	R	61.76	71.01	51.78	62.9	73.46	51.33
	U	46.45	58.06	34.6	43.38	53.75	32.18
Literacy Rate, 2011	T	62.48	71.68	53.16	66.52	75.65	56.99
	R	72.71	79.96	63.15	74.27	83.08	65.32
	U	61.29	70.7	51.79	62.73	72.09	52.84
Change in Literacy Rate, 2001 to 2011	T	14.74	12.5	17.14	17.67	16.35	19.47
	R	10.96	8.95	11.37	11.37	2.2	1.51
	U	14.84	12.64	17.19	19.35	18.34	20.66

Source: Registrar General of India, Census-2001 & 2011

Difference, in 2011, is almost 10 percent, with one third of entire schedule tribe population being illiterate. Almost half of the rural schedule tribe women are not literate. Assuming that the literacy rate among children, who constitute almost 20 percent population (up to age 15) would almost all be literate, even among schedule tribes, illiteracy among women is quite high. Special efforts to educate them is a necessary policy.

4.3 ELEMENTRY EDUCATION

Elementary Education is the base of entire education system. Hence, the status and achievements of the primary education system and facilities are examined.

4.3.1 Enrolment in Primary Schools

Enrolment in primary schools has only marginally gone up at CAGR of 0.21 percent over a ten-year period 205-06 to 2014-15. Enrolment of girls grew only at 0.01 percent per annum over the same period.

Table 4.4: Total District School Enrolment (Primary and Upper Primary: Std 1 to 7)					
Sr No	Year	School Enrolment			Girls % of Total
		Boys	Girls	Total	
1	2005-06	213947	190492	404439	47.1
2	2006-07	218539	195077	413616	47.16
3	2007-08	220956	195879	416835	46.99
4	2008-09	217202	192476	409678	46.98
5	2009-10	214096	189222	403318	46.92
6	2010-11	213852	188788	402640	46.89
7	2011-12	217254	191011	408265	46.79
8	2012-13	226605	199989	426594	46.88
9	2013-14	218660	191796	410456	46.73
10	2014-15	208331	183436	391767	46.82
	CAGR	0.31%	0.01%	0.21%	-
Source: Gujarat Council of Elementary Education, SSA, Gandhinagar					

The inflow of children to elementary schools is likely to stabilise or even decrease in the years to come. The evidence is apparent. Enrolment was 404439 in 2005-06, and 391767 in 2014-15.

Over 2005-06 to 2014-15, period, CAGR in enrolment is only 0.21 percent (whereas population has grown at more than 1 percent per annum).

The size of 0-6 year's child population is declining as a proportion of total population due to increased longevity and decreasing net birth rates.

As discussed later, the government has created districtwide infrastructure of schools and facilities and additional future requirement would be considerably reduced.

The emphasis now should be on allocation of resources for quality education. For example, better laboratories, continuous upgradation of libraries, playground facilities, cultural activities, and especially some skill building and communication skills development should be strongly emphasized.

It will be also be necessary to focus on improvement of quality of elementary education, upgradation and maintenance of available infrastructure and teachers.

However, one area of concern in Junagadh District is relatively low growth in girls' enrolment. Whereas, CAGR of boys' enrolment is 0.31 percent per annum in 2005-06 to 2014-15 period, for girls it is only 0.01% in the same period. Sex ratio among 0 to 6 years is sufficiently high and hence identification of reasons for poor CAGR should be a priority. Regional disparity in literacy and primary education should also be focused and given priority.

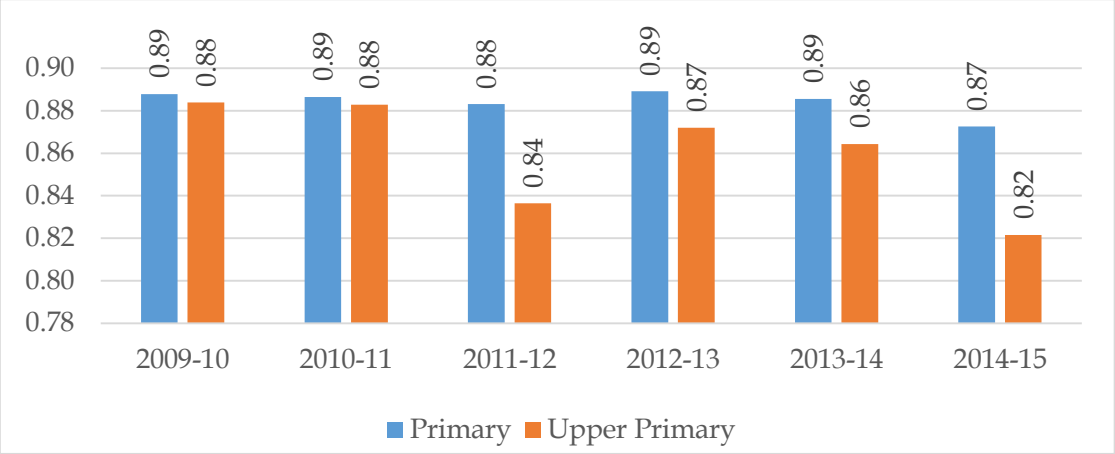
4.3.2 Gender Parity Index in Primary and Upper Primary Schools

Gender gap is the gap between male enrolment and female enrolment, measured as percentage of total enrolment. For example, of total 200 enrolment, 112 are male and 88 are female, gender gap is 12 (= (112-88)*100/200).

The Gender parity Index (GPI) is a measure of how many girls enrol for primary school for each one enrolment of a boy. It is measured as a ratio of girls' enrolment to boys' enrolment in a specific stage of education (e.g., Primary School, Undergraduate College, etc.). It is considered as a measure of "accessibility" to education for female relative to male.

Ideally that should equal the sex ratio in relevant age group (age 6 to 15 for primary and upper primary stage) to achieve parity in education between the two genders. (It does not really reflect true level of enrolment among ALL relevant age group children. It is more an indicator of parity. It does not even measure women empowerment (but does measure first and necessary step towards women empowerment). It is of course presumed, if used as a measure of access, that affordability is not an issue (free education and financial help to meet education expenses like books)

Figure 4.13: Gender Parity Index in Primary & Upper Primary Schools



Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

Observations:

Gender parity index has remained at around 0.87 to o, 89. It has reduced slightly over last five years, probably also an indicator of falling sex ratio for children. However, it needs to improve, as at least at primary and upper primary level, all girls should enrol and attend the school. At least a few thousand girls do not go to school even for primary education.

The ratio is less for students in upper primary section. The ratio, at 0.82 indicates that substantial number of girls drop out of school after primary education.

4.3.3 Class Wise Enrolment in Elementary Schools

Class wise enrolment has shown continuous decline over the last five years.

Table 4.5 Class wise enrolment: Elementary Education

Standard	Year						
	2010-11	2011-12	2012-13	2013-14	2014-15		
					Junagadh	Gir-Somnath	Total
I	55952	54164	49786	43451	19379	18775	**38154**
II	54195	54363	52157	48296	22121	20740	**42861**
III	56289	54042	53441	51589	24408	23437	**47845**
IV	55257	55577	53165	53005	25221	26055	**51276**
V	56532	55210	54760	52773	26410	26293	**52703**
VI	58010	55817	53989	54284	26358	25967	**52325**
VII	54551	57359	54216	53499	27320	2637	**29957**
VIII	-	-	55157	53559	27104	25807	**52911**
Total Primary (Std. 1 to 4)	221693	218146	208549	196341	91129	89007	**180136**
Increase over Previous Year, %	-3.7	-1.6	-4.4	-5.85	-	-	**-6.54**
Total Upper Primary (Std. 5 to 7)	169093	168386	162965	160556	80088	54897	**134985**
Increase over Previous Year, %	-2.32	-0.42	-3.22	-1.48	-	-	**-15.93**
Total Elementary (Std. 1 to 7)	390786	386532	371514	356897	-	-	**315121**
Increase over Previous Year, %	-3.11	-1.09	-3.89	-3.93	-	-	**-11.71**
Total Primary (Std. 1 to 5)	278225	273356	263309	249114	117539	115300	**232839**
Total Upper Primary (Std. 6 to 8)	-	-	163362	161342	80782	54411	**135193**
Total Elementary (Std. 1 to 8)	-	-	426671	410456	198321	169711	**368032**
Increase over Previous Year, %	-	-	-	-3.81	-	-	**-10.36**

Source: District Education Officer, Junagadh District Panchayat

Total enrolment in Class 1 to 8 is consistently declining over the last 5 years. After reaching a peak of 416835 in 2007-08, it has consistently declined to 315121students in 2014-15, a decline of 24 percent. More alarming is the decline in Class 1 enrolment, which has declined from 66805 in 2005-06 to 3154 in class 2014-15.

Table 4.6: Enrolment by Medium of Instruction Primary and Upper Primary Schools													
Sr No	School Category	Gujarati Medium						English Medium					
		2009-10	2010-12	2011-12	2012-13	2013-14	2014-15	2009-10	2010-12	2011-12	2012-13	2013-14	2014-15
1	Primary	2.86	2.57	2.54	1.89	2.03	1.80	0.12	0.08	0.174	0.11	0.2	0.20
2	Primary + UP	84.97	92.23	93.07	80.08	82.99	84.00	2.92	3.59	3.96	1.95	2.4	3.26
3	Primary+ UP +S + HS	-	-	-	6.759	6.32	5.43	-	-	-	2.03	1.88	1.72
4	UP Only	0.25	0.3	0.25	0.243	0.3	0.51	-	-	-	-	-	-
5	UP +S+ HS	-	-	-	0.006	-	-	-	-	-	0.05	0.05	0.06
6	Primary+UP + S	-	-	-	6.204	2.93	2.27	-	-	-	0.62	0.7	0.67
7	UP +S	-	-	-	0.022	0.06	0.07	-	-	-	-	-	-
8	Total	95.86	95.86	95.84	95.21	94.62	94.08	4.133	4.133	4.13	4.78	5.23	5.91
Source: NUEPA,DISE, District Elementary Education Data, Various Years													

UP: Upper Primary **S:** Secondary **HS:** Higher Secondary

Predominant of medium of instruction remains the mother tongue, Gujarati. There has been only a slight reduction from 95.86 percent to 94.08 percent in Gujarati being the chosen medium of instruction. Students having English as a medium of instruction are only 5.91 percent in 2014-15, a small rise from 4.13 percent in 2009-10.

This is in contrast to other districts in Gujarat where a serious problem for Government schools is shift to private English medium schools. It may be advisable for the state to start English medium government schools for two reasons: (a) to stop future expected shift to private English medium schools, and (b) to provide students with an alternative in order to provide them (if they wish to) an alternative that seems to be preferred by many in the country but which is beyond the reach of many students.

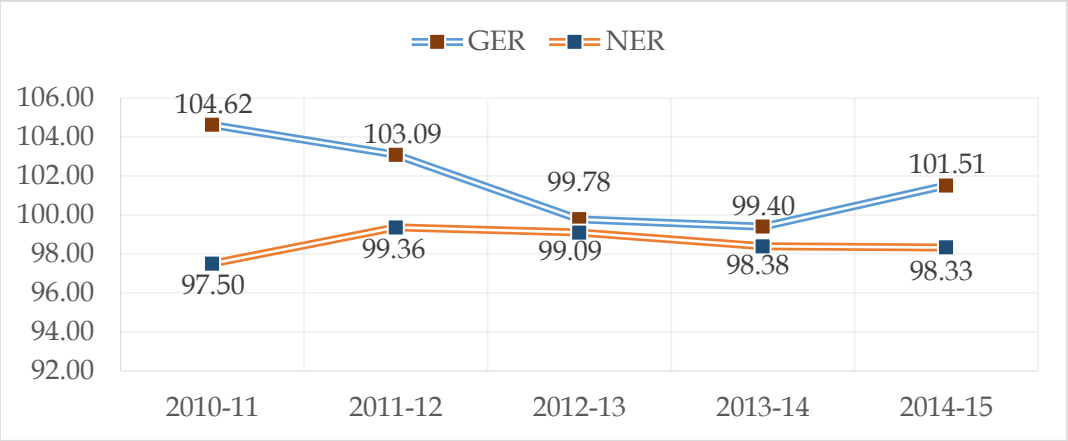
4.3.4 Flow Rates

4.3.4.1 Gross Enrolment Rate, and Net Enrolment Rates

The following tables summarize GER and NER in primary schools and upper primary schools in the district. Table data are for standards 1 to 4 (primary) and for standards 5 to 7 (upper primary), separately.

The Gross Enrolment ratio for primary level is almost around 100% or above 100% in all the years, while for Upper Primary is around 95%. The Net Enrolment Ratio for Primary level is around 98% while for Upper Primary it is around 72%

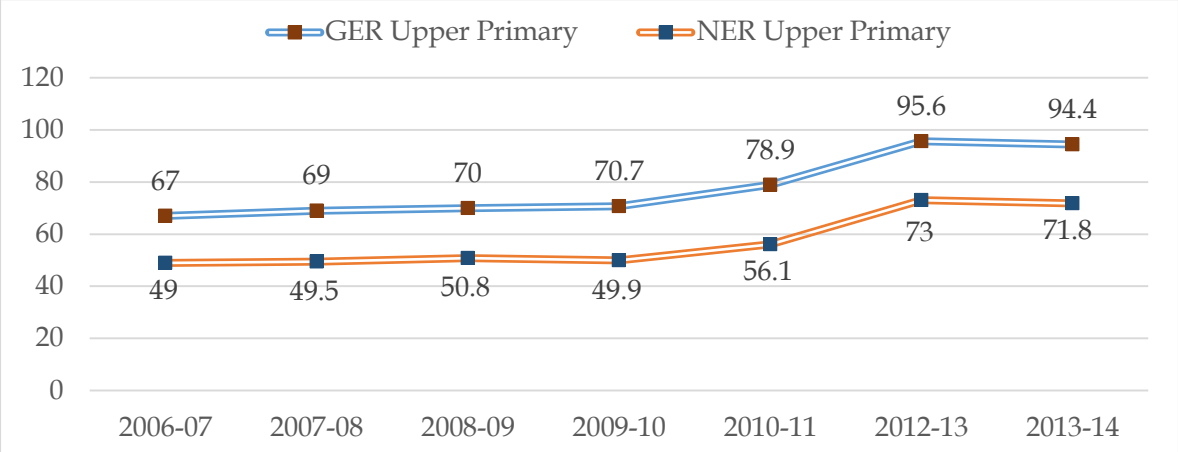
Figure 4.14: GER & NER over the years-(Primary)



Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

NER for primary schools has fluctuated. It was 98.1 percent in 2007-08. It decreased in the period 2010-11 to 2013-14, and again increased to above 98 percent in 2014-15. Coupled with GER, which rose when NER dropped, one may conclude that overall, at least 98 percent children of relevant age group enrol for school and the balance after the age.

Figure 4.15: GER & NER over the years-(Upper Primary)



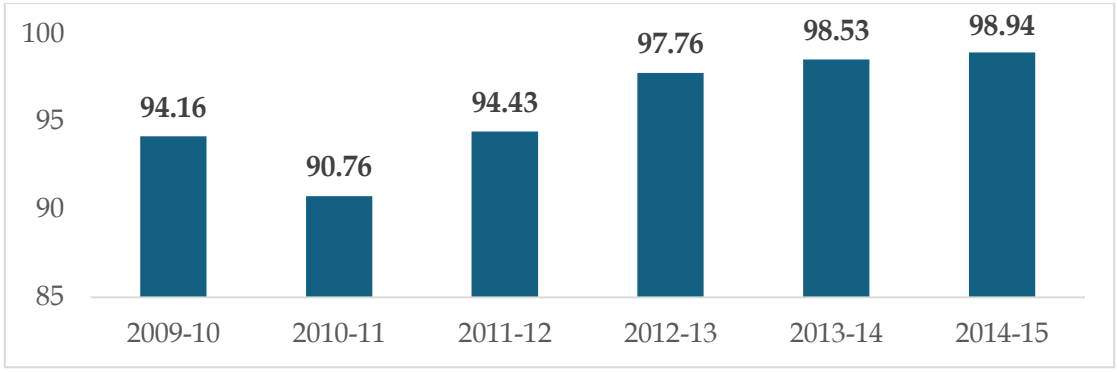
Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

More encouraging results are in upper primary section. NER and GER which were 49 and 67 percent in 2006-07 have increased to 71.8 and 94.4 percent in 2013-14. Thus, about 95 percent children enrol for upper primary school, a substantial improvement over 2007-08.

4.3.4.2 Promotion Rate:

Another encouraging development is the promotion rate. It has increased from 94.44 percent in 200607 to 98.53 percent in 2013-14. The clear implication is the increased awareness for better education, desire to complete at least schooling and acquire higher skills. With an increase in bar for several jobs (e.g., minimum completed school education) has resulted in high promotion rate. Thus, both, demand for more education and supply (adequacy and accessibility) has played an important role in better educated children.

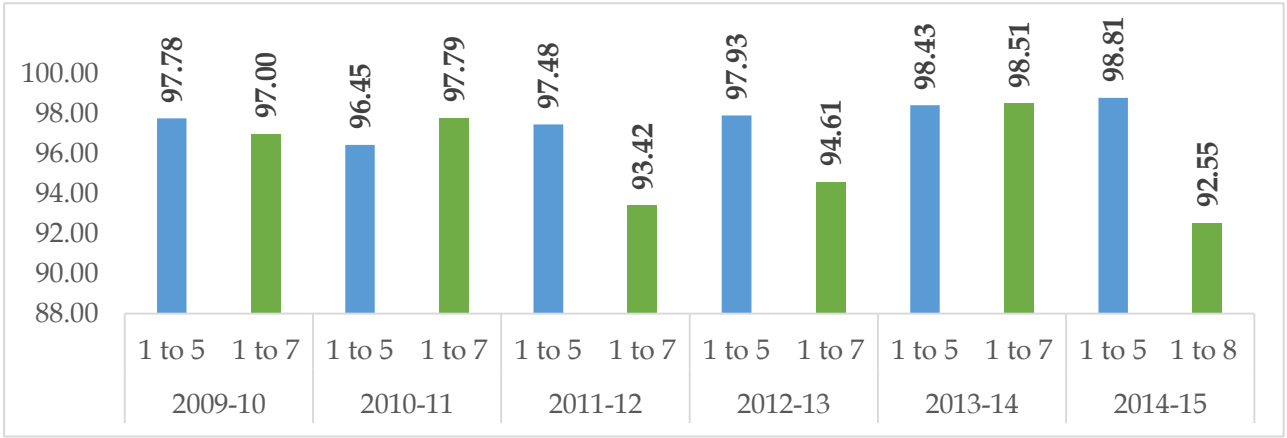
Figure 4.16: Promotion rate (Class 1 to 5)



Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

4.3.4.3 Retention Rate

Figure 4.17: Retention Rate at Primary Level over the years in Junagadh District

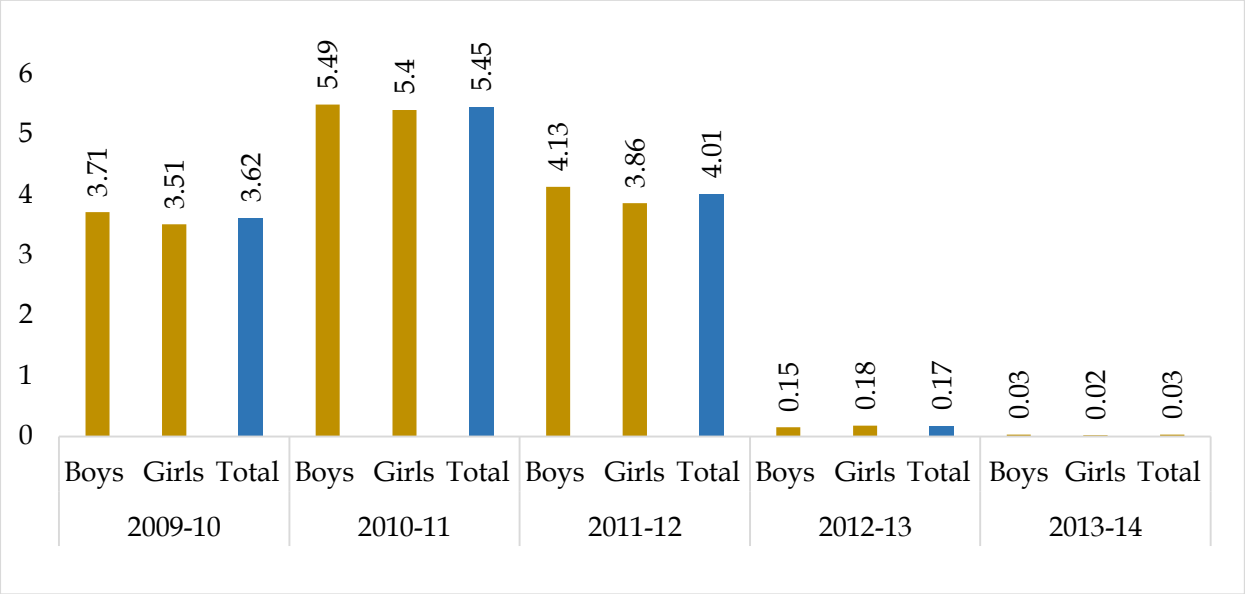


Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

Retention rate, in primary schools has remained high, increasing from 97.78 percent in 2009-10 to 98.91 percent in 2014-15. Higher retention rate, at primary stage itself, is a must for better educated population. However, retention rate is lower for standards 7 and 8. Retention rate for standards 1 to 8, in 2014-15, was only 92.55 percent. That is almost 7.5 percent students who enrol in standard 1 drop out by standard 8. That is roughly 3500 students. They may not pursue due to lack of capacity to study but also due to economic reasons. Education may be free, but need for earning in a family may force discontinuation of education.

4.3.4.4 Repetition Rate

Figure 4.18: Repetition rate (Class 1 to 5) in the district



Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

Repetition rate has decreased from 5.46 percent to 0.03 percent in 2013-14 and practically zero in 2014-15. This of course may be an outcome of policy of not failing any one. Such a policy is right and ensures that students do not get demotivated and has yielded positive outcomes. However, its impact on quality of education is uncertain as the motivation for hard work is reduced as rewards disappear. Alternative is to provide diversified learning experience (e.g., games) and more "open and inquisitive" education.

4.3.4.5 Drop-out Rate

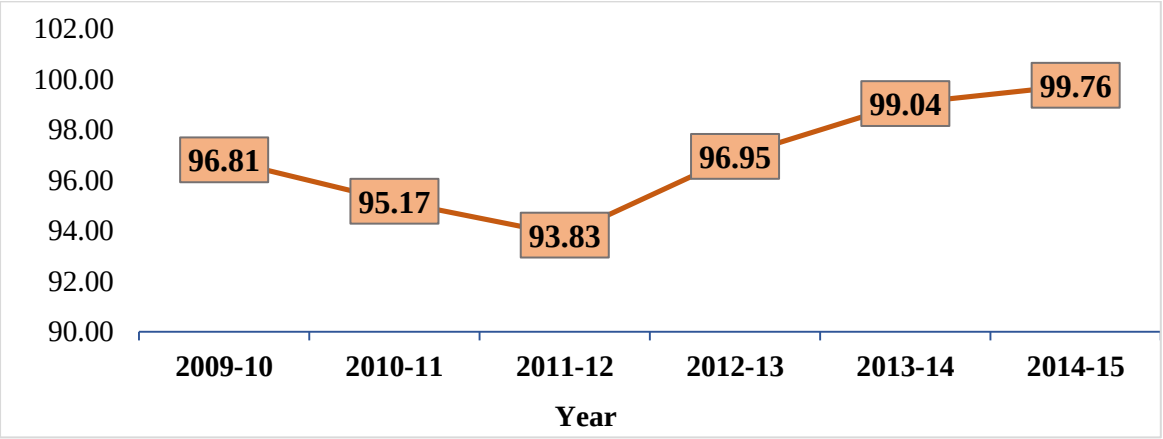
Table 4.7: Drop-out Rate: Junagadh District (Class 1 to 5 & 1 to 7)						
Years	Std. 1 to 5			Std. 1 to 7		
	Boys	Girls	Total	Boys	Girls	Total
2009-10	1.96	2.52	2.22	1.37	2.58	3.00
2010-11	3.13	4.03	3.55	1.95	2.51	2.21
2011-12	2.41	2.64	2.53	5.58	7.58	6.58
2012-13	2.08	2.06	2.07	4.82	5.91	5.39
2013-14	1.38	1.77	1.57	1.25	1.85	1.49
2014-15	1.19	1.20	1.19	7.17	7.74	7.46
Source: Gujarat Council of Elementary Education, SSA, Gandhinagar						

- Dropout rate has reduced from 2.22 percent in 2009-10 to 1.57 percent in 2014-15. Even for upper primary schools, dropout rate has decreased from 3.00 percent in 2009-10 to less than half at 1.49 percent in 2013-14. This is a heartening feature.
- Even among girls, dropout rate is substantially lower.
- However, above data do not capture dropout rate in higher secondary schools. Those are important determinants of long term earning capability.

4.3.4.6 Transition Rate

Transition rate has gone up from 97.02 percent in 2006-07 to 99.04 percent in 2013-14.

Figure 4.19: Transition Rate over the years in the district



Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

It is a major indicator that the education policy has yielded remarkable results where the students want to study even after primary school. Though of course, true indicator could be the transition rate from 8th standard to 9th standard.

Overall, SSA has been successful in drawing children to schools and retaining them atleast till the end of upper primary.

The next stage is to ensure that the quality of education has improved. For that mere coursework is not enough. Some additional skills, especially soft skills should be integral part of learning.

4.3.5 Schools

Number of schools have steadily increased even as the total enrolment has stagnated or even reduced. This has helped easy access to even remote and sparsely populated areas.

Table 4.8: Number of Schools, Type and Enrolment in Junagadh District

	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
A	**Total Schools**						
A.1	Govt Schools	1345	1358	1354	1355	1352	1363
A.2	Pvt Schools	705	717	741	760	774	758
A.3	Total	2050	2075	2095	2115	2126	2121
B	**Enrolment**						
B.1	Total	403318	402640	408265	426641	410456	391767
C	**Teachers**						
C.1	Govt Schools	8497	8923	9233	9172	9170	9193
C.2	Pvt Schools	4959	5331	5747	7210	7433	7244
C.3	Total	13456	14254	14980	16382	16603	16437
D	**Student to Teacher Ratio**						
D.1	All Students	29.97	28.25	27.25	26.04	24.72	23.83

Source: U-DISE, NUEPA, District School Summary, and, SSA, Gandhinagar

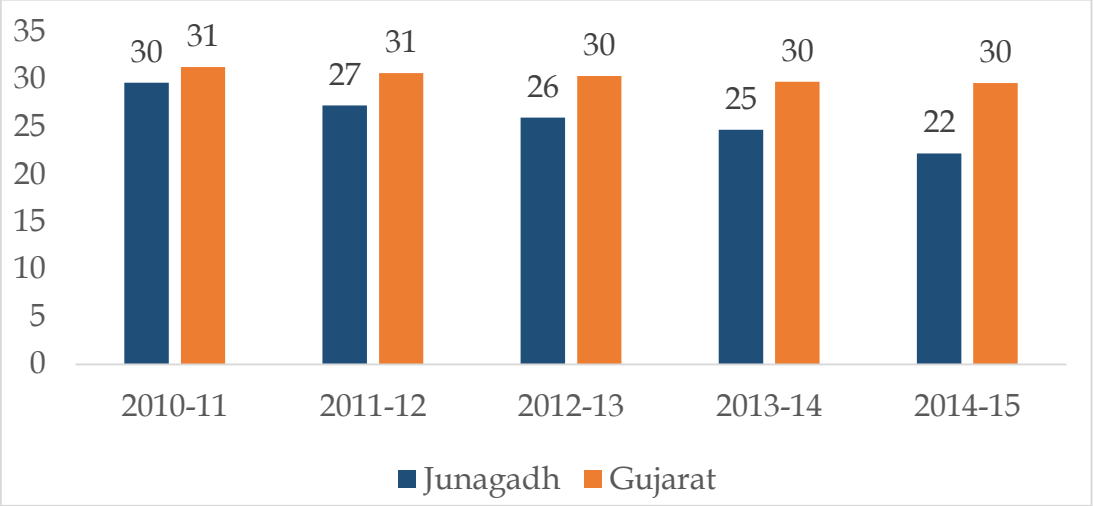
- Accessibility has improved and ratio of students to class rooms has improved.
- Government has been active and dominates primary school sector. In the rural areas, government schools are about 75 percent of the total, whereas in the urban area private schools are 75 percent of the total. The government has satisfactorily fulfilled its role for the society. In rural areas, enrolment in government schools has marginally dropped but is still about 80 percent.
- Similarly, number of teachers has increased by more than 20 percent over the last five years. Student to teacher ratio has improved substantially. This is an indicator of more specialized teachers/more personal attention to students.
- Though percentage of total government schools are 61.08 percent in 2013-14, percentage of teachers is lower at 55.23 percent. This ratio is 64.26 % for schools and 68.41 percent for teachers for government schools.

Table-4.9: Category wise Number of Schools in Junagadh District															
School Category	2010-11			2011-12			2012-13			2013-14			2014-15		
	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total
Pr. Up Pr. and Secondary Only	-	-	-	-	-	-	16	59	75	-	47	47	-	41	41
Pr. with Up.Pr. Sec. and H.Sec.	-	-	-	-	-	-	1	68	69	1	80	81	1	68	69
Primary	178	77	255	170	80	250	169	65	234	168	69	237	164	62	226
Primary with Upper Primary	1182	621	1803	1186	643	1829	1169	550	1719	1187	554	1741	1186	569	1755
Secondary Only	-	-	-	-	-	-	2	3	5	-	-	-	-	-	-
Secondary with Higher Secondary	-	-	-	-	-	-	2	2	4	-	-	-	-	-	-
Up. Pr. Secondary and Higher Sec	-	-	-	-	-	-	2	1	3	1	-	1	1	-	1
Upper Pr. and Secondary	-	-	-	-	-	-	-	1	1	1	2	3	4	2	6
Upper Primary only	5	12	17	6	10	16	5	8	13	4	12	16	7	16	22
TOTAL	**1365**	**710**	**2075**	**1362**	**733**	**2095**	**1366**	**757**	**2123**	**1362**	**764**	**2126**	**1363**	**758**	**2121**
Source: Gujarat Council of Elementary Education, SSA, Gandhinagar															

4.3.6 Student Teacher Ratio

Student to teacher ratio for primary section, standards 1 to 5, for the years 2006-07 to 2014-15 are indicated in the figure below.

Figure-4.20: Student Teacher Ratio in Elementary schools



Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

The ratio has decreased from 32.90 in 2006-07 to as low as 22.21 in 2014-15 for Junagadh district (after bifurcation) and 25.76 for Gir Somnath district (after bifurcation). These are much within the prescribed norms of 30 students per teacher and results in better learning process.

4.3.7 Infrastructure and Facilities in Primary Schools

It is not enough to have ad equate number of schools and teachers. The schools must have conducive environment for education and facilities that enhance learning. Many of the facilities are minimum required, e.g., boards and chalks. Many other facilitate education and impart knowledge at par with other schools which could provide world class facilities e.g., computers.

Following infrastructure and facilities are deemed minimum necessary, at primary schools to ensure at least primary education to all. Similar and even better facilities may be required at higher schools and colleges. (Which are not discussed herein as that is not the focus)

A. Basic Infrastructure Facility:

1. Schools with board and chalks
2. Pucca Building
3. Blackboard in the Classroom
4. Drinking Water Facility
5. Sanitation Facility
6. Separate Women Toilet

B. Learning Enabling Facility:

1. Schools with electricity
2. Schools with Computer Labs
3. Schools with Compound walls
4. Schools with playground

Of the 2126 primary schools in the district, most schools have the basic infrastructure and basic amenities in place. Following tables detail taluka-wise availability of these facilities in primary schools.

Table 4.10: Taluka Wise Physical Amenities Available at Primary Schools (in %)

Block	Electricity	Computer Lab (Class 5-8)	Compound wall	Play Ground
	2014-15	2014-15	2014-15	2014-15
Bhesan	100	100	100	88.89
Junagadh	100	100	97.39	77.39
Keshod	100	100	94.41	72.05
Malia Hatina	98.66	86.73	94.63	85.23
Manavadar	100	98.55	100	73.96
Mangrol	100	100	96.55	69.46
Mendarda	95.83	92.31	100	80.56
Vanthali	100	92.45	100	80.49
Visavadar	100	96.51	97.32	90.6
District	**99.38**	**96.65**	**97.81**	**79.84**
Junagadh Corp.	**100**	**100**	**98.73**	**85.99**

Source: Gujarat Council of Elementary Education, SSA, Gandhinagar

Inferences:

1. In 2013-14, the district has 2126 elementary schools, which reduced to 2121 in 2014-15.
2. Almost all the schools have electricity. 99.38% schools have electricity while rest of schools are in remote areas and it is not cost effective to provide distribution to them.
3. A large number of schools have computer labs. In today's age, lack of computer literacy is a serious disadvantage. Many of the deprived students may not study beyond higher secondary and hence this school platform to acquire computer literacy would go a long way. A literate but computer illiterate person is as good as illiterate. Junagadh district has sufficient number of schools (with std. 5 to 8th) with computer lab. In Bhesan, Junagadh, Mangrol and Keshod taluka all the schools from std. 5 to 8 are having computer labs.
4. Almost 14 percent schools do not have playgrounds. This is a slight improvement from 2013-14. Since many of these schools are in the heart of the

cities, it would be difficult to provide a playground. This is not surprising as many private schools are started with building only.

Sanitation Facility in Schools:

Presently, all the primary schools and secondary schools have common sanitation facility, as well as separate bathroom facility for women.

Drinking Water Facility:

All the schools, both at primary level and secondary level are provided with drinking water facility in all talukas.

4.3.8 Teachers –Primary Schools

Number of teachers in primary schools is already indicated in Table above.

Qualification of teachers in school is as important, or even more, than the number of teachers. The table below is a summary of qualification of teachers in primary and upper primary schools from 2011-12 to 2014-15.

Table-4.11: Qualification of Teachers in Primary Schools (in %)

Junagadh District

S.N.	District	2011-12	2012-13	2013-14	2014-15
1	**Below Secondary**	4.18	3.54	4.2	2.75
2	**Secondary**	27.13	31.56	26.99	39.01
3	**Higher Secondary**	29.15	29.31	31.33	24.18
4	**Graduate**	27.27	24.96	25.49	23.63
5	**M.Phil**	0	0.16	0	0
6	**Post Graduate**	11.98	10.47	11.99	10.44
7	**Ph D**	0.29	0	0	0
8	**Total**	100	100	100	100
Graduate and Above		**39.54**	**35.59**	**37.48**	**34.07**

Source: U-DISE, SSA, Government of Gujarat, Gandhinagar

Table-4.12 Qualification of Teachers -Upper Primary Schools Junagadh District									
Sr. No.	District	2011-12	2012-13	2013-14	2014-15	2011-12	2012-13	2013-14	2014-15
		No	No	No	No	%	%	%	%
A	Junagadh District								
1	Below Secondary	377	370	382	250	2.64	2.34	2.4	2.92
2	Secondary	3584	3491	3298	1867	25.09	22.09	20.7	21.8
3	Higher Secondary	4376	4363	4181	1567	30.63	27.61	26.24	18.3
4	Graduate	3882	4673	4916	2988	27.17	29.57	30.85	34.89
5	M.Phil	41	42	51	29	0.29	0.27	0.32	0.34
6	Post Graduate	1970	2834	3079	1846	13.79	17.93	19.32	21.56
7	Ph D	56	29	27	15	0.39	0.18	0.17	0.18
8	Post Doc	0	1	2	2	-	0.01	0.01	0.02
9	Other	1	0	0	0	0.01	-	-	-
10	Total	14287	15803	15936	8564	100	100	100	100
Graduate and Above						**41.65**	**47.96**	**50.67**	**56.98**
Source: U-DISE, SSA, Government of Gujarat, Gandhinagar									

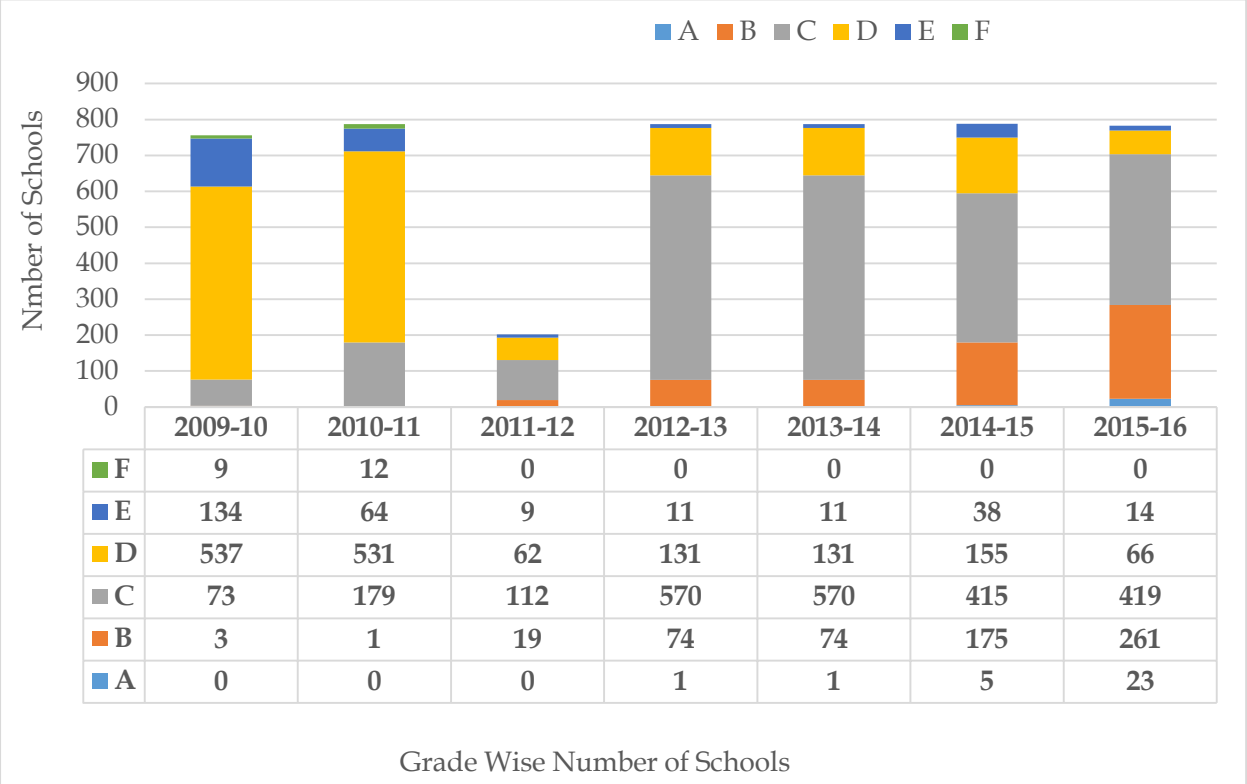
- The qualification of teachers in upper primary section is increasing atleast a graduate degree. Whereas only 41.65 percent of teachers in 2011-12 were graduates, within last three years it has increased to 56.98 percent in Junagadh district, and 53.09 percent in Gir Somnath district. The qualification would further improve with time as older less qualified teachers retire and the minimum qualification standards are followed for new recruits.
- However, in primary section, this improvement is not visible. Teachers with at least a graduation degree has declined from 39.54 percent to 34.07 percent in the last three years in Junagadh district. A likely reason is that the unaided schools, who may not pay full wages, are not able to attract graduates. Or, there could be difficulty in recruiting teachers in remote areas and/or for schools with very few students. A long term solution needs to evolve after deliberations. Otherwise, some students, though provided with schools, are deprived of good education.

4.3.9 Gunotsav

Gunotsav is defined as an accountability framework for quality of primary education which includes learning outcomes of children as well as co-scholastic activities, use of resources and community participation.

Gunotsav is the programme, started in 2009-10, by the state Education department, with an aim to evaluate primary education scenario and grade school teachers accordingly. The performance of Gunotsav in Junagadh district is shown below.

Figure-4.21: Performance of Schools in Junagadh District: Gunotsav



	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
F	9	12	0	0	0	0	0
E	134	64	9	11	11	38	14
D	537	531	62	131	131	155	66
C	73	179	112	570	570	415	419
B	3	1	19	74	74	175	261
A	0	0	0	1	1	5	23

Source: District Education Officer, District Panchayat, Junagadh

1. Quality of schools has progressively improved. Whereas there were as many as 143 schools in E and F category (low quality) in 2009-10, the number has reduced to only 14 in 2015-16, with no school in F (the worst) category.
2. Number of schools in A category has increased from 0 to 23 and in B category from 3 to 261.
3. If Scores are given from 0 (F) to 10 (A), average score per school has improved from 3.81 in 2009-10 to 6.54 in 2015-16. Thus average ranking has improved from approximately D- grade to C+ grade.

Table-4.13: Average Score: Gunotsav in Junagadh District

	20010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Average Score	3.81	4.24	5.40	5.80	5.88	6.54

Source: District Education Officer, District Panchayat, Junagadh

4.4 SECONDARY SCHOOL EDUCATION

Secondary school education is governed by Secondary School Board in Gandhinagar.

Table 4.14: Taluka-wise Status of Secondary School Education

SN	Taluka/ District	Number of Secondary & Higher Secondary Schools	Number of Schools with Science Stream	Number of Students Science Stream 12th Std	Number of Students Appearing in HSC Examination			Number of Students of science Stream in 12th Standard		
		2014-15	2014-15	2014-15	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	Bhesan	15	2	-	824	1000	941	824	1000	941
2	Junagadh	76	34	-	4337	5399	5266	4337	5399	5266
3	Keshod	42	42	-	1868	2152	1987	1868	2152	1987
5	Malia Hatina	34	34	-	745	988	905	745	988	905
6	Manavadar	31	1	-	1592	2051	2055	1592	2051	2055
7	Mangrol	38	38	-	2209	3077	3095	2209	3077	3095
8	Mendarda	17	17	-	1122	1354	1336	1122	1354	1336
13	Vanthli	28	3	-	596	775	817	596	775	817
14	Visavadar	34	6	-	1143	1510	1504	1143	1510	1504
District Junagadh		315	177	4157	14436	18306	17906	14436	18306	17906
As on 1.1.2015										

Source : District Education Officer, Jilla Sikshan Adhikari office, 2/1, Bahumali Bhavan, Sardar Baug,Junagadh

- Secondary schools are either government schools, private aided schools or private non-aided schools.
- In Junagadh district (after bifurcation) , total number of secondary and higher secondary schools are 397, of which only 15 are government schools, 247 are grant in aid schools and 135 are non-grant in aid schools.
- Though government schools dominate primary schools, private schools dominate secondary schools. As on 31st July, 2014, number of students are as follows.

Table 4.15: Total Number of Students in Secondary and Higher Secondary Schools in Junagadh District (Bifurcated), as on 31/7/2014										
Sr. No	Standard	Government Schools			Private Schools			Total		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	Standard 9	650	570	1220	15124	11839	26963	15774	12409	28183
2	Standard 10	670	615	1285	14483	11001	25484	15153	11616	26769
3	Standard 11	908	706	1614	8946	8273	17219	9854	8979	18833
4	Standard 12	774	627	1401	7966	6259	14225	8740	6886	15626
TOTAL		3002	2518	5520	46519	37372	83891	49521	39890	89411
Source: District Education Officer, Junagadh District, Junagadh.										

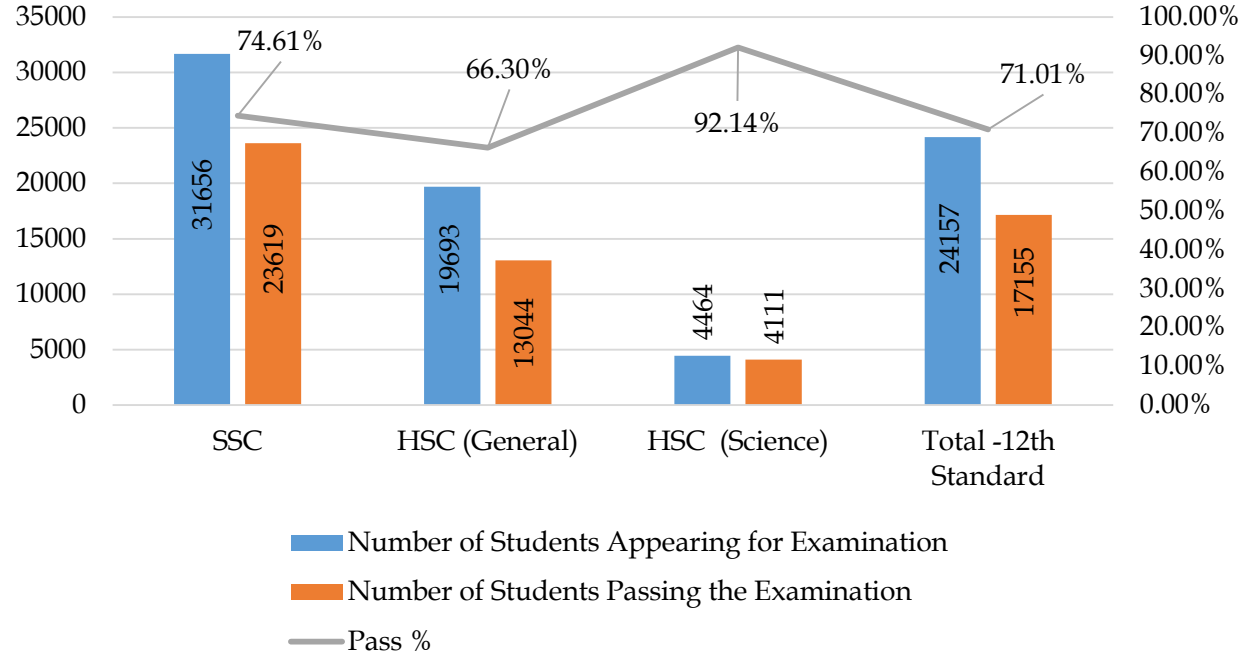
As the above data shows, number of students who get admitted in 9th standard, progressively drop out and little more than 50 percent enrol in 12th standard. This is a serious indicator of little control on quality at primary level and/or inability or unwillingness of students to complete school education.

Table 4.16: Taluka-Wise Students in 9th Standards Junagadh (Bifurcated) District, 2014-15									
Sr. No.	Taluka	Population, 2011	Number of Schools	Students in 9th Standard, in July,2013			Students in 9th Standard, in July,2014		
				Boys	Girls	Total	Boys	Girls	Total
1	Bhesan	73737	17	398	285	683	501	504	1005
2	Junagadh	439420	105	5117	3870	8987	3538	3015	6553
3	Keshod	176099	55	1757	1807	3564	1449	1344	2793
4	Malia	144975	44	1306	1147	2653	1356	1288	2644
5	Manavadar	132830	43	1103	773	1876	760	727	1487
6	Mangrol	189053	57	1841	1325	3166	1989	1633	3622
7	Mendarda	66068	19	689	539	1228	557	453	1010
8	Vanthli	97189	31	698	477	1175	857	611	1468
9	Visavadar	132853	35	943	726	1669	1259	891	2150
	Total	1452224	406	14052	10949	25001	12266	10466	22732
Source: District Education Officer (DEO) , Jilla Panchayat, Junagadh District									

Number of students in secondary school, at entry level, was 25001 in 2013 and 22732 in 2014. Number of students has declined, though it may not be a trend. Though child sex ratio is in the range of 900-920 in different taluka, girls to boys ratio in 9th standard was 78% in 2013-14 and 85% in 2014-15. Apparently, more girls drop out from education after 8th standard than boys.

Results of examinations in 2015 are as follows:

Figure 4.22: Results of Board Examinations, Junagadh District (Bifurcated) - 2015



- Number of girl students to boys' in 8th standard is an average of 85 percent, and is as low as 71 percent for Vanthli and Visavadar. i.e. by 8th standard, a large number of girls drop out of education.
- It is reported that subject specific teachers are not available for some schools. Specifically, adequate number of teachers for teaching English, science and maths are not available. On the other hand, language teachers are in excess supply. This results in inadequate learning of students. This has long term implications. This is equally true for commerce teachers (short supply).
- Government schools have adequate equipment and facilities. However, this may not be true for private schools, specifically non-aided schools.
- The schools should be equipped to provide facilities to acquire other skills, extra-curricular activity. Overall development of a student should be a goals. For example, a school must have a selection of additional courses, e.g., music, drawing, etc.

- It is observed that at most places library is not adequately stocked and stocks are not updated continuously. In a society, where many cannot afford to have own library, and where community reading rooms and libraries do not exist, school library should become fulcrum of knowledge sharing and acquisition.

4.5 College and University Education

The district has large and sufficient number of colleges for basic degrees. All the colleges are located in urban areas and their vicinity, the details of which are summarized below.

Table 4.17: School Education Facilities in Urban areas - Junagadh District (2014-15)

Sr. No.	Township	Taluka	Town Population	Primary Schools	Secondary schools	Higher Secondary Schools
1	Junagadh (M Corp.)	Junagadh	319462	87	51	6
2	Bantwa (M)	Manavadar	15291	15	5	2
3	Manavadar(M)	Manavadar	30850	23	5	5
4	Vanthali (M)	Vanthali	14554	7	4	2
5	Dungarpur (CT)	Junagadh	5039	3	6	0
6	Visavadar (M)	Visavadar	19515	13	6	1
7	Keshod (M)	Keshod	76193	50	16	10
8	Mangrol (M + OG)	Mangrol	69779	55	7	10
9	Chorvad (M)	Malia	22720	6	3	3
District Total			**573403**	**259**	**103**	**38**

Source: DEO, Junagadh

Table 4.18: College Education Facilities in Urban areas - Junagadh District (2014-15)													
Taluka	**Town Population**	**Arts (BA) College**	**Science (B Sc) College**	**B Com College**	**BA+ B Sc College**	**BA+ B Com College**	**BA+ B Com + BSc**	**Law College**	**other**	**Medical**	**Engg**	**Mgt**	**Polytech**
Junagadh	319462	2	3	2	4	4	1	2	4	1	2	4	1
Manavadar	15291	-	-	-	-	-	-	-	-	-	-	-	-
Manavadar	30850	1	-	1	-	1	-	-	-	-	-	-	-
Vanthali	14554	-	-	-	-	-	-	-	1	-	-	-	-
Junagadh	5039	-	-	-	-	-	-	-	-	-	-	-	-
Visavadar	19515	1	-	1	-	1	-	-	-	-	-	-	-
Keshod	76193	2	-	2	-	2	-	-	-	-	-	-	-
Mangrol	69779	1	1	1	1	1	-	1	2	-	-	-	-
Malia	22720	-	-	-	-	-	-	-	-	-	-	-	-
District Total	**573403**	**7**	**4**	**7**	**5**	**9**	**1**	**3**	**7**	**1**	**2**	**4**	**1**
Source: DEO, Junagadh													

- **University**
  - The district boasts of Three Universities.
  - Agricultural University, Junagadh is a public university, well established.
  - A new Bhakt Kavi Narsinh Mehta University has been started this year (2015-16). It offers several courses and is expected that it will grow into a leading educational institution in the long run.
  - Shree Somnath Sanskrit University, is situated in Veraval and is operational since 2005.
- **Degree Colleges**
  - Large number of colleges, affiliated to Saurashtra University, Rajkot, offer degree courses in Arts, Commerce and Science.

- **Engineering**
  - Five Engineering colleges offer both degree and diploma in conventional courses in engineering.
  - In addition, Agricultural University offers B.Tech. Degree in agriculture.
  - The Government also runs Polytechnic offering various diplomas.
  - Adequate number of seats are available for various branches of engineering.
- **Medical and Nursing**
  - The district* has one medical college. GMERS Medical College, Junagadh, under Bhakta Kavi Narsing Mehta University, with 150 seats for MBBS degree, has been started in 2015-16.
  - There are five nursing colleges in the district.
  - Government Ayurvedic College, Junagadh has been operating since 1969 and offers 20 seats for BAMS degree.
  - There is no homeopathy college.
- **Management Education**
  - Junagadh district has five MBA colleges, four in Junagadh town and one in Sutrapada.

Thus, an impressive array of courses are on offer for students who aspire college education. With establishment of University, Junagadh has all the qualities to become a leading education centre, a magnet for nearby districts.

4.6 SWOC ANALYSIS OF EDUCATION SECTOR IN JUNAGADH DISTRICT

4.6.1 Strengths/ Achievements:

1. Substantial improvement in literacy rate.
2. Improvement in female literacy rate
3. Reduction in Gender Gap
4. Junagadh district has done well and achieved almost all goals at primary education level.
5. Overall, schools have almost 100 percent enrolment, all schools have separate sanitation facilities, computers, and adequate number of teachers. In primary schools required upper limit for student to teacher ratio is 30, and for secondary schools it is 50. This is largely achieved.
6. Junagadh district has sufficient number of basic degree colleges, a medical college, engineering colleges for basic disciplines (civil, electrical, mechanical),
7. Primary Schools
    i. Primary school education is well established with near 100 percent enrolment.
    ii. Schools have adequate facilities for learning like teachers and classrooms.
    iii. Qualification of teachers has been improving over time.
    iv. Computer facility is available in almost all schools.
    v. Implementation of UDIES has ensured that all children are tracked and ensured that they attend school.

8. Secondary Schools
   Adequate number of schools exist with different medium of instruction, different courses on offer and with geographical spread.

9. College and Vocational Training
    i. Adequate number of institutes offer college education in different fields.

4.6.2 Weaknesses:

1. There are elementary schools which have long serving teachers who are not as well qualified as the newer ones though the experience may be a substitute. However, there are schools, especially non-aided, where teachers do not have adequate education, facilities are poor, laboratories may not have adequate facility, and even pass ratio is poor.
2. Even for the government schools and aided schools, it has been observed that specific

   Teachers for computer training are not available for each school and the resources are then shared.
3. Secondary schools seem to have a bigger problems of teachers. It has been reported that schools may not have adequate teachers for specific subjects (e.g., science and mathematics). Similarly, facilities of laboratories appear to be poor, especially in un aided schools. Enrolment in 9th standard drops considerably.
4. Many schools have poor pass ratio in 10th /12th standards. Children in these schools are unlikely to be less capable. Inescapable conclusion is that they are not well trained.
5. A strong monitoring and decisive action could help.

4.6.3 Opportunities:

1. Further improvement in Literacy rate and reduction in gender gap
2. Special focus on schedule caste and tribe for improved literacy
3. Education field offers immense scope in Junagadh District for long term impetus for growth.
   a. New high quality boarding schools and international standard higher educational Institutions need to be established to attract national level students who in turn can result in backward and forward linkages for growth.
4. Junagadh district has ideal setting for high quality international level school. Shardagram, an erstwhile boarding school is a shining example.
5. With establishment of BJNMU, Junagadh can act as a magnet to attract high quality faculty. To achieve that the University should have large autonomy and excellent facilities. Investment in faculty housing, library and laboratories, of international standards, could go a long way to establish Junagadh as a premier education centre.
6. A college for entrepreneurship, say on the pattern of EDI, Ahmedabad, could help foster entrepreneurship.

4.6.4 Challenges / Constraints:

1. A major constraint is absence of commitment to excellence in private institutions, and lack of facilities and attachment in public institutions. Till teachers are passionate about their vocation, training would always remain poor.
2. Quality of Teachers and Qualifications

i. Qualification of teachers need improvement in all different education institutions.

ii. E.g., In ITI,

   b. New provisions require teachers to have an engineering degree with one-year experience which would improve quality in long run.
   c. Offer of Practical experience needs substantial improvement.
   d. Equipment and libraries need augmentation and continuous upgradation.

3. At primary school level, computer training suffers because of inadequate trained teachers. Generally, one faculty is available between 5-6 schools and hence is available by a particular school only on one day in a week.
4. So far, Junagadh, except in pockets, has failed to establish environment where scholarship is rewarded. Mind-set (that money is more important than intellect) may change only over a long period, but recognition and reward for excellence can go long way to establish quality education.
5. A possible another constraint is affordable English medium schools. Students who wish to study in English medium, helpful in globalized economies, do not find adequate schools which are affordable and teachers trained to teach in English. Such a facility has given upper hand to students in other states.
6. Elementary education is under Taluka Jilla Panchayat whereas Secondary Education is under Central Board under the Education Ministry of the State. Hence the implementation of policies is differently managed.
7. Entire primary and upper primary education system may be made autonomous.
8. Smart School concept has been introduced but NOT yet implemented. One school in Malia district is expected to fully implement provisions to become smart school over the next two years. In future more such schools could be established.
9. At elementary level constraints are few, .e.g., quality of teachers.

a. At college level and post-graduate level, paucity of quality teachers is acute. For example, management college graduates do not command national level placement in reputed MNCs.
b. Ability to attract quality faculty is poor for several reasons. First, complete package, including residential facility and facilities for both research and recreation need to be offered. Adequate water and sanitation facility is required. Till such offer can be made, Junagadh district may not be able to have international standard educational institutions.

Chapter 5

Healthcare

5.1 INTRODUCTION

Health is major component (after income) of individual wellbeing and an indicator of human development. For an individual , to enjoy his/her life to the fullest, he/she must be healthy, continue to be healthy, lives a long life and in case of health problem has available health care (availability), access to health facility(accessibility-nearness) and means to pay for the health costs (affordability). If any one or more of these are deficient, then happiness is affected.

Good health is necessary not only for good life, is essential for productive life and for realization of full potential of learning and earning. A student who is not healthy suffers from learning disability and/or poor learning outcomes. As a consequence his/her life time earnings is impaired. A workman (woman) will not be able to work and/or work to full potential. Loss is suffered not only by the concerned individual but also his/her family and the society as a whole (lost output).Thus economic progress of the society is directly linked to good health of its citizens.

Ill Health is not something that can be eliminated as human body is prone to bad health due to its constitution, its natural decay over time, because of intakes (air, liquids and solids) and because of environment. As a person ages, his/her body has less immunity and has less capacity to perform. Consequently, health of a person will be affected and his/her body is diseased. Besides, a person, especially more vulnerable sections (e.g., children) are prone to both chronic and acute disease. Hereditary diseases are inevitable. Interaction with outside world and environment has its negative consequences on health and wellbeing (e.g., accidents, pollutants, exposure to harmful smokes of a smoker, etc).

Heath care is thus necessary for all individuals. Three essential parts of a health care programme of the individual/society are:

1. Availability of health care facility
2. Accessibility of healthcare facility
3. Affordability of healthcare facility

Outcome of a health care system may be measured in terms of certain key objectives. Some of the key areas of healthcare and objectives are:

- Longevity
    - Increasing longevity and bring it to at least near to the world's highest level
    - Control on diseases : Both communicable and non-communicable

- Child Health
  - Reducing child mortality
- Women's Health, Care of pregnant women and safe motherhood
  - Reducing maternal Mortality
- Availability
  - Healthcare Infrastructure
    - Creating and Sustaining Medical Facility / Infrastructure that is adequate
- Affordability
  - Making healthcare affordable by proper pricing, subsidies, etc.
- Disease Control
- Emergency Care
  - Natural calamity and Disasters
  - Outbreak of epidemics

In developing countries like India, the Public sector has a major role and is main provider of health care. This includes primary health care system, immunization, sanitation, adequate availability and access to safe drinking water, safe motherhood and children nutrition and health.

This chapter discusses the status, availability, accessibility and affordability of health-care in Junagadh district.

5.2 Population, Growth and Longevity

5.2.1 Population, Sex Ratio and Child Sex Ratio

Details of population of the district are given in Chapter 2 of this Report. To summarize, for the purpose of providing health infrastructure:

- Total population is 15, 25,605 (2011), of which rural population is 9, 52,202 and urban population is 5,73,403.
- Sex ratio is 945, 942 in rural and 951 in urban area. Thus total male population is 7,84,330 and total female population is 7,41,275.
- Net population growth is 0.945 percent per annum.
- Child population is 10.29 percent of total at 1,56,987, of which 98,481 live in rural area and 58,506 in urban area. Child population in rural area has decreased from 1,23,793 in 2001, a decrease of more than 20 percent. In urban area, child population has increased from 57457, at about 1.83 percent over a decade Overall reduction is 13.39 percent.
- Decadal growth rate of total population is 3.63 % in rural area and 22.10 % in urban area. This is equivalent to CAGR of 0.36 % for rural and 2.02 % for urban population.

- Rural population will stabilize and start decreasing over time.
- As the population growth decreases, urbanization increases and longevity increases, child population, both in absolute number and in percentage will decline over time. This has important implications for required resource allocation.
- Healthcare facility will have to be accordingly designed.

5.2.2 Longevity

Average life expectancy at birth in the world was 67.77 years in the year 2000 and 70.90 years in 2013. Corresponding figures for India are 65.69 years in 2000 and 66.45 years in 2013.

Indian rank in 2013 is 136 and there are at least 30 countries whose life expectancy is above 80 years.

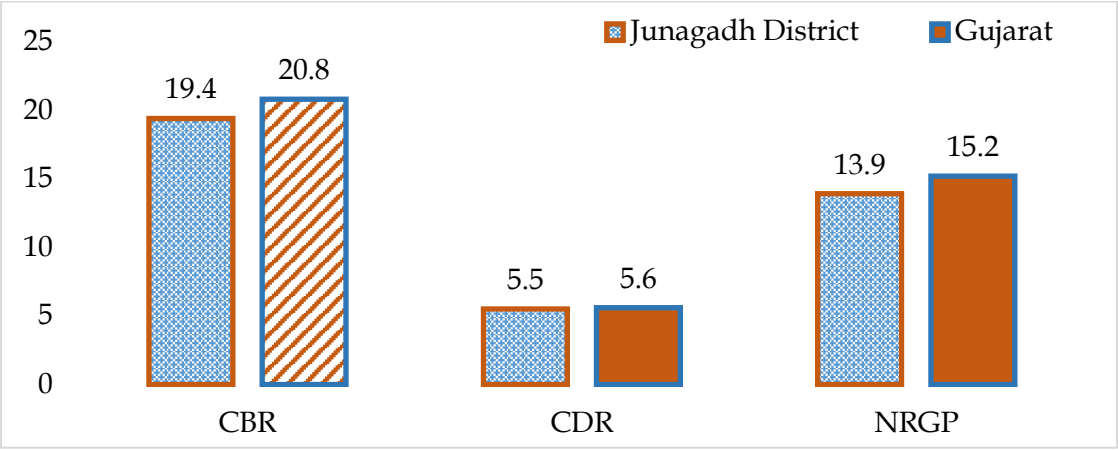
For women, world average of life expectancy at birth was 67.92 years in 1990 and 73.04 years in 2013. Corresponding figures for women in India are 58.96 years in 1990, 63.36 years in 2000 and 68.25 years in 2013.

Thus India has made a considerable progress in increasing life expectancy and reducing the gap from the world average. However, India ranks at 136 among the member nations of the UN. 50 countries have women longevity at more than 80 years. Incremental improvement is more difficult to achieve and thus we have a long way to go. Longevity is not only function of health, it is also function of environmental conditions, e.g., road accidents per capita, level of stress, nutritious diet, etc.

5.2.3 Crude Birth Rate (CBR) and Crude Death Rate (CDR)

Latest available data for CBR and CDR are reproduced below.

Figure-5.1: Crude Birth and Crude Death Rate, 2013



Source: CRS-Report-2013

1. The natural rate of growth in population (NRGP) of Junagadh district per year is 13.9, substantially lower than the state NRGP of 15.2 (8.56 % lower). Crude birth rate is lower (19.4 versus 20.8) despite the fact that sex ratio is higher (945 versus 920). This could be due to lower number of child bearing women (percentage) or lower fertility in Junagadh district or successful family planning programme.
2. Crude death rate in the district, at 5.5 is similar to the state (5.6).
3. The lower birth rate is commendable as it is most likely a result of strong and successful family programme initiatives. However it is not sufficient to explain lower population growth (more than 30 percent lower compared to national average). As the population growth is lower, clearly, migration from Junagadh district is pretty high. 5 percent lower growth rate over 10 year period is equal to almost 70000 people. The difference in fertility rate is about 2 percent. Hence, estimated 4200 people (60 % of 70000 migrated over 10 year period) per year migrated out of the district over 2001-2011 period. These people are most likely more productive than the district average and hence this is alarming for long term potential, though in short term its benefits are lower per capita demand on state resources and for public services, including health services.
4. Rural population is not growing much, and is likely to start decreasing after a decade or so (both because of migration to cities and because some rural areas would become statutory urban areas).

5.3 Infrastructure for Healthcare System

5.3.1 Overview

Health Infrastructure is sum of several essential components, mainly physical infrastructure-hospitals, medical centres and consultation rooms etc.; doctors with general and special functional capabilities, nurses and support staff, emergency health care facilities and emergency vehicles, and stocks of medicines.

Unlike many advanced countries, private sector participation in health care system is poor and largely caters to urban population. Hence, it is necessary that public health system and public health expenditure are strong.

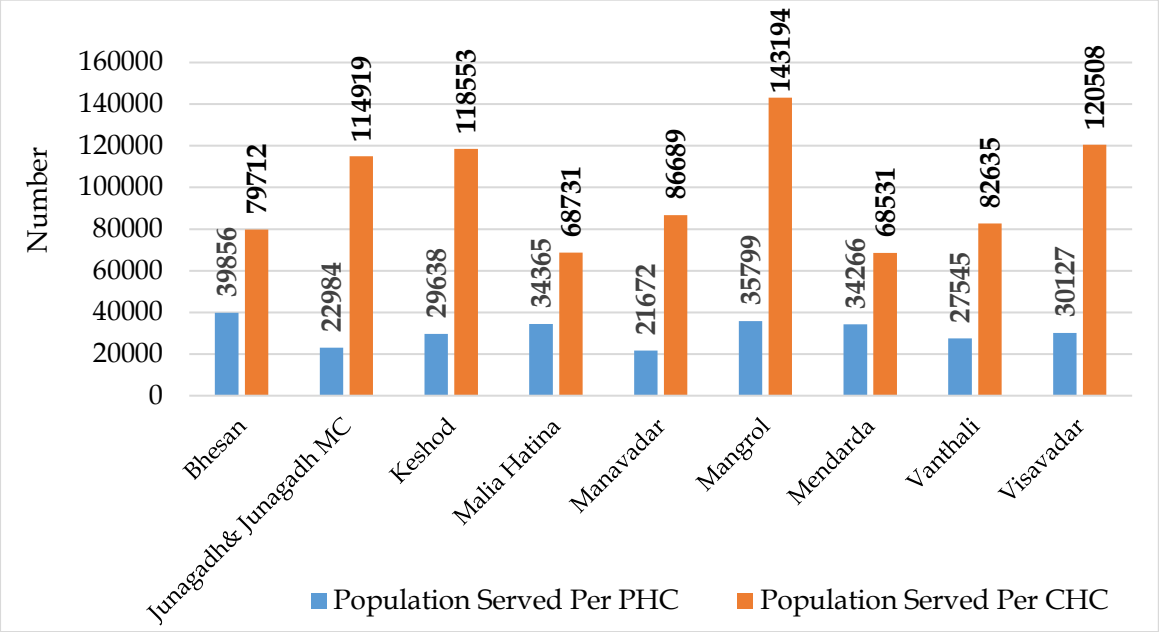
- The district had one district hospital at Junagadh with 434 bed capacity. It is now attached to the newly formed medical college. It does not have any sub-district government hospital.
- Gir Somnath district has one district hospital at Veraval.

- Recently (in 2015), a medical college has been set up in Junagadh under new university. That is the only medical college in the district.
- The district does not have any mental hospital and the nearest mental hospital is in adjoining district of Rajkot.
- The district has one Ayurvedic hospital and 10 ayurvedic dispensaries. Ayurvedic hospital is in Junagadh city.
- The district also has 12 homeopathic dispensaries spread over 10 talukas.
- One governmental nursing college and two private nursing colleges have a total intake capacity of 100.
- The district has a robust rural health care system, as per the guidelines of National Rural Health Mission of the Government of India (NRHM).
- As on 31st March 2016, the district has 409 sub centres (236 in Junagadh and 167 in Gir Somnath) and 63 primary health centres as a part of rural health facility (25 in Gir Somnath and 38 in Junagadh). Number of community health centres are 18 (10 in Junagadh and 10 in Gir Somnath).
- Number of anganwadis are 1423 as on 31st March, 2015.
- For a rural population of 1117870(estimated 2016), Junagadh has 38 PHC as against required number of 38. If we assume 3.5 percent rural population growth in 10 years (almost as in 2001-11), additional rural population by 2021 is expected 40000. Thus required PHC by 2021 would be 40. Additional 2 PHC would be required to satisfy the norm.
- However, there are PHC which cater to more than 30000 population.
- Since each PHC is referral for six SCs, total SCs required are 384. Alternately, one sub centre is recommended for every 5000 population. Junagadh district has 409 sub centres, adequate overall.
- As per guidelines, one Community Health Centre (CHC) should be established for every four PHC, i.e., for every population of 120000. Junagadh district has 18 CHC, more than minimum required.
- Each CHC should be at least 30 bedded hospital. All CHC have thirty beds or more.

Table 5.1 Health Infrastructure – Junagadh District as on 31.3.2016														
Particulars	Rural Population Served, 2016	District Hospital (DH)		Sub District Hospital (SDH)		Community Health Centre (CHC)		Primary Health Centre (PHC)		Sub Centres	AC	Mobile Medical Unit	Mobile Heath Unit	AD/ HD
		No.	Beds	No.	Bed	No.	Beds	No.	Beds					
Junagadh District-Old	2099234	1	584	-	-	18	560	63	367	409	2599	1	6	22
Junagadh District-New	1114787	-	434	-	-	10	320	38	220	236	1246	-	3	17
Gir Somnath District	984447	1	150	-	-	8	240	25	147	167	1353	1	3	5
Bhesan	85341	-	-	-	-	1	30	3	18	19	79	-	-	2
Junagadh& Junagadh MC	125702	- (*)	434	-	-	1	30	5	28	29	134	-	-	4
Keshod	128334	-	-	-	-	1	30	5	30	26	197	-	-	1
Malia Hatina	191105	-	-	-	-	2	60	6	30	35	163	-	-	2
Manavadar	135505	-	-	-	-	1	50	4	24	30	136	-	-	3
Mangrol	142379	-	-	-	-	1	30	4	24	27	187	-	2	2
Mendarda	75676	-	-	-	-	1	30	3	18	19	81	-	-	1
Vanthali	98110	-	-	-	-	1	30	3	18	24	123	-	-	-
Visavadar	132635	-	-	-	-	1	30	5	30	27	146	-	1	2

Source: Health and Family Welfare Department, Government of Gujarat

Figure 5.2-Population served by PHC and CHC, Junagadh District, March, 2016



Source: Health and Family Welfare Department, Government of Gujarat

Population estimates are made for 2016. These also include changes in geographical areas made during reorganization.

It is observed that total number of either SC or PHC are not adequate if compared to suggested norms. Some talukas have adequate SC but not PHC, and so on. SC are inadequate in almost all talukas of Gir Somnath.

More importantly, CHC, which are the spearhead of rural healthcare system, are overburdened in several talukas. However, since the total number of CHC is within the norm, and since CHC are not exclusive, their satisfying the overall requirement norms may be acceptable.

Detailed analysis shows that though talukawise SC or PHC norms may be met, a particular SC or PHC may be overstretched.

5.3.2 Manpower at Rural Healthcare Units

Since Community Health Centre is at the apex of the rural healthcare, it should be adequately manned by trained personnel. Following table summarizes the number of personnel at CHCs in 2013-14 and 2014-15.

Table-5.2: Number of Qualified Health personnel at Community Health Centres (2013-14)											
Sr. No.	District / Talukas	General Surgeon		Physician		Gynaecologist		Paediatrician		Medical Officer (MBBS)	
		S	F	S	F	S	F	S	F	S	F
Junagadh District		17	4	-	-	-	-	-	-	50	40
Taluka											
1	Bhesan	1	-	-	-	-	-	-	-	3	3
2	Junagadh	1	-	-	-	-	-	-	-	3	2
3	Keshod	1	1	-	-	-	-	-	-	3	3
4	Kodinar	1	-	-	-	-	-	-	-	3	1
5	Malia	2	1	-	-	-	-	-	-	6	5
6	Manavadar	1	1	-	-	-	-	-	-	3	3
7	Mangrol	1	-	-	-	-	-	-	-	3	3
8	Mendarda	1	-	-	-	-	-	-	-	3	3
9	Sutrapada	1	-	-	-	-	-	-	-	3	2
10	Talala	1	-	-	-	-	-	-	-	3	3
11	Una	1	-	-	-	-	-	-	-	3	3
12	Vanthli	3	-	-	-	-	-	-	-	8	5
13	Veraval	1	1	-	-	-	-	-	-	3	3
14	Visavadar	1	-	-	-	-	-	-	-	3	1

Source: CDHO, Junagadh

S : Sanctioned F: Filled

Table-5.3: Number of Qualified Health personnel at Community Health Centres (2014-15)											
SN	Particulars	General Surgeon		Physician		Gynaecologist		Paediatrician		Medical Officer (MBBS)	
		S	F	S	F	S	F	S	F	S	F
A	Junagadh District	13	-	-	-	-	-	-	-	-	28
Taluka											
1	Bhesan	1	-	-	-	-	-	-	-	3	2
2	Junagadh	1	-	-	-	-	-	-	-	3	3
3	Keshod	2	-	-	-	-	-	-	-	3	3
4	Malia	2	-	-	-	-	-	-	-	6	5
5	Manavadar	1	-	-	-	-	-	-	-	3	3
6	Mangrol	1	-	-	-	-	-	-	-	3	3
7	Mendarda	1	-	-	-	-	-	-	-	3	2
8	Vanthli	3	-	-	-	-	-	-	-	3	3
9	Visavadar	1	-	-	-	-	-	-	-	3	3
	TOTAL	**13**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30**	**28**

Source: CDHO, Junagadh

S : Sanctioned F: Filled

At community health centres, 28 medical officers are on duty in place of 30 sanctioned in Junagadh district. General surgeons, Physicians, Gynecologists and Pediatricians are not available at any of the CHC. Thus, though adequate number of CHC are established, the expert manpower is highly inadequate.

- The number of general surgeon is highly inadequate. As against the sanctioned post of 17, only 4 posts are filled.
- Basic line of defense, post of Medical officer, are only 80 percent filled. Against a sanctioned strength of 45, only 41 medical officers are on duty. Some talukas (e.g., presently Visavsdar and Kodinar) are more adversely affected.
- There are no paediatricians, no physicians, and no gynaecologists. These posts are not even sanctioned.
- As the following table shows, situation in PHCs is equally dismal. Number of sanctioned medical officers is 63 and actual working number is 54. Only 37 doctors are on regular scale duty.
- Sanctioned number of staff nurses in Gir Somnath is 28 whereas 19 posts are vacant: only 9 nurses are on duty. In Junagadh[N] district , of 37 sanctioned nurses, only 9 nurses are on duty, that too contractual, 28 posts lying vacant (1.1.2016),
- Situation in district hospital is also cause of concern. For example, there is only one gynaecologist in District Hospital in Junagadh (2014-15 data).

There are several reasons for poor staffing of the healthcare units. It should be obvious that only bare minimum healthcare is possible. Norms are not the end in itself. They must be accompanied by adequate staff, timely delivery of quality and quantity of medical care and emphasis on preventive care. The reasons for inadequate staff must be identified and addressed to if the health delivery system is egalitarian, efficient and effective.

5.3.2 Other Forms of Healthcare System

Healthcare system is based on practice of allopathy. However there are other well established methods of treatment. Ayurvedic method and homeopathy are well established and recognized and accepted. Junagadh has one ayurvedic hospital.

Government Ayurved Hospital and College, established in 1969, is affiliated to Gujarat Ayurved Hospital, Jamnagar. It offers consultation, in patient healthcare, and offers degree level courses in ayurved (BAMS). It has 100 beds for inpatient care and has facility for Panchkarma treatment.

All PHC have AYUSH medical facility. Of the 63 sanctioned posts, 51 are filled up.

5.3.3 Private Healthcare System

Private healthcare is well established and widespread. In fact, at least in urban areas, private system may outclass the public health system in terms of resources committed and outcomes, at least in terms of numbers.

Junagadh town has several private clinics, e.g., eye hospitals, dental clinics, maternity clinics, pathological laboratories, hospitals, etc. Large number of doctors have their private practice of consultation. Junagadh also has private ayurvedic hospital and several practitioners of alternative system of medicine, like ayurvedic.

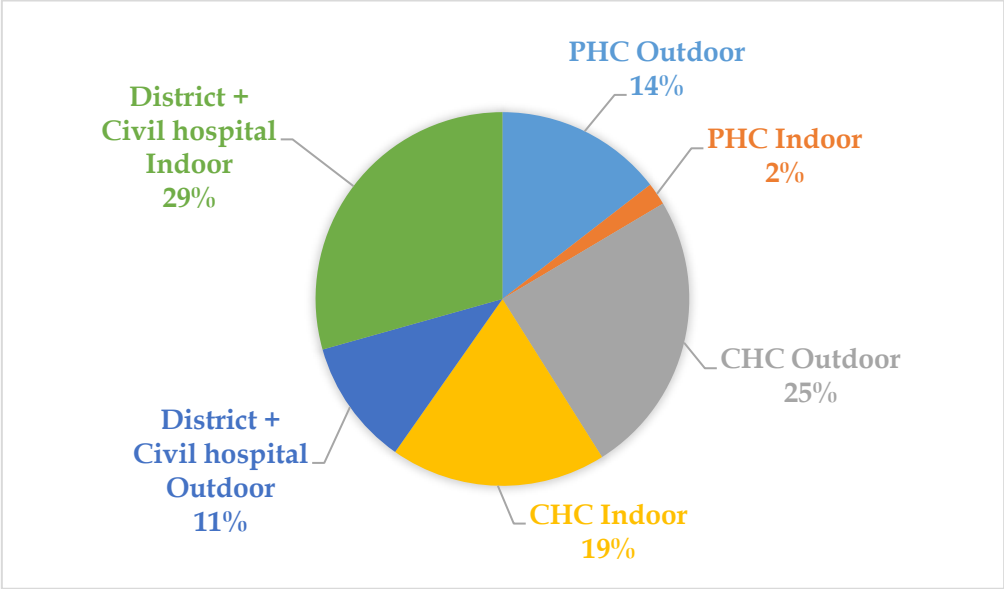
Though focus of private health care is not preventive, it does have a great contribution to health and wellbeing of the citizens.

5.4 Performance of Healthcare Institutions: Patients

It is very difficult to correctly assess the performance. The opinion of the actual and intended beneficiaries and of the health-care personnel is crucial in determining the performance. Performance during epidemics, e.g., can be a barometer.

However, in absence of these data, a broad measure can be the number of beds, bed occupancy, Indoor patients (IPD) and outdoor patients (OPD).
These data are shown below.

Figure-5.3: Indoor & Outdoor Patients served (2013-14) (in %)



(Source: CDHO, Junagadh District)

Table-5.4: Performance of Rural and Urban Public Healthcare System (Junagadh District: Pre 2013)																	
Sr. No.	**Particulars**	**2013-14**				**2012-13**				**2010-11**				**2009-10**			
	Population-Total (1.15 % pa CAGR)	2838811				2806536				2743082				2711895			
	Population-Rural (0.56 % pa CAGR)	1857298				1846955				1836670				1827159			
	Population-Urban (2.02% pa CAGR)	962311				939298				906312				884638			
1	**Outdoor Patients**	**No**	**%**	**No. Per Day 302 Days**	**Per 10000 Population**	**No**	**%**	**No. Per Day 302 Days**	**Per 10000 population**	**No**	**%**	**No. Per Day 302 Days**	**Per 10000 population**	**No**	**%**	**No. Per Day 302 Days**	**Per 10000 population**
	PHC	567390	27.1	1879	3055	289020	15.89	957	1565	566324	28.46	1875	3083	576180	28.54	1908	3153
	CHC	976952	46.67	3235	5260	850750	46.76	2817	4606	924408	46.46	3061	5033	899336	44.55	2978	4922
	Sub District &District Hospitals	549058	26.23	1818	1934	679514	37.35	2250	2421	498957	25.08	1652	1819	543318	26.91	1799	2003
	TOTAL	**2093400**	**100**	**6932**	**7374**	**1819284**	**100**	**6024**	**6482**	**1989689**	**100**	**6588**	**7253**	**2018834**	**100**	**6685**	**7444**

2	Indoor Patients	No	%	No. Per Day 365 Days	Per 10000 Population	No	%	No. Per Day 365 Days	Per 10000 population	No	%	No. Per Day 365 Days	Per 10000 population	No	%	No. Per Day 365 Days	Per 10000 population
	PHC	6020	2.49	20	32	4611	1.82	15	24.97	5988	2.59	20	33	6384	2.53	21	35
	CHC	83175	34.38	275	448	87444	34.51	290	474	80829	35	268	440	87402	34.7	289	478
	Sub District &District Hospitals	152760	63.14	506	538	161354	63.67	534	574.92	144136	62.41	477	525	158073	62.76	523	583
	TOTAL	**241955**	**100**	**801**	**852**	**253409**	**100**	**839**	**902.92**	**230953**	**100**	**765**	**842**	**251859**	**100**	**834**	**929**

Source: Health Statistics, Commissionerate of Health, Health and Family Welfare Department, Government of Gujarat.

1. For indoor patients, district hospitals, which have larger facilities, account for almost two third of the entire workload. CHC also play significant role as it accounts for about one third of the work load. PHC have only a small role to play. It could, both be, because of lack of adequate manpower or adequate medical facility.
2. Total number of annual indoor patients have remained between 800 and 900 per 10000 population in the last five years.
3. For outdoor patients, CHC share has remained stable at around 45 percent of the total, with the balance divided between PHC and DH in ratio of 55:45.
4. Number of outdoor patients has remained stable around 7000 per 10000 population. Similarly, indoor patients have been around 800-850 per 10000 population in the last five years.

5.5 Maternal and Child Birth Care

Maternal care and care of a child below 5 years is most critical of the health system and its success decides successful birth, long term health potential, longevity, cognitive ability and hence productivity of an individual. It also benefits the society in terms of higher output from the individual and lower resources required for healthcare system.

Maternal health starts from registration of pregnant women, antenatal care, successful delivery, and post-natal care of the pregnant woman.

The performance of healthcare system is analyzed in three broad categories:

(a) Pregnancy Care, (b) Child Birth & (c) Post Natal and Maternal Care

5.5.1 Pregnancy Care

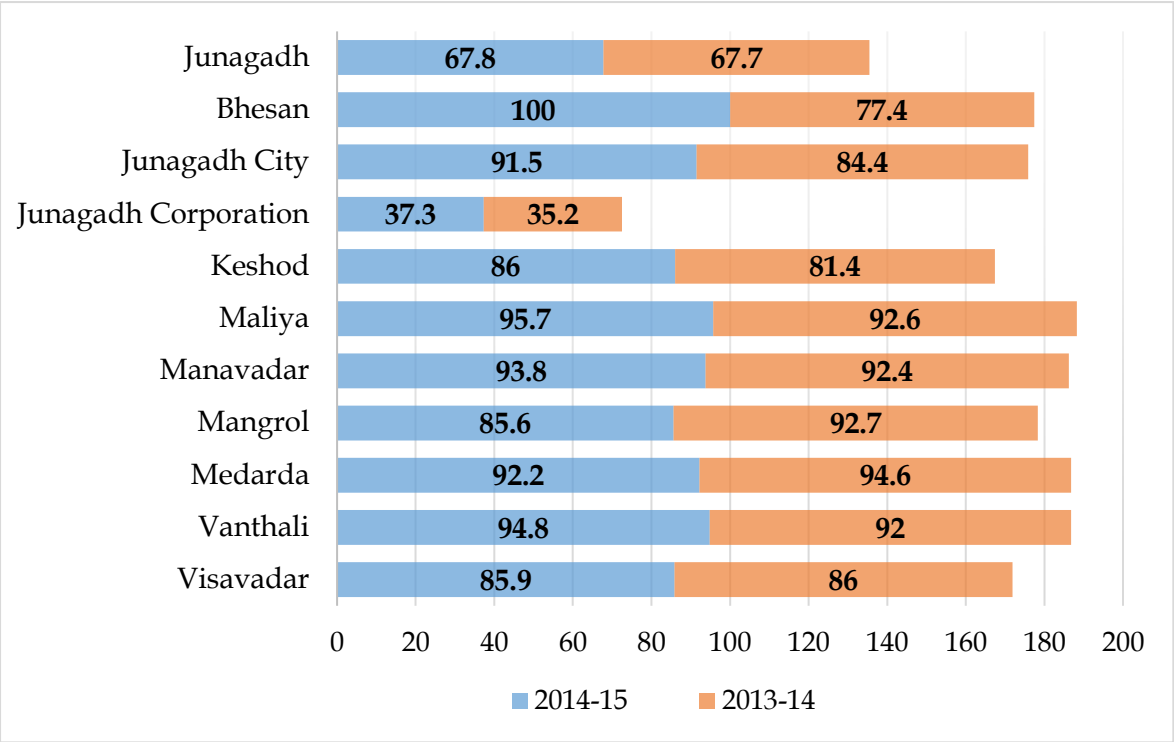
Tables in the Annexures show the taluka wise performance of pregnancy care in 2013-14 and 2014-15. To summarize:

1. % 1st Trimester registration to Total ANC Registrations is 67.8 percent in 2014-15 in Junagadh^{N} and 90 percent in Gir Somnath. It is a high of 100 percent in Bhesan, and low of 37.3 percent in Junagadh city. Most talukas have achievement of 85 to 90 percent.
2. % Pregnant Woman received 3 ANC check-ups to Total ANC Registrations is 76.4 percent in Junagadh^{N} and 89.2 percent in Gir Somnath. Again, lower percentage in Junagadh^{N} is due to lower percentage in Junagadh city.
3. % Pregnant Woman received 3 ANC check-ups to Total ANC Registrations is 71.4 percent in 2013-14 to 89.2 percent in 2014-15 in Gir Somnath district. All the taluka in the district have shown this marked improvement.
4. % Pregnant Woman received 3 ANC check-ups to Total ANC Registrations has decreased from 68.2 percent in 2013-14 to 65.2 percent in 2014-15 in Junagadh^{N} district. All the taluka in the district have shown marked improvement except Junagadh city where only 22 percent received 3 ANC in 2014-15.
5. % pregnant women given 100 IFA to Total ANC Registration has improved from 63.4 percent in 2013-14 to 72.1 percent in 2014-15 in Gir Somnath district. For Junagadh^{N} district, the corresponding figures are 62.8 percent and 61.8 percent.
6. % cases of pregnant women with Obstetric Complications and attended to reported deliveries has increased from 4.6 percent in 2013-14 to 9.7 percent in 2014-15 in Junagadh^{N} district. The same for Gir Somnath are 2.3 and 0.1 percent. Mendarda, Bhesan and Keshod have more than 20 percent incidence.

Table-5.5: Performance of Healthcare System in district (2013 to 2015)			
Sr No	Indicator	Junagadh[N] District	
		2013-14	2014-15
A	PREGNANCY CARE		
A.1	Total number of pregnant women Registered for ANC	19895	18816
A.2	Number of Pregnant women registered within first trimester	17459	17048
A.3*	% 1st Trimester registration to Total ANC Registrations	87.76	90.6
A.4	% JSY registration to Total ANC Registration	31.43	28.07
A.5*	% Pregnant Woman received 3 ANC check-ups to Total ANC Registrations	82.07	88.08
A.6*	% Pregnant women received TT2 or Booster to Total ANC Registration	91.86	97.42
A.7*	% Pregnant women given 100 IFA to Total ANC Registration	68.73	63.31
A.8*	% cases of Pregnant women with Obstetric Complications and attended to reported deliveries	5.8	7.8

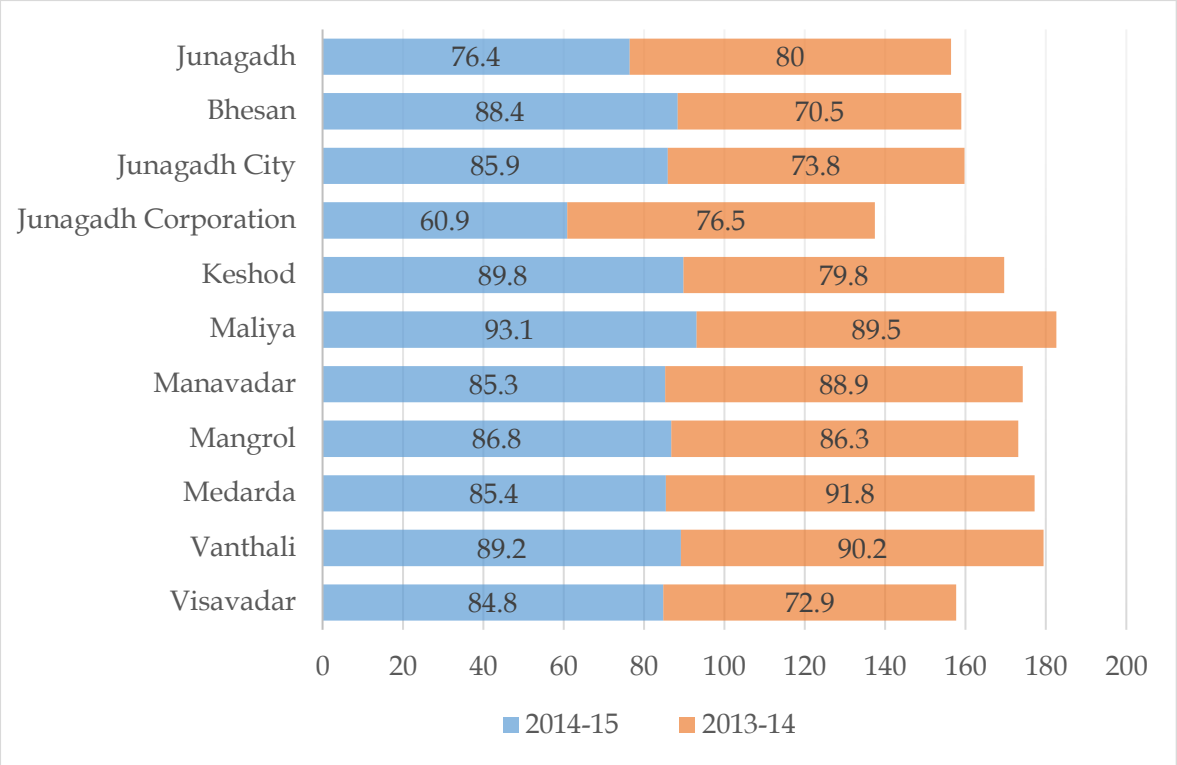
Source: CDHO, Junagadh District

Figure-5.4: Taluka Wise % 1st Trimester registration to Total ANC Registrations, Junagadh District



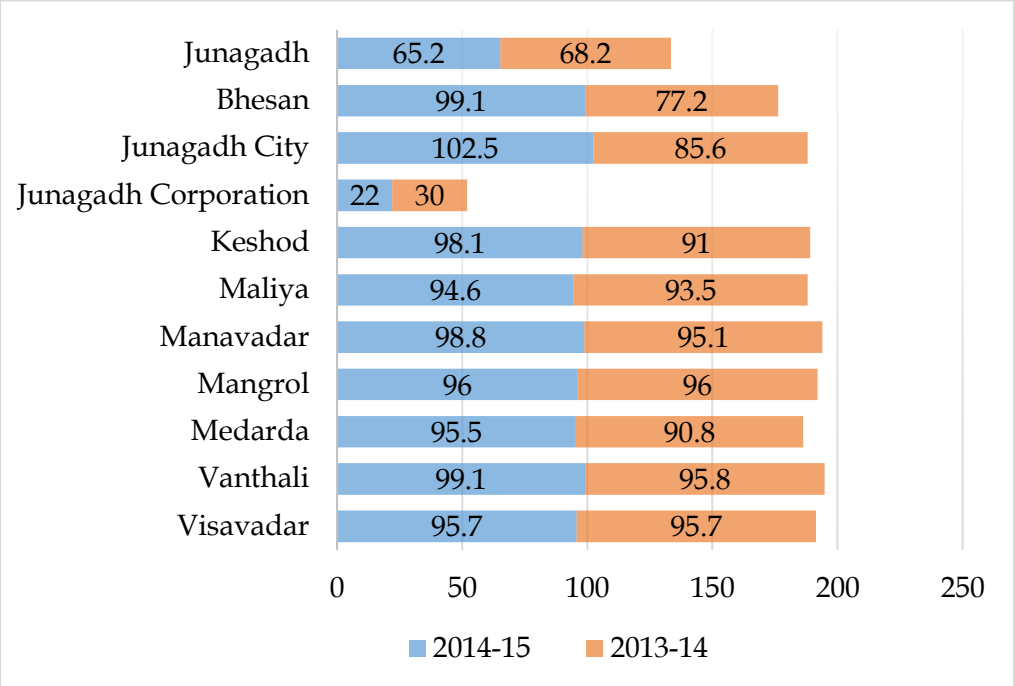
Source: CDHO, Junagadh

Figure-5.5: Taluka Wise % Pregnant Woman received 3 ANC check-ups to Total ANC Registrations



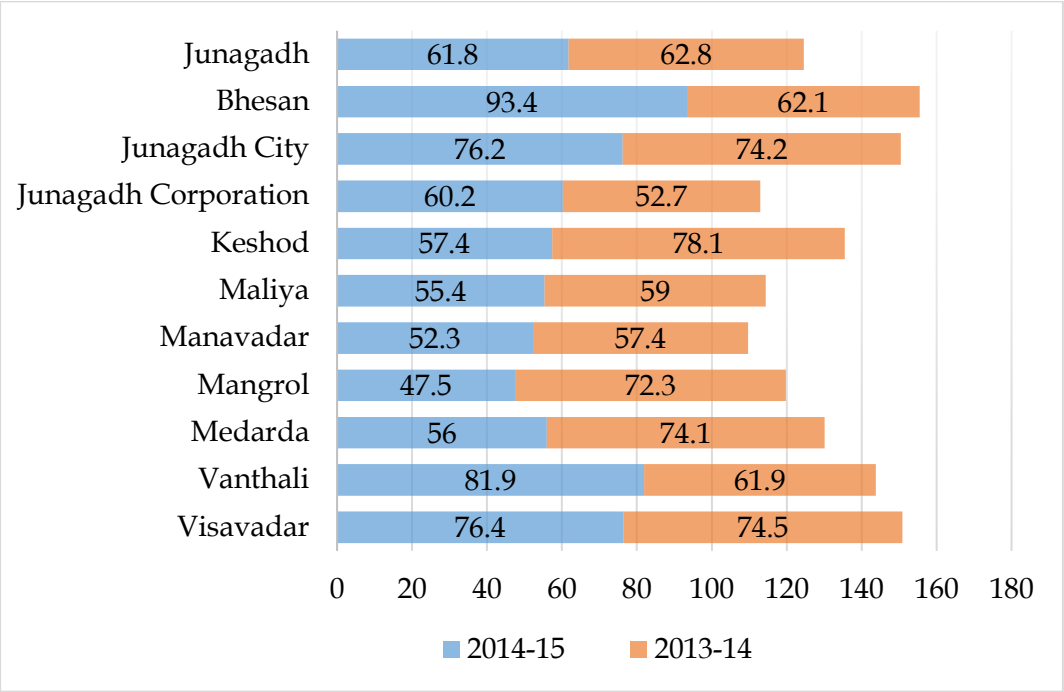
Source: CDHO, Junagadh

Figure-5.6: Taluka Wise % Pregnant women received TT2 or Booster to Total ANC Registration



Source: CDHO, Junagadh

Figure-5.7: Taluka Wise % Pregnant women given 100 IFA to Total ANC Registration



Source: CDHO, Junagadh

5.5.2 Child Birth

Second component of maternal care is child birth and institutional delivery. The progress towards full institutional delivery has been impressive over the last five years. Data on institutional deliveries for 2009-10 to 2014-15 are shown below.

Table 5.6: Rural-Urban Institutional and home delivery in District

Particular of Delivery	R/U/T	Junagadh District					Junagadh[N]
		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Institute	R	33200	30625	30379	31463	30626	14470
	U	6105	7546	7756	7432	7226	1594
	T	39305	38171	38135	38895	37852	16064
Home	R	4262	3768	2621	2413	1747	152
	U	469	335	365	272	183	3
	T	4731	4103	2986	2685	1930	155

Source: Health Statistics, Government of Gujarat & CDHO, Junagadh District

Percentage of total deliveries institutional delivery in percentage term, taluka wise, has been increasing over time. Total institutional deliveries has gone up from 90 percent in 2010-11 to 94 percent in 2012-13. Two talukas have institutional delivery less than 90 percent in 2012-13. Very encouraging is the fact that 5 talukas, including most populated taluka of Junagadh, have 99 percent institutional deliveries.

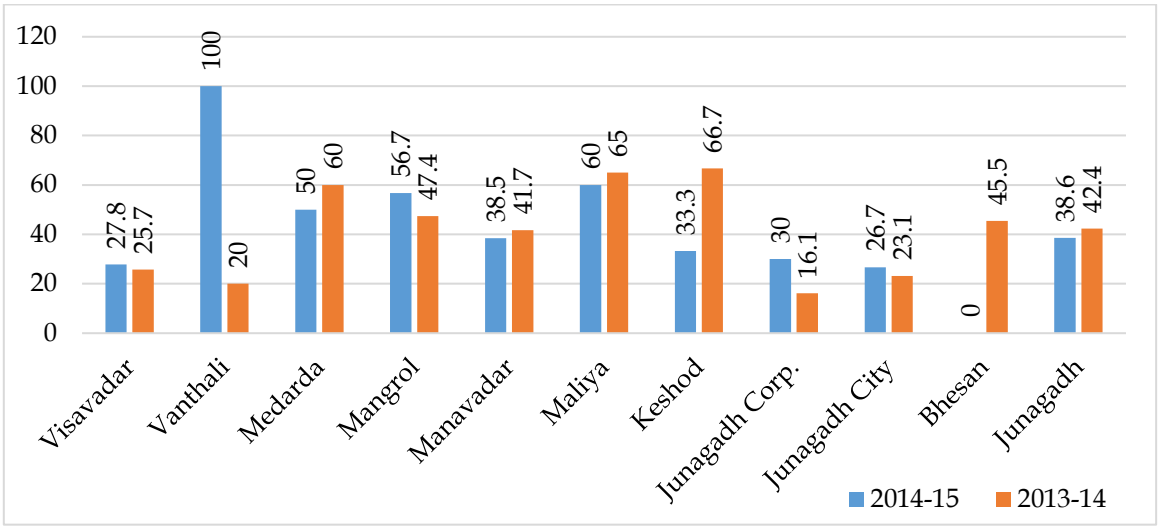
Recent performance, after the split of the district in 2013, is detailed in the table below. Percentage of institutional deliveries has increased to 98.5 percent in 2014-15.

Table-5.7: Performance of Healthcare System in District (2013 to 2015)

Sr No	Indicator	Juanagdh[N] District		Total	
		2013-14	2014-15	2013-14	2014-15
B	**CHILD BIRTH**				
B.1	Number of Home deliveries	479	224	1945	1564
B.2	Number of home deliveries attended by SBA trained (Doctor/Nurse/ANM)	61	75	791	815
B.3*	% SBA attended home deliveries to Total Reported Home Deliveries	12.73	33.48	40.67	52.11
B.4	Deliveries Conducted at Public Institutions	11395	11147	21075	21858
B.5	Institutional deliveries (Public Insts.+Pvt. Insts.)	17701	22007	36194	44643
B.6*	% Institutional Deliveries to total ANC registration	54.16	66.12	56.21	75.88
B.7	Total reported deliveries	18080	20267	38039	44243
B.8	% Institutional deliveries to Total Reported Deliveries	97.90	108.59	95.15	100.90
B.9	% Safe deliveries to Total Reported Deliveries	98.8	99.4	97.23	102.75
B.10	% Home deliveries to Total Reported Deliveries	2.1	1	5.11	3.54
B.11*	% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries	10.6	13.7	8.96	8.98
B.12	% Deliveries conducted at Public Institutions to Total Institutional Deliveries	64.37	50.65	58.23	48.96
B.13	% Deliveries conducted at Private Institutions to Total Institutional Deliveries	35.63	49.35	41.77	51.04

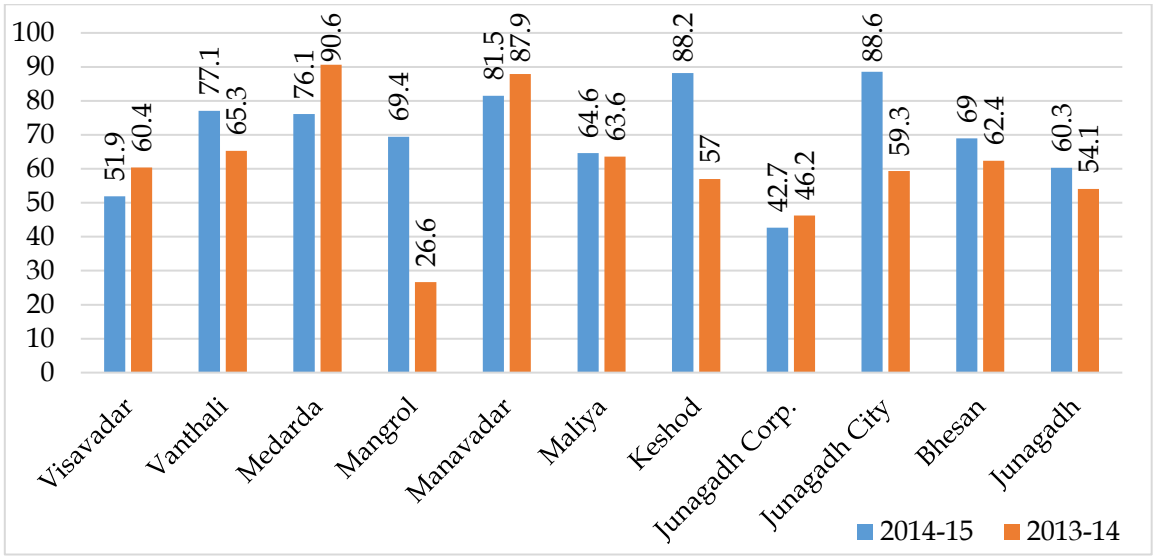
Source: HMIS Performance Indicators, Ministry of Health, Government of India

Figure-5.8: Taluka Wise % SBA Attended Home Deliveries to Total Reported Home Deliveries



Source: CDHO, Junagadh

Figure-5.9: Taluka Wise % Institutional Deliveries to total ANC registration



Source: CDHO, Junagadh

1. Percentage of institutional deliveries was 90 percent as recent as 2010-11. It is now consistently above 98 percent. Sustained efforts have indeed paid good dividends.
2. Junagadh district has made a significant progress in achieving almost 100 percent institutional delivery. The Government policies have made this possible. Not only the government share in institutional deliveries large, in the rural areas, where private healthcare is not widespread, government intervention has resulted in safe deliveries.
3. Institutional deliveries conducted at Governmental facilities has decreased from 52.3 percent in 2013-14 to 47.3 percent in 2014-15 in Gir Somnath and marginally increased from 54.4 percent in 2013-14 to 55.5 percent in 2014-15 in Junagadh.

4. Thus, overall, 21858 of 44243 total deliveries, 49.4 percent of all deliveries were conducted at Governmental institutions. Private institutional deliveries contributed almost the same number.
5. Number of home deliveries has decreased from 479 to 224 in Junagadh^{N} district. Of the total home deliveries (Gir Somnath & Junagadh^{N}) of 1564 in 2014-15, 815 were attended to by trained medical professional (53 percent).

5.5.2.1 Taluka Wise Institutional Delivery over Time

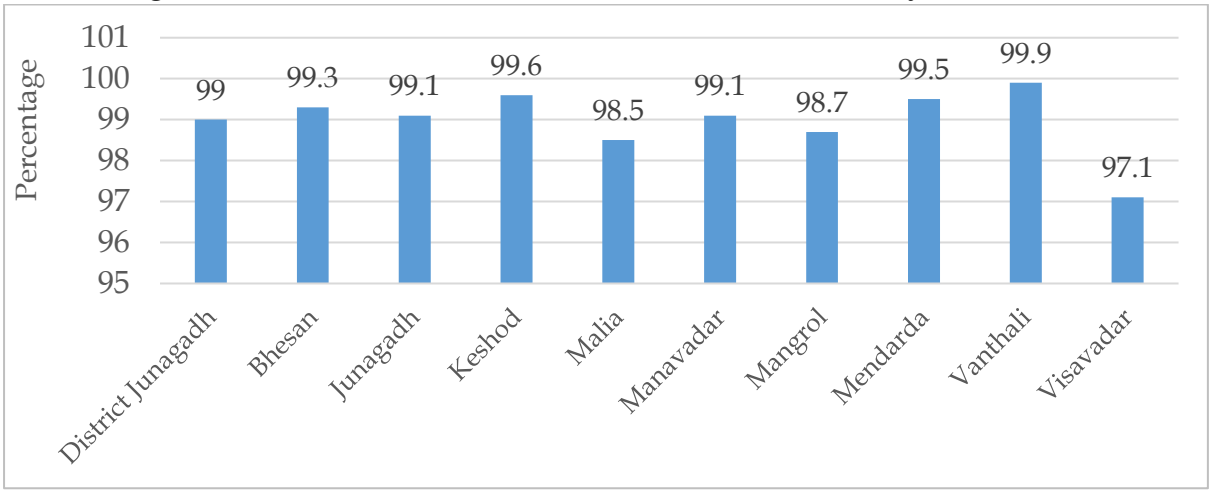
The following table shows the institutional delivery over the period 2011-15 for each taluka.

Table 5.8:Taluka wise Institutional Delivery (%) in Junagadh District

Particulars	2010-11	2011-12	2012-13	2013-14	2014-15
District Junagadh	90	93	94	97.9	99
Bhesan	97	98	99	98.9	99.3
Junagadh	99	99	99	98	99.1
Keshod	97	98	99	98.6	99.6
Malia	90	91	93	94.9	98.5
Manavadar	95	97	97	97.7	99.1
Mangrol	98	98	98	95.8	98.7
Mendarda	97	98	99	98.9	99.5
Vanthali	97	99	99	99.5	99.9
Visavadar	93	93	96	95.7	97.1

Source: Performance of Key HMIS Indicators for Junagadh, ministry of Health, Government of India,2016

Figure-5.10: Taluka Wise Taluka wise Institutional Delivery (%), 2014-15



Source: Performance of Key HMIS Indicators for Junagadh, ministry of Health, Government of India, 2016

5.5.2.2 Government Institutional Delivery in 2014-15:

Distribution of government institutional deliveries to different places of delivery is shown below.

Table-5.9: Governmental Institutional Delivery Details for 2014-15						
Place of Delivery	Sub Centres (SC)	Primary Health Centre (PHC)	Community Health Centres (CHC)	Sub District Hospital (SDH)	District Hospital (DH)	Chiranjeevi Yojana (CY)
% of total Government Institutional Delivery	0.63	7.10	50.80	1.14	34.68	5.64
Source: CDHO, District Panchayat, Junagadh						

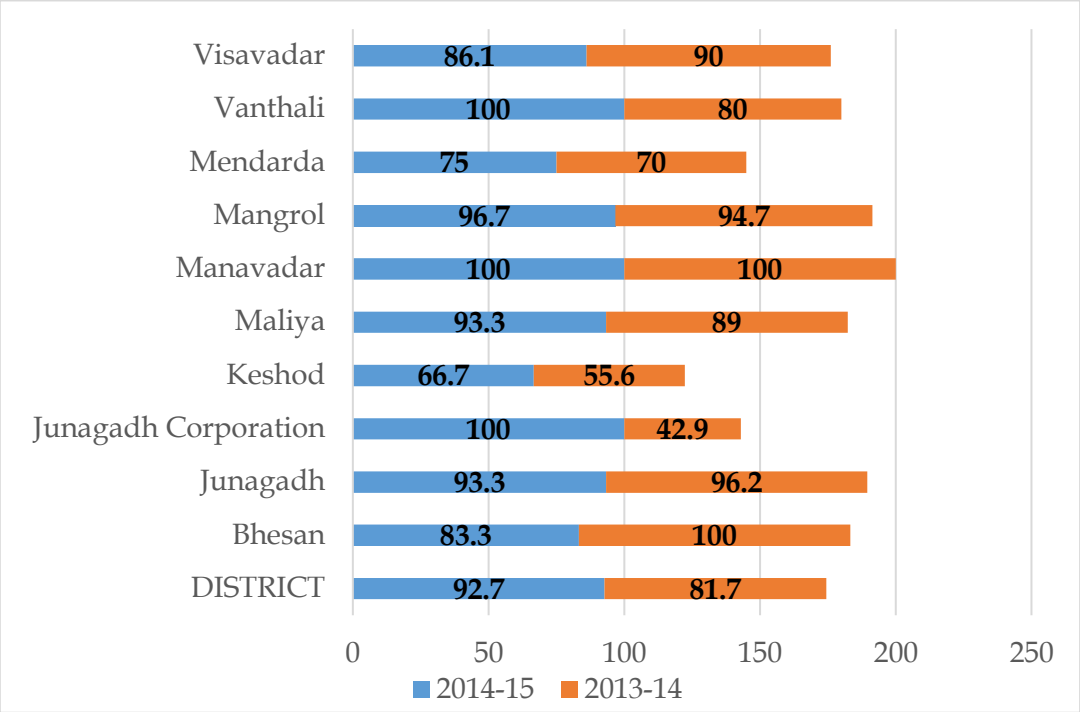
1. Above data shows that community health centres account for about 28 percent of all deliveries. District Hospital accounts for another about 18 percent of the deliveries. These two, together account for about 85 percent of all government sector institutional deliveries. It is these two who need to be strengthened in term of adequacy of staff, especially, specialist doctors.
2. As a separate table elsewhere shows, certain physical inputs, for example, availability of blood, need to be strengthened.

5.5.3 Post Natal and Maternal Care

Third major component is post-natal and maternal care. Summarized snapshot is in the table below.

Table-5.10: Performance of Healthcare System (2013 to 2015)			
Sr No	Indicator	Juanagdh District	
		2013-14	2014-15
C	POST NATAL AND MATERNAL CARE		
C.1*	% Women discharged in less than 48 hours of delivery to Total Reported Deliveries at public institutions	58.4	70.3
C.2	Total Number of reported live births	19317	21200
C.3*	% Newborns having weight less than 2.5 kg to Newborns weighed at birth	11.1	8.8
C.4*	% Newborns breast fed within 1 hour of birth to Total live birth	80.8	77.8
C.5*	% newborns visited within 24hrs of home delivery to total reported home deliveries	81.7	92.7
C.6	Sex Ratio at birth (Female Live Births/ Male Births *1000)	908	912
Source: Performance of Key HMIS Indicators for Junagadh, Ministry of Health, Government of India Note: (*) Indicators are used in Index to measure Performance for Neo Natal and Maternal Care.			

Figure-5.11: Taluka Wise % newborns visited within 24hrs of home delivery to total reported home deliveries



Source: Performance of Key HMIS Indicators for Junagadh, Ministry of Health, Government of India

- % newborns visited within 24 hrs of home delivery to total reported home deliveries is 96.7 percent in 2014-15 in Gir Somnath and 92.7 percent in Junagadh^{N} district. Keshod at 66.7 percent and Mendarda at 75 percent are the laggards and need to improve.
- % Newborns breast fed within 1 hour of birth to Total live birth decreased from 80.4 percent in 2013-14 to 77.8 percent in 2014-15 in JunagadhN and increased from 57.4 to 62.3 percent in 2014-15 in Gir Somnath.
- % newborns visited within 24hrs of home delivery to total reported home deliveries improved from 81.7 percent in 2013-14 to 92.7 percent in 014-15 in Junagadh^{N} and from 91.8 percent to 96.7 percent in Gir Somnath.
- % Newborns having weight less than 2.5 kg to Newborns weighed at birth 11.1 percent in 2013-14 to 8.8 percent in 2014-15 in Junagadh^{N} and 7.5 percent to 7 percent in Gir Somnath.

5.6 Performance of Major Government Health Schemes

The government health schemes have had significant impact on improvement of health, especially in rural sector. Four major schemes related to safe delivery and women' health are:

1. Janani Suraksha Yojana

2. Chiranjeevi Yojana
3. Bal Sakha Yojana and
4. KPSY
5. ICDS

5.6.1 Janani Suraksha Yojana (JSY):

Janani Suraksha Yojana (JSY) is a safe motherhood programme and is implemented by the respective State Government through Anganwadies both in urban and rural areas.

Objectve of the scheme, under NRHM, is to increase institutional delivery and reduce MMR and IMR. Under this scheme beneficiary pregnant women of BPL families are provided better diet to pregnant women, ante natal care during pregnancy period, institutional care during delivery, and post-delivery care. In 2014-15, total number of beneficiaries were 4526.

5.6.2 Chiranjeevi Yojana

- In Gujarat it was realized that simply improving the access to the trained health attendant during delivery cannot ensure reduction in the maternal mortality.
- Services need to be backed up by provision of the Emergency Obstetric Care Facilities to save the lives of women who develop complications during pregnancy and delivery.
- In order to bridge the gap in availability services of obstetricians and gynecologist for providing Emergency Obstetric Care and institutional delivery in rural areas of Gujarat, the State Government formulated the 'Chiranjeevi Yojna'.
- The scheme sought to use the potential resource available in the form of large number of private gynecologist providers, to provide free and quality services to poor pregnant women in return for predetermined capitation based payment from the Government.
- Beneficiaries could avail of the scheme through vouchers (distributed under the scheme) or through BPL cards.
- The project was initially planned as a pilot in 5 priority districts: Banaskantha, Dahod, Kutch, Panchmahal and Sabarkantha and has been scaled up to all districts in the state based on the encouraging result.
- The project envisioned that district level health officials would anchor and implement the project.
- For this purpose, training was provided to officials in aspects of negotiation, consultation and networking skills. Detailed selection criteria were developed for choosing private obstetricians and gynecologist such as educational qualification,

availability of own hospital with labor room, operation theatre and blood store, and ability to arrange for anesthetists and perform emergency surgeries.

- Based on the selection criteria an inventory of private obstetricians and gynecologist in the district was prepared by respective District health officials in the 5 districts where the programme was to be piloted. Details of remuneration to the Private practitioners were established through consultation with existing providers and professional bodies such as the federation of obstetrics and gynecology Society of India (FOGSI) and the Society for Welfare and Action. Vouchers were distributed through District Health Officials to pregnant women belonging to BPL families. Public investment required for the project was made through state Government funds and grants provided by the Central Government under the NRHM. Chiranjeevi Yojana is being implemented, now, in all districts of Gujarat.
- This yojana is aimed at enhancing Institutional deliveries by soliciting support of private doctors through a PPP scheme.
- Chiranjeevi Yojana is a Joint collaboration (PPP) between the Government of Gujarat (GoG) and Private Gynecologists/Trust Hospitals.
- The Service Coverage through outsourcing for normal delivery, Emergency Obstetric Care and Neonatal Care
- The scheme is aimed at Below Poverty line family and non-income tax paying Tribals.
- It is a cash less system and operates through a Voucher System.
- A package of Rs 3.80 lacs is given for 100 deliveries
- Linked with 108 emergency transport.
- As shown above, for the year 2014-15, beneficiaries of the scheme were 224.

5.6.3 Bal Sakha Yojana

- Bal Sakha Yojana (BSY) is designed for new born and child upto 1 month of age.
- It works under PPP model, with Private Pediatricians / Trust Hospitals with NICU to manage newborns of BPL and tribal families at no cost to patients.
- Under Bal-Sakha Scheme – 1, payment is made to private pediatricians to for Chiranjeevi Births and Govt. Hospital Births.
- Under Bal-Sakha Scheme – 2, payment is made for care of sick BPL and all Tribal Infants up to 1 month age who are in red classification as per IMNCI Protocol.
- Extended Bal-Sakha Yojana is for Tribal Talukas of Gujarat. Under this scheme, payment to participating private practitioners is made for care of BPL infants from the Tribal Talukas up to 1 year of age.

- As indicated above, in year 2014-15, 300 families benefited from this scheme.

5.6.4 Kasturba Poshan Sahay Yojana (KPSY)

With broad objectives of Safe Motherhood and Institutional Deliveries of BPL card holder pregnant women at grass root level Kasturba Poshan Sahay Yojana has been initiated by the Government of India. The beneficiaries of this scheme get the total amount of Rs. 2100/- periodically in three stages. Total number of beneficiaries were 6814 in 2014-15.

Table-5.11Performance of Major Health Schemes in 2014-15 in Junagadh District

Sr No.	Region	Government Schemes			
		Janani Suraksha Yojana	Chiranjeevi Yojana	Bal Sakha Yojana	Kasturba Poshan Sahay Yojana (KPSSY)
		Number of Beneficiaries			
District Junagadh		**4526**	**224**	**300**	**6814**
1	Bhesan	113	0	0	119
2	Junagadh	428	78	254	632
3	Keshod	479	12	6	623
4	Malia	618	5	0	1129
5	Manavadar	710	8	5	1412
6	Mangrol	1087	0	0	1058
7	Mendarda	199	0	0	111
8	Vanthali	431	39	24	942
9	Visavadar	461	82	11	788

Source: CDHO, Jilla Panchayat, Junagadh District

JSY has played a significant role in increasing institutional delivery. Many a BPL families may not be able to afford or are traditionally not inclined to use institutional facility. Total deliveries in 2014-15 were institutional delivery in Junagadh[N] were 16219. Thus, JSY has contributed to 28 percent of all deliveries.

KPSY Yojana helps pregnant women with finance which can be used for nutrition. 6814 women benefitted in 2014-15, almost 42 percent of pregnant women in Junagadh.

5.6.5 Integrated Child Development Scheme (ICDS)

- One major objective of a healthcare system is to provide adequate nutrition to the children and pregnant women as it is proven that major reason for high IMR is poor nutrition.
- ICDS is promoted as a beneficiary focused Supplementary Nutrition programme With a view to combating malnutrition among children under 6 years, pregnant women, nursing mothers and adolescent girls.

- It is 90:10 centrally sponsored scheme (90 percent funding from the central government)
- Under Supplementary Nutrition Program SNP), a package of various Nutrition services is being provided through ICDS.
- State Government is implementing this Programme through Anganwadis both in urban and rural areas.
- Supplementary Nutrition equivalent to 500 calories and 12-15 gram proteins is provided to normal children under 6 years and 800 calories and 20-25 gram protein to severely underweight children under 6 years.
- Pregnant women, nursing mothers and adolescent girls are given SNP -THR food with 600 calories and 18-20 gram protein.

Detailed nutritional status in the district is discussed in another section of this chapter.

5.7 Mortality Rates

Child and maternal mortality, for the purpose of measurement, requires certain universal measures. Four such measures are universally accepted widely used.

1. Maternal Mortality Rate (MMR)
2. Child Mortality Rate (U5MR)
3. Infant Mortality Rate (IMR) and
4. Neo natal Mortality Rate (NNMR)

5.7.1 MDG Goals for India

India's immediate goal is to reduce MMR to 109 by the year 2015 (current year). Similarly the MDG goals for infant mortality rate (IMR) is 28 and under-5 mortality rate (U5MR) is 42.

5.7.2 Maternal Mortality Ratio (MMR)

Maternal Mortality Ratio (MMR) is the number of death of pregnant women per 100000 live births, either during pregnancy or within 42 days of pregnancy, due to pregnancy related causes. As per World Bank estimates, World average MMR is 216 in 2015. Lowest value is 3 (three) in Iceland, Poland, Finland and Greece.

MMR in India, by the same World Bank estimates, was 556 in 1990 and 174 in 2015. The estimates by the government of India are made by the office of Registrar general, under Sample Registration System (SRS). SRS, based on 2011-13 data, estimates MMR to be 167. Thus, substantial progress has been made.

For Gujarat, the estimated MMR for 2011-13 period is 112, far better than the Indian average. However, comparatively speaking, the value is 14 in USA, 27 in China in

2015, and in Sri Lanka it is 30. There are at least 65 countries where MMR is less than 30. India ranks lowly at beyond 130 among all countries. World average is high only because of inclusion of several highly undeveloped countries. (MMR value is above 600 for 15 countries). Thus, India has a long way to go.

For India, as a whole, Life time risk is estimated at 0.4 percent. Corresponding figures for Gujarat are: MMR (women in 15-49 age group) = 9.5 and Life Time Risk =0.3 %. Thus, Gujarat has achieved better maternal health than the Indian average. However, even for Gujarat, its success is pale compared to the world standards.

5.7.3 Under 5 Mortality Rate (U5MR)

Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subjected to age-specific mortality rates of the specified year.

The World Bank estimates that world average U5MR is 42.5 in 2015. India's U5MR as per same World Bank estimates is 47.7 in 2015. Under-5 Mortality Rate (U5MR) as per SRS 2012 is 52 per 1,000 live births. The lowest rate in the world is 1.9 for Luxemburg and 2 in Iceland. The ratio is 6.8 in high income group and 10.7 in China. India does not figure even in top 150 countries.

5.7.4 Infant Mortality Rate (IMR)

Infant Mortality Rate (IMR) is the number of infant (< 1 year) deaths per 1000 live births. The current Infant Mortality Rate (IMR) of India, as per the Sample Registration System (SRS) 2013, is 40 per 1,000 live births.

Table-5.13: Infant Death, Junagadh District, 2013

Region	Rural			Urban			Total		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
Gujarat	1408	1010	2418	6267	3779	10046	7673	4789	12464
Junagadh	8	3	11	33	14	47	41	17	58
% to Gujarat	0.57	0.30	0.45	0.53	0.37	0.47	0.53	0.35	0.47

Source: Census, CRS-2013,

5.7.5 Neonatal mortality rate (NNMR)

NNMR is the number of neonates dying before reaching 28 days of age, per 1,000 live births in a given year. World Bank estimates of world average is 19.2 in 2015. As per World Bank estimates IIMR in India is 27.7 in 2015. More than 60 countries have NNMR less than 10.

Three common causes of neo-natal deaths are prematurity, birth asphyxia and sepsis. In the post newborn period, two major killers are pneumonia and diarrhoea and

under-nutrition is an underlying factor in nearly 45 per cent of such deaths as per a UNICEF health official.

5.7.6 Mortality Rates in Junagadh District

Thus Junagadh has been able to better the all India average.

Table-5.14: Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) in Gujarat

SN	Indicator	Unit	2011	2012	2013	2014/15
1	Infant Mortality Ratio (for Gujarat)	No. of infant death per 1000 live birth	41	38	36	30 (Target)
2	Maternal Mortality Ratio (Gujarat)	No. of pregnant women death per 100000 live birth		112 (2011-13)		100 (Target)

Source: 1. MMR is from the MMR Estimates by Ministry of Health and Family Welfare, Government of India,

1. Infant Mortality Rate (IMR), as per published report , "Times Series data on CBR, CDR, IMR & TF", published in January, 2015, by Ministry of Health and Family Welfare, Government of India,

IMR was 36 for Gujarat in 2013, down from 57 in 2003, and compares well with the all India average of 40 in 2013. The target, by 2015, was set at 30.

Maternal Mortality Rate (MMR) was estimated 112 in the period 2011-13, as against the Indian average of 167. The variance among districts of the State is large, and 95 percent confidence interval is 69-155.

Junagadh population, as a percentage of Gujarat population, is 4.54 percent. Infant death, as a percentage of Gujarat, is 0.47 percent. The population growth rate is lower, about 60 percent of Gujarat. Hence, IMR of Junagadh is lower than that of Gujarat. As a rough estimate, IMR of Junagadh district is 36*(0.47/(3.54*0.6)) =8 (2013).

5.8 Child Care

A major component of a good healthcare system is Child Care. Children are most vulnerable

To disease and death as they have the least immunity. They need all the necessary inputs to build immunity. In addition, good nutrition helps the children to acquire better cognitive ability. It is proven that children who suffer from malnutrition have lower earning capacity.

Four major areas of examining the effectiveness of healthcare system vis-à-vis children are:

a. Neo Borne Care
b. Immunization
c. Nutrition

5.8.1 Neo Natal Care and Infant Mortality

Of all humans, newly born child is the most vulnerable to diseases and death. Care of newly born child is primary focus of health care system. More than half (56 percent) of all the children who die before the age of 5, in India, die within 30 days of their birth. (Indian average is 56 percent versus global average of 44 percent)

5.8.2 Intervention for Child Care

Priorities of child care may be listed, in order, as:

1. Improving new born care – Home and facility
2. Diarrhea and Pneumonia - Prevention & Management
3. Routine Immunization with equity focus
4. Child Nutrition- IYCF; Malnutrition management

5.8.3 Nutrition

Globally, estimated one third of the child death are due to mal nutrition. Malnutrition also results in significant reduction in cognitive ability. Status of malnutrition in Junagadh district is indicated below.

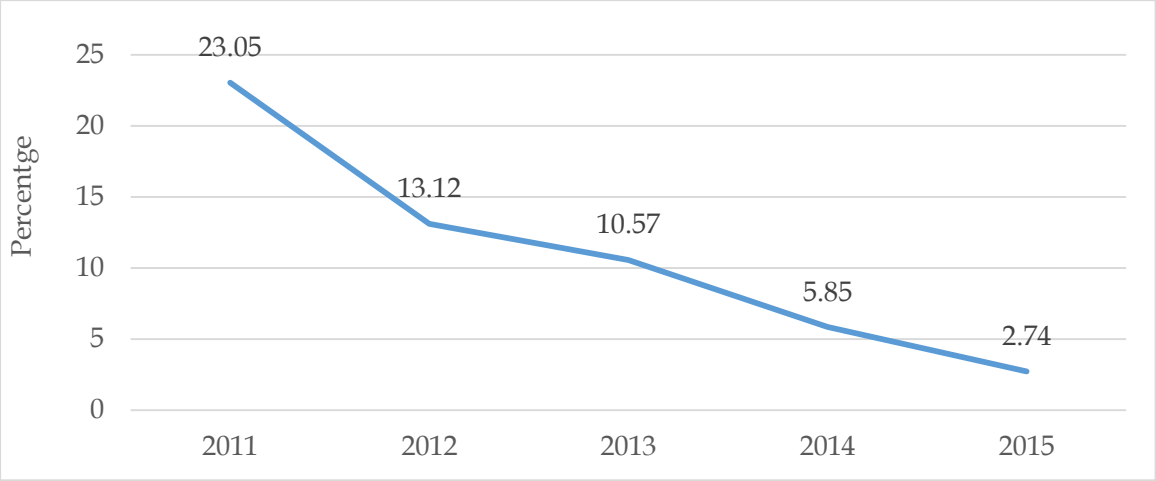
Table-5.15: Nutrition Status in Junagadh District

Sr No	Parameter		2011		2012		2013	
			Junagadh	Gujarat	Junagadh	Gujarat	Junagadh	Gujarat
1	Total AWCs Reporting		2589	50226	2589	50257	2578	50158
2	AWC Providing SNP 21+ Days		2422	48162	2577	50116	2578	50158
3.1	Enrolled Population	0-6 Yr	198793	4334892	203394	4327940	210717	4280248
3.2		Preg. & Lact.	32162	827116	35945	852927	38204	849645
4.1	SNP Beneficiaries	Child Total	127056	3124583	141436	3181081	138735	3088694
4.2	--do--	Preg. & Lact.	21430	734200	31883	787904	29376	755356
5	**Children Weighted**							
5.1	Normal	Number	143591	2370116	179642	2699847	182353	2823242
		%	76.94	61.23	86.88	68.18	89.42	72.52
5.2	Sl Mal	Number	41208	1323965	26139	1169632	20658	1004615
		%	22.08	34.20	12.64	29.54	10.13	25.81
5.3	Sev. Malnourished	Number	1813	176494	988	90464	907	65087
		%	0.97	4.55	0.48	2.28	0.44	1.67
6	**Total Children**	**Weighted**	**186612**	**3870675**	**206769**	**3959943**	**203918**	**3892944**

Source: MPR, Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar, Government of Gujarat

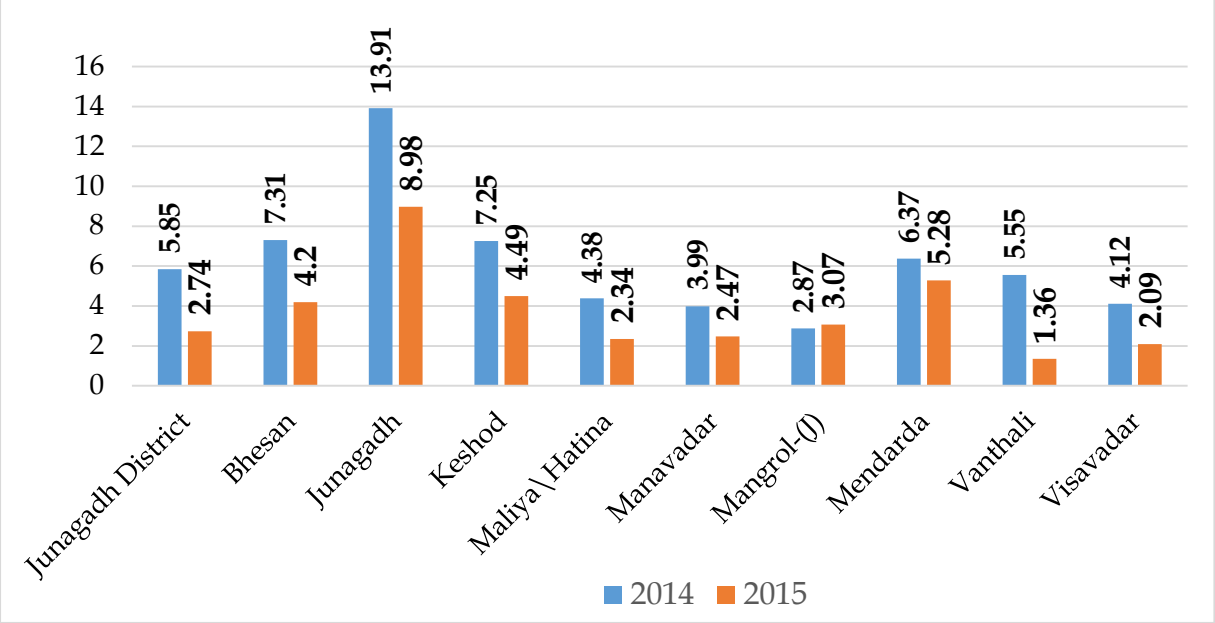
Table-5.16 : Taluka Wise Nutrition Status in Junagadh District													
Sr No	Region	Number of AWC (in No.s)		Children Weighted (in No.s)		Nutrition Status							
						Normal (%)		Moderate Under-Weight (%)		Severe Under-Weight (%)		Total Under-Weight (%)	
		March		March		March		March		March		March	
		2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Junagadh District		**1423**	**1423**	**108538**	**99033**	**94.15**	**97.26**	**5.31**	**2.39**	**0.54**	**0.35**	**5.85**	**2.74**
1	Bhesan	79	79	5865	5475	92.69	95.8	6.67	3.58	0.65	0.62	7.31	4.2
2	Junagadh	314	314	27685	24147	86.09	91.03	12.93	7.62	0.97	1.36	13.91	8.98
3	Keshod	194	194	13799	12328	92.75	95.51	6.8	4.02	0.45	0.48	7.25	4.49
4	Maliya\Hatina	163	163	12960	12272	95.63	97.66	3.93	1.96	0.45	0.37	4.38	2.34
5	Manavadar	136	136	8880	8335	96.01	97.53	3.54	2.26	0.45	0.22	3.99	2.47
6	Mangrol-(J)	187	187	17486	16649	97.13	96.93	2.69	2.75	0.18	0.32	2.87	3.07
7	Mendarda	81	81	4879	4409	93.63	94.72	5.53	4.26	0.84	1.02	6.37	5.28
8	Vanthali	123	123	7291	6478	94.45	98.64	4.72	1.03	0.84	0.32	5.55	1.36
9	Visavadar	146	146	9693	8940	95.88	97.91	3.61	1.76	0.51	0.34	4.12	2.09
Source: CDHO, Junagadh District Panchayat, Junagadh													

Malnourished Children Over time (in %age)



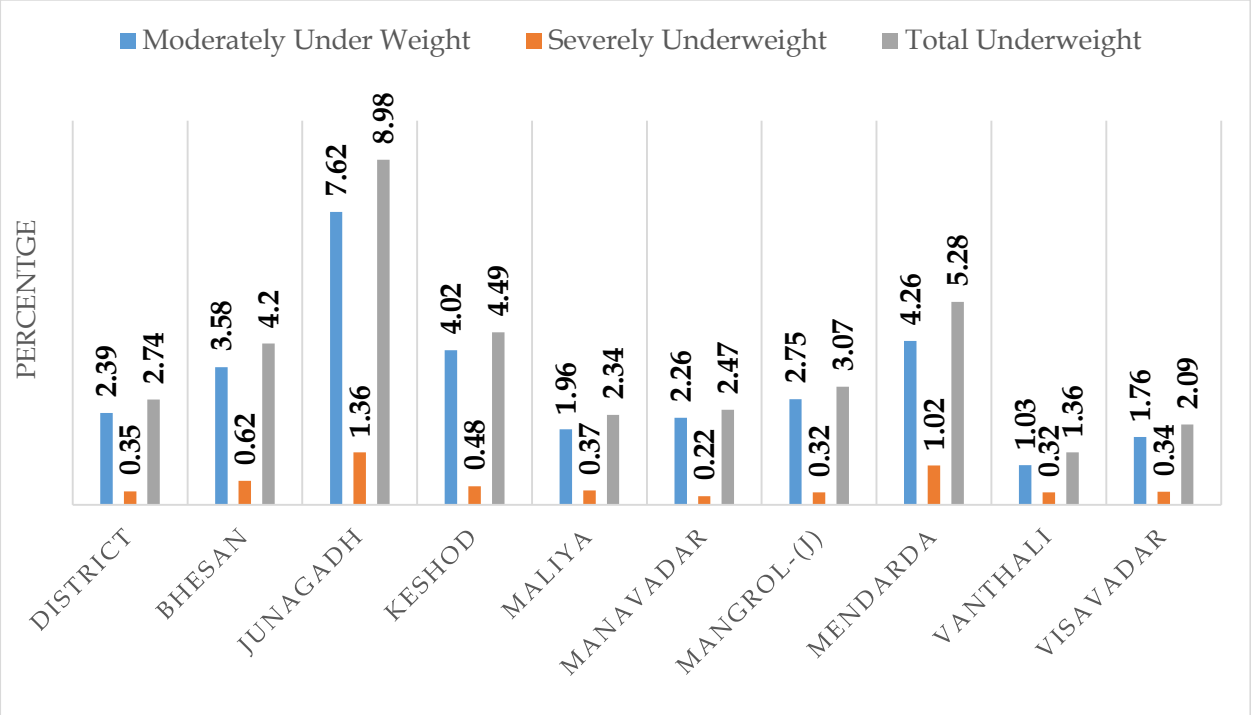
Source: CDHO, Junagadh District Panchayat, Junagadh

Talukawise Malnourished Children: 2014 & 2015 (in %age)



Source: CDHO, Junagadh District Panchayat, Junagadh

Figure 5.12: Nutrition Status Junagadh District (talukawise), in %age (2015)



(Source: CDHO, District Panchayat, Junagadh)

Nutritional status has improved considerably over the last 5-years. Total underweight (height is not yet included to determine stunting) has come down from 5.85 percent in 2014 to 2.74 percent in 2015. Normal children were only 58.12 percent in 2009. This has risen to 97.26 percent in 2015. Maximum taluka level mal nutrition also does not exceed 8.98 percent. However, even 2.74 percent is high. It roughly equals 2700 children. This should practically be zero.

Total number of operating anganwadi are 1423, equal to sanctioned number. All of them have SNP, though only about 70 percent children (as in 2013) are beneficiaries.

5.8.4 Immunization

Under Universal Immunization Programme, all children below 11 months of age are given free vaccine for at least:

a. BCG Dose
b. DPT-I, DPT-II and DPT-III Doses
c. Pentavalent –I, Pentavalent-II and Pentavalent-III doses
d. OPV-0 (at birth), OPV-I, OPV-II and OPV-III doses
e. Hepatitis –B0, Hepatitis-B1, Hepatitis-B2 and Hepatitis-B3 doses
f. Measles Immunization

A child who has been administered such doses is said to be fully immunized.
Beyond these, also, a child would receive vaccination, after 11 months of age, for various diseases. The vaccination programme has the following results over the years.

Table 5.17: Routine Immunization in Junagadh District : 2012-13 & 2013-14

Sr No.	Particulars	2012-13		2013-14	
		Total	% of Live Birth	Total	% of Live Birth
1	Live Birth	20858	---	18346	---
2	Polio 3rd Dose	17270	82.80	17097	93.19
3	BCG Vaccination	17691	84.82	17438	95.05
4	DPT-3	17270	82.80	16771	91.42
5	Measles	16474	78.98	17268	94.12
6	Fully Immunized	16474	78.98	17268	94.12
7	Vitamin A Dose	16474	78.98	17268	94.12

Source: CDHO, Junagadh District Panchayat,Junagadh

The tables above and below indicate that the immunization programme is robust and operating well. However, the objective is 100 percent immunization and that is not achieved at all places. Mangrol, apart from the area under Junagadh Municipal Corporation need to ensure that process of immunization is more efficient and achieves the targets.

Table 5.18: Routine Immunization in Junagadh District : 2014-15												
Sr No	Particulars IMMUNIZATION	Junagadh District	Taluka									
			Bhesan	Junagadh	JMC	Keshod	Malia	Mana-vadar	Mangrol	Mendarda	Vanthli	Visava dar
1	Live Birth	21,200	807	1,709	6,042	2,544	1,959	1,475	3,346	819	1,151	1,348
2	% Newborns given OPV0 at birth to Reported live birth (Polio)	106.3	100.6	96.6	81.1	112.4	149.3	100.7	106.1	135.5	114.9	142.1
3	% Newborns given BCG to Reported live birth	107.7	151.7	106	91.4	97.4	147.2	105.2	86.8	136.1	126.2	140.7
4	% Infants 0 to 11 months old who received Measles vaccine to reported live births	90.4	137.3	100.8	39.6	100.4	127.8	108.8	89.3	109.4	112	156.7
5	Number of fully immunized children (9-11 months)	17793	1043	1699	2207	2277	2485	1604	2249	902	1397	1930
6	Fully Immunized as % of Live Birth	83.93	129.24	99.41	36.53	89.50	126.85	108.75	67.21	110.13	121.37	143.18
7	% Children given Vit A dose1 to Reported live birth	82.9	134.6	97.8	41.9	71.1	128.9	108.1	67.6	110.1	107.6	144.5
Source: Performance of Key HMIS Indicators, Ministry of Health, Government of India												

5.8.5 Government Initiatives for Student Health

The government runs Student Health programme where all school children are provided free medical check-up, treatment for specific medical problems, eyes check-up, super speciality care and referrals. About 7 lakh students are covered under the programme.

Table-5.19: Student Health Programme in Junagadh District

Sr No	Particular	2010-11	2010-11	2012-13	2012-13	2013-14	2013-14
		District	Municipal Corp	District	Municipal Corp	District	Municipal Corp
1	Children Examined	645439	71947	620330	76877	625105	71457
2	Treated on The Spot	75257	17473	63515	38590	54757	29483
3	Children Identified for referral	8537	1389	4850	557	4896	456
4	Children Provided Referral Services	8537	365	4522	232	4896	456
5	Children Provided free spectacles	5417	70	3802	48	3582	469
6	Referral Service						
a	*Pediatrician*	2207	113	1826	54	2648	153
b	*Ophthalmic Surgeon*	4805	96	1817	156	1696	114
c	*Dental Specialist*	698	63	278	50	175	41
d	*Skin Specialist*	242	42	272	97	164	34
e	*E.N.T. Surgeon*	466	10	292	44	156	27
f	*Others*	110	41	37	61	57	87
7	**Super Speciality Care**						
a	*- Heart*	398	--	46	--	421	--
b	*-Kidney*	120	--	9	--	183	--
c	*-Cancer*	12	--	6	--	110	--
8	**Treated for**						
a	*Anemia*	17034	4228	13529	5103	16941	2413
b	*Worm Infestation*	26658	4439	21356	5508	0	0
c	*Ear Discharge*	4798	1837	3531	1119	6642	255
d	*Skin Disease*	4323	1184	2759	879	6434	505
e	*Vision Problem*	10481	2256	9228	2027	13792	452
f	*Dental problem*	6283	1359	6355	1579	11097	744
9	**Eye Testing**						
a	*Total Schools*	2526	--	2526	--	2526	--
b	*Schools Covered*	2526	--	2526	--	2526	--
c	*Total No.of Students*	559580	--	559580	--	559580	--
d	*Students Screened*	559580	--	559580	--	559580	--
e	*% Screened*	100	--	100	--	100.00	--
f	*RE Detected*	6308	--	6355	--	6798	--
g	*Free Glasses Provided*	6308	--	6355	--	6798	--

Source: Health Statistics, Various Years, Commissionerate of Health, Government of Gujarat

Achievements of the programme for three years are shown in the table above. The programme has contributed to health awareness, timely detection of medical problems and treatment. Consistently, 12 to 14 than 10 percent students are given primary treatment and 0.5 to 1 percent students are referred for more treatment.

1. On an average, 2.8 percent students are found to be anaemic requiring treatment.
2. Students ranging from 0.01 percent to 0.11 percent are found to require super speciality care. They would, most likely, go undetected but for this programme.

5.9 Emergency Healthcare

Emergency healthcare is even more important than routine healthcare because a failure could result into instant death. The State Government has implemented several measures to provide emergency healthcare.

1. Emergency Response service through a toll free telephone number
2. Mobile Medical Unit (MMU) and Mobile Health Unit (MHU)

Emergency telephone number. 108, is for all types of emergencies that citizens may face: Health, Fire and even need for police.

GVK Emergency and Management Institute has been commissioned to provide emergency transport facility through a fleet which is equipped with the emergency health care facility, equipment and nurses. This service, initiated under Public Private Partnership (PPP), has become a symbol of efficient and quick mechanism to transport needy patients to nearby hospitals. In addition, several private hospitals have their own emergency well equipped vehicles.

5.9.1 e-Mamta:

The State Government has launched a scheme, e-Mamta, through the Health and Family Welfare Department of the Government of Gujarat, a tracking Information management system in collaboration with the National Rural Health Mission (NRHM) and National Informatics Centre (NIC) in 2010. The objective of the scheme is to register each individual pregnant women, individual children in the age group 0-6 and adolescents along with their full details to ensure complete service delivery of Ante Natal Care (ANC), Child birth, Post Natal Care (PNC), Immunization, nutrition and adolescent services and to track the left outs of these services.

E-Mamta is accessed through user id and password for in-department employees. Conceptualized by the State Rural Health Mission of the Health and Family Welfare Department of Gujarat, in January 2010, the program was developed through National Informatics Centre (NIC) Gujarat.

The project 'E-Mamta: Mother & Child Tracking System' has deployed mobile tools as platforms to monitor health services delivery to mother and child in all 26 districts of Gujarat including Junagadh, all health blocks comprising of Primary Health Centres, Community Health centres, Sub District Hospitals and District Hospitals.

5.9.2 Blood Banks[1]:

Junagadh district has total of 6 blood banks (as on 1.4.2014), one is in government sector, four are run by private charitable trusts, and one is in private sector.
(1:Reference: Report of the Comptroller and Auditor General of India on General and Social Sector for the year ended March 2014, Government of Gujarat, Report No. 6 of 2014, pp No. 114.)

5.9.3 Mobile Medical Units (MMU)

MMU is a mechanism to provide outreach services in rural and remote areas. MMU comprises of one,two or three vehicles to transport medical/para medical personnel , with equipments (such as X-Ray, Ultrasound, ECG machine) and medicines. Each unit has one doctor, one nurse, one radiologist, and one pharmacist. As on 31.3.2016, there is one MMU in Junagadh district in Kodinar (now in Gir Somnath district).

5.9.4 Mobile Health Unit (MHU)

Junagadh district has six MHU, three each in Junagadh district (new) (Mangrol, Mendarda and Visavadar) and Gir Somnath district (Kodinar,Sutrapada, Una).

5.10 Medical Education Facility

5.10.1 Medical Colleges

Junagadh has recently (2015) established one medical college, affiliated to the newly established Narsingh Mehta University. It has an intake of 150 students per year.The district hospital of Junagadh is now attached to this new medical college.

Junagadh has one Ayurvedic college, affiliated to Gujarat Ayurvedic Univesity, Jamnagar. District Hospital, Junagadh is transferred to Gujarat Medical Education Research Society (GMERS) as a Hospital attached with Medical College.

5.10.2 Ayurvedic College

Govt. Ayurvedic College, established in 1969 is affiliated to the Ayurvedic Univeristy, Jamnagar and has an annual intake capacity of 35.

5.10.3. Nursing Colleges

Junagadh district has government nursing colleges School of Nursing,General Hospital, Junagadh.with capacity of 20. Two private nursing colleges, each with a capacity of 40 are located in Junagadh city.

5.11 Disease Incidence

5.11.1 Water Borne Diseases

Water can be a source of large number of harmful bacteria. Poor quality water can result in several water borne diseases. These diseases could result into Death or at least result in large health costs, wastage of resources, heavy loss of productive manpower.

Table 5.23:Incidence of Water Borne Diseases in Junagadh District

		2011		2012		2013		2014		2015	
	Population (Estd.)	***2774408***		***286091***		***2838137***		***2870548***		***2903330***	
1	Cholera	1	0	0	0	0	0	0	0	0	0
	Incidence/10000 Population	0.004	0	0	0	0	0	0	0	0	0
2	Gastroenteritis	30831	0	35638	0	35219	0	36176	0	24176	0
	Incidence/10000 Population	111.1	0	127.1	0	124.1	0	126	0	83.3	0
3	Acute Viral Hepatitis	---	---	64	0	40	0	1	0	0	0
	Incidence/10000 Population	---	---	0.228	0	0.141	0	0.003	0	0	0
4	Enteric Fever	138	0	138	0	121	0	71	0	248	0
	Incidence/10000 Population	0.497	0	0.492	0	0.426	0	0.247	0	0.854	0

Source: CDHO, Junagadh District Panchayat
Note: Data are for calendar year and for pre-2013 district

Water borne diseases are under control. There are no reported death due to four water borne diseases mentioned above in the last five years. Most prevalent is gastroenteritis, where incidence is about 125 for every 10000 people. Cholera is almost wiped out and incidence of typhoid is less than 05 per 10000 people, though incidence has doubled in last five years. Similarly, incidence of viral hepatitis has doubled in five year period.

5.11.2 National TB Control Programme

Total patients registered for treatment in 2013 were 2626.New smear positive detection rate was 57 (per lakh population). (59 for Gujarat) Death rate was 4 percent (State death rate was 6 percent).

5.11.3 Mosquito Bases Diseases

5.12.3.1 Malaria:

Junagadh district has had no death due to malaria in last few years for which information is available.

Malaria is under control though it is not completely eradicated. 593 cases were reported in 2013-14 with no death.

5.11.3.2 Dengue and Chikangunya

There have been cases of Dengue and Chikangunya. Available data are shown below.

Table-5.23: Incidence of Dengue and Chikangunya

	2011	2011	2012	2012	2013	2013	2014	2014	2015	2015
Dengue	**Cases**	**Death**	**Cases**	**Death**	**Cases**	**Death**	**Cases**	**Death**	**Cases**	**Death**
Junagadh	3	0	58	0	89	0	6	0	50	0
JMC	0	0	9	0	0	0	0	0	0	0
Gir Somnath	6	0	139	0	128	0	28	0	36	0
Total	**9**	**0**	**206**	**0**	**217**	**0**	**34**	**0**	**86**	**0**
Chikangunya										
Junagadh	9	0	1	0	9	0	1	0	0	0
JMC	0	0	0	0	0	0	0	0	0	0
Gir Somnath	0	0	0	0	0	0	2	0	1	0
Total	**9**	**0**	**1**	**0**	**9**	**0**	**3**	**0**	**1**	**0**

There have been no reported death.

5.11.4. Leprosy

Satisfactory progress has been made in almost eradicating leprosy from the district. Junagadh district has achieved Prevalence rate (PR) of 2.8 (2.8 per 1 lac population), earning the status of complete eradication. Last year, new detected cases were 99, with Annual New Case Detection Rate (ANCDR) of 3.43 (New cases per 1 lac population). This is lower than the state average of 8.3 PR and 15.73 ANCDR.

5.11.5 National Programme for Control of Blindness:

Under this programme, against a target of 29300 in 2013-14, 31264 cataract operations were performed, of which 1271 were in the government hospitals and 6131 by NGO run hospitals, the balance 23862 were in private hospitals. The government presence is marginal, less than 5 percent. Even if NGO operations are included, total is less than 25 percent. With a rural population being about two thirds, the government should play more active role. Facilities/Doctors need to be augmented.

5.11.6 Anti TB Programme

2626 new cases were detected in 2013-14 for which data are available. ANSPCR was 57 (as compared to the State average of 69) (57 new cases per 1 lac population). Death rate among new cases was 4 percent. Thus, further achievement is not only possible but necessary.

5.12 Summing Up/SWOC Analysis

5.12.1 Strength

1. Junagadh has well established rural health programme, with overall adequate number of physical facilities. It has 237 Sub-Centers, 38 PHCs, 10 CHC to provide healthcare to almost two thirds of the population.
2. Junagadh has reputed district hospitals which have been serving the population well for decades.
3. Number of private medical hospitals for various branches exist in urban areas, mainly in Junagadh.
4. A new medical college has been established in Junagadh town and could go a long way to cater to the needs of the district.
5. Junagadh has an Ayurvedic Hospital and nursing colleges.
6. It has three mobile health units and three mobile medical units. It also has six blood banks.
7. Incidence of water borne diseases is lower than the state average and no death are reported due to such diseases.
8. The district has lower incidence of diseases than the state for most diseases.
9. Institutional deliveries are near 100 percent in most talukas. This is achieved mainly through strong public sector health programme.
10. Large part of home deliveries are under recognized supervision.
11. The school children medical check-up programme has helped several early detection cases and help in medical treatment apart from creating awareness.
12. The district has 1423 anganwadis with strong monitoring system resulting in largely normal children.

5.12.2 Weaknesses:

1. Junagadh district is majorly rural in character. Though population of the rural area is growing at only 0.5 percent per year, and may be even lower in the future, its needs for healthcare facilities is huge as the private sector is almost non-existent in the rural areas.
2. Rural incomes are low and illiteracy rates are more than 20 percent in many areas. Awareness of healthcare needs to be improved.
3. Technical manpower needs to be augmented. Trained staff is highly inadequate. Technicians and doctors both are required in larger numbers.
4. Especially, gynaecologists and paediatricians are inadequate in number for child and maternal health.
5. Also true is the absence of specialized health services.

6. Child care is extensive. However, extent of malnutrition appears to be high. Some areas are flood prone where delivery of medical services is difficult.
7. Experts are of the opinion that the PHCs could have more sophisticated facilities (e.g., for new born).
8. Information about available healthcare facilities need wider dissemination and continuous updating.
9. Equally important is the provision of safe drinking water and sanitation. WASMO is committed to supply minimum quantity of treated water to villages. However, much of the water is from wells and ground water. These are not treated water. Villages could be supplied chemicals for treatment and a mechanism developed to ensure water treatment.
10. Equally important is sanitation. Still a large number of population is deprived of toilet facility at home. This should be immediately addressed.
11. Non communicable diseases are as threatening as communicable diseases. More emphasis (e.g., Special OPD) on treatment of non-communicable diseases is required.

5.12.3 Opportunities:

1. Junagadh provides immense opportunity and satisfaction for the medical professional.
2. Junagadh district has population large enough to generate medical needs which need attention and hence requiring a large facilities, both physical and non-physical.
3. Junagadh can be a centre for specialized medical services which is largely absent.
4. IMR and MMR need substantial reduction and provides both opportunity and challenge.
5. Providing sanitation facility and water is a major challenge.
6. Though total number of healthcare units are nearly as per the prescribed norms, taluka-wise facility are not adequate for all taluka.
7. In addition, the healthcare achievements are not similar across all talukas. Major hindrances for laggard talukas/areas could be identified and dealt with given simple principles of affordability, accessibility and availability.
8. Improving anti TB programme to reduce death rate (now 4 %) and incidence (57 per 1 lac population).
9. More active role of the government for the prevention of blindness /cataract operations is imperative.

5.12.4 Constraints/Challenges:

1. A major challenge is to augment the rural healthcare system by providing adequate quality expert manpower. It is repeatedly clear that impressive physical infrastructure is inadequately manned.
2. Recruiting, Retaining qualified and competent medical personnel, doctors, nurses, etc., has not been a very successful exercise. Unlike any other profession, a half qualified person is more dangerous than non-qualified person. And unlike most other profession, "human touch" is not only more important than "machine", it is IMPERATIVE for the successful healthcare system.
3. Private medical facility is also inadequate. Largely concentrated in few towns, it is neither extensive nor exhaustive. It is necessary to provide world class civic amenities and other attractions, like libraries, playgrounds, etc, to attract private practitioners. Since the capacity to pay is relatively low, earning ability of any professional would also be low and be deterrent to their preferences for Junagadh.

5.12.5 Priority Areas for Improvement

1. Promotion of Institute Delivery (esp. in Public Institute)
2. SNCU and NBSU
3. Malnutrition – (VCNC and CMTC)
4. ASHA Incentive
5. PRI and NGO Involvement for Community action
6. Effective IEC
7. MHU and MMU in hard to reach areas
8. Full Immunization Coverage

Priorities/ Targets	Constraints	Actions Required
Fully functional all health institutions- Sub health centres, PHC and CHC	Lack of SC buildings. Poor infrastructure (Residential). Lack of Manpower.	Finishing SC Construction Work Immediately Hiring contractual staff/ Outsourcing of services.
Increment and continuous Capacity building of human resources so as to carry out their routine process and documentation at their respective levels.	Non Availability of Sufficient Technical staff. Lack of Accountability and Motivation in grass root level workers. Lack of performance based appraisal system (Clinical). Lack of performance based reward and punishment system for non-clinical activities (documentation or administration related work).	Contractual appointments to be made for filling short term gaps. Convergence with other private practitioners or local resources available. Continuous Capacity building of Human resource through trainings and workshops and implementation of activities with the help of skills enhanced. Provide multi-skilling of doctors /paramedics and other technical staff.
Empowerment for effective Decentralization and flexibility for local action.	Decentralized Management (at Block/PHC level). Lack of (Non Clinical and Administrative) knowledge in FHW's. Lack of Support from local level for coordinated work for the betterment at village level. Lack of skills and motivation.	Develop effective Decentralized Management in all Level Increasing Accountability on FHW's by making it mandatory to spend with proper supervision of MO and PRI members. Capacity building of HR & Effective IEC for local Public. Capacity building of VHSC Mebers & IEC for local public. Develop effective Training & Motivation to skilled staff.

To increase Deliveries at public Health Institutions.	Poor utilization of SC and underutilization of PHC and CHC due to poor linkages, Communication and referral system between SC, PHC and CHCs. Lack Of MBBS doctors at PHC. Non-availability of Specialists for anaesthesia, obstetric care, paediatric care at CHCs.	Strictly implementation Delivery at CHC/PHC/SC As possible as more. Contractual Appointments to make 24X7PHC Promoting JSSK and encouraging beneficiaries Promoting CM Setu Yojana
Health Management Information System	Data Errors (Server Side) are frequent with E-Mamta software. Workload is high for PHC accountant	HMIS and E mamta training needs to be imparted to All operators. Additional Data entry operator required for HMIS and E-mamta
Planning and monitoring With community & Local PRI	Lack of involvement of local community, PRI, in monitoring of public health institutions.	Capacity building of VHSC to Carry out process with involvement of PRI's at village level from planning, implementation, monitoring and evaluation Untied resources for planning and monitoring. PRIs involvement in village level surveys. Organized train and enhance capacity of Panchayati Raj Institutions (PRIs) to own, control and manage public health services.
Effective & Less time, fund, vehicle, manpower consume in Various meeting	No Technology available for Video conference meeting at all levels.	Develop Video Conference Technology attached with DDO & TDO's office, presently working are developed & utilized for Health programme.
Strengthening of effective Monitoring and Supervision.	Lack of effective Supervision, Monitoring and Follow Up. Lack of vehicle facility management at Block/PHC for mobility	Effective monitoring Staff vehicle facility at District, Block & PHC levels.

Chapter 6

Poverty and BPL

6.1 OVERVIEW

This chapter discusses the status of BPL families in Junagadh district. The concept of BPL, is in addition to the concept of identifying poor in India based on defined poverty line. Poverty line is based on specific income level or consumption expenditure required to buy a specific consumption bundle. In contrast, BPL is a concept based on deprivation. A set of needs are identified as necessary for good living standard and those who are deprived, as determined by a well-defined procedure, are termed BPL families.

Poverty is estimated by the Planning Commission of India on the basis of Sample survey of Consumption Expenditure by the office of National Sample Survey (NSSO), under the Planning Commission. The Surveys are conducted every five years.

In India, the government uses additional concept to define poor households with an objective of identifying target households for providing assistance under various poverty alleviation programmes. This is called "Below Poverty Line Household (BPL)". Below Poverty Line (BPL) surveys are conducted in rural areas by each state sponsored by the Ministry of Rural Development, Government of India. Surveys are conducted at the beginning of every 5-Year Plan.

First such BPL survey was initiated in the 8th 5-year Plan (1992-1997 period). This has been subsequently repeated every five years. A significant change in defining BPL household came in 2002. Annual household income threshold was replaced by a level of deprivation in respect to thirteen (13) parameters/indices. Ministry of Rural Development, Government of India, vide its letter dated 13th sept, 2002, specified these 13 parameters for classifying a family as BPL family. Consumer expenditure based surveys of NSSO are still used by the Planning Commission to define a family below poverty line but for BPL, deprivation measure is used.

These parameters are for identifying families with nutritional needs, access to drinking water, primary health care, elementary education and sewerage and sanitation for better quality of life.

The parameters are:

1. Size of land holding,
2. Type of houses,
3. Clothing,
4. Food security,
5. Sanitation,
6. Ownership of consumer durables,
7. Literacy status,

8. Household labour force,
9. Means of livelihood,
10. Status of children,
11. Type of indebtedness,
12. Migration and
13. Preference of assistance

The identification of BPL families based on these 13 parameters is used to identify beneficiaries for:

a. Central Government assisted schemes
b. State Government schemes
c. Other Welfare Schemes

Each state in India has its own method of determining the BPL families. Gujarat, for example, has two scoring caps. Families scoring 0-16 out of 52 are listed as "very poor families" and are entitled to central government schemes as they fall within the Planning Commission estimates. Families with a score between 17 and 20, using the same survey instrument, are listed as "poor families", who receive benefits under state-sponsored schemes. Each category has a distinct card.

The following discussions are based on:

a. The Surveys under the Ministry of Rural Development. It excludes the urban poor segment. Urban poor are not included herein.
b. BPL families as per NSSO, used for allotment of ration cards and other benefits. These are separately reported as they include both rural and urban poor, though they are based on income rather than deprivation.

6.2 NUMBER OF BPL FAMILIES OVER TIME

6.2.1 Second BPL Survey: 1997-2002

Taluka-wise results of the Survey during 1997-2002 period are summarized below.

Table 6.1: Rural BPL Families -9th Plan period – in Junagadh District -1997-2002

Sr No.	Taluka	Number of Families Rural	Number of Families BPL	BPL Families % of Total
1	Bhesan	11423	5813	50.89
2	Junagadh	28753	6663	23.17
3	Keshod	20228	10707	52.93
4	Malia	25731	12021	46.72
5	Manavadar	17413	8857	50.86
6	Mangrol	22206	8782	39.55
7	Mendarda	13479	4577	33.96
8	Vanthali	25106	6865	27.34
9	Visavadar	20554	6871	33.43
District Total		**184893**	**71156**	**38.48**
Source: DRDA Office, Junagadh District.				

A very large rural population was comprised of BPL households. Out of a total 184893 rural household, 71156 were BPL households. Four out of nine taluka had more than 40 percent families who were poor/BPL. Overall, number of BPL were just less than 40 percent of total households.

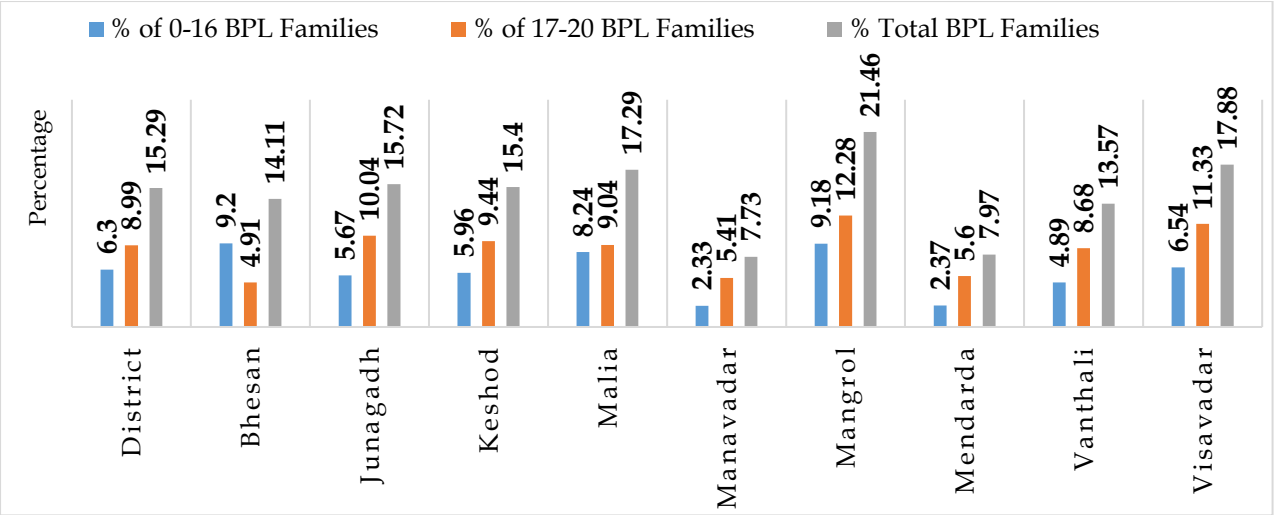
6.2.2 Third Survey: 10th Plan Period: 2002-2007

Table 6.2: Rural BPL Families - 10th Plan period - Junagadh District (2002-2007)

Sr No.	Region/ Taluka	Number of Families (Rural)	Number of BPL Families (0-16)	% of 0-16 BPL Families (Total)	Number of BPL Families (17-20)	% of 17-20 BPL Families (Total)	Number of BPL Families (Total)	% to Total Families
1	Bhesan	16654	1532	9.20	818	4.91	2350	14.11
2	Junagadh	25088	1423	5.67	2520	10.04	3943	15.72
3	Keshod	28573	1702	5.96	2698	9.44	4400	15.40
4	Malia	29162	2404	8.24	2637	9.04	5041	17.29
5	Manavadar	21035	490	2.33	1137	5.41	1627	7.73
6	Mangrol	30163	2770	9.18	3704	12.28	6474	21.46
7	Mendarda	15485	367	2.37	867	5.60	1234	7.97
8	Vanthali	20500	1003	4.89	1779	8.68	2782	13.57
9	Visavadar	26559	1738	6.54	3010	11.33	4748	17.88
District Total		**213219**	**13429**	**6.3**	**19170**	**8.99**	**32599**	**15.29**
Source: DRDA Office, Junagadh District.								

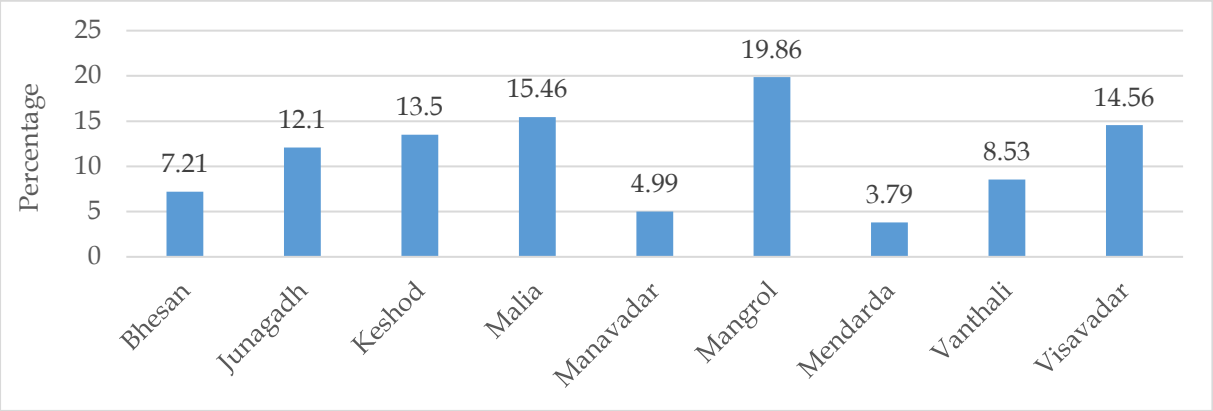
Number of BPL families declined from 71156 in 1997-2002 period to 32599 in 2002-2007 period. This was a significant decrease as total number of households increased from 184893 to 213219. Overall, decrease was more than 60 percent, from 38.48 percent to 15.29 percent. Such a large reduction, over just one plan period is probably more to do with the methodology of measurement.

Figure-6.1: Taluka Wise % of Rural BPL Families: 10th Plan period, 2002-2007



Source: DRDA Office, Junagadh District

Figure-6.2: Taluka Wise Distribution of BPL as % of Total Rural BPL Families: 10th Plan period, 2002-2007



Source: DRDA Office, Junagadh District

During the period (2002-2007), excepting Bhesan taluka, all other talukas had substantially higher percentage of BPL families in 16-20 category than in 0-16 category. Manavadar and Mendarda had less than 30 percent of total BPL families in 0-16 category.

Mangrol taluka, at 21.46 percent, had the highest density of BPL families in the district. It also had the highest number of district BPL families (19.86 %). Manavadar (at 7.73 %) and Mendarda (at 7.97 %) had the least percentage of BPL families as percentage of total population. Mendarda (at 3.79 percent) and Manavdar (at 4.99 percent) had the least percentage of district BPL families.

6.2.3 Rural BPL during years 2012-2013

By 2012-13, total number of BPL households has increased from were 32599 in 10th plan period to 38238, an increase of 17.3 percent, higher than the population growth.

Table-6.3: No. of BPL Families in 2012-13, Junagadh District

Sr No	Taluka	2012-2013			2002-2007	
		No. of BPL Families (0-16)	No. of BPL Families (17-20)	No. of BPL Families (Total)	No. of BPL Families (Total)	% Increase over 2002-07
1	Bhesan	1734	1371	3105	2350	32.13
2	Junagadh	1815	3464	5279	3943	33.88
3	Keshod	1702	2698	4400	4400	0.00
5	Malia	2404	2637	5041	5041	0.00
6	Manavadar	490	1137	1627	1627	0.00
7	Mangrol	3680	5000	8680	6474	34.07
8	Mendarda	367	867	1234	1234	0.00
8	Vanthali	1016	1793	2809	2782	0.97
9	Visavadar	2168	3895	6063	4748	27.70
Total		**15376**	**22862**	**38238**	**32599**	**17.30**

Source: DRDA Office, Junagadh District

6.2.4 Taluka Wise Status of BPL in Junagadh District (Rural) as on 1.4.2016

The status of rural BPL in Junagadh district as on 1st April, 2016 is summarized below.

Table-6.4: Number of BPL Households in Rural Areas of Junagadh District as on 1.4.2016

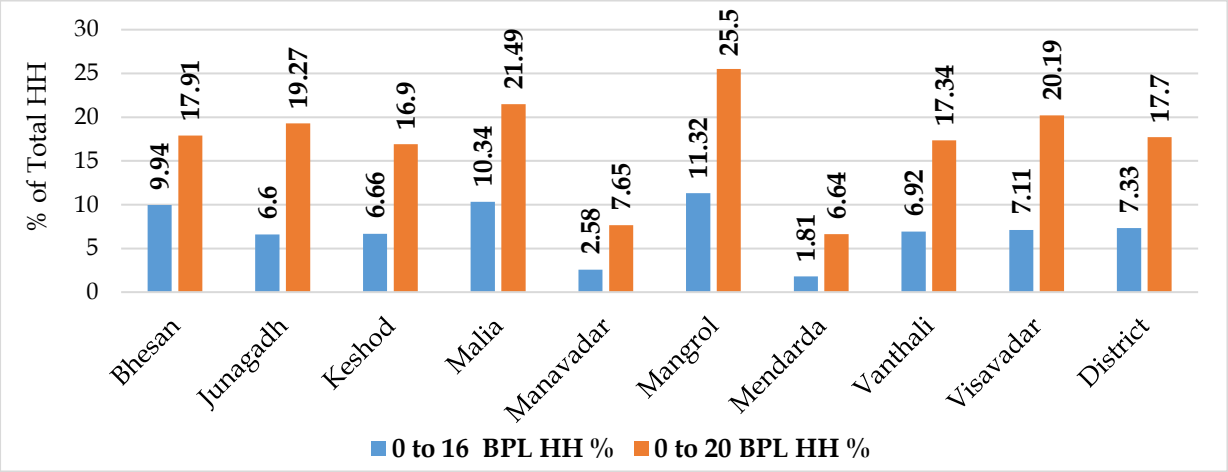
Sr No	Taluka/ Region	No. of Villages	BPL Household (0-16)		BPL Household (17 -20)		Other Household (21 to 52)		Total Households TOTAL
			Number	%	Number	%	Number	%	
1	Bhesan	41	2055	9.94	1646	7.97	16963	82.09	20664
2	Junagadh	68	2080	6.60	3987	12.66	25425	80.73	31492
3	Keshod	53	2286	6.66	3514	10.24	28528	83.10	34328
5	Malia	67	4106	10.34	4428	11.15	31180	78.51	39714
6	Manavadar	56	845	2.58	1661	5.07	30236	92.35	32742
7	Mangrol	59	4708	11.32	5897	14.18	30981	74.50	41586
8	Mendarda	61	393	1.81	1046	4.83	20230	93.36	21669
13	Vanthali	46	2094	6.92	3155	10.42	25019	82.66	30268
14	Visavadar	82	2236	7.11	4115	13.08	25107	79.81	31458
Grand Total		**533**	**20803**	**7.33**	**29449**	**10.37**	**233669**	**82.30**	**283921**

Source: DRDA, Junagadh District

Note: Number of villages include villages with no population. Actual number of inhabited villages are 524.

- Total number of rural BPL households is 50252, 17.70 percent of total rural households.
- Number of extremely poor families is 7.33 percent as on 1st April, 2016, as classified by BPL definition, in rural areas.
- Thus little above 40 percent of poor families are extremely poor.
- Number of BPL households in 2012-13 was 38238. Thus, there has been a significant increase (31.42 %) in number of BPL households in the last three years. This is partly an indication of large variability in income.

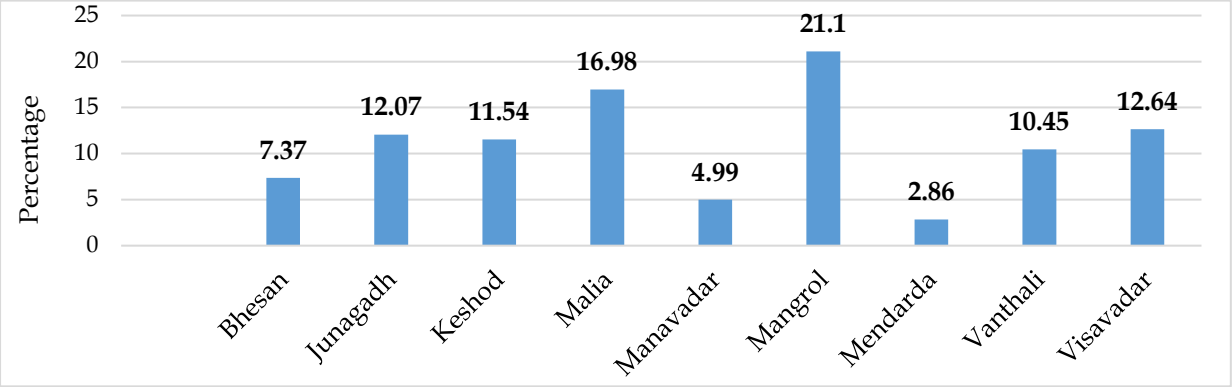
Figure-6.3: BPL Households in Rural Areas of Junagadh-1.4.2016



(Source: DRDA, Junagadh District Panchayat)

- Mangrol (11.32 %) has the highest percentage of extremely poor BPL families, followed by Malia (10.34 %).
- Mangrol also has the highest number of poor families, 25.5 %. It is followed by Malia at 21.49 % and Visavadar at 20.19 %.
- Highest number of BPL families are in Mangrol taluka (21.1 %), followed by Malia (16.98%). These two taluka continue to be relatively poor and need special income generating alternatives.

Figure-6.4: Taluka Wise Distribution of BPL as % of Total District BPL Households



6.3 TIME SERIES ANALYSIS OF BPL IN JUNAGADH DISTRICT

The table below is a summary of data on BPL families over the period 1997-2002 to 1st April, 2016.

Population adjusted increase in BPL is 15.76 percent over 2002-2007 to 1.4.2016 period. Increase is highest in Vanthli taluka (27.79 %), followed by Bhesan taluka (26.93 %). Junagadh and Malia taluka also had population adjusted increase of more than 20 %. Mendarda had significant decrease at 16.68 %. Manavadar taluka also had population adjusted decrease of 0.99 %.

Table-6.5: Time Trend of BPL Families. Junagadh District												
Sr No	Region/ Taluka	Number of Total Rural Households			Number of BPL Households				% of Households which are BPL			Population Adjusted
		1997-2002	2002-2007	1st April 2016	1997-2002	2002-2007	2012-13	1st April 2016	1997-2002	2002-2007	1st April 2016	% increase 1.4.2016 over 2002-07
		No.	No.	No.	No.	No.	No.	No.	%	%	%	%
1	Bhesan	11423	16654	20664	5813	2350	3105	3701	50.89	14.11	17.91	26.93
2	Junagadh	28753	25088	31492	6663	3943	5279	6067	23.17	15.72	19.27	22.55
3	Keshod	20228	28573	34328	10707	4400	4400	5800	52.93	15.4	16.9	9.71
4	Malia	25731	29162	39714	12021	5041	5041	8534	46.72	17.29	21.49	24.28
5	Manavadar	17413	21035	32742	8857	1627	1627	2506	50.86	7.73	7.65	-0.99
6	Mangrol	22206	30163	41586	8782	6474	8680	10605	39.55	21.46	25.5	18.83
7	Mendarda	13479	15485	21669	4577	1234	1234	1439	33.96	7.97	6.64	-16.68
8	Vanthali	25106	20500	30268	6865	2782	2809	5249	27.34	13.57	17.34	27.79
9	Visavadar	20554	26559	31458	6871	4748	6063	6351	33.43	17.88	20.19	12.91
10	District Total	184893	213219	283921	71156	32599	38238	50252	38.48	15.29	17.7	15.76
Source: DRDA Office, Junagadh District Panchayat												

6.4 BELOW POVERTY LINE INDIVIDUALS BASED ON INCOME CRITERIA

Issue of ration cards to a household is based on categorization of households. House*holds are categorised as:

1. Below Poverty Line (BPL)
2. Above Poverty Line (APL-I), and 3. Above Poverty Line (APL-II).

After introduction of National Food Security Act (NFSA), households are subdivided into NFSA households (those eligible for benefits under NFSA) and non-NFSA households. NFSA households are further categorised as AAY, BPL, APL-I and APL-II families.

This categorization of BPL is different and is based on the Planning Commission Guidelines under which household income is the basis of BPL categorization. However, it does indicate level of poverty in the district.

Table-6. 6: Income Based Category of Junagadh District Population , April, 2016

Sr. No.	Particulars	Old Junagadh Dist		New Junagadh Dist		Old Junagadh Dist		Gujarat State	
		June,2012		April, 2016		Increase Jan, 2012 to April,2016		April, 2016	
		Number	% of Total	Number	% of Total	Number	%	Number	% of Total
A	Total Population	---	---	1535605	100	---	---	59399407	100
A.1	-NFSA Population	---	---	786012	51.19	---	---	33741111	56.80
A.1.1	- AAY Population	---	---	67995	4.43	---	---	4210828	7.09
A.1.2	-BPL Population	---	---	255989	16.67	---	---	14355962	24.17
A.1.3	-APL-1 Population	---	---	454957	29.63	---	---	14881657	25.05
A.1.4	-APL-2 Population	---	---	7071	0.46	---	---	292664	0.49
A.1.5	Total PHH Population (BPL+APL)	---	---	718017	46.76	---	---	29530283	49.71
A.2	Non-NFSA Population	---	---	749593	48.81	---	---	25658296	43.20
A.2.1	-BPL Population	---	---	31825	2.07	---	---	1482370	2.50
A.2.2	-APL-1 Population	---	---	684156	44.55	---	---	22986378	38.70
A.2.3	-APL-2 Population	---	---	33612	2.19	---	---	1189548	2.00

A.3	TOTAL Population	2471157	100	1535605	100	277956	11.25	59399407	100
	of Which								
A.3.1	AAY & BPL(non AAY)	454678	18.40	355809	23.17	204387	5.57	20049160	33.75
A.3.2	APL-1	1822961	73.77	1139113	74.18	192749	-0.45	37868035	63.75
A.3.3	APL-2	66696	2.70	33670	2.19	-6197	-0.50	1189606	2.00
A.3.4	Not Classified	126822	---	---	---			---	---
Note: In 2012, Junagadh district was not bifurcated in Junagadh and Gir Somnath. Hence the data for 2012 are for the united district. For purpose of comparison, 2012 data are also given.									
Source: Directorate of Food and Civil Supplies, Government of Gujarat									

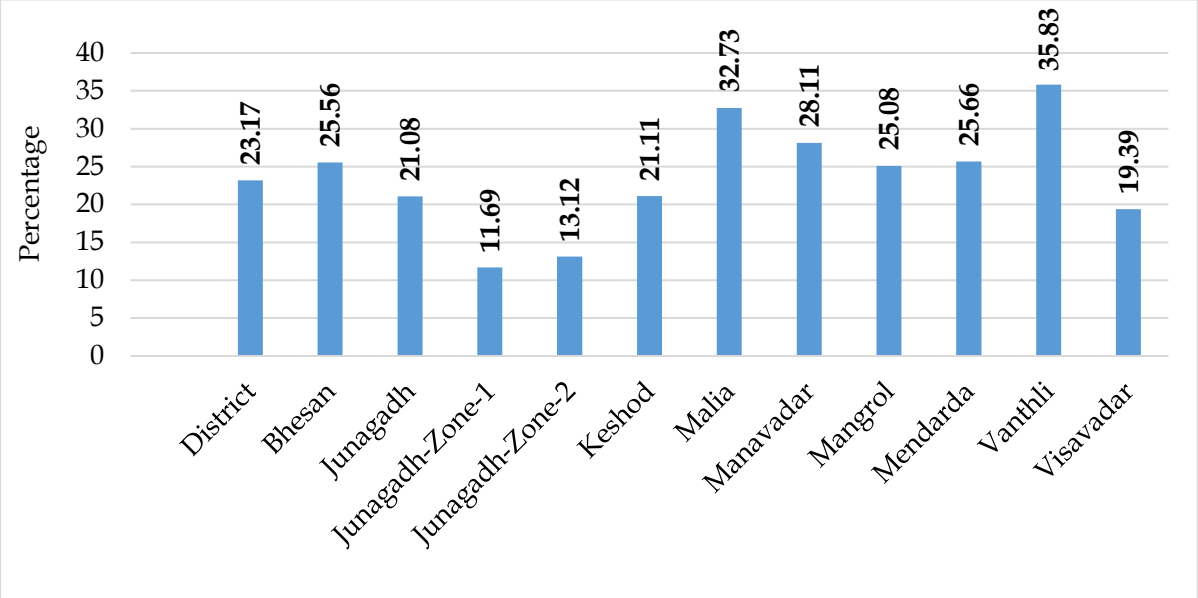
- As in April 2016, number of households classified as BPL is 23.17 percent of the population. Assuming that all non-classified families in June, 2012 were BPL, then the percentage of BPL families has remained almost unchanged.
- However, as the population has increased, with percentage remaining unchanged, absolute number of BPL families has increased. Again, Since ratio f population under BPL is almost 55:45 for Junagadh and Gir Somnath, number of BPL families has increased , an increase of (204387-126822=7565, 55 % which is) 4160 people in the last four years.
- In the similar vein, the number of APL-2 families, at high end of the income, has decreased by about 3400 people.
- Compared to the State, number of BPL population is almost 10 percent lower.

Table -6.7: Income Based population Categories: Junagadh District –April, 2016

Region	Population Category									
	AAY Population		BPL Population		APL-I Population		APL-II Population		Total Population	
	No.	%	No.	%	No.	%	No.	%	No.	%
Bhesan	2956	3.55	18308	22.01	61374	73.77	555	0.67	83193	5.42
Junagadh	4252	3.47	21558	17.61	96293	78.64	344	0.28	122447	7.97
Junagadh-Zone-1	2275	1.56	14736	10.13	121179	83.32	7246	4.98	145436	9.47
Junagadh-Zone-2	2962	1.93	17180	11.19	123417	80.39	9971	6.49	153530	10.00
Keshod	9100	4.57	32933	16.54	150142	75.41	6917	3.47	199092	12.97
Malia	9709	5.63	46755	27.10	115251	66.80	815	0.47	172530	11.24
Manavadar	9628	6.86	29796	21.24	99418	70.88	1411	1.01	140253	9.13
Mangrol	9040	4.59	40380	20.49	146379	74.28	1276	0.65	197075	12.83
Mendarda	2857	3.74	16721	21.91	46511	60.95	10218	13.39	76307	4.97
Vanthli	8771	8.48	28286	27.35	65830	63.66	526	0.51	103413	6.73
Visavadar	6445	4.53	21161	14.87	113319	79.62	1404	0.99	142329	9.27
TOTAL	**67995**	**4.43**	**287814**	**18.74**	**1139113**	**74.18**	**40683**	**2.65**	**1535605**	**100.00**
Source: Directorate of Food and Civil Supplies, Government of Gujarat										

- Highest number of BPL persons are in Malia, 56464, followed by Mangrol (49420) and Keshod (42033).
- Highest percentage of BPL population is in Vanthli (35.83 %) followed by Malia (32.73 %). Lowest percentage are in Junagadh Zone-I (11.7%), Junagadh Zone-II (13.12%) followed by Visavadar (19.4%). All other taluka have BPL persons of more than 20 percent, including Junagadh rural area.
- Mendarda has the highest number of APL-II category population. More than 25 percent of all APL-II population in the district reside in Mendarda, though Mendarda has less than 5 percent of the district population.

Figure-6.5-Taluka Wise Income Based % BPL Population in Junagadh District-April, 2016



(Source: Department of Civil Supply, Government of Gujarat)

6.4.2 Urban Poverty

The village summary, shown earlier, has indicated that total number of extremely poor BPL households is 15111 (7.78 %) (Table 6.5 above). This corresponds to about 75000 people.

The same data estimates total number of poor households is 37547 (19.34 %). This corresponds to 185485 people.

Income based number of BPL individuals in April 2016 is 355809. Assuming that the change from April, 2015 to April, 2016 is marginal and can be ignored, then number of urban BPL may be estimated as the difference in the above estimates. Assuming that poor people (0 to 20 score) correspond to income based BPL, total urban BPL is

estimated as 170324. This is a rough estimate only since rural BPL number is as per village summary which needs final verification. Also, the correspondence between income based BPL and BPL based on deprivation may neither have 1:1 correspondence nor the correspondence be stable over space and time.

6.5 SLUMS

Total population living in slums is estimated 32040 in 2011. That is 1.2% of total population. However, in Junagadh city, 7.59 percent population lives in slums. Similarly Keshod and Manavadar also have slums.

Table 6.8: Slum Population in Towns, Junagadh District -2011

Sr. No.	Name of the town having slum	Total population	Slum population	Percentage of slum population to total population
1	Junagadh (M Corp.)	319462	24235	7.59
2	Keshod (M)	76193	4209	5.52
3	Manavadar (M)	30850	2110	6.84
	Total	**639118**	**32040**	**7.16**

Source: Registrar General, Government of India, Census-2011

6.6 CONCLUSIONS

1. Mendarda has the lowest number of BPL households, 6.64 percent, closely followed by Manavadar at 7.65 percent. Mendarda has no urban population, whereas though Manavadar taluka has 34.74 percent urban population, it is only because of Manavadar town, an agriculture driven township.
2. Mangrol is having more than one fourth population being poor.
3. Junagadh, with 73.85 percent urbanization, and with strong industry or/and trade, has large rural poor at almost 20 percent. Again, it shows that development is not all inclusive and is segmented and fragmented.
4. Manavadar (2.58 percent) and Mendarda (1.81 percent) have low number of extremely poor families.
5. Overall, 41.39 percent of poor are extremely poor. That ratio is lower for Manavadar (33.71) and Mendarda (27.31).
6. Junagadh (34.28) , which has high rural poverty level, has relatively low extremely poor. Probably employment in nearby urban areas have a positive effect on reducing poverty level.

7. On the other extreme, more than half the poor families in Bhesan are also extremely poor. This is probably due to lower number of land owners in a largely agricultural area.
8. Policy implication of such skewed distribution is need for special efforts for talukas like Bhesan where strong emphasis on Education, self-employment generating schemes, public expenditure on employment generating opportunities is a necessity.

Chapter 7

Observations and Way Forward

Junagadh District, with a population of more than 1.5 million, has a long history and has a distinguished past. And, we hope, it has a bright future. Though largely a Hindu society, ruled by Muslim rulers, it has been a shining example of communal harmony, brotherhood and tradition of tolerance, accommodation and inclusion.

Largely based on agriculture economy in the past, it has not been able to embrace modern tools and methods for wealth creation. Partly due to the tradition and culture and partly due to lack of visible competitive advantage and partly due to absence of aggressive policy and partly due to terrain, it has remained a traditional mercantile district with a strong bias for agriculture and lack of strong manufacturing and accompanying services.

If it has to grow, and be strong and self-dependent, it must identify its competitive advantages and exploit them aggressively. In the meantime, the government can help it move from village dominated economy to one dominated by knowledge economy (in absence of natural exploitable resources).

This chapter summarizes the district's potential along with limitations, and way forward to a bright future.

Strengths:

1. Junagadh has a strong agricultural base with prominence in production of ground nut and bajra. In recent times, cotton is also grown in large quantity. Similarly, it is home to producing world famous "Kesar" mangoes and other fruits.
2. Rainfall in Junagadh, on an average, is 1260 mm, adequate to support agriculture and create a groundwater base to support substantial household water consumption.
3. Gujaratis are, by nature, entrepreneurial. This has mostly be seen in trading and small scale services. These "skills" need lateral transfer to world scale and efficient manufacturing and services.

Weaknesses:

1. Though rainfall is good, it is erratic and has a wide variation over time.
2. Salinity ingress in costal districts is a serious problem for agriculture in coastal region and for soil quality and water quality.
3. Water availability is poor. Water for industry is not available in quantity required to support industrialization (of at least some type, say chemical industry).
4. The district has not been able to retain human resources that it creates.
5. Local demand is obviously weak due to low purchasing power.

6. Low level of skills acquisition needed for high productivity jobs.
7. Lack of strong co-operative culture which could benefit farmers and livestock.
8. Strong industrial culture is missing. There is not much of industrial base which can be used for lateral or vertical growth. Because of lack of culture, transferability of labour is and will remain poor at least for a decade, till strong employment generation programme with assured jobs is implemented.

Opportunities:

1. Agriculture produce can form one leg of a formidable economy. For that higher productivity is necessary. This is possible and is a must. Mechanization, more fertilizers, widespread use of micro irrigation (in view of limited water resources) and strong support network are required.
2. World class manufacturing of value added products from agriculture produce is necessary. For that both scale and scope and technology are must.
3. Dairy produce can be more efficiently, economically and on large scale be processed. A strong network of co-operatives could help.
4. Tourism can be a big income and employment generator and could be a fulcrum around which strong service sector develops.
5. Similarly other businesses where immediate "low skill labour" can be laterally transferred, e.g., diamond cutting, can be encouraged. Same applies to fishing and fish processing.

Constraints:

1. Junagadh does have a large quantity of limestone, but little else. There is a limit to mineral based industries.
2. Because of fragmented land holdings, economies of scale is generally absent in agriculture and this may not change in the next 20 years. Mechanization, though desired, may happen only gradually.
3. Strong industrial culture is missing. There is not much of industrial base which can be used for lateral or vertical growth. Because of lack of culture, transferability of labour is and will remain poor at least for a decade, till strong employment generation programme with assured jobs is implemented.
4. Rainfall is erratic and hence variance in agricultural production is high. Since perennial rivers are absent, the availability of water for irrigation.
5. Incomes are low, and hence local demand is low. This has bearing on scale and technology usage.
6. Large land area is forest zone and hence protected from exploitation.

Way Forward:

1. The objectives of the policy for human development could be summarized as four fold:
    a. Immediate resource allocation for alleviating poverty,
    b. Providing basic services and care, (say health care)
    c. Building capabilities through education and training, and
    d. Establishing long term competitive advantages for income generation
2. Poor people cannot wait till the economy grows, say four fold, which may take 25-30 years. They need immediate help. This the government is already committed to and has implemented various schemes.
3. These schemes can be and should be "integrated" in terms of resource allocation vis-à-vis outcomes. This is already being done at a state level. That could be done at a district level. For example, an increase in number of BPL families is either an error in enumeration or a cause of concern. How, at the end of so many schemes and resource allocation, can this happen? That is where district level integration and monitoring could help quick identification of required remedial measures.
4. Some of the additional help may be in form of:
    a. Strong push for vocational training. ITI is not enough. In today's world computer education is not only necessary, it must be consistent and quality education. Much of the education needs quality improvement. All functions, at least in the government, may be computerized.
    b. English as a medium of instruction is not necessary. But strong command of English is a MUST, at least in India. Hence, English education needs qualitative jump, for which teacher training is necessary. Investment in continuous teacher training is a necessity. However, that training has to be stringent to be of some meaning.
5. One of the critical needs is meaningful employment generation. Large labour force can be taken out of the agriculture and redeployed in manufacturing and service industries. Assuming 50 percent of the agricultural labour can be released over the next 20 years (ignoring population growth, which anyways is small in rural areas), employment in the non-agricultural sector has to double in the next 20 years. That is the same number of jobs, as that exists today in non-agricultural sector, has to be created in the next 20 years. Adding population growth of, say 1 percent per annum, about 6 percent of additional jobs must be created every year for next 20 years. That is, a total of additional 6 percent of

existing asset base needs to be created every year, year on year. That is a tall order.

6. Alternative is to graduate to knowledge economy, improving productivity, retaining skilled labour and creating rural income which can absorb additional output. Hence, a strong push for quality education, at all levels is a must.
7. Strong co-operative structure needs to be encouraged so that the farmers get all necessary inputs and information for improvement and productivity enhancement.
8. Living standards, especially in urban areas (future habitats) need improvements. This also applies to large gram panchayats which would be magnet and become urban areas in, say, and next 10-20 years. These could be, for example, have city level service delivery. Urban living experience should not deteriorate. New world class cities cannot be built everywhere. Existing cities need to be made world class. Otherwise they could degenerate over time. Slums are not the only concern. For example, Small clogged toads, lack of solid disposal, lack of footpaths, absence of public transport , lack of civic discipline, they all contribute to negativity in wellbeing.
9. Manufacturing and services requires (as in agriculture) easy, affordable access to quality inputs. Raw Material, skilled labour, technology, managerial skills, entrepreneurship are all required. What can Junagadh offer on these fronts? If not, how can they be provided? Agricultural labour force needs to be transferred as its marginal productivity is low. Incomes will not grow at consistent 8-10 percent with such massive manpower in agriculture. If 2/3rd labour can only offer 4 percent growth (which is long term observed agriculture growth rate) , the rest would have to offer 16 percent growth to average 8 percent growth. This is simply not feasible.
10. Some suggestions are:
    a. Upgrading secondary and higher secondary schools
    b. Upgrading basic undergraduate education
    c. Strong push to English and Computer literacy. It is not enough to have computers in schools. They must be consistently “overused”. They need be provided programmes/software of specific relevance and must be upgraded on a regular basis. It must be realized that both “culturally” and economically many children can simply not afford a computer. The schools must “push” them to inquisitiveness and innovation.
    d. All round development of children, especially rural poor, must be the next focus, beyond physical facilities. Computer education is only one

of them. Soft skills are equally important. For example, ability to talk, rational debate, English speaking, are some necessary skills which rural children may lack.

11. Emphasis on vocational skills is necessary. But it must result in job creation. Local demand is low. Hence, skills must result in meeting global demand. Training must keep that in mind. Otherwise it would result in unemployed educated youth or employed in low productivity jobs with low marginal productivity.
12. Income Generation
    a. Major push must be to generate adequate and quality jobs having high marginal product and strong linkages.
    b. Agriculture produce can form one leg of a formidable economy. For that higher productivity is necessary. This is possible and is a must. Mechanization, more fertilizers, widespread use of micro irrigation (in view of limited water resources) and strong support network are required.
    c. World class manufacturing of value added products from agriculture produce is necessary. For that both scale and scope and technology are must.
    d. Dairy produce can be more efficiently, economically and on large scale be processed. A strong network of co-operatives could help.
    e. Tourism can be a big income and employment generator and could be a fulcrum around which strong service sector develops.
    f. Similarly other businesses where immediate "low skill labour" can be laterally transferred, e.g., diamond cutting, can be encouraged. Same applies to fishing and fish processing.
    g. Cotton (garment manufacturing), Coconut (more than 50 % of State output), Groundnut (peanut Butter), are some products where Junagadh has competitive advantage and can offer world class value added products.
13. Tourism

Elsewhere in this report the tourism industry and its growth in last five years has been discussed. Junagadh district, especially after bifurcation, does not have many natural resources which can be used to create a large manufacturing base. Hence, to sustain income growth, it must depend on agriculture and services.

Junagadh has a unique advantage of several world class tourist places, e.g., Gir Forest, Girnar, many attractive temples (e.g., Bhavnath) which attract large

number of tourists. Junagadh has not exploited these in a way that can create a large tourism industry which can attract tourists from all over the world as is in Agra, Andaman and so on. Junagadh must draw a strong roadmap to exploit these advantages which could significantly increase income levels and create jobs.

Aim MUST be world class facilities- travel, lodging, boarding, language guides, minimizing inconveniences (e.g., availability of all types of food, and high quality hotels, excellent transport facility).

So far, attempts have largely been to draw traditional and local population. A well laid circuit (Junagadh City-Taleti-Girnar (even a ropeway if environmentally feasible)-Gir-Somnath as an example) can be offered to tourists to attract them from all over the country and beyond.

Specific Suggestions for Education and Health Sectors:

A. Education Sector				
	Area	**Achievements**	**Shortfalls**	**Suggestions**
1	**Literacy**	Considerable Achievements	Still about 25 % Illiterates Specific Groups Illiterates Rural ST Women<40 % Lit	Targeted Literacy Drive
2.1	**Schools - Facility**	Strong Physical Infrastructure	Soft Infrastructure	Library to be updated every two years & Funded. Soft skill to be imparted. Computers/Curriculum
2.2	**Schools-Teachers**	Good teacher to student ratio	Adequate subject teachers	Quality Upgradation.
2.3	**Schools-Enrollment and Drop Outs**	Almost 100 % Enrollment	Gender Gap/large drop out 8 to 9 & 10 to 11	---
2.4	**School-Others**			Private School
3	**College Education**	1. Adequate Number of Colleges	Quality and Employability	Strong changes to International standards /Faculty Rewards University tie up with International

B. Health Sector				
	Area	**Achievements**	**Shortfalls**	**Suggestions**
1	**Longevity/ Population Growth**	Longevity similar to State Av.	Low Fertility	--
2	**Rural HealthCare Infrastructure**	Adequate Physical infrastructure created	Inadequate Manpower	Large incentive based trained manpower Needs to be in place Contractual Appintment
3	**Specialist & Emergency Healthcare**	Largely Urban Centric	Emergency and specialists inadequate	Strong medical support system required. Is a NECESSITY. Strong coordination between SC-PHC-CHC required.
4	**IMR/MMR**	Considerable reduction	Yet far away from World Av	Strong medical support system required. Is a NECESSITY.
5	**Pregnancy Care**	Improvement over 5-year period	3-ANC Checkup (76.2 %) TT2 Booster (65.2), IFA (61.8%) are poor.	Strong push required. Information and monitoring to be improved.
6	**Institutional Delivery**	Almost 100 % institutional delivery	Pockets of gaps	PHC should work 24*7*52.
7	**Post Natal Care**	--	Still poor. Visits to home delivery is not 100 % etc	Strong push for 100 % achievement, improved Monitoring
8	**Information System and Linkages**	In place	System does not work efficiently.	Healthcare is so VITAL that information system should be very strong Latest technology can be used.

B. Health Sector				
	Area	**Achievements**	**Shortfalls**	**Suggestions**
9	**Immunization**	Considerable improvements in 5 years.	100 % immunization not achieved. Universally weak and specific pockets more week.	Information system/ Monitoring/Commitment to 100 %/ Education to potential mothers
10	**Malnutrition**	In last two years reduction in mal nutrition is excellent	Sustainability. Does not address height issues.	---
11	**Motherhood Index**	Improvements in last 5 years	Shortfall in ANC/PNC	Target of 100 % ANC/PNC

SASAN GIR- JUNAGADH

The Gir Forest National Park and Wildlife Sanctuary (also known as Sasan-Gir, and is a forest and wildlife sanctuary near Talala Gir in Gujarat, India. Its region is the sole home of the Asiatic lion (Panthera leo persica) in the wilderness, and is considered to be one of the most important protected areas in Asia due to its supported species. The ecosystem of Gir, with its diverse flora and fauna, is protected as a result of the efforts of the government forest department, wildlife activists and NGOs. The forest area of Gir were the hunting grounds of the Nawabs of Junagadh.