DISTRICT HUMAN DEVELOPMENT REPORT

SURENDRANAGAR

GUJARAT SOCIAL INFRASTRUCTURE DEVELOPMENT SOCIETY (GSIDS)

GENERAL ADMINISTRATION DEPARTMENT (PLANNING)

GOVERNMENT OF GUJARAT

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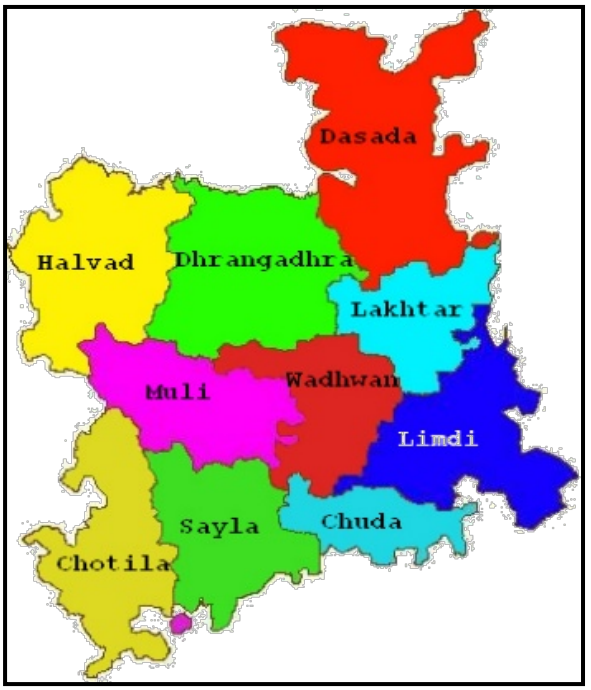

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DISTRICT HUMAN DEVELOPMENT REPORT: SURENDRANAGAR

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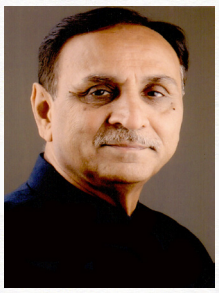
(GSIDS) General Administration Department (Planning)

Government of Gujarat



VIJAY RUPANI

सत्यमेव जयते

No. : WS/TP/LE/ / 2014
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MESSAGE

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 the United Nations Development Programme under Planning Commission 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 also compliment the GSIDS, General Administrative Department (Planning) for undertaking this project.

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.

(Vijay Rupani)

Minister Bunglow, Bunglow No. 19, Sector-20, Gandhinagar-382 010.
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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. The data provided by the district & department offices has been used. The district authorities may update the data as required.

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

PREFACE

In administration, the objective of all the interventions is to bring in human development. A district human development report has to basically address the issue of formulation of a strategy, which will accelerate the pace of human development. Therefore, the objective of the present exercise is to build up a developmental path, which will address human development in Surendranagar District. Normally a human development report covers three aspects related to human development - standard of living, health and education. A separate chapter has been kept for gender development.

As an introduction, a brief profile of Surendranagar district and an overview of the economic and social development has been given along with important sectorial status like that of education, health, livelihood etc. Surendrangar district is the gateway to the Saurashtra region of the State. The population density is lower than the state average, signifying the area to be far flung. The sex ratio has shown an increasing trend in the successive decades. Juvenile sex ratio of district is lower but better than the last decade and the state average. Surendranagar has made impressive gains in the literacy rate. The gains are impressive both for male and as well as female literacy rates.

The district has shown considerable improvement in terms of institutional delivery especially in the rural areas. With respect to new born care also the district performance is appreciable. The Yashoda Gruh project is doing well to improve nutritional status of children in the district.

Under the aegis of the Mahatma Gandhi Swachchta Mission, Surendranagar district has made noteworthy progress in providing sanitation, both in the rural as well as the urban areas. The focus has been to eliminate open defecation by providing infrastructure while bringing in a positive behavioral change alongside.

Surendranagar district is one of the largest producers of “Shankar Cotton’ in the country and was home to the first cotton trading exchange in India. The district is favourable for crops like cotton, cumin and castor. Surendranagar district has been identified for oil seeds development programme under the Technology Mission. With the advent of Narmada water from Narmada river, there is significant increase in the agricultural income of the district. Main workers in the district have marginally increased and people have regular employment opportunities. The significant increase in the number of milch animals can be viewed in the context of rising income of the people.

This report is an attempt to publish the Human Development status of Surendranagar District. It is hoped that this report would be useful to those interested in learning the current status of the Human Development in Surendranagar district and those involved in policy formulation and implementation to bring about human development in the district.

September 2015
Surendranagar

Udit Agrawal
Collector - Surendranagar

FOREWORD

The Human Development approach figured in part as a result of growing criticism to the leading development approach, pointing a close link between national economic growth and the expansion of individual human choices. Till 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. From the beginning of current millennium the Gujarat State is on the fast track of development. Planning Commission-Government of India and UNDP have partnered Strengthening State Plan for Human Development (SSPHD) Programme, under which the Government of Gujarat has 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 development a strategy which conceptually goes beyond per capita income as a measure of development. The preparation of DHDR (District Human Development Report) marks the beginning of the process whereby people are mobilized and actively participate in the developmental process.

The DHDR is expected to be a vital tool for formulating the District Human Development Plan. The report has incorporated the status of Human Development in different talukas of Surendranagar District. The report mirrors 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 guiding source to concerned District level Officials, policy makers, decision makers and NGOs.

J. K. Astik

(DDO, Surendranagar)

ACKNOWLEDGEMENT

The Project on “Preparation of the District Human Development Report, Surendranagar” was given to Mahatma Gandhi Labour Institute (MGLI), by General Administration Department (Planning), Government of Gujarat.

In order to carry out this assignment, MGLI had constituted a team of researchers consisting of Dr. B. B. Patel, and Dr. Misha Vyas with the approval of the Director General, MGLI, for undertaking this assignment as per the guidelines and requirements of the Government of Gujarat.

At this stage, we would like to express our gratitude to Ms.S.Aparna IAS, Principal Secretary (Planning) & Chairperson GSIDS, Shri Sanjay Prasad IAS, Principal Secretary, Department of Social Justice and Empowerment and Ms.Sangeeta Singh IAS, Principal Secretary, Department of Primary Education for their valuable inputs in revising the report.

The MGLI team wishes to place on record the active cooperation and productive involvement of the Officers from various Departments at District Level.

It was the personal initiative of the District Development Officer (DDO), Shri J.K. Astik, Surendranagar, which was of very valuable help in accessing of the data base and information at District Level, Taluka Level and even village level. We are very grateful to Shri Udit Agrawal, The District Collector, for their support in revising of the report. We are particularly grateful to the DPO and DSO and Mr. Sanjay Lakhtariya, SPAC, Surendranagar for excellent help in providing data.

We are very grateful to Director & Member Secretary GSIDS, their officers and SPAC particularly Ms. Tejal Parmar for providing valuable data and in helping us to sharpen the focus on specific issues in the DHDR.

Above all, we are very grateful to the present Director General and the principal secretary, Department of Labour and Employment Shri Sanjay Prasad, IAS. We are also grateful to the former Director General Shri P. Panneervel IAS, GoG as well as former Director General Shri Gurucharan Singh, IAS for facilitating our work and for guidance.

B. B. Patel,
Misha Vyas,
MGLI

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Executive Summary

Concept of Human Development:

The concept originated from the over emphasis on economic aspect of structural adjustment by countries under the impact of globalization. ILO, UNDP and several other distinguished social scientists and thinkers like Amartya Sen and others provided new paradigm for the development strategy. The United Nations Development Programme (UNDP) prepared a human development framework for the member countries in the world which focused on three key indicators of life expectancy at birth, knowledge – primary and secondary school enrollment, and adult literacy - and per capita income with equal weightage.

Introduction:

Surendranagar district is the gate way to Saurashtra region of Gujarat state. After the integration of the states, the Surendranagar district was called Zalawad. The name Zalawad is derived from Zala Rajputs, who ruled over a number of states in the region. Surendranagar district is home to a large number of nomadic tribes like Maldhari, Miana and Jat and other backward communities like Koli, Thakor, Bharwad, and Rabaris. The social development especially education among these communities is quite low as compared to other communities. Surendranagar is also home to Padhar, a primitive Tribe only found around Nalsarovar and Salt workers found around Little Rann of Kutch. Folk dances and songs of Padhar and Bharwad communities have given the district a distinct identity.

Demographic details:

According to the census of 2011, the total population in the district is 17.56 lakh of which 12.59 lakh or 71.69% was rural. 28.31% was the urban population which is much lower than that at the state level. The population increased by 15.89 % during 2001-2011 as against 19.17% increase in the state. The rural population in the district increased by 13.14% while the urban population have increased by 23.49% during 2001-11.

The density of population which was 144 in 2001 increased to 167 in 2011. The density is still lower than of 308 in Gujarat.

The sex ratio in the district increased from 924 in 2001 to 930 in 2011; the child sex ratio (0-6 Years) which was 886 in 2001, increased to 889 in 2011.

Education:

The literacy rates for rural, urban and total in Surendranagar district recorded lower than the rates in the state in 2011. The rural – urban literacy gap in 2011 was 14.35% age points in the district as against 14.60% age points in the state. However, the literacy rates in the district have increased significantly between 2001-2011.

It can be seen that during 2001-2011, the percentage points increase in female literacy is quite striking i.e. 13.32 percentage points. Moreover the male / female literacy gap has decreased from 26.07%age points in 2001 to 20.66 %age points in 2011.

There were 991 primary schools in 2011-12 including upper primary schools. It is noteworthy that the number of primary schools increased to 1259 in 2013-14. There are increase in the number of schools to 1259 in 2013-14. In the year 2013-14, % of schools with separate toilet in the total schools indicate some increase (98.89%). 1190 schools or 99.32% had electricity, 929 or 88.37% had computer laboratory and 1191 or 97.26% had compound wall.

Drop-out rate (std 1-5) in surendranagar is little higher than state average for both boys & Girls. Boy's drop-out rate decreased from 5.28% in 2009-10 to 2.21% in 2013-14 whereas Girl's drop-out rate decreased from 6.96 in 2009-10 to 2.35% in 2013-14. The dropout rates between std 1-7 in the district for boys as well as for girls are significantly lower than in the state (2.84% for boys and 4.39% in the district and 6.53% for boys and 7.28% for girls in the state.

Healthcare, Sanitation and Environment:

The ANC -3 to total ANC was 77% in 2009-10 but has remained more or less at the same level in 2013-14. Similarly, TT doses to the total ANC have remained between 85 to 88% during the period.

In rural areas of the district, institutional delivery was 26.37% in 2009-10 which increased to 65.50% in 2013-14. The total no of institutional delivery increased from 79.50% in 2009-10 to 91.59% in 2013-14.

In 2013-14, the progress in routine immunization against child hood diseases indicate comprehensive reach with 30866 children covered for BCG, 29364 covered under DPT-3, 29309 covered under Measles.

The normal category in 2013 was 68% but increased to 76% in 2014. The moderate malnutrition was found among 30% of the children in 2013 but decreased to 22% in 2014. The severe malnutrition has remained more or less at the same level i.e 2%.

Livelihood, Sustainability and alternatives:

In an agrarian economy, the land available for cultivation, area under irrigation and the quality of land are the determinants of sustainable livelihood opportunities. The total Geographical area of the district is 10.49 lakh ha and the total Reporting area is 10.46 lakh ha. The Net Cropped Area (NCA) in the district was 7.09 lakh ha or 67.78% as against 52.98% in the state.

The overall workforce participation rate has somewhat decreased from 42.74% in 2001 to 41.20% or by 1.54% age points in 2011; the male participation rate has slightly increased from 54.02% in 2001 to 55.39 % in 2011. However, the participation rate of female has significantly decreased from 30.50% to 25.93% or by 4.57%age points.

As per the data of workers in the Census 2011, there were 7.24 lakh total workers in the district. Among these 1.85 lakh or 25.60% were cultivators, 2.71 lakh or 37.44% were agriculture labourers and 2.58 lakh or 35.64% were "other workers".

Nearly 44% of land holders operated only 17% of land or the average size of 0.66 hectares. There were 99000 such small and marginal land holders - potential wage labour.

The importance of cotton crop in terms of area has actually increased over time. The area under cotton cultivation in 2001 was only 3.77 lakh ha as against 5 lakh ha in 2012 but again it decreases in the year 2014 to 3.78 lakh ha.

In the year 2013-14, the daily milk collection increased to 396894 litres. The number of milk co- operatives societies also increased from 651 in 2009-10 to 711 in 2013-14. There are also 125 Mahila Milk Co-operatives Societies.

Table 1.1 Key Statistics

Sr.No	Item	Unit / Year	Surendranagar District	Gujarat State
1	Population	In ‘ooo	1756	60440
2	Density	Per Sq. Km.	168	308
3	Sex ratio	Females per ‘000 males	930	919
4	Child Sex ratio (0-6 years)	Females per ‘000 males	896	890
5	Decadal Growth Rate(2001-2011)	%	15.95	19.28
6	Literacy Rate	%	72.13	78.03
7	Urban Population	%	28.29	42.60
8	SC population	%	10.22	6.74
9	ST population	%	1.22	14.75
10	Drop-out Rate (Std. I to V)	%	3.24	2.07
11	Cropping Intensity (2007-08)	%	119.22	122.53
12	GAI to GCA	%	29.80	45.97
13	Irrigation Intensity	%	139.48	132.62

Source: Census of India, DISE and Irrigation statistics,2011-12

- The decadal population growth in the district (15.95 %) is lower than that in the state (19.28%).
- The sex ratio in the district is quite higher (930) than in the state (919) in 2011.
- The percentage urban population in the district is much lower than in the state.
- The literacy rates are lower in the district than in the state. While the gender gap is higher in the district.
- Irrigation Intensity is higher in Surendranagar (139.48%) as compared to the state average (132.62%).

Chapter 1:

Introduction

Background: Concept and strategy for Human Development:

The concept of human development envisages the expansion of human capabilities, widening of choices and enhancement of freedom and fulfilment of human rights. The concept, therefore, focuses on people centric development strategy and treats the people as the wealth of the nation. The human development concept is thus much broader and deeper than human capital in the context of economic growth and economic development.

The concept originated from the over emphasis on economic aspect of structural adjustment by countries under the impact of globalization. ILO, UNDP and several other distinguished social scientists and thinkers like Amartya Sen and others provided new paradigm for the development strategy. The United Nations Development Programme (UNDP) prepared a human development framework for the member countries in the world which focused on three key indicators: life expectancy at birth, knowledge – primary and secondary school enrollment, and adult literacy - and per capita income with equal weightage.

National Human Development Reports:

Following the UNDP framework, the Planning Commission (now NITI Aayog), Government of India, has prepared the first National Human Development Report in 2001. In the Report, the Gujarat State was ranked at 6th position with index 0.479 among the 10 major states in India. The methodology used only three general indicators with equal weightage.

The new India Human Development Report 2011 is also published. It examines whether certain sections of the Indian society suffer from multiple deprivations by investigating how different castes and religious groups fare in terms of various socio economic indicators. It provides a comprehensive picture of the human development situation in India through detailed state wise profiles and analysis of whether the social indicators of excluded groups have converging or diverging trends with the rest of the population.

The Human Development Report for Gujarat was prepared in 2004. For Gujarat, the area of concern was the gap between the level of economic development in the State and the level as reflected by the indicators of human development. Gujarat Human Development Report, 2004 brought into focus several areas of concerns from the angle of social development in the state and challenges for meeting the Millennium Development Goals by 2015.

Strategy to Accelerate Human Development in Gujarat:

The Gujarat Government was determined to catch up and even race ahead for a position in the human development index among the top few states. A vision statement lays emphasis on the following to achieve the goals.

Every single person in the State of Gujarat, irrespective of gender, caste or creed, would be;

- Be literate and healthy;
- Have shelter and clean environment;
- Have drinking water and sanitation;
- Be gainfully employed;
- Be able to live without fear; and
- Have equal opportunity.

The State intended not only accelerated human development, but also on making it inclusive.

Since human development issues are multi-dimensional and interrelated with education, health, livelihood, gender and vulnerability, the government of Gujarat has unveiled innovative and comprehensive strategy and programs targeting themes like primary education, health and also targeting the special problems of the people living in specific areas like the coastal areas, eastern belt from Sabarkantha to dang district inhabited by the scheduled tribes population etc.

Government Initiatives in context to human development in Gujarat:

The major government initiatives to address the human development issues in the state can be classified in to two categories. **Category 1** consists of Flagship Programs which focus on specific regions and the people and address all types of challenges – relating to livelihood, education, health, infrastructure etc. in an integrated manner.

Category – 2 consists of Government programs which are on Mission Mode. The mission mode programs cut across geographical boundaries and focus on particular themes such as primary education, education of a girl child, maternal and child health, nutrition etc.

Flagship Programs:

Garib Samrudhi Yojana (2007):

It focuses on the problem of urban poor and has been allocated Rs. 13000/- crores.

State Flagship Scheme of Developing Talukas:

This scheme has brought sharp focus on the socio economically backward talukas with the objective of accelerating their all-round development. The highest level of state administration and the political authority are adopting talukas and are involved in planning, execution and monitoring of areas specific schemes in the talukas.

Mission Mode Programs:

Kanya Kelavani:

This program focuses on the objective to reach 100 % enrollment and retention of boys and girls in the primary stage of education up to Std 7 / 8. The program has the special focus on the education of a girl child, and provides for necessary sanitation facilities for girls, financial incentive to girls etc. Similarly, it also focuses on the problems of education of the children of the migratory households and provides for alternative / non formal schooling of the drop out children, main streaming wherever possible, and provision of associates schools, mother schools and seasonal hostels.

Krushi Rath Yojana:

It was implemented during 2005-08 which included Krushi exhibition, krushi mela, seminars, and soil health card for farmers etc. The program is an innovation in agricultural extension or transferring technology from laboratory to the farm. These programs have yielded spectacular results for the agricultural economy in the state, with an average agricultural growth of about 12 % per annum during the decade of 2001 - 2011.

Nirogi Bal:

This program provides support for healthcare for mother and the child from the stage of conception till the child reaches adolescent stage. The interventions include Cheeranjivi Yojana for institutional delivery and ANC care, Janani Shuraksha yojana for the protection of the mother and the health of the newly born child including the nutrition.

Skill Development Mission (SDM):

The program aims to enhance the employability and productivity through skill development for sustainable livelihood particularly for the vast number in the unorganized sector. Kaushyala Vardhan Kendras (KVKs) established at sub-taluka level have offered skill development opportunities at the nearest place from residence.

Nirmal Gujarat:

This initiative has the objective to ensure clean land, clean water, and clean air, improvement in the environment and energy conservation.

Gnan Rath Yojana (2003):

Under this Scheme, computer and video connectivity is established between state education and research council and district education and training bhavan by GSWAN, VSAT. The objective is to spread computer literacy.

Gunotsav:

Main objective of this scheme is to promote quality of education by improving the competence of the teachers and learning effectiveness through periodic evaluations.

Garib Kalyan Mela:

This is highly innovative programme through which benefits to the poor are provided directly. Garib Kalyan Mela is organized in each taluka every year and hence, it has also become an effective instrument of empowerment.

District Human Development Report, Surendranagar: Methodology and approach:

Selection of the District:

The district is home to a large number of nomadic tribes like Maldhari, Miana and Jat and other backward communities like Koli, Thakor, Bharwad, and Rabaris. The social development especially education among these communities is quite low as compared to other communities. Surendranagar is also home to Padhar, a primitive Tribe only found around Nalsarovar and Salt workers found around Little Rann of Kutch. The human development situation of these communities are far below the state average and at this back drop, Surendranagar has been chosen for preparation of district human development report. Surendranagar's rank was 21st among 25 districts in Gujarat

Data and Coverage:

The District Human Development Report is prepared on the basis of published and unpublished data made available by the district offices of various line departments and agencies. Wherever, possible and necessary state level data have been also explored. The available data form Census 2011 have also been used. Apart from secondary data, a number of field visits were organized to gain insight on various aspects. Interaction with the district level officials in the concerned line departments was highly useful to gain insight in the nature of challenges and likely direction for solving the problem.

Profile of Surendranagar:

Surendranagar district is the gate way to Saurashtra region of Gujarat state. After the integration of the states, the Surendranagar district was called Zalawad. The name Zalawad is derived from Zala Rajputs, who ruled over a number of states in the region. The town of Surendranagar from which the district derives its present name was previously known as Wadhwan camp, and was the headquarter of British Political Agent. Surendranagar is the district headquarters from 1948.

Location:

In the peninsula of Saurashtra, the district lies roughly between 22.8 to 23.3 degree North latitude and 71 to 72 degree east longitude. It is bounded on the north by the Rann of Kutch and the Banaskantha district. In the South are parts of districts of Ahmedabad and Bhavnagar, and on the west is the Rajkot district. In the east it is again Ahmedabad district.

Population:

According to the census of 2011, the total population in the district is 17.56 lakh of which 12.59 lakh or 71.69% was rural. 28.31% was the urban population which is much lower than that at the state level. The population increased by 15.89 % during 2001-2011 as against 19.17% increase in the state. The rural population in the district increased by 13.14% while the urban population have increased by 23.49% during 2001-11. The density of population which was 144 in 2001 increased

to 167 in 2011. The density is still lower than of 308 in Gujarat. People belonging to Koli community are in large proportion. However, there are also Rajputs, Brahmins, Patel's, Rabari, Bharwad and Muslims. Folk dances and songs of Padhar and Bharwad communities have given the district a distinct identity.

Sex Ratio:

The sex ratio in the district increased from 924 in 2001 to 930 in 2011; the child sex ratio (0-6 Years) which was 886 in 2001, increased to 889 in 2011. Both these ratios in the district are higher than those in the state.

Physical Features:

Topography:

The district combines different types of physical features. The hills in the district belong to the north east chains of the Saurashtra peninsula, Chotila being at the height of 1200 feet. The south west part of the district has many hillocks and small elevations. The northern part of the district adjoins the Little Rann of Kutch, a flat saline and barren track. The soils in Halvad, Dhangdhra, Wadhwan, Lakhatar and Patdi talukas are alkaline. The low lying eastern portion of the district is covered with water almost throughout the year and is called Nal Kantho.

Soils and Rivers:

The soil is shallow, medium black in Wadhwan, Muli, Chotila and Sayla talukas. Sandy and alluvial in Halvad, Dhangdhra, Dasada talukas and medium black poorly drained and saline in Lakhtar, Chuda and Limbadi talukas. The major rivers are Limbadi, and Bhogawo flowing eastward to Sabarmati and discharging water in Gulf of Cambay and Nal Sarovar. Most of rivers are seasonal and remain dry.

Climate and Rain Fall:

Wadhwan, Muli, Chotila and Sayla Talukas fall in agro climatic zone 7, Halvad, Dhangdhra, and Dasada talukas fall in agro climatic zone 8, and the Bhal and coastal areas fall in agro climatic zone 6. It is characterized in semi-arid climate. The whole district was drought prone area with annual rain fall of the district of about mm 506.8 mm (19.95") and 94% Annual normal rainfall. Moreover, the rainfall is irregular.

Agriculture:

The district has the total geographical area of 10.46 lakh hectares of which 67% is under cultivation. However, the net area irrigated was only 20% of the total. The average size of land holding in the district is 3.35 hectares and 27% of the holdings are small and marginal.

Cotton is the most important crop of the district accounting for about 65% of the net cropped area. The area under fodder crops, sesame, and gram are also traditionally important in the district. The new commercial crops like cumin and castor are also emerging in a big way. The changing crop pattern in favour of high value crops and in favour of B.T.Cotton are promising developments for prosperity of farmers in the district.

Animal husbandry and Dairy:

With growing prosperity of agriculture, the livestock and dairy economy in the district has achieved new heights in a short period of one decade.

Industry:

By and large, the non-farm sector in the district is dominated by enterprises in the unorganized sector. However, the district has also developed as a base for industries like textiles, and chemicals. During 1988 to 2007, Surendranagar attracted an investment of over Rs. 195 crores. Industries such as textile products and machinery, ceramics, food processing and chemicals, machine tools are the

supporting pillars of the economy. The district has the advantage of the proximity to commercial districts of Ahmedabad, Rajkot and Kutch. There are industrial estates developed in about 200 hectares and 154 hectare industrial estates are in Wadhwan only.

Handloom and handicraft products using traditional skills are the important sources of livelihood for the schedule castes families in the district. This sector is emerging as a sustainable and has its brand famous all over the state.

Banking:

At the end of December, 2008, there were 72 bank branches of commercial banks, 27 branches of Gramin bank and there were 4 private banks. The Surendranagar District Cooperative Bank has 14 branches; there are 9 branches of Gujarat Agriculture and Rural Development Bank and 19 branches of Urban Cooperative Bank in the district.

Educational Institutes:

There are 991 primary, 342 secondary and higher secondary schools in the district. There are 8 ITIs with 2006 seats offering training in various mechanical and industrial training and IT sector training. There are also 3 Government Polytechnics with an intake capacity of 960 students every year. C.U. Shah College of Engineering and technology offers engineering courses and has 326 seats. There is also one medical and pharmacy college each in the district. There are 9 colleges offering courses in Arts, Commerce, Science, B.Ed. and Law.

Healthcare:

Apart from the Primary Health Care physical infrastructure and manpower, the district has several private specialized hospitals with state of the art technology and trained medicos. C.U. Shah Hospital provides clinical and super specialty services such as Ophthalmology, Obstetrics, and Gynecology, Urology, Nephrology and Neurology. Moreover, Unique Cardiac Care, Nathwani Surgical Hospitals, Shreyans Hospital and Shradhdha Children Hospital are also present in Surendranagar.

The general climate of the district is extreme. Despite such adverse agro climatic conditions, the district has achieved accelerated economic and social development during last ten years due to the advent of Narmada waters in the district. Among all the districts in the state, Surendranagar is the largest beneficiary of the waters of Devi Narmada.

Places of Attraction in Surendranagar District:

Wadhwan and Surendranagar City:

Wadhwan and Surendranagar city have lot of places that can be of interest to the tourist. These are Fatshar Ganpati Mandir and Dholi Dhaja Dam, Tagore Baug and Radhe fun world, Reliance Baug, Ajramar Tower (City Tower/Tower in Tanki chowk) and the Town Hall clock tower. Vruksh Mandir (Tree Temple) Mandir of Meladi Maa's Watching sunset at the bridge that connects Surendranagar to Muli has a beautiful view of the river Bhogavo, resembling the artificial Beach in Dubai.

Chotila Hill:

Chotila Hill, located approx. 60 km from Surendranagar city, is a place for the worship of Chamunda Mataji, a Hindu goddess and Kuladevi (divine protectress) of the Gohil clan of Rajaput. Thousands of pilgrims walk as far as 300 km to this place. Chotila has more than 700 steps. It is located at hilltop in chotila and is well connected with roads to other parts of the state. Chotila is also home to national poet Javer Chand Meghani, Sayala's Lalji Bhagat, Virpur's Jalaram Bapa and Chotila's Virji Bhagat are eminent persons belonging to this area.

Zharia Mahadev:

Zharia Mahadev a natural water fall is located on the way to Tarnetar from Chotila and on the right side of the road there is Suraj Deval (New Sun Temple). At Zharia Mahadev, water continuously drips from the rocks and there is a temple of Shiva beneath. The surrounding is quite calm and quit surrounded by forest. The bandiaveli or Mandav Van is also located 2 KM back to Zharia Mahadev. This jungle is quite similar to that of Sasan Gir and hence the idea of translocation of Asiatic lions to this place is more convenient than proposed Kuno Palpur Wildlife Sanctuary in Madhya Pradesh. This inhabits variety of birds especially the weaver birds and can be developed as a bird watching place. Already the Bandiaveli Ni ban has been selected for this purpose.

Tarnetar:

Tarnetar is also located nearer to Chotila, famous for its fair, popularly known as the Trinetreshwar Mahadev Mela (Fair), and held every year in the month of August for three days inside the Trinetreshwar Mahadev temple. Villagers from all over the region, dressed in their colorful traditional costumes and exquisite jewellery, during this fair. About 100,000 people belonging to various tribes like Rabari, Kathi, Charans, Bharwads and Bhangis, and Koli come to the fair. The fair also attracts a large number of tourists from India and abroad. More than 500,000 people, on an average, visit the fair during its three days. The fair is also a match-making event for boys and girls. The fair is also known for various dances and village sports competitions.

Rural Olympics is organized by the Tourism Department Government of Gujarat every year and winners are also rewarded with cash awards. The competitions include the horse cart race, bullock cart race and camel race, along with cultural competitions such as rass (Gujarati dance) competition, Doha (poem recitation) competition and umbrella decoration competition. Apart from this during the mela large number of animals like camel, Horse, cows are brought for exhibition. This place is located in Panchal Bhumi and a holy place mythologist says that pilgrimage is not complete even one visit the so called Char Dham (Four religious place) if Panchal is left. Hence this place has enormous historical significance. The sun temple of old Suraj deval and New Suraj Deval can be of much interest to archeologists and pilgrims. Bhavani Sundari temple is also located near to this place.

Nalsarovar Bird Sanctuary:

Nalsarovar Bird Sanctuary is a 100 km² plus bird sanctuary located on the border between Ahmedabad and Surendranagar and attracts over 210 species of birds during the four months of winter, including the endangered wild ass and the blackbuck, its migratory bird population includes Rosy Pelicans, White Storks, Brahminy Ducks and Herons, Flamingos. Mainly inhabited by migratory birds in winter and spring coming from as far as Siberia, it is the one of largest wetland bird sanctuaries in India. The shallow area and ponds on the outer fringes of the lake feed many wading birds. Coincidentally, the primitive tribe known as Padhar Lives on the edge of the bird sanctuary is known as Nalkantha area.

Wild Ass Sanctuary:

The world's only Onager (wild ass) sanctuary is located in Little Rann of Kutch in Surendranagar district. This place has enormous significance not only because of Wild Ass but it also inhabits a number of other birds especially flamingos. During monsoon this becomes a breeding ground of prawn and every year, the Miana community from Kutch migrates to catch prawn. Little Rann of Kutch (LRK) better known alternative term for the wild ass sanctuary also produce significant amount of salt in Gujarat and provide home to thousands of salt workers. How inland salt is produced and processed can be of much interest to tourist. Life style of agaria and other community like Koli, Sandhi, Miana, Meghwal, and Devipujak will be of much interest to aboriginal tourist. There are other important tourist places adjacent to Wild Ass Sanctuary. Becharjibet inside the sanctuary is famous place and government has invested 1 Crore rupees for its development in the year 2009-10.

Challenges:

High dependence on wage labour:

The district also faces number of challenges. A large percentage of the working population is dependent on wage labour in farm and non-farm sectors.

High incidence of seasonal migration:

A majority of households belonging to 'agarias', 'padhars', and 'maldharis', migrate seasonally normally for a period of six months or more for livelihood. This has caused negative consequences particularly for the education of children and women's health. This type of family migration is mostly a distress migration.

Due to customs and traditions particularly in OBCs parents do not seems to fully recognize the importance of educating a girl child. Higher female child mortality in comparison to male child mortality also points to the bias against a girl child. Lack of separate sanitation facility for adolescent girls in upper primary schools and high schools also comes in the way of sending them for further study.

Limited Underground Water Potential:

In a number of talukas the underground water potential is limited and hence irrigation facilities so far are protective in nature. There is also a challenge of providing safe and potable drinking water to all the villages in the absence of reliable sources of such water as of now. The advent of Narmada water in the district has created new hope among the people for providing water not only for drinking purposes but also for irrigation and other purposes.

Low Population Density:

The district also has one of the lowest density of population per square kilometer because of which there are problems relating to connectivity and access to institutions like healthcare and education in particular. Surendranagar district is periodically faced with low and unevenly distributed rainfall and hence, several talukas are affected by the scarcity from time to time.

Saltpan workers:

The north-western part of the district is on the border of little rann of Kutch. Although the area offers livelihood sources for salt producers the families of saltpan workers often migrate to little rann of Kutch and Kutch for livelihood and stay there for 7 to 8 months in a year. This seasonal migration of salt workers families include women and children and they are exposed to harsh climatic conditions.

Due to low level of urbanization and industrial development, a majority of the workforce outside agriculture is in low income self-employment and wage labour in the informal sector. However, supplemental sources of income in the livestock economy give some stability to livelihood.

Drinking water shortage:

It was observed that the district has not faced any outbreak of public health problem. Although, drinking water shortage and its quality have been pointed out as potential long term threat. The advent of Narmada canal in the district, it hoped, will overcome these problems.

Literacy rates:

On the other hand, the low literacy rates and the low adult literacy rates among women in particular and relatively high dropout rates in the primary and secondary stage of education indicate the nature of challenge and it may increase the vulnerability of the people.

Vulnerability:

The overall level and intensity of vulnerability of the rural population in the district is evident in the high proportion of the population below the poverty line in the district i.e. 46 % in 2007-08. In some talukas, the percentage is as high as 49 %. Further, among the BPL families about 28 % are land less and without shelter. Moreover, almost 2/3 of the BPL families belong to other backward communities in the district.

Financial inclusion:

The financial inclusion as indicated by having a bank account among the poorer household was only 20 %. Also access to financial resources for self-employment appears to be too restricted as compared to the requirement.

Over view of striking economic and social development during 2001-2011 in the form of a booklet: Vikas Dasko, 2001 to 2011

An overview of various indicators in education, health and livelihood activities in the district indicate that there has been a spectacular positive developments during the decade of 2001-2011. Dropout rate in primary education decreased from 38 % to 2 %; while literacy rate increased from 61.61% to 73.19%; the number of primary schools increased from 865 to 989; secondary and higher secondary schools increased from 303 to 342; the number of primary schools with toilet facility increased from 274 to 984; number of teachers increased from 4991 to 7610.

The number of industrial training institutes (ITIs) increased from 4 to 8 during the decade. For the promotion of education of the children of the migratory households, the number of Kasturba Gandhi Balika Vidhlayas (KGBVs) increased from 0 to 9; the number of support schools increased from 0 to 8; and number of residential schools increased from 0 to 4.

Maternal and Child Health:

According to the data collected by the District Health Office - The infant mortality rate (IMR) decreased from 67 to 18; maternal mortality rate (MMR) decreased from 191 to 66; the number of institutional deliveries increased from 40% to 89%. The population growth which was 25.34% between 1991-2001 decreased to 15.89% during 2001-11.

The number of Primary Health Centers (PHCs) increased from 28 to 36; Community Health Centers (CHCs) increased from 10 to 12.

Livelihood:

- The area under cultivation (Net Cropped Area) increased from 685313 ha to 720200 ha; Area under cotton cultivation increased from 3.77 lakh ha to 5.00 lakh ha. Along with the rapid expansion of the area under cotton cultivation, the cotton yield per ha which was only 80 kg lint in 2001 increased to 493 kg lint in 2011. Area under new high value crop like castor increased from 0.13 lakh ha to 0.81 lakh ha during the decade.
- The milk production in the district which was 0.95 crores Kg increased to 10.75 crore Kg; the area under spices (mainly Cumin) increased from 39006 Ha to 94401 ha.
- In 2001-02, water from Narmada was not available even to a single family in the rural areas of the district. In 2011-12, more than 1 lakh population benefited from the water supply from Narmada water; the Narmada water supply to urban areas increased from 0 to 244790 people.
- The number of electricity connections which was 198654 in 2001-02 increased to 298299 in 2011-12. The connections with heavy load for industry were only 36 in 2001 but increased to 115. The number of Jyoti Gram Feeders increased from 0 to 81; the number of substations increased from 43 to 73 and solar energy projects increased from 0 to 12.

- The number of beneficiaries under supplementary nutrition program increased from 55438 to 115506. The number of Anganwadi Centers increased from 1314 to 1493.
- The number of small scale industrial units increased from 6738 to 9672; the number of beneficiaries under Manav kalian yojana (toolkits) increased from 5679 to 17139.
- The number of houses constructed under Indira Awas Yojana increased from 191 to 22498 while the number of houses constructed under Sardar Awas Yojana increased from 2007 to 7490. The number of house plots distributed to BPL families increased from 43504 to 54193.
- The number of farm ponds increased from 696 to 17580.

Vikas Dasko, 2001 to 2011

Sr. No	Indicator	Year	
		2001-02	2011-12
1	Dropout Rate (std 1 to 7)	38	2
2	No of Primary Schools per one lakh population	57	56
3	No of Secondary and higher Secondary Schools per one lakh population	13	16
4	Toilet Facilities in Primary schools	274	989
5	No of Teachers in primary schools per school	6	8
6	No of Engineering Colleges	0	3
7	No of Pharmacy Colleges	0	1
8	No of ITIs	4	8
9	No of Kasturba Gandhi Balika Vidhyalay	0	9
10	No of Support Schools	0	8
11	Percentage of Institutional Deliveries (in %)	40	89
12	Rural population served per Primary Health Center	39739	34982
13	Rural population served per Community health Center	78765	96873
14	Area Under Cultivation (NCA , Lakh ha)	6.85	7.20
15	Area Under Cotton Cultivation (Lakh ha)	3.77	5
16	Yield of Cotton (Kg lint / ha)	80	493
17	Area Under Castor (Lakh ha)	0.13	0.81
18	Production of Milk (Cr.Kg)	0.95	10.75
19	Area Under Spices (ha)	39006	94401
20	Narmada Water Supply Urban Areas (population)	0	49.25
21	Electricity Connections (per one lakh population)	71976	86968
22	No of High Tension Connection	36	115
23	No of Jyoti Gram Feeders	0	91
24	No of Sub Stations	43	73
25	No of Solar Energy Projects	0	12
26	No of Newly Constructed Anganwadi Buildings	0	778
27	No of Beneficiary of Manav Kalyan Yojana	5679	17179
28	No of Houses constructed under Indira Avas Yojana	191	22498
29	No of Houses constructed under Sardar Avas Yojana	2007	7490
30	No of House plots distributed	43504	54193
31	No of Khet Talavadies	696	17580

Source: District Administration, Jilla Seva Sadan, Surendranagar.

Chapter 2:

Education

Background:

Literacy and primary education are essential instruments for empowering the people and for their all- round development. The achievement of these social goals enables the people to connect with the rest of the society, it gives power to assert rights and adhere to cherished values of life. It also enables the individual to exercise choices in any sphere of human activity and gives power to resist injustice or discrimination.

However, transition from social goals of education to labour market is an integrated process. In the absence of a wide and strong base of the primary education, the super structure for human resource development will be narrow and weak. It is in this vision that we have analyzed the status and changes at various stages of education in Surendranagar district. To begin with, we have examined the level and changes in the Literacy Rates.

Literacy Levels: Position of Surendranagar District in the State

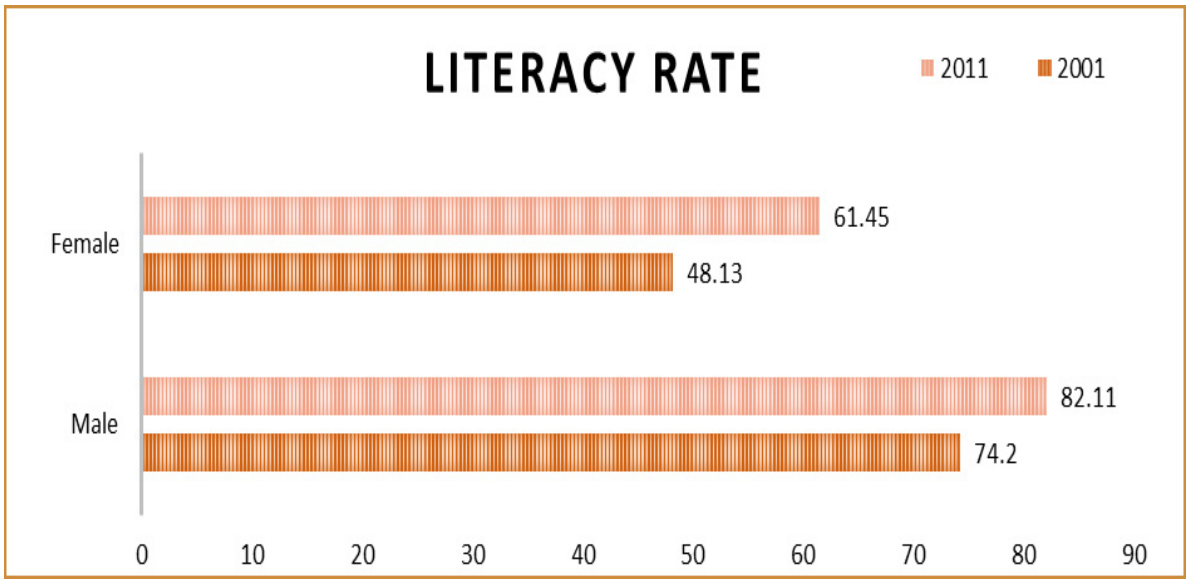
Literacy rates are calculated with reference to population in the age group of 7+.

Table 2.1: Literacy Rates

District/State	Rural			Urban			Total		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Surendranagar	67.95	79.15	56.10	82.30	89.21	74.74	72.13	82.11	61.45
Gujarat	71.71	81.68	61.36	86.31	90.98	81.03	78.03	85.75	69.68

Source: Census of India, 2011, Gujarat State.

The literacy rates for rural, urban and total in Surendranagar district recorded lower than the rates in the state in 2011. The rural and urban literacy gap in 2011 was 14.35% age points in the district as against 14.60% age points in the state. However, the literacy rates in the district have increased significantly between 2001-2011.

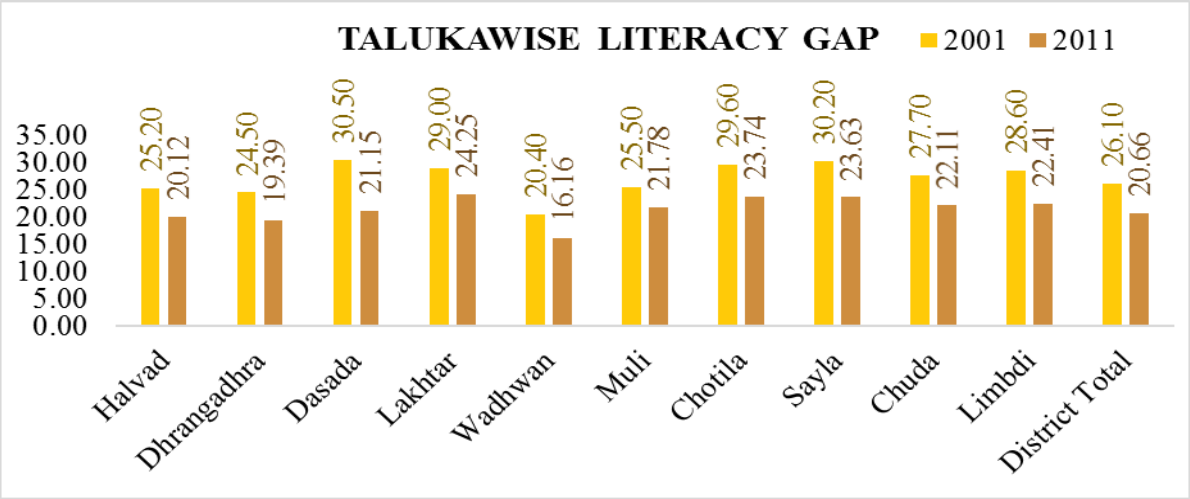


It can be seen that during 2001 to 2011, the percentage point's increase in female literacy is quite striking i.e. 13.32 percentage points. Moreover the male and female literacy gap has decreased from 26.07%age points in 2001 to 20.66 %age points in 2011.

Literacy Gap:

The taluka wise male / female literacy gap indicates that; in Lakhtar, Muli, Sayla, Chotila, chuda and limbdi talukas; the literacy gap is still higher than the district average of 20.66% points in 2011.

It can be observed that the literacy gap has decreased significantly in Dasada, Limbdi, Sayla and Chotila talukas. These talukas are characterized by rural seasonal migration and socio economic backwardness. Below graph gives Taluka Wise Literacy Gap in 2001 & 2011.



Source: Census of India, 2011

Primary Education:

The Right to Education Act (RTE), 2009, guarantees free and compulsory education. The major programme which implements this right is Sarva Shiksha Abhiyan (SSA). Under the SSA, access to primary school within the village/ within 1 KM/ within 3 Kms is to be provided. Also, basic amenities in schools, sufficient number of class rooms, reasonable pupil teacher ratio and provision of Mid-day meal are aimed at fulfilling these objectives.

Achievements under SSA: Access to schools:

Primary education have two stages now. Primary elementary education from std 1 to 5, and is called primary schooling; std 6 to 8 are now in the upper primary stage. Prior to June, 2010, the primary and upper primary stage consisted of std 1 to 7 only. However, from June, 2010, std 8 is brought under the upper primary stage.

There were 991 primary schools in 2011-12 including upper primary schools. It is noteworthy that the number of primary schools increased to 1259 in 2013-14. A primary school is accessible in any village either, in the village or within a distance of 1 Km; an upper primary school is either within a village or within a distance of 3 Kms in the district. Hence, every primary school going eligible child has the access to school as per the norms. All primary schools have separate toilet facility for boys and girls and the facility for safe and potable drinking water in schools.

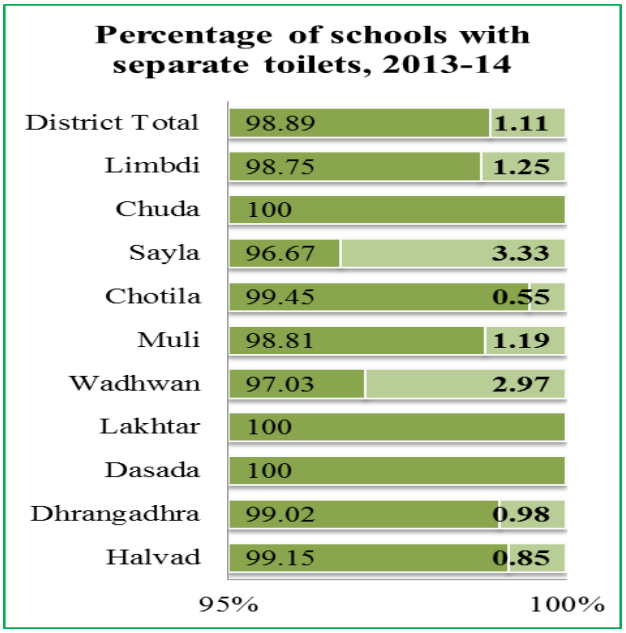
Amenities in Primary Schools: 2013-14

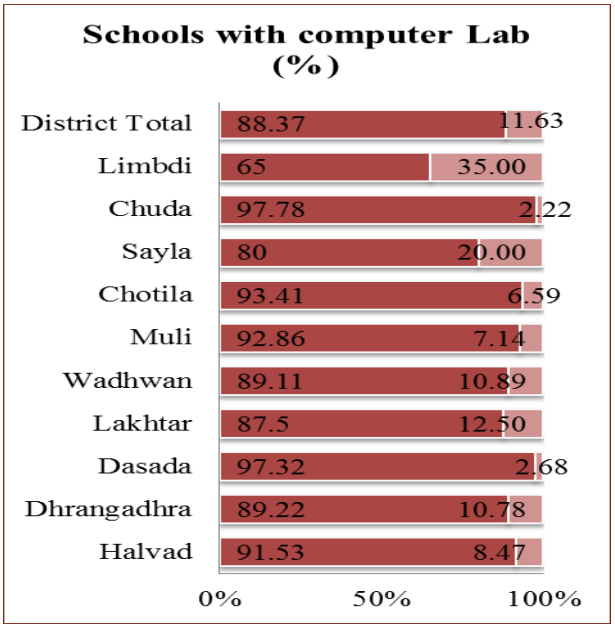
Amenities such as separate toilet for girls, electricity, computer lab, safe and potable drinking water as well as the compound walls for schools are necessary conditions for creating a proper environment for study and recreation for students.

It will be observed from the chart that 98.89% of the schools in the district have a separate toilet facility for girls. The variations across talukas are negligible. Similarly, 99.32% of the schools have the electricity connections. There are almost no variation across the talukas regarding electricity

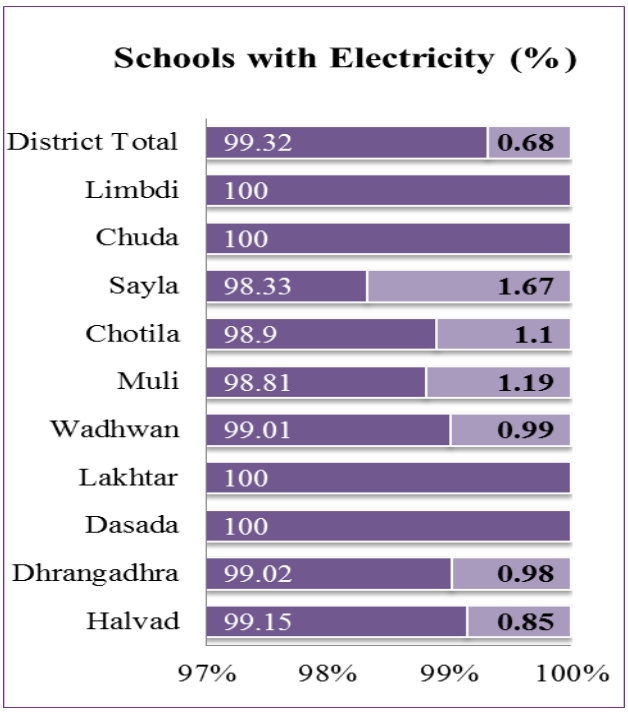
connections. Even computer labs have been provided to a vast majority of the schools. 88.37% of the schools in the district have a computer lab facility. However, in Lakhtar 87.50% of the schools have computer labs. It can be also seen that almost every school in the district has a compound wall.

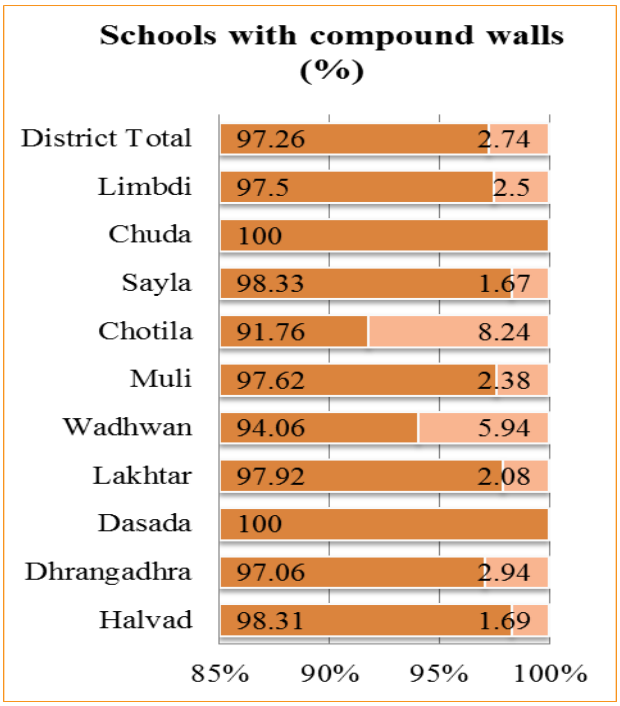
Due to sharp increase in the number of schools to 1259 in 2013-14. The % of schools with separate toilet in the total schools indicate some increase (98.89%). 1190 schools or 99.32% had electricity, 929 or 88.37% had computer laboratory and 1191 or 97.26% had compound wall.





Source: Sarva Shiksha Abhiyan, Gandhinagar





More over the quality of drinking water also have improved significantly which can be judged from the fact that 677 primary schools have either U.V. Plants or R.O. Plants for drinking water.

Teachers in Primary Schools:

All the teachers in the primary schools are qualified and trained as per the requirement under the SSA. The total number of primary school teachers in government and private schools were 7726 in the year 2009-10. The number increased to 8110 in 2013-14.

Computer laboratories in schools:

In 2001, there was not a single primary school with a computer lab. In 2013-14, 929 schools are equipped with computer labs.

Addressing the Needs for primary education of children of Vulnerable Social Groups like Agaria, Padhar and Maldhari families:

In Surendranagar district socio – occupational groups such as agaria, padhar and maldhari, out migrate seasonally for livelihood. Generally, they are away from their village for a period of about 6 to 8 months in a year. The school going age children are also going with them. As a result there are serious negative effects on their education.

The estimated number of salt workers in the district is about One Lakh, mostly living in Patdi, Halvad and Dhangdhra talukas in the areas adjoining the Little Rann of Kachchh. The padhars are mostly in Limbdi taluka.

These are migratory households who migrate for 6 to 8 months in a year, in search of livelihood activities. It is a big challenge how to ensure the primary education of the children of such families.

Tent Schools:

In order to ensure that the children from such vulnerable social groups are not deprived off the opportunity for education arrangements have been made for non-formal / alternative schooling and facilities such as seasonal hostels, tent schools and Kasturba Gandhi balika vidalays have been setup.
The government has set up 19 Tent schools in Kharaghoda and Zinzuwada areas of Patdi taluka and the management is handed over to socially and educationally committed individuals. The expenditure on this arrangement is met by the government.

Table 2.2: No of Tent schools and students enrolled, 2012-13

No	Taluka	Cluster	No of Tent schools	No of students		
				Boys	Girls	Total
1	Patadi	Kharaghoda	11	190	127	317
2	Patadi	Zinzuvada	5	108	65	173
3	Limbadi	Nani Kathechi	1	80	20	100
4	Limbadi	Mur Bavla	2	71	29	100
	Total		**19**	**449**	**241**	**690**

Source; District Education office, Surendranagar

There are 690 students in these 19 Tent schools. The time spent on study in the tent schools by children is taken into account in considering the total attendance of the students for qualifying for the next standard or grade. The purpose is also to mainstream such students when they return from the tent schools.

Seasonal Hostels:

This facility of seasonal hostels is established keeping in view the requirement of students from these socially and occupationally vulnerable categories for studying in upper primary and high schools.

There were 400 students including 164 girls students in these seasonal hostels. The hostels provide not only facility to stay but also lunch and dinner. The objective is to enable these students both-boys and girls, to complete the upper primary stage of education and also pursue secondary and higher secondary education.

Table – 2.3: No of Seasonal Hostels and students enrolled, 2012-13

Sr. No	Taluka	Cluster	No of seasonal hostels in cluster	No of students		
				Boys	Girls	Total
1	Chotila	Chotila -2	2	30	20	50
2	Chotila	Bhimora	2	50	50	100
3	Chotila	Anandpur	1	15	10	25
4	Chotila	Chotila-1	1	30	20	50
5	Chotila	Rajpara	2	26	24	50
6	Sayala	Dhandhalpur	4	85	40	125
Total			**12**	**236**	**164**	**400**

Source; District Education office, Surendranagar

Kasturba Gandhi Balika Vidayalas (KGBVs):

The KGBVs are opened with the main objective of promoting education of girls beyond the primary stage. The KGBV are not only schools but are also residential schools providing lodging and boarding to girl students across talukas in the district. The KGBVs are concentrated in educationally and socially backward talukas of Chotila and Sayla.

Table 2.4: Kasturba Gandhi Balika Vidyalaya by Centres

Year	Name of KGBV								
	Chotila	Sayala	Gadhad	Ralol	Merupar	Patdi	Lakhtar	Khambhada	Chuda
2007-08	90	60	50	25	38	0	0	0	0
2008-09	79	97	51	22	41	0	0	0	0
2009-10	95	112	58	33	40	0	0	0	0
2010-11	109	116	42	62	51	0	0	0	0
2011-12	113	106	55	65	49	37	40	46	10
2012-13	121	118	49	52	50	36	47	34	37

Source; District Education office, Surendranagar

There are 9 KGBVs spread across talukas. 544 girl students have benefited from the facilities of KGBV in the district. This facility has provided special support and encouragement for the education of the girls beyond primary stage. The significant reduction and lower level of dropout rates among the girls is partly due to these very useful facilities.

It can be seen that the physical infrastructure and facilities for primary education upto standard-8 for boys and girls including the boys and girls from vulnerable social groups, are already in place across talukas in the district. The next objective is therefore to ensure 100% enrolment in standard-1 and full retention from standard-1 to standard-8. In other words, the Drop-out Rates must approach level Zero in the next few years.

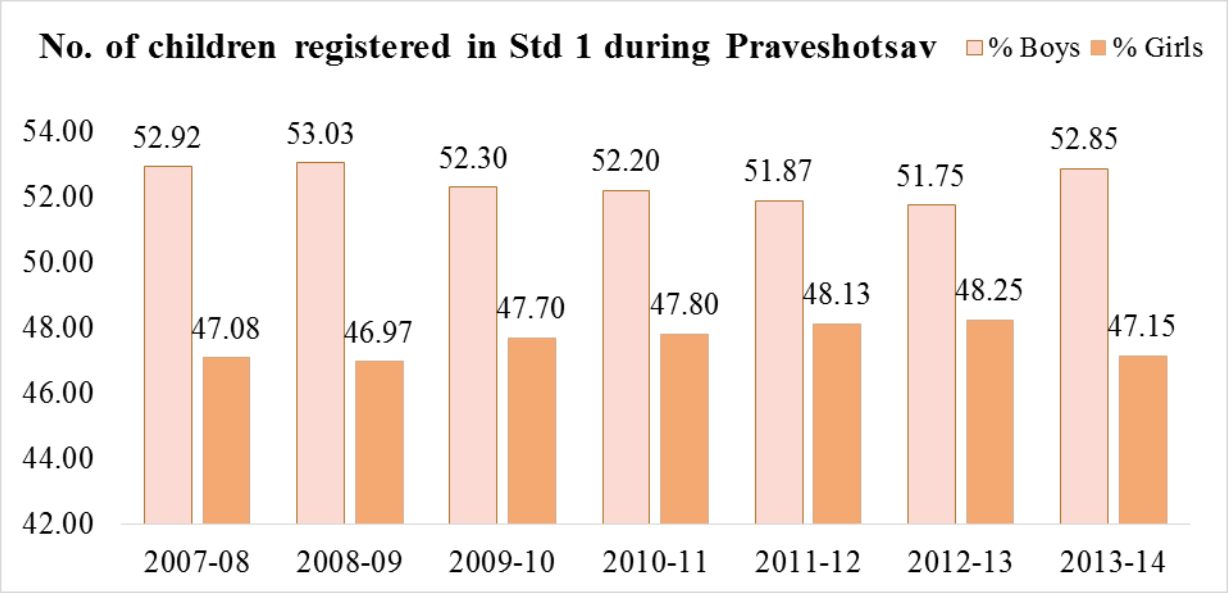
Enrolment in Standard 1: Praveshotsav

Shala Praveshotsav is organized every year by the district administration. It has become a movement because of the strong political will from the highest level. The number of children registered in std 1 during Praveshotsav 2007-08 to 2013-14.

Table 2.5: Number of children registered in Std 1 during Praveshotsav

Year	Boys	Girls	Total
2007-08	19820	17634	37454
2008-09	19650	17403	37053
2009-10	18967	17302	36269
2010-11	19145	17534	36679
2011-12	18421	17092	35513
2012-13	13527	12613	26140
2013-14	15182	13543	28725

Source: District Education office, Surendranagar



In the emerging socio-economic changes, the importance of attaining some threshold level of education is recognized. In this perspective, it is necessary to focus on universalizing primary education up to standard-7/8.

This is possible only if all school going children are registered in standard-1 and the enrolled children in primary schools are fully retained from Standard 1 to Standard 7/8. Retention of school going children at the primary stage of education is thus a crucial link for human resource development in the economy.

The number of children registered during the praveshotsav of 2007-08 was 37454 of which 17634 or 47% were girls. The percentage of girls enrolled for standard-1 increased to 47.15% (13543 out of 28725 children registered) in 2013-14. However the total number of children during the praveshotsav over years has decreased which is mainly due to the decrease in the percentage of population in the age 0-6 years.

The population in the age group of 0-6 years in 2001 was 16.32 % but has decreased to 13.34% in 2011 in the district. The importance of "Shala Praveshotsav" programme each year is that it has created the awareness about the education among the parents.

However, the challenge is retention of enrolled students from standard to standard till they complete Std 7 and go beyond. In other words, the objective is to reduce school dropout rates to near zero level.

Dropout Rates:

Table 2.6: Dropout Rates between Std 1 - 5

Year	Surendranagar District		Gujarat State	
	Boys	Girls	Boys	Girls
2009-10	5.28	6.96	2.14	2.17
2010-11	3.69	4.86	2.08	2.11
2011-12	3.23	2.53	2.05	2.08
2012-13	2.84	2.76	2.02	2.06
2013-14	2.21	2.35	1.97	2.02

Source: SSA, Gandhinagar

Gradually drop-out rate in boys and girls are decreasing. Drop-out rate in Surendranagar is little higher than state average for both boys & Girls. Boy's drop-out rate decreased from 5.28% in 2009-10 to 2.21% in 2013-14 whereas Girl's drop-out rate decreased from 6.96 in 2009-10 to 2.35% in 2013-14 and reaching to 1.97 for boys and 2.02 for the girls in the state.

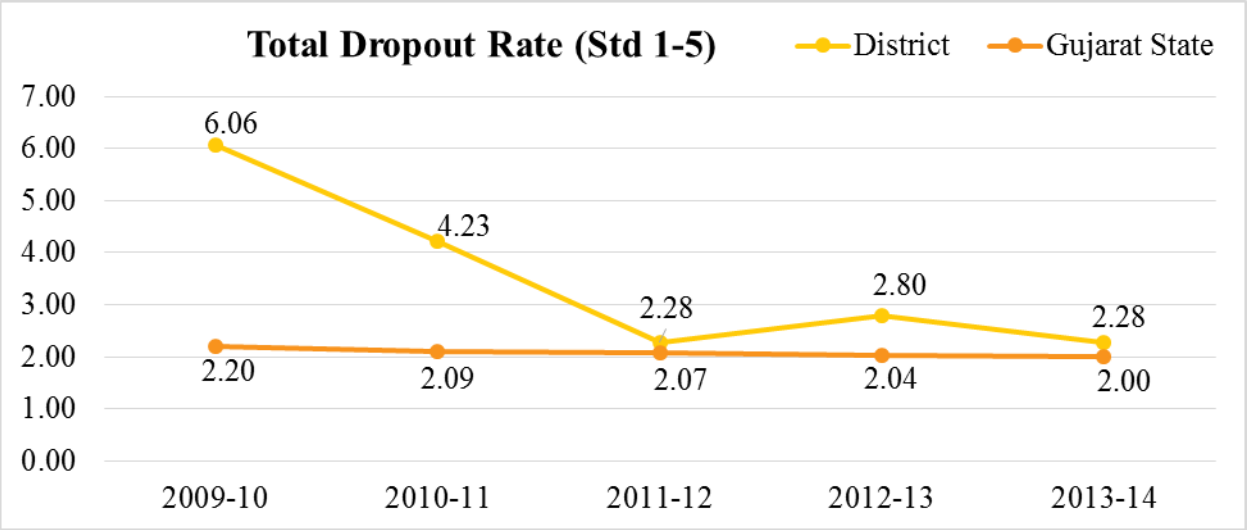


Table 2.7: Talukawise Drop-out Rate (Std 1 to 5): 2010-11 and 2013-14

Talukas	2010-11			2013-14		
	Overall	Boys	Girls	Overall	Boys	Girls
Chotila	5.72	4.93	6.49	3.26	3.16	3.36
Chuda	1.86	1.60	2.11	2.91	2.82	3.00
Dasada	4.26	3.67	4.84	1.64	1.59	1.69
Dhrangadhra	3.77	3.25	4.29	1.54	1.50	1.59
Halvad	4.62	3.98	5.25	2.37	2.30	2.45
Lakhtar	4.59	3.96	5.21	1.02	0.99	1.06
Limbdi	4.20	3.62	4.77	3.14	3.04	3.23
Muli	4.74	4.08	5.38	1.83	1.77	1.89
Sayla	6.49	5.59	7.37	4.28	4.15	4.41
Wadhwan	2.56	2.20	2.90	0.81	0.78	0.83

Source: District Education Office, Surendranagar

The drop-out rates have come down from 2010-11 to 2013-14 in all the talukas. In the year 2013-14, there is no significant difference between the drop-out rate of boys and girls.

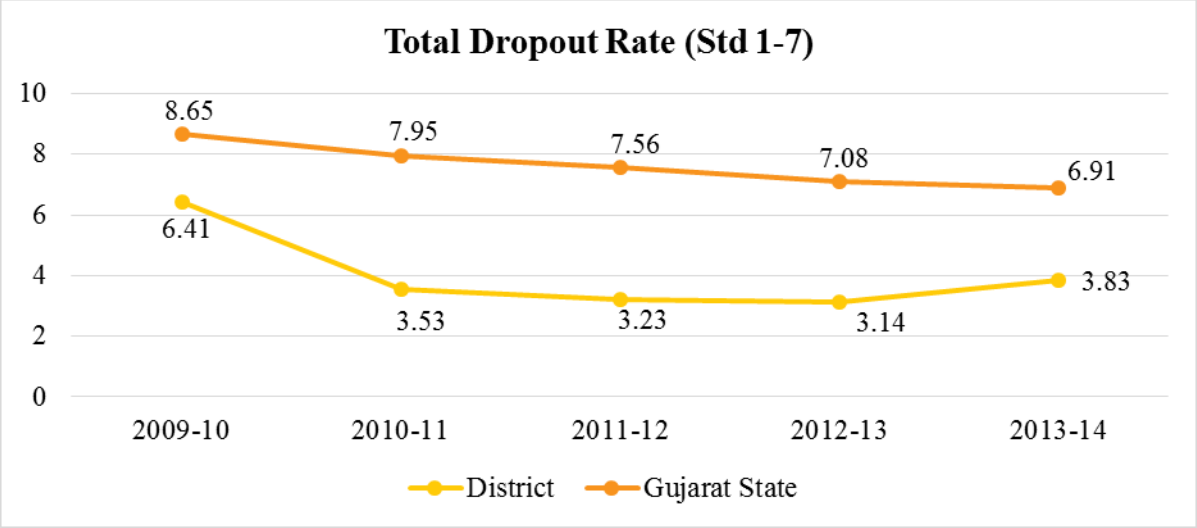
Dropout Rates in Std 1-8 :

The dropout rates between Std 1-8 in the district for boys as well as for girls are significantly lower than in the state (2.84% for boys and 4.39% for girls in the district and 6.53% for boys and 7.28% for girls in the state.

Table 2.8: Dropout Rates between std 1 - 8

Year	District		Gujarat State	
	Boys	Girls	Boys	Girls
2009-10	3.33	7.42	8.33	8.97
2010-11	3.08	4.06	7.87	8.12
2011-12	3.58	2.88	7.35	7.82
2012-13	3.15	3.14	6.87	7.37
2013-14	2.84	4.39	6.53	7.28

Source: SSA, Gandhinagar



It can be seen that, the Drop-out rates at the primary stage both among the boys and the girls, have been low and have fallen consistently reaching to 2.21% for boys and 2.35% for girls. The Drop-out rates at the upper primary stage too have come down significantly and have reached at the low level of 2.84% for boys and 4.39% for girls. It is noted that the Drop-out rates for boys students are lower than the rates for the girls in primary and upper primary stage of education. These rates are lower than the similar rates in the state.

Table 2.9: Talukawise Drop-out Rate (Std 1 to 8)

Taluka	Year-2011-12			Year-2013-14		
	overall	boys	girls	overall	boys	girls
Chotila	3.89	4.31	3.47	5.17	4.06	6.28
Chuda	1.99	2.21	1.78	4.62	3.63	5.61
Dasada	3.93	4.35	3.50	2.59	2.04	3.15
Dhrangadhra	3.26	3.61	2.90	2.45	1.92	2.97
Halvad	3.89	4.31	3.46	3.76	2.96	4.57
Lakhtar	2.32	2.58	2.07	1.62	1.28	1.97
Limbdi	4.93	5.46	4.39	4.97	3.91	6.04
Muli	2.36	2.61	2.10	2.90	2.28	3.52
Sayla	3.70	4.10	3.30	6.78	5.33	8.24
Wadhwan	2.04	2.26	1.82	1.28	1.01	1.56

Source: District Education Office, Surendranagar

It can be inferred from the above table that, drop-out rate in almost all the talukas have increased in 2013-14 as compared to 2011-12. Except Dasada, Dhrangadhra, Lakhtar and Wadhwan, drop-out rates have increased in all the talukas.

Transition Rates:

Table 2.10: Transition Rates

Years	Transition Rate from Primary to upper Primary (std. I to V)
2009-10	89.19
2010-11	90.53
2011-12	94.29
2012-13	95.35
2013-14	95.42

Source: SSA, Gandhinagar

While the drop-out rates are very low, a scrutiny of the number of students transiting from std 1 to 5 and from 4 to 7 (cohort) between 2009-10 to 2013-14 indicate a substantial number of students, particularly girls seem to drop out for a variety of reasons.

Trend in Enrolment in Government and Private primary Schools:

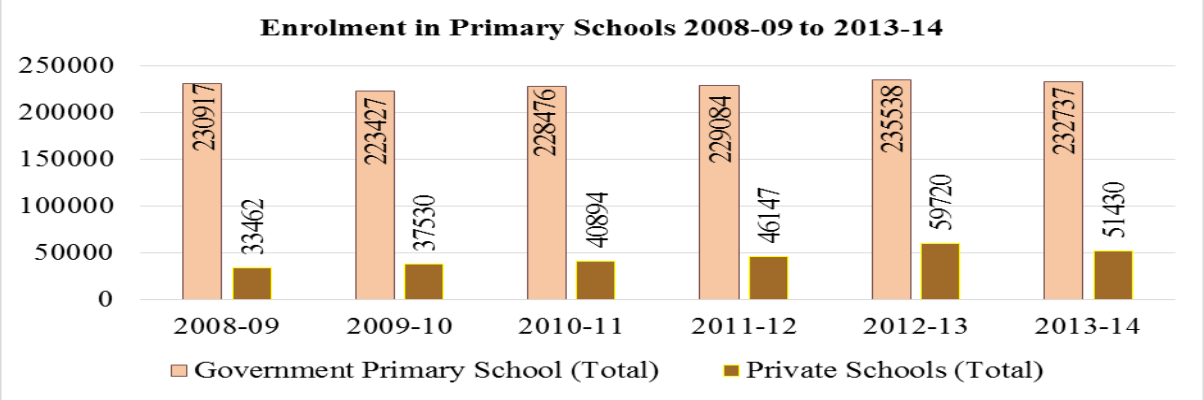
18% of primary schools students were in private schools in 2013-14. The percentage of the students in the private schools was low at 13% in 2008-09 indicating increasing preference for private schools. The absolute number of students in private schools increased from 33462 in 2008-09 to 51430 in 2013-14. From June, 2010, std 8 is shifted to upper primary stage. As a result, the enrolment in government primary schools has increased from 228476 in 2010-11 to 232737 in 2013-14.

Table 2.11: enrolment in Government and private schools

Year	Government Primary School (boys)	Government Primary School (girls)	Government Primary School (Total)	Private Schools (Total)	Grand Total
2008-09	120774	110143	230917	33462	264379
2009-10	117222	106205	223427	37530	260957
2010-11	119987	108489	228476	40894	269370
2011-12	118968	110116	229084	46147	275231
2012-13	122401	113137	235538	59720	295258
2013-14	120054	112683	232737	51430	284167

Source: District Education Office, Surendranagar

The enrolment of students in government primary schools was 2.33 lakhs in 2013-14. The enrolment in the government schools has more or less remained the same between 2008-09 to 2013-14. On the other hand, there were 51430 (18.10%) students were enrolled in private schools in 2013-14. In 2012-13 the enrolment in private schools were 20%.



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In the year 2012-13, 235538 students were enrolled in government primary schools including upper primary schools. The enrolment of girls in the government primary schools in the year 2012-13 was 48% (113137 out of 235538). This is indicative of almost gender equality in primary education.

Number of schools:

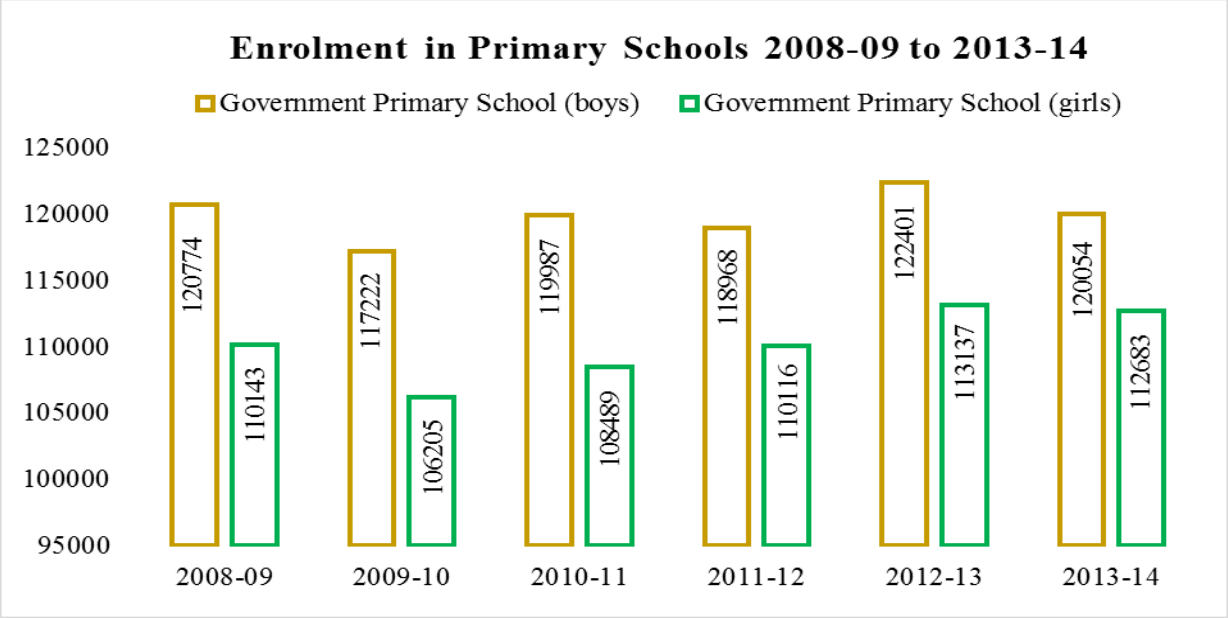


Table 2.12: No. of schools by category

Year	Total	Government School	% Government School	Private School	% Private School
2009-10	1164	1041	89.43	123	10.57
2010-11	1171	1023	87.36	148	12.64
2011-12	1189	1021	85.87	168	14.13
2012-13	1295	1075	83.01	220	16.99
2013-14	1259	1027	81.57	232	18.43

Source: SSA, Gandhinagar

Changing number and importance of private schools:

In 2009-10 private schools were 123 or 10.5% of the total. In 2013-14 however, the no of private schools practically doubled to 232 which accounted for 18.43% of the total. On the other hand the no of government schools actually decline from 1041 in 2009-10 to 1027 in 2013-14. In percentage terms, the government schools decreased from 89.43% to 81.57% during the period.

Government Initiatives to Promote Education:

The Government of Gujarat together with the Government of India have launched a variety of schemes to implement right to education act. The objective is also to ensure that girls are not left out in availing the opportunity for education. There are special schemes such as Vidya Lakshmi Bond, free bus passes, free distribution of text books etc. The above mentioned schemes are over and above the 100% access to schools and provision of basic amenities such as separate toilet facility, drinking water etc.

Kanya Kelavani – Vidyalaxmi Bond:

Every year, between 2007-08 to 2013-14, 6300 to 7400 Vidya Laxmi Bonds were distributed to girls who, after completing std 7, enrolled in std 8 and who lived in villages with very low level of literacy in the district. The number of bonds distributed during 2007-08 to 2013-14 was 48620. This number itself indicates that it is an important factor in promoting secondary education among the girls in the district.

Table 2.13: Distribution of Vidyalaxmi Bonds

Year	No of Vidyalaxmi Bond
2007-08	7069
2008-09	7078
2009-10	7364
2010-11	7260
2011-12	6358
2012-13	6555
2013-14	6936
Total	48620

Source; District Education Office, Surendranagar

Mid-Day Meal (MDM) Programme:

The total number of students enrolled in primary schools (std. 1 to 5/1 to 7/8) in the district is about 2.20 lakh. Even if we assume that about 9 to 10 percent of the primary schools' students are absent on any day, about 2 lakh students have the benefit of Mid-Day Meal program. The drastic reduction in the dropout rates during last 5 to 7 years and the present low level of the dropout rates both among the boys and the girls indicate a positive effect of the Mid-Day Meal program. The program will also have the impact on the nutrition status of the primary school children.

Under the State Flagship Scheme of Developing Talukas the beneficiary students of Mid-Day Meal Programme in Chotila taluka, are provided with the set of useful utensils-dish, boul glass and spoon. Moreover, a Pilot Project to grow vegetables for enriching the mid-day meal is started in one school in each taluka. This innovative project could be started due to the initiative and commitment of the District Development Officer Under the project, Micronutrients Kits prepared and supplied by a corporate entity were distributed to the selected schools. There are also some general issues on the Mid Day meal program which may be kept in view.

For example, the evaluation of Akshya Patra Pilot project currently implemented in the district of Gandhinagar, Vadodara and Surat has highlighted the following gaps.

- ✓ The beneficiary children did not wash their hands before taking the meal although they did wash their hands after the meal.

- ✓ The premises were the Mid-Day meal was served was not cleaned at the time of serving the meal. It was clean after wards.
- ✓ There was no special arrangement where, meals could be served. Children were setting in the lobby.

In implementation of Mid-Day meal program in Surendranagar if such gaps are observed they can be corrected.

Bicycle Sahay:

Table 2.14: Talukawise No of beneficiaries of Distribution of bicycles

Talukas	2009-10	2010-11	2011-12	2012-13	2013-14
Halvad	118	58	24	22	288
Dhrangadhra	119	24	20	46	491
Dasada	114	42	29	41	391
Lakhtar	59	39	8	-	-
Wadhwan	133	36	78	52	991
Muli	36	22	39	121	246
Chotila	122	64	15	139	417
Sayla	50	65	34	63	383
Chuda	47	40	39	1	321
Limbdi	181	41	65	27	557
District Total	**979**	**431**	**351**	**512**	**4085**

Source: DRDA, Surendranagar

In order to encourage girls to pursue high school education, bicycle sahay scheme was introduce. During 2009-10 to 2013-14, 6358 bicycle were distributed across talukas. In Limbdi, Dhrangadhra, Chotila and Wadhwan more girls benefited under the scheme.

Gunotsav:

While physical infrastructure and manpower for schools are in place, the need is to focus on the quality of education. The "Gunotsav" program addresses these issues of quality of learning, accountability of teachers and the performance of schools etc. The program involves the topmost officials of the government who evaluate each of these aspects and suggest remedial measures wherever necessary. The education committee of "Panchayat" is also accountable on these issues.

Table 2.15: Grading of Schools-Result of Gunotsav

Year	Grading of Schools							
	A+	A	B	C	D	E	F	Total
2010	0	0	2	190	743	60	11	1006
2011	0	63	381	349	213	0	0	1006
2012	Gunotsav not organized							
2013	1	69	707	222	21	0	0	1020
2014	Gunotsav not organized							

Source; District Education Office, Surendranagar

The Guvotsav was not organized in 2012 and 2014. The last one organized was in 2013 and for which results are available indicate the following grading of schools.

- ➢ Only one school was in A+ while 69 schools were in grade A.
- ➢ 21 schools were given D grade and none was either in E or F grade out of the total of 1020 schools.

- The majority of the schools were in grade B (707 schools) followed by 222 schools in grade C.

It is also time to devise methods to make use of modern technology for bringing out high and uniform standard for teaching. Schools with best performance can be also used as mentors for schools with poor performance.

Success Story of Kharaghoda Navagam Primary school

However there are many positive developments in primary schooling also, as can be judged from the school and students in the photographs.

Equal enrollment of boys and girls
Hope: good school, charming children of "agaria" families

- Out of the total of 721 students, 398 were boys and 323 were girls.
- 680 out of 721 were the children of agaria families - mainly those who lived and worked in Kharaghoda in salt related activities of loading and unloading, transport, trade, etc.
- 206 children were of the families who migrated into Little Rann of Kutch and other places for salt production.
- About 100 such families from Kharaghoda were migrating each year and stayed in the destination places for a period of 7-8 months in a year.
- Despite compulsions to migrate, several families left their school going children, particularly those studying in 4-7 Standards and 10 plus in age either with some close relative or also managed to leave one elder member staying back at home.
- 204 children left school with permission from the school and were given Migration Card. This card was expected to help the students to join the school in the place of destination.
- It was reported that only 35 families reported back to the mother school that their children have joined school in the destination area.
- There was no information about the rest of the children who had left. This needs to be followed up by proactive role of mother schools.

Given the compulsions of migration for livelihood, the state government in coordination with the NGOs has setup associate schools and "anganwadies" in the destination places mostly in the little rann of kutch. In order to tackle the problem of discontinuation of studies of children of such migratory households the government has devised alternative / non formal schooling. This enables a dropout student again to enter either the main stream schooling or to join in alternative school managed by NGOs. The government, the industry association, and NGOs will need to work together to increase the coverage of such children and for ensuring dedicated and qualified teachers for this associates schools or alternative schooling. The adjoining photo of the primary school Navagam, Kharaghoda shows that it is possible to take care of the children of agarias with reasonably good facility and environment. Efforts should be made to replicate this success story so that the children of the other migratory households are not deprived of such good schooling.

Secondary and Higher secondary schools:

The total number of secondary and higher secondary schools in the district was 303 in 2006-07. It is noteworthy that by 2013-14, 39 more schools have been added in a relatively short period of five years. Chotila and Sayla talukas are covered under the State Flagship Scheme of Developing Talukas. These two talukas had relatively few secondary and higher secondary schools in 2006-07. It can be noted that the maximum number of schools have been added in these two talukas i.e. 12 in Chotila and 7 in Sayla during the period.

Table 2.16 No of secondary and higher secondary schools by taluka 2006-07 & 2013-14

Taluka	2006-07	2013-14	Difference
Chotila	25	37	12
Chuda	15	17	2
Dhrangdhra	43	46	3
Halvad	33	39	6
Lakhtar	15	15	0
Limbadi	25	26	1
Muli	15	19	4
Patadi	24	25	1
Sayla	19	26	7
Wadhwan	89	92	3
Total	**303**	**342**	**39**

Source: District Education Office, Surendranagar

Level and trend in Secondary and Higher secondary Education (All Students and Girls Students):

The schemes and the programs under the Sarva Shiksha Abhiyan (SSA) have created the required physical infrastructure, amenities and manpower for effective implementation of the free and compulsory primary education. The focus now is on secondary and higher secondary stage of education. The significant increase in the number of secondary and higher secondary schools across talukas is the first step of providing access to secondary and higher secondary schools in the district. Given the total number of 342 secondary and higher secondary schools and their distribution across talukas, it is clear that a secondary school is accessible in radious of 5 to 7 Km in every taluka in the district.

Girl Students:

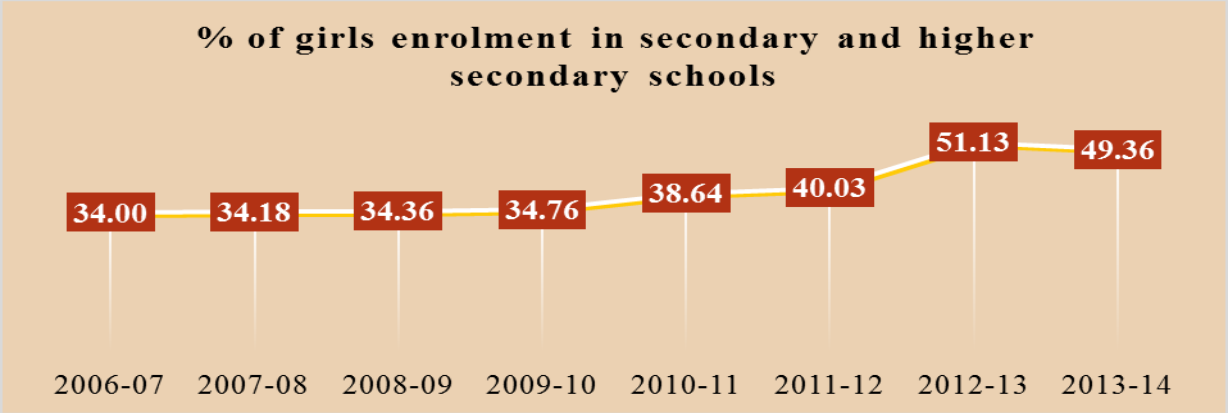
Among the secondary and higher secondary students 34.76% were girls in 2009-10. The percentage of the girls to the total increased to 49.36% in 2013-14. This indicates that the enrolment of girls in secondary and higher secondary education is rising faster than the overall rate. Shifting of Std 8 to the primary stage seems to have helped girls in particular to continue further study in Std 8 which is in the same school. Once, a student has completed Std 8 there is sufficient interest and motivation to reach the threshold level – SSC and HSC for career development.

In the year 2013-14, nearly 527729 students were enrolled in secondary and higher secondary schools in the district. The enrolment has increased slowly over the period. The low figure of enrolment in 2010-11 and thereafter is because of the shifting of Std 8 in to the primary stage.

Table 2.17 Enrolment In Secondary and Higher Secondary Schools including Private schools during 2009-10 to 2013-14

Year	Secondary Schools			Higher Secondary Schools			Secondary + Higher Secondary Schools enrolment (All)	Secondary + Higher Secondary Schools enrolment (Girls)
	Boys	Girls	Total	Boys	Girls	Total		
2009-10	18244	8507	26751	30771	17611	48382	75133	26118
2010-11	14406	7612	22018	20932	14639	35571	57589	22251
2011-12	10053	5899	15952	20960	14801	35761	51713	20700
2012-13	12923	6977	19900	20506	13350	33856	53756	27483
2013-14	18870	7901	26771	18126	7832	25958	52729	26027

Source: District Education office, Surendranagar



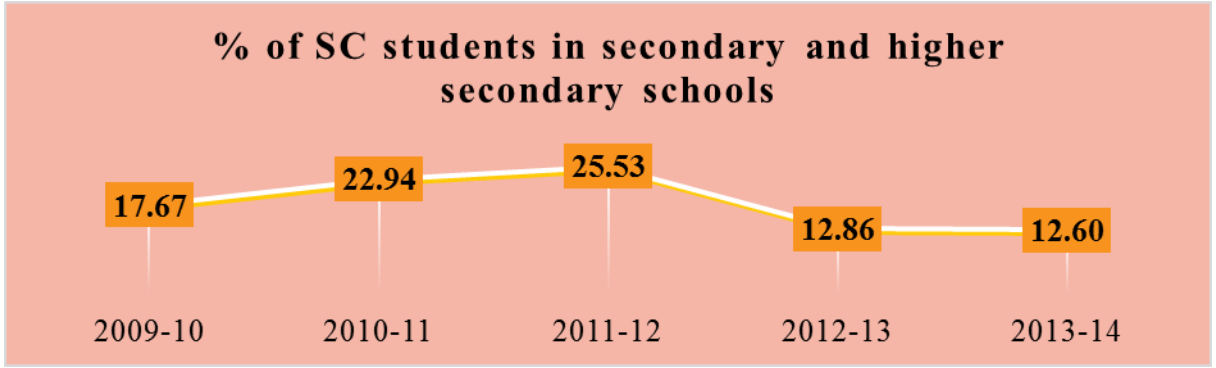
Trend in Enrolment in Secondary and Higher secondary education of SC Students and All Students:

The number of SC students enrolled in secondary and higher secondary was 13273 or 17.67% of the total in the year 2009-10. The percentage decreased to 12.60% in 2013-14. The percentages are decreasing in last 2 years.

Table 2.18 Trend in enrolment in Secondary and Higher Secondary schools

Year	All Students	SC Students
2009-10	75133	13273
2010-11	57589	13210
2011-12	51713	13200
2012-13	66636	8570
2013-14	69195	8716

Source: District Education Committee, Surendranagar



Enrolment in General and Science Stream: Higher Secondary

In the higher secondary (Standard 11), there were 13083 students in general stream and 2484 students in science stream in 2013-14.

Year	General Stream STD 11th			Science Stream STD 11th		
	Boys	Girls	Total	Boys	Girls	Total
2011-12	2034	1633	3667	1184	312	1496
2012-13	9480	6982	16462	1217	327	1554
2013-14	9113	3970	13083	2094	390	2484
Year	General Stream STD 12th			Science Stream STD 12th		
	Boys	Girls	Total	Boys	Girls	Total
2011-12	2023	1394	3417	1180	310	1490
2012-13	3352	2327	5679	1084	392	1476
2013-14	9013	3862	12875	1993	391	2384

Source: Commissionerate of schools, GOG, Gandhinagar

Enrolments in General Stream Std 12th:

It can be observed that the number of boys enrolled in Std 12th general stream was 2023 in 2011-12 there is a spectacular increase in the number of boys enrolled (9458) in 2013-14. i.e an increase of about 45.53%.

The enrolment of girls during the same period (general stream Std 12th) from 1394 in 2011-12 to 3862 or by 277.04% in 2013-14.

Enrolment in Science Stream Std 12th:

The enrollment of boys in science stream Std 12th was 1180 in 2011-12 and 1993 in 2013-14 indicating the increase of 69%. The girls were few in Std 12th science stream. 310 in 2011-12 and 391 in 2013-14 indicating an increase of about 26%.

There were only 13 higher secondary schools offering science stream and most of them are concentrated in Wadhwan, Dhangdhra and Halvad talukas. Among these, in Chuda, Muli, Chotila, and Lakhtar, science stream (Standard 11) has been started from 2008-09. However, there are only 5-9 students in each school. The Government is proposing to set up science stream schools in different talukas and the centers have been also identified. The present position regarding the access to higher secondary education in general stream as well as in science stream as indicated by the addition of 39 secondary and higher secondary schools during last 5 years would have improved a lot.

Trend in Results of HSC and SSC:

It can be observed that on the whole the results in the HSC are quite higher than the results in the SSC. This probably indicates that the students who are successful in reaching Std 11 are sure to perform better subsequently.

Results of SSC and HSC, 2011-12 to 2013-14:

The results of SSC in the district during 2011-12 to 2013-14 are lower as compared to some previous years. The results were 65.75% in 2011-12 and decreased to 62.02% in 2013-14. The results of HSC have also been decreasing during 2011-12 to 2013-14 as compared to the previous years. Moreover, the results were more or less remain the same in the last three years but are lower as compared to previous years.

Options for entry in to Professional Courses for students are limited:

Given the limited options for science streams of education at higher secondary stage, the chances of students within the district to acquire professional skills and education – degree, diploma and certificate levels - are limited. It is not surprising that PTC, B.Ed., B.A., B.Com. and B.Sc. have remained the only options.

The need is to develop middle level courses – Diploma and Certificate level - in health, animal husbandry, veterinary, dairy and agricultural sciences. Agriculture, Dairy and healthcare besides education are expanding sectors. This will need skills based inputs at various levels.

What is noteworthy is that the institutions of higher education in the district have shown very good results, i.e. between 80-85%.

The problem in higher education in the district is that the number of students going for higher education is small. Hence, the expansion of the capacities and setting up of new institutions of higher education need to be linked with the appropriate measures which would enlarge the upward flow of students from primary to secondary, secondary to higher secondary, and above for the benefit of the local population. However, HSC results are higher than the results in SSC. However, the results of SSC indicate considerable wastage although, over time the SSC results have improved.

The Way Ahead...

- The access to primary schools as well as upper primary schools is either within the village or within 1Km / 3 Km.
- The amenities in schools such as separate toilets for boys and girls, drinking water have also been provided almost in all schools under Sarva Shiksha Abhiyan.
- Moreover, the retention in primary schools have also increased significantly during last 6 to 7 years. Dropout rates have come down at low level-2.02 for boys, 1.68% for girls and 1.85% overall in primary stage and are 2.68% for boys, 1.98% for girls and 2.33% overall in the upper primary stage in 2011-12.
- Logically now the focus is on the quality aspect of the education.
- The Gunotsav program has the objective to improve the quality of education in the schools – grading of schools and evaluation of teachers are done under this program with the participation of the highest level of political leadership and bureaucracy.
- In our judgment the schools which have been given grade “A” have the potential to emerge as centers of excellence and can compete with the private schools.
- The government may provide some capital grant to upgrade and if necessary to expand their educational infrastructure.
- These best practices schools can also be involved for transfer of their practices to others through periodic visits, meetings etc. They can play the role of hand holding for other schools.
- Similarly the teachers who have been awarded Grade “A” in the evaluation process, may be encouraged to setup a district level Forum and they can be assigned the task of preparing model lectures and preparation of videos – topper’s category in selected subjects for standards between 5-8 & std 9-12, in subjects such as English, Maths etc.
- Such a Forum can be also involved in refreshers courses for teachers.
- In our field visits we came across lack of awareness and action to ensure proper standard of sanitation, hygiene and cleanliness of the premises. A video can be also prepared to highlight the excellent situation on total sanitation campaign, personal hygiene and habits, standard of cleanliness and maintenance of facilities such as toilets, drinking water, meal preparation room etc.

- Students may be given ID card and uniform to establish their identity and association with particular school.
- At the village level, the education committee has a critical role to play in most of the matters mentioned above.
- Therefore, some village elders with reputation and good background of education or business or service may be also included in the local education committee.
- If the D.E.O has a dedicated phone or mobile even a student can either send SMS or even a photo showing or describing the status of a particular situation in the School. In other words, an electronic Suggestions Box (only for improvement) can be welcome innovation.
- In order to accelerate the literacy apart from the present focus on ensuring 100% enrolment in class1 and near complete retention of students from class to class up to standard7/8,the local level functionaries such as ASHA ,Anganvadi workers, school teachers Sakhi Mandals and upper primary school and high school students can be involved occasionally in the literacy drive. Support from colleges and higher secondary schools can be also encouraged to spread adult literacy.
- To create the awareness about the importance of education and subsequent prospects, it is suggested that the Education Office, jointly with the Employment Office, plan systematic counselling and information sessions with students, teachers, and parents whereby they are counselled on the available opportunities It is also suggested that the schools display prominently photographs of some role model from the taluka.
- Given the peculiarities of livelihood sources of certain backward social groups like agarias and padhars, and maldharis, it is suggested to set up centers to provide part time vocational skills along with study to the adolescents who otherwise may dropout particularly in Dasada, Limbadi, Dharangdhra, and Halvad talukas. Short-term vocational training modules and trades such as, diesel engine, tractor repairs, repairs of motorcycles and scooters, auto mechanic and drivers, plumbers and masons can give marketable skills.as they complete at least the primary education.
- In order to facilitate the entry of more students for quality education in secondary and higher secondary stage of education - boys and girls - we suggest to **identify two higher secondary schools in each taluka** within a radius of 15 kilometres so as to cover large number of the villages/primary schools. These selected higher secondary schools may be upgraded as **centers of excellence** with full physical and educational infrastructure. The focus can be the A Grade schools.
- The Government may concede to support a dedicated bus service to pick up the students from the villages in the catchment area and leave them back at home in the evening.
- At present, Vidhya laxmi scheme is implemented in certain villages where the effective female literacy rate is below 30% or so. We suggest that the Government extend the Vidhya laxmi scheme to girls from specific social/occupational groups like agarias and padhar and maldharies also. These particular communities comprising mainly of migratory households – migrating for livelihood - deserve special focus in this regard.
- Setting up of KGBVs, Hostels and Tent schools are praiseworthy initiatives of the government to ensure that the children of the vulnerable social groups are not deprived of the educational opportunities. These institutions can be further strengthened. The case study of Kharaghoda School shows the role played by such school in promoting the education among the children of salt workers. It is also suggested to develop a tracking system for the students who accompany parents on migration and ensure that they get enrolled in the school in the destination places.

- Importance of physical infrastructure for schools and access to primary school is well recognized. It is noteworthy that all basic amenities-separate toilet for boys and girls, drinking water are available universally in the district. However the gaps such as electricity connection, compound walls, computer facility can be filled on priority basis.
- There are several voluntary service organizations with excellent image, track record and commitment: Wadhwan Kelvani mandal; Vikas Vidhyala Wadhwan; Surendranagar education society; Limbadi kelvani mandal, Ganatar and the Satree Pragati Mandal Surendranagar. These organizations have played valuable role in the field of education and women's welfare. Alternative schools and main streaming of drop outs from schools particularly, among the children of migrant families is a noble task which needs a great deal of commitment. The agencies which are engaged in this noble work may be also approached for help.

The district leadership had the vision to setup commercial / multipurpose high schools providing pre to vocational courses of commercial education along with general education from standard 8 to 11. This will help in imparting marketable skill to adolescents who leave education midway.

Traditions and Customs and Ignorance.

1. In Nanikathechi village of Limbdi taluka, while interacting with villagers and teachers, it was observed that the number of girl students in Standard 5-7 was reduced by more than 2/3 from the number which was almost equal to that of the boys in Standard 1 to 4. When asked about the reasons, we were told that according to their customs and traditions when a girl is 12 + in age it is time for her marriage and that she must begin to help the family rather than pursue further study.
2. Second, the migratory households in village Durgi and Jasmatpura, Limbdi taluka and Padhar villages were compelled to take their entire family with them as they cannot leave adolescent girls and boys alone at home while they are away for months together. In Durgi village the school teachers informed that a majority of the parents in Padhar community were lacking awareness and understanding of the value of education. An example was cited that three boys and girls left the examination hall before completing the paper as they wanted to join their parents who were migrating to other places for livelihood at that time.

The third factor was that the high school was at a distance of 5 to 7 kms. and it is not safe for girls to travel to school and come back every day. Dedicated bus service for access to secondary and higher secondary schools is worth considering.

Chapter 3

Healthcare, Sanitation and Environment

Background:

The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity". This is the accepted goal and health for all by 2000 AD became the goal for attainment by every country. In order to achieve this goal, the primary health care was considered as a key strategy.

The definition adopted by WHO is a comprehensive concept covering not merely medical treatment, but a holistic approach and hence, it cannot be seen in isolation from the problems of malnutrition among women and children, the availability of safe and potable drinking water, total sanitation, clean and neat environment and maintenance of the basic amenities. This also shows that the health outcomes are dependent on coordination and the action taken by the other departments. Preventive health care is as important as the curative care.

At present, the state is faced with issues in maternal and child health needing priority. It may be mentioned that, as per the results of NFHS-3, the Gujarat state has achieved noteworthy improvements in many health indicators between NFHS-2 and NFHS-3.

- IMR was reduced from 63 to 50;
- MMR was reduced from 383 to 172;
- TFR was reduced from 2.9 to 2.4;
- Ante Natal Care has increased from 78% to 87%;
- Institutional deliveries increased from 37% to 55%;
- Contraceptive use increased from 49% to 67%;
- While infantile sex ratio improved from 825 to 846.

Because of the focused and result oriented strategy for social development, Gujarat has done better than the performance at all India level in several indicators.

Table 3.1: Selected Health Indicators

Item	Gujarat	Surendranagar
Mothers Received at least three ANC	74.24	74.95
Institutional deliveries	96.32	91.59
Fully Immunized Children	97.66	97.21
Crude Birth Rate	20.8	21.6
Crude Death Rate	5.6	5.2

Source: Health Statistics 2013-14, GOG

However, the issue is not that Gujarat is doing better than all India level. Gujarat with its level of industrial and economic development is occupying position in the top 3-4 states in India. The state has the resources and the political will to accelerate the process of social development. Hence the Government of Gujarat aims to achieve the following Goals under the National Rural Health Mission so as to meet the Millennium Development Goals by 2015.

Reduce:

- Present (Notified, SRS, Sep 2014) IMR from 36 to 30; the IMR as on January, 2013 is 39 and is expected to decrease to 26 by the end of 12th plan.
- MMR (Notified 2007-09, MMR bulletin 2011-13) is 112 and is expected to decrease below 80 by the end of the 12th plan.
- TFR from 2.4 to 2.1. (NFHS)

In line with the objectives of the state, Surendranagar district administration has set the following goals.

The existing status of key health indicators in the district and the goals to be met by 2015 are given below:

- According to the District level Rapid Health Survey – 1, 2011 the Infant Mortality Rate (IMR) is reported to be 50.
- However, as per the latest National Family Health Survey, of Government of India the IMR in the district is estimated to be 44 the objective is to reduce it bellow 30 by 2015.
- The Maternal Mortality Rate (MMR) in the district is estimated to be 140 (NFHS). The objective is to reduce it bellow 100 by 2015.
- The incidence of malnutrition among the children and women which is estimated to be 47% is to be reduced below 24% by 2015.
- The incidence of anemia among the pregnant women is as high as 60% and the objective is to reduce it below 25%.

Infant Mortality Rates (IMR) and Maternal Mortality Rates (MMR)

IMR and MMR at district level as calculated from the data on registered deliveries are shown to understand the pattern of change over time. During 2009-10 to 2013-14.

Table 3.2 IMR and MMR based on the total number of registered deliveries

Year	IMR	MMR
2009-10	17	60
2010-11	17	66
2011-12	19	123
2012-13	19	106
2013-14	21	77

Source: CDHO, Surendranagar

Both the IMR and the MMR as calculated on the basis of only the registered deliveries in the district, are quite low i.e. IMR is 21 and MMR is 77 in 2013-14. There are significant decrease in the rate of MMR from 106 in 2012-13 to 77 in the year 2013-14. IMR has increased from 19 in 2012-13 to 21 in 2013-14 which is area of concern.

Maternal and Child Health:

The positive outcomes in maternal and child health depend on several factors. However, the Ante Natal Care program provides the medical and health care support to women right from the stage of conception to institutional delivery and follow up service for the protection of the newly born child against childhood diseases.

Table 3.3 Status of ANC registration: 2009-10 to 2013-14

Year	Registered Deliveries as percentage to target under ANC (%)
2009-10	77.69
2010-11	78.04
2012-13	74.91
2013-14	74.95

Source: Health Statistics, Surendranagar

The 3 ANC registration has remained between 75-80 % during 2009-10 to 2013-14. However the early registration of pregnancies has remained low at 70%. It is quite likely that the ANC program has not been able to reach a number of pregnant women particularly, belonging to migratory

households. The incidents of "Home delivery" is likely to maximum in this category which is probably captured in the DLRHS-11, when it puts the home delivery it is 27.1% in 2011.

Table 3.4 Performance of ANC Registration (%)

District	2009-10			2013-14		
	Early ANC to Total ANC, 2009-10	ANC-3 to Total ANC, 2009-10	TT doses to total ANC, 2009-10	Early ANC to Total ANC, 2013-14	ANC-3 to Total ANC, 2013-14	TT doses to total ANC, 2013-14
Rural	59.94	76.64	88.68	76.89	96.23	97.3
Urban	45.05	82	83.52	46.97	41.32	41.68
District Total	57.07	77.21	87.68	70	76	85.1

Source: Report of RCH Programme. D & E Comm. of Health, Medical Services, Medical Education And research, Gujarat

Early ANC and ANC-3, TT Doses:

Under the ANC program, early (within 3 months of pregnancy) identification of the pregnant women is critical for ensuring full range of timely support services and advice. It is found that the early ANC to the total ANC registration was only 57% in 2009-10. The early ANC has registered a significant rise to 70% in 2013-14.

Similarly, the ANC -3 to total ANC was 77% in 2009-10 but has remained more or less at the same level in 2013-14. Similarly, TT doses to the total ANC have remained between 85 to 88% during the period.

It is quite likely that the ANC program has not been able to reach a number of pregnant women particularly, belonging to migratory households. The incidents of "Home delivery" is likely to maximum in this category which is probably captured in the DLRHS-11, when it puts the home delivery at 27.1% in 2011 as against only 11% as given in the departmental Statistics. The ANC can be further strengthened by training and motivation of ASHA and other local health personnel and by improving their mobility within the taluka.

Inter-Taluka Variation in ANC Registration:

As per the data collected by the CDHO, ANC registration was 36957 out of the target of 45006 pregnant women or 89% in Feb, 2013. It is interesting to note that in the developing talukas namely Sayla and Chotila the ANC registration was complete. While, it was as low as 63% in Limbdi and 78% in Dasada, Lakhtar and Whadwan. These gaps indicate the extra effort which may be needed in these talukas.

E-mamta:

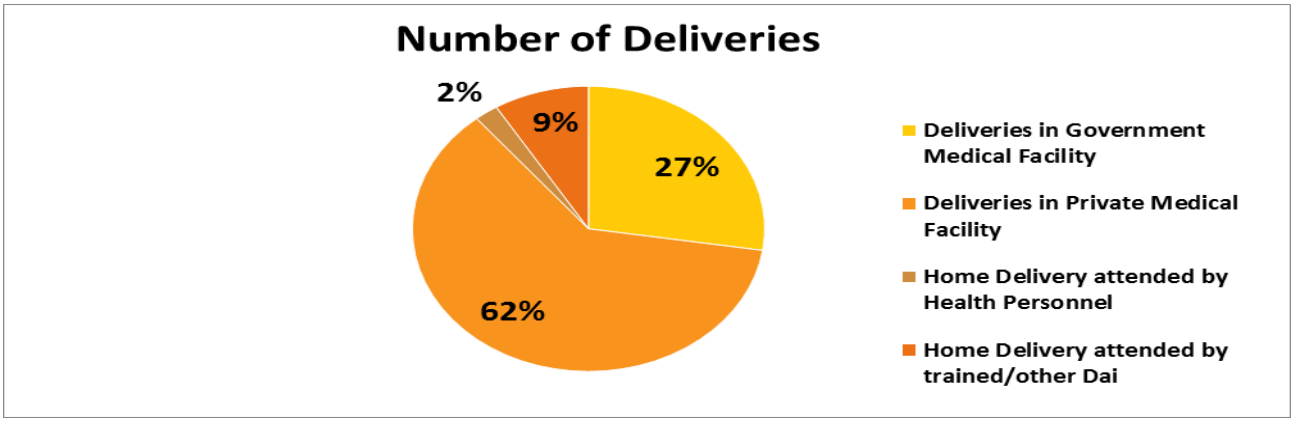
The introduction of E-Mamta – computer based registration of ANC, Institutional delivery and PNC follow up measures are expected to bring about dramatic improvement in these services as it will enable online monitoring. This will however, depend on the functioning status of the computer based system, training of the health personnel at all levels and positioning of various categories of health personnel in the institutions.

There is significant progress in inputting data on pregnant women and children in the computer based monitoring and tracking system: E - Mamta. The E - Mamta registration of pregnant women was only 28% in 2009-10 but increased to 73% in 2011-12 which is quite impressive record.

Similarly, E-Mamta child registration increased from 26% in 2010-11 to 51% in 2011-12. Increasing coverage under the different components of ANC not only provides protection for the pregnant women but also encourages institutional delivery.

Institutional and Home deliveries:

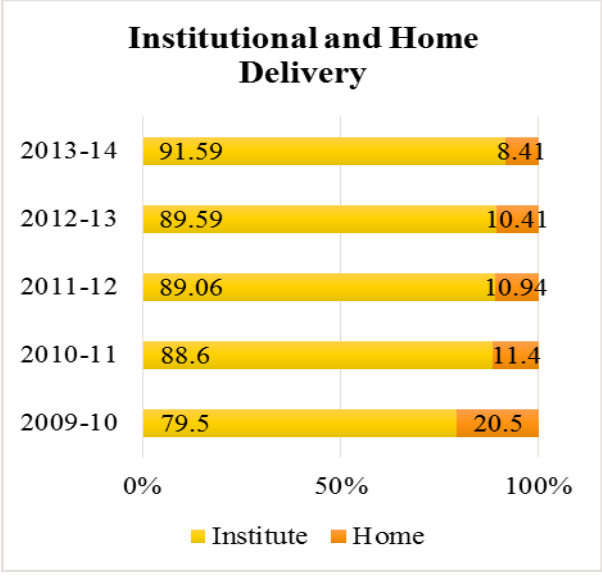
Trend in Institutional Deliveries:

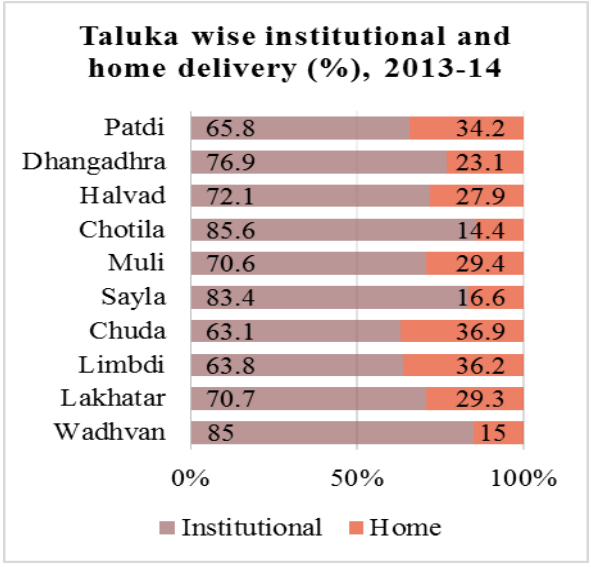


Institutional deliveries accounted for 70% in 2007-08. The percentage of institutional deliveries increased to 89% in 2011-12. Alternatively home deliveries decreased from 30% in 2007-08 to 11% in 2011-12. Out of 10889 home deliveries in 2007-08, 4733 or 44% were attended by some category of health personnel while 6156 or 56.53% deliveries were attended by trained / untrained daies and others.

In 2011-12, the total number of deliveries at home was 3814 or only 11% of which 20% were attended by a trained health personnel and 3075 deliveries (80%) were attended by the trained/ untrained dais. It is not possible to find out the number of still births in home deliveries separately. However, such a problem is likely among the migratory households – agarias, padhar and maldhari.

In rural areas of the district institutional delivery was 26.37% in 2009-10 which increased to 65.50% in 2013-14. The total no of institutional delivery increased from 79.50% in 2009-10 to 91.59% in 2013-14.





Chiranjivi Yojana and Janani Suraksha Yojana:

The Government of Gujarat has launched two major schemes - Chiranjivi Yojana and Janani Suraksha - to achieve visible positive results in a relatively short period regarding safe motherhood and protection of the newly born child.

In view of the shortage of qualified medical and health personnel for ensuring safe motherhood to pregnant women, the Chiranjivi Yojana offers a package of services for anti-natal care, institutional delivery and post natal follow-up. The Yojana was launched in October 2006. The salient features of Chiranjivi Yojana are as under:

"Chiranjeevi Yojana":

- A pregnant woman is free to go to any of the empanelled gynaecologist for delivery. The system is voucher based and hence the woman has freedom to choose.
- In Surendranagar, 22 private gynecologists have been empanelled.
- The eligibility criteria are that the pregnant woman belongs to BPL category or in case of SC/ST there is no income tax payer in the family.

Chiranjeevi Yojana – meaning 'a programme for long life' –was launched in 2005 and operates through a memorandum of understanding between the Government of Gujarat and private obstetricians

Benefits:

"The programme had successfully raised the number of births delivered in health facilities, and that private practitioners were mostly enthusiastic about their participation in the initiative" - A United Nations Population Fund Study, 2006

- For every delivery, the private doctor is now given Rs. 2800/- while a grant-in-aid institution is paid Rs. 695/- per delivery.
- The pregnant woman is given Rs. 200/- for transportation in rural areas and Rs. 100/- for women from urban areas. The person who accompanies a pregnant woman is paid Rs. 50/- by the doctor.
- Under the extended Chiranjivi Yojana the private gynaecologist can also enter into contract with the Community Health Centres in the area.

"Janani Suraksha Yojana":

The objective of Janani Suraksha Yojna is that during pregnancy as well as in post-delivery period, financial and nutritional support for healthy motherhood and the protection of the child health which also includes the cost of medicine is provided. It also aims to increase the proportion of **institutional deliveries.**

Janani Suraksha Yojana (JSY), A safe Mother-hood intervention that aims to reduce maternal and neo-natal mortality by promoting institutional delivery among the poor pregnant women.

Pregnant women belonging to BPL families are eligible for up to two live births and she should be 19 years plus in age. As regards to the benefits, every such eligible pregnant women is entitled to receive Rs. 500/- in cash. In addition, Rs. 200/- are given for visiting medical / health facility for check-up in rural areas and Rs. 100/- for women in urban areas.

Table 3.7: Progress under Chiranjeevi

Year	Surendranagar				Gujarat			
	Total Institutional delivery	Delivery under CY	% of CY delivery to Total Institutional delivery	Empaneled Doctor	Total Institutional delivery	Delivery under CY	% of CY delivery to Total Institutional delivery	Empaneled Doctor
2009-10	19679	3311	16.83	25	942972	66553	7.1	322
2010-11	29706	2881	9.70	18	1098277	80515	7.3	266
2011-12	31276	2552	8.16	20	1133558	92500	8.2	267
2012-13	26466	3671	13.87	10	1104965	54116	4.9	194
2013-14	26228	2566	9.78	20	1087169	50687	4.7	190

Source: Health Statistics, GoG

Deliveries under chiranjeevi Yojana (9.78%) is higher than the state average (4.70%) of the total deliveries. The trend shows that in the year 2009-10, the % of deliveries recorded under Chiranjeevi was much higher (16.83%) as compared to Gujarat (7.1%). The benefits under the JSY have reached to almost all target groups; however, the coverage under the Chiranjeevi Yojana was only 32% of the target in 2011-12. In talukas like Limdi, Chuda, and Dasada the coverage was practically nil.

Table – 3.8 ANC, PNC, institutional deliveries and protection against childhood diseases: status as on March – 2014

Sr. no.	Item	Target	Achievement	%
1	Early Registration	37508	26153	70
2	TT Injection to pregnant women	38000	31932	84
3	DPT third doze	32822	29152	89
4	Polio –third doze	32822	29921	91
5	BCG	32822	30851	94
6	Small pox	32822	29692	90
7	Full immunization	32822	27626	84

Source: MPR, ICDS

The maternal and child health, in terms of selected indicators as on March 2014 shows that, between 84 % of the children are given protection against the childhood diseases. Since last 13 years not a single case of polio is reported in the district.

Immunization:

Table 3.9: Trend in Full Immunization in Surendranagar District

Year	Percentage of Children fully immunized (% to target)
2009-10	135.03
2010-11	99.45
2011-12	87.38
2012-13	94.76
2013-14	97.21

Source: Health Statistics, GoG

Under the immunization program, it is essential that all the required doses are given and on time with potency of vaccine. In 2013-14, the progress in routine immunization against child hood diseases indicate comprehensive reach with 30866 children covered for BCG, 29364 covered under DPT-3, 29309 covered under Measles.

The full immunization covered 27842 children and Vitamin-A dose was also given to 29000 children. The full immunization is low at 66% in Limbdi, 70% in Wadhwan, 76% in Dasada while it is 92% in Halvad and 90% in Sayla.

Integrated Child Development Services (ICDS) Anganwadis:

In the strategy for social development, maternal and child health is the Key component. The department for women and child Government of Gujarat implements the Integrated Child Development Services (ICDS) which is India's first supplementary nutritional food program aiming to reach the target group consisting of children in the age 6 to 36 months and up to 72 months, pregnant women, lactating mothers and adolescent girls. There are a range of specialized and innovative sub projects within the umbrella program of ICDS, which also includes Mission Balam Sukham (Gujarat State Nutrition Mission). The project aims to prevent malnutrition and provide medical care wherever necessary.

Objective of the ICDS:

The ICDS program is a major intervention to reduce and eliminate the incidence of malnutrition among the preschool age children, pregnant and lactating women and adolescent girls. Moreover, many innovative methods are used promoting creativity among the children and for learning.

There are 1505 operational anganwadi centres in the district spread across 12 ICDS blocks in 10 talukas in the district.

Table 3.10: Status of Anganwadi Centres, March, 2014 in the District

Particulars	Number
No. of AWC sanction	1510
No. of AWC operational	1505
No. of AWC reporting	1495
No. of AWC providing SNP 21+ days	1492

Source: MPR, Mar-2014, ICDS, GoG

Out of the total sanctioned anganwadi centres almost all are functional and they are reporting their activities and providing supplementary nutrition to the target groups.

Working of ICDS Program:

A variety of projects are covered under the ICDS. Among these, the nutritional interventions to eliminate malnutrition among the children and women are of prime importance.

The total number of beneficiaries of the SNP was 67579 in 2007-08. It increased to 115506 in 2011-12, 152265 in 2012-13 and 142331 in 2013-14.

Table 3.11: Enrolled Target Groups (%), March, 2014

6M-3Y	36%
3Y-6Y	34%
Adolescent gilrs	16%
preg. and lact. women	14%
Total	100%

Source: MPR, ICDS

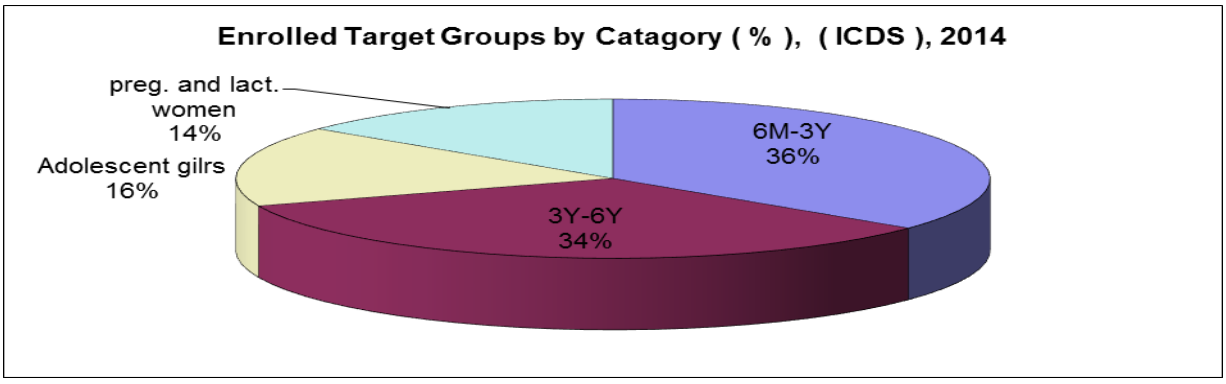
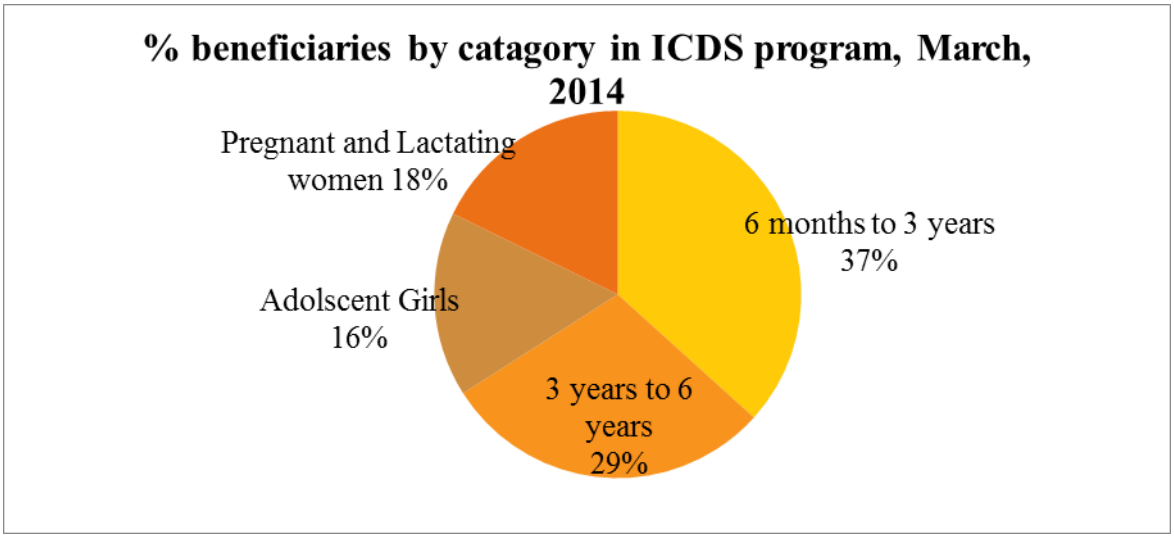


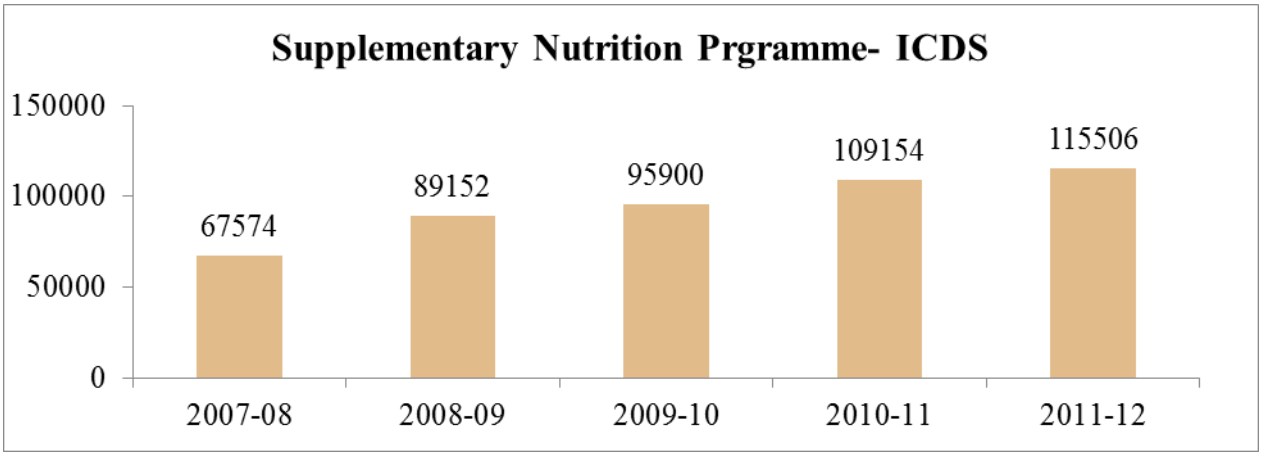
Table 3.12:- SNP Beneficiaries by Category, March, 2014.

Category	Number	%
6 months to 3 years	52220	36.69
3 years to 6 years	41650	29.26
Adolscent Girls	23195	16.3
Pregnant and Lactating women	25266	17.75
Total	**142331**	**100**



The size of each category of enrolled population and beneficiaries are given in the charts. It can be seen that the SNP which aims to improve nutritional status of these various target groups has vast outreach.

The others specific interventions are focusing on girls. The details of which are given below:



Kishori Shakti Yojana:

Under the yojana, supplementary nutrition and iron folic tablets were given to reduce or eliminate malnutrition.

There were 135093 beneficiaries in 2009-10 and 103816 beneficiaries in 2013-14. Supplementary nutrition and iron folic tablets were given to 661070 kishori in 2009-10 and to 41526 kishori in 2013- 14.

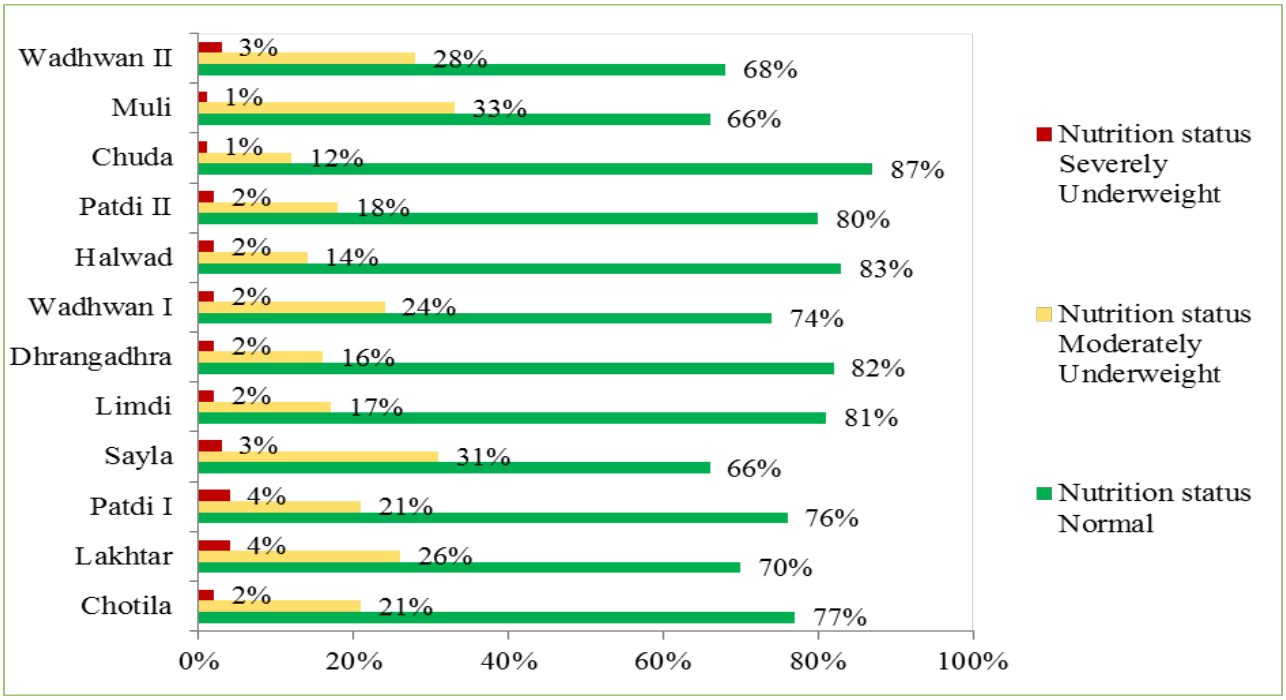
Table 3.13 Beneficiaries of supplementary nutrition program and vocational training

Year	Supplementary Nutrition	IFA Tablet Distribution
2009-10	135093	661070
2010-11	197130	338172
2011-12	199220	38172
2012-13	101320	40528
2013-14	103816	41526

Source: ICDS program, Surendranagar

The healthy status of a child depends on the health of the mother from conception to delivery stage and beyond. The percentage of children with less than 2.5 kg weight at the time of birth is an indicator of the status of health of the pregnant women who are usually covered under the ANC program.

Nutritional Status - March 2014



In 2007-08, 6.25% of the newly born children had the weight of less than 2.5 kg, in 2011-12 the percentage of children with less than 2.5 kg weight at the time of the birth was 6.27%. It can be seen that the percentage of underweight newly born children has more or less not changed during the period.

Table -3.14 No of newly born children with the weight of less than 2.5 Kg

Year	No of children born with weight of less than 2.5 kg	% to total
2009-10	1669	5.78
2010-11	1608	5.97
2011-12	1664	6.27
2012-13	2716	9.18
2013-14	1948	6.85

Source: CDHO, Surendranagar

The incidence of newly born children with the weight of less than 2.5 kg has remained around 6% between 2009-10 to 2013-14 in the district.

Inter-Taluka Variation in Newly Born Children:

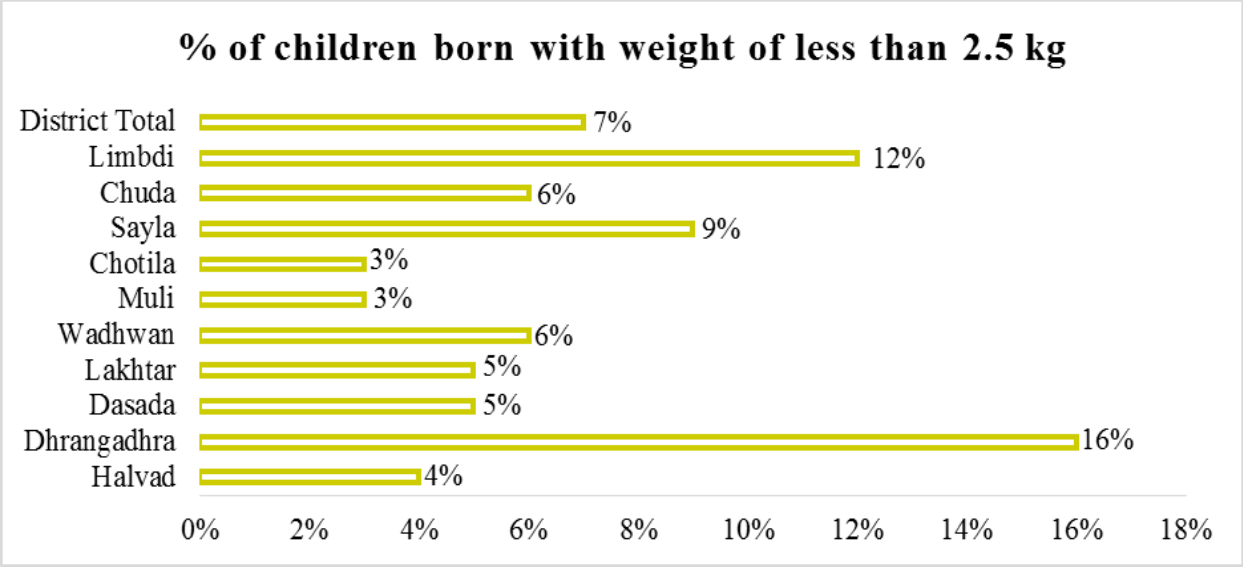
It is striking to note that in Limbdi and Dhrangadhra the percentage of newly born children with less than 2.5 kg weight is quite high 12-16% while, it is between 3 to 4 % in Halvad, Chotila, Muli and to some extent in Whadwan. Limbdi taluka has maximum no of migratory population (padhar and Bharvad community). They have a migratory cycle of a month followed by a half of three months at taluka. Due to this high frequency of migration, pregnant women can not avail early Antenatal Care and three Antenatal check-ups.

Table 3.15: No of newly born children with the weight of less than 2.5 Kg, 2013-14

Taluka	Total no of children born	No of children born with weight of less than 2.5 kg	No of children born with weight of more than 2.5 kg	% of children born with weight of less than 2.5 kg
Halvad	2730	110	2620	4%
Dhrangadhra	3366	547	2819	16%
Dasada	2591	137	2454	5%
Lakhtar	1107	60	1047	5%
Wadhwan	6070	394	5676	6%
Muli	2128	73	2055	3%
Chotila	4054	126	3928	3%
Sayla	2667	243	2424	9%
Chuda	1319	74	1245	6%
Limbdi	2429	299	2130	12%
District Total	28461	2063	26398	7%

Source: CDHO Surendranagar

The state flagship scheme of developing talukas is implemented in Chotila and Sayla talukas. Which also includes nutritional intervention which seem to have yielded positive results on women's health.



Nutritional Status of Children attending Anganwadies:

Generally the children in the age group 2/3 to 5 years attend anganwadi where recreation, creative activity and supplementary nutritional preparation are given to the children. The objective is to ensure progressive improvement in the nutritional status of the children in anganwadies.

The severe malnutrition which is identified as red color and the moderate malnutrition which is identified as yellow color would show the incidence of malnutrition.

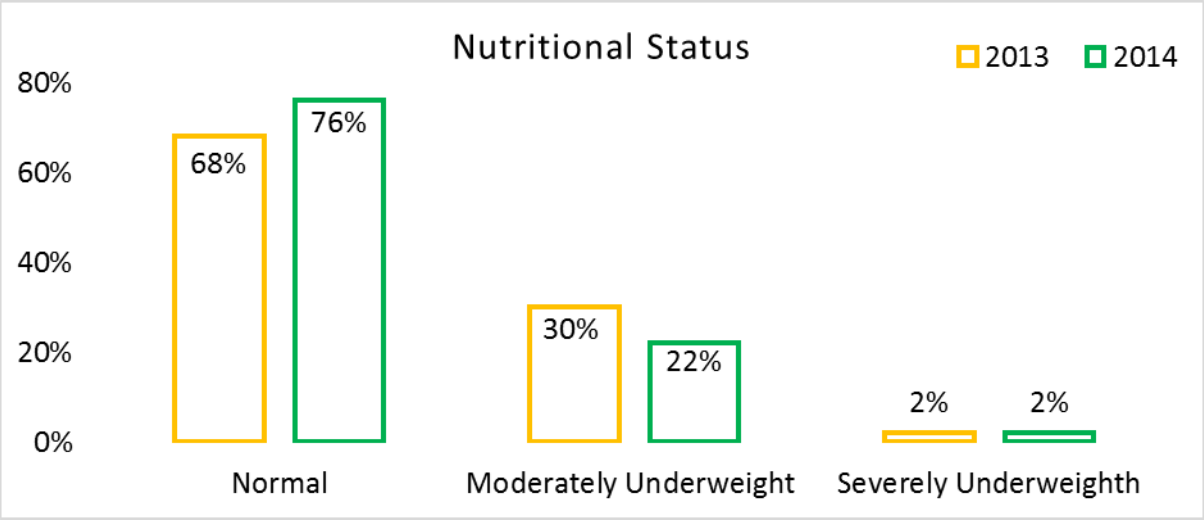
Among the children who attended anganwadies in 2011-12, 3908 or 2.21% were found with severe malnutrition, whereas 46371 or 28.04% were found with moderate malnutrition in the district. It was found that 1174 children were suffering from severe malnutrition in Whadwan and 816 in Dasada.

Similarly, 9629 children in Whadwan, 6209 in Dhrangadhra and 5405 were suffering from moderate malnutrition. In view of this larger concentration of the problem of malnutrition in Whadhan and in Dasada, special projects called Yashoda Gruh Project is launched under the ICDS.

In 2011-12, 46371 children were having moderate malnutrition (yellow color). This has declined to 27700 in 2013-14.i.e. 21.8 % from 28.04 %. In case of severe malnutrition (red color) it has decreased to 3067 from 3908. This is due to the initiative taken by ICDS such as demonstrative feeding; third meal and fruit distribution on Monday and Thursday.

Table 3.16 Nutrition Status of the Children in Anganwadis - March 2014

District/Taluka	Normal	Moderately Underweight	Severely Underweight
Chotila	77%	21%	2%
Lakhtar	70%	26%	4%
Patdi I	76%	21%	4%
Sayla	66%	31%	3%
Limdi	81%	17%	2%
Dhrangadhra	82%	16%	2%
Wadhwan I	74%	24%	2%
Halwad	83%	14%	2%
Patdi II	80%	18%	2%
Chuda	87%	12%	1%
Muli	66%	33%	1%
Wadhwan II	68%	28%	3%
District Total -2014	76%	22%	2%
District Total -2013	68%	30%	2%



Nutritional Status of Anganwadi Children in 2013-14 in the District:

It can be seen that the normal category in 2013 was 68% but increased to 76% in 2014. The moderate malnutrition was found among 30% of the children in 2013 but decreased to 22% in 2014. The severe malnutrition has remained more or less at the same level i.e. 2%.

Yashoda Gruh Project – ICDS:

Yashod Gruh is an innovative pilot project within the ICDS. This innovative project is an intensive nutritional intervention targeting the children in Anganwadies with high incidence of malnutrition. The project was set up in 14 villages under the Primary Health Centres (PHC) Kharaghoda, Patdi taluka.

The project is setup on voluntary basis. A donation of Rs. 10 lakh was received from the Philanthropic industrialist, Shri. Dhanjibhai Patel and, Rs. 8 lakh were contributed by the officers and the staff of the District Administration and District Panchayat Surendranagar.

The First round of the project was implemented in 128 Anganwadi centres covering 1237 children. The Second round of the project was implemented in 67 Anganwadi centres covering 670 children.

Under the project, the children in the target group were served 3 times in a day with the preparation such as sheera, upma, sukhdi etc. prepared from the premixes. This was done for 21 Days.

The impact of the intervention on the nutritional status of the beneficiaries children was measured by the qualified health personal at the end of the completion of 21 Days. It was found that 74.9% of the children in the first round and 83% of the children in the second round gained weight.

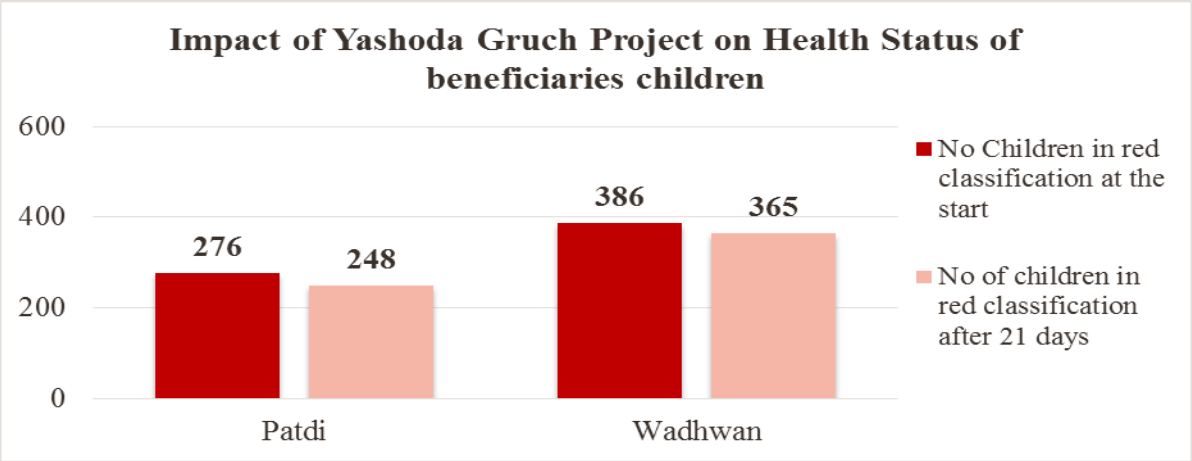
Moreover, during the first round, the children were medically examined. 78 children were found with some medical problem and 5 among them were referred to a super specialist.

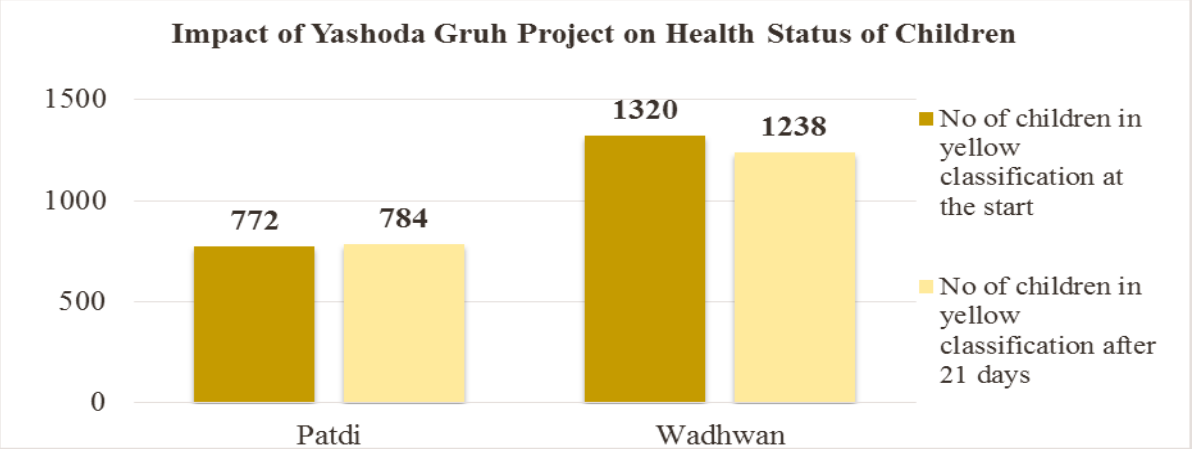
In second round, 21 children were examined by child specialist and 1 child was referred to super specialist. The Yashoda gruh project was also started in Wadhwan taluka. The overall impact and the coverage of this innovative supplemental nutrition programme are given in the table below:

Table 3.17: Status of health (weight) and Change in Weight of beneficiary children: Project Yashoda Gruh, Patdi and Wadhwan Talukas, 2013-14

Indicators	Patdi	Wadhwan	Total
No of villages	90	43	133
No of anganwadi centers	190	288	478
No of beneficiary children of Yashoda Gruh Project (beginning of the project)	5990	10514	16504
No Children in red classification at the start	276	386	662
No of children in yellow classification at the start	772	1320	2092
No of children in red classification after 21 days	248	365	613
No of children in yellow classification after 21 days	784	1238	2024
No of children in green classification (healthy) after 21 days	4424	8351	12775

Source: ICDS Program, Surendranagar





The health department provides grant and guidelines for the Yashoda Gruh Project. However, this project is now abolished because it had restricted scope to cover children with severe malnutrition only. In order to expand the scope so as to include the children with moderate malnutrition now a new project called Bal Shakti Kendra is under implementation. Children and their mother are served with 5 time meals. They also monitor and report the upgradation in the category of malnourished children and increase in weight of children. In 2013-14, with the help of this project 2024 children are upgraded in nutritional status. ICDS works in convergence with the health department and is dependent on their guideline for the project.

Gali Gali Sim Sim Pilot Project:

Under the ICDS, a new project called Gali Gali sim sim pilot project is started with the help of SASME NGO in May, 2012. Creative and innovative techniques and methods are adopted for learning by children. To begin with, 117 Anganwadis in Halwad taluka and 33 anganwadis in Dhangdhra taluka were selected for implementation.

The project covered Two C.D.P.O, 8 supervisors, 150 anganwadies, 150 anganwadi workers and 3660 children.

The Anganwadi centers were provided with nutrition kits, health kits, charts and quizzes etc. The Anganwadi supervisors and workers were also given mobile phones. This was a four months project. At the end of the project period a number of positive impacts were observed regarding personal hygiene, habits and creativity.

Problems areas observed during field visit:

(The Anganwadi Centre in Jasamatpura (Ta- Limadi) was found to be running in a casual way without adequate number of children, space, cooking space etc.)

The pre-primary school system needs to take into account certain features of livelihood activities in the region. A majority of the poor families leave houses early in the morning and may or may not return for lunch in the noon from their livelihood activities. How can they manage to send children to anganvadi/balvadi, is a question. Hence an anganvadi/balvadi need to take the form of Day Care Centre, for a longer period of working and providing enough space and infrastructure and an environment which is significantly better than what a BPL family can have at home. In the absence of such an environment and working, these institutions may end up as the institutions only for the poor & may fail to promote smooth transition into primary school.

School Health Check – Ups:

The health department of the government conducts state wide health checkup program every year. Children in anganwadies, primary schools are the prime focus. During 2012-13, 455618 and during 2013-14, 192291 children were medically examined by the health personnel.

Table 3.18: School Health Check – Ups Programme

Item	2012-13	2013-14
Children examined	455618	192291
Treated on the Spot	35867	30886
Children provided referral services	2590	1514
Heart	381	182
Kidney	66	95
Cancer	118	73

Source: Health Statistics, GoG

It can be seen from the table that the children provided referral services accounted for less than 1% in 2012-13 and also in 2013-14.

However, it is a matter of concern that some of the children were having the problem of heart, kidney and even cancer.

Health Infrastructure:

Table 3.19 Health Infrastructure Facility (2013-14)

	SCs	PHCs	CHCs	MC	DH	MH	AH	AD	HD	AWC
District total	200	36	11	1	1	1	1	25	7	1495
Wadhvan	18	3	1	1	1	1	1	2	1	288
Lakhatar	13	3	1	0	0	0	0	3	0	75
Limbdi	19	5	1	0	0	0	0	3	1	147
Chuda	15	3	1	0	0	0	0	1	0	90
Sayla	16	3	1	0	0	0	0	2	2	92
Muli	16	3	1	0	0	0	0	2	0	92
Chotila	26	4	2	0	0	0	0	1	0	180
Halvad	21	3	1	0	0	0	0	4	1	133
Dhangadhra	22	3	1	0	0	0	0	3	1	208
Patdi	34	6	1	0	0	0	0	4	1	190

Source: Compiled From The Data of CDHO, Commissionerate of Health, Medical Services, Medical Education And Research,Gandhinagar

SCs Sub Centres
PHCs Primary Health Centres
CHCs Community Health Centres
MC Medical College
DH District Hospital
MH Mental Hospital
AH Ayurvedic Hospital
AD Ayurvedic Dispensaries
HD Homeopathic Dispensaries
AWC Anganwadi Centres

The Primary health physical infrastructure is extensive and as per the Population norms. The district has one general hospital at the district head quarter, 11 community health centers, 10 taluka health offices, 36 primary health centers, 200 sub centers, 6 urban health units, 3 mobile health units and 1 mobile medical unit.

In addition the district has a one medical college, one mental hospital and one Ayurvedic hospital. There are also 25 Ayurvedic dispensaries and 7 Homeopathic dispensaries.

Population served by SCs, PHCs & CHCs, 2013-14:

On an average a sub centre in the district served 6913 people, A PHC served 39142 and a CHC served 124306 people in 2013-14.

Across the talukas, average population served by SC varied between 5311 in patdi to 8660 in sayla; PHC served between 25176 in lakhtar to 57016 in halvad and a CHC served between 75529 in lakhtar to 180560 in patdi.

Table 3.20 Taluka Wise Average Population Served By SCs,PHCs& CHCs, 2013-14

District/Taluka	SCs	PHCs	CHCs
Wadhvan	6145	36869	110607
Lakhatar	5810	25176	75529
Limbdi	6970	26485	132423
Chuda	6534	32671	98012
Sayla	8660	46185	138556
Muli	7398	39453	118360
Chotila	7671	49863	99725
Halvad	8145	57016	171049
Dhangadhra	6492	47607	142822
Patdi	5311	30093	180560
District Total	6913	39142	124306

Source:- Calculated From Data Of Census & Commissionerate Of Health, Medical Services, Medical Education And Reseach,Gujarat

However the required health personnel in several categories are not in place and in several places the available facility was not operational due to the poor condition of equipment, rooms etc. The problems become acute when even private health care providers are not at accessible distance. The need is to strengthen the primary health care facility for dispensing medicines and outreach services by inducting more health workers in different categories of ailments & treatment. In addition to filling the vacancies, it is suggested to consider to provide transit accommodation to health personnel when their places of work are in remote areas. Such accommodation can be cluster based.

Staffing Status

Table 3.21: Staffing Status in Primary Health Care, in Surendranagar District, 2013-14

Category of Health Personnel	Post Sanctioned	Post Filled	Post Vacant
Doctor	40	37	3
Female Health Supervisor	47	28	19
Lab Technician	40	18	22
Pharmacist	41	41	0
Multipurpose Health Worker (Female)	200	171	29
Multipurpose Health Worker (Male)	224	159	65

(R-Regular, C – Contractual) Source: CDHO, Surendranagar

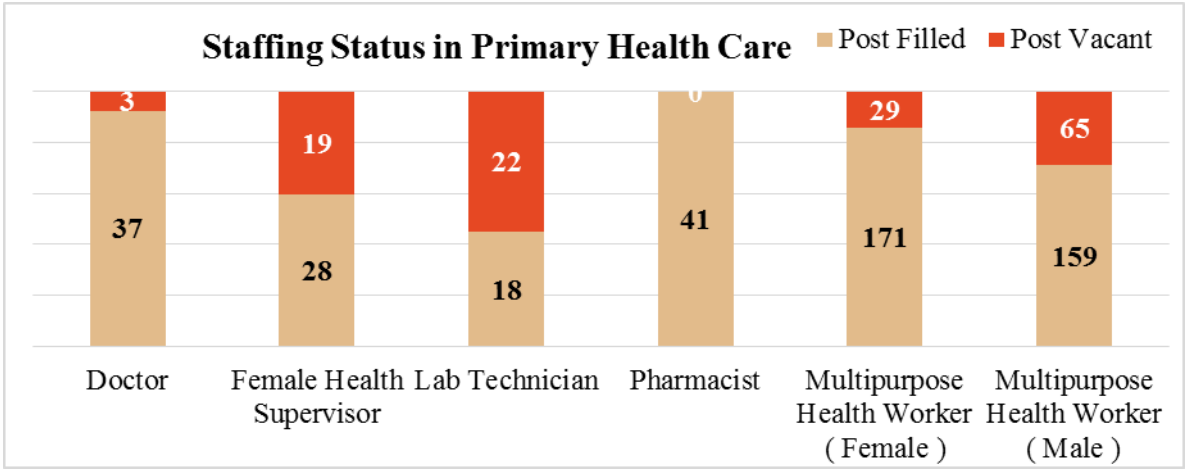


Table 3.22: Health Personnel at CHCs (2013)

District/Taluka	General Surgeon		Physician		Gynaecologist		Paediatrics		MO (MBBS)	
	S	F	S	F	S	F	S	F	S	F
Wadhvan	1	0	0	0	1	0	1	0	3	3
Lakhatar	1	0	0	0	0	0	0	0	3	3
Limbdi(Ranagadh)	0	0	0	0	0	0	0	0	3	1
Chuda	0	0	0	0	0	0	0	0	3	2
Sayla	1	1	0	0	0	0	0	0	3	3
Muli	1	0	1	0	1	0	0	0	3	2
Chotila (Thangadh)	0	0	0	0	0	0	0	0	3	1
Chotila	1	0	1	0	1	0	1	0	4	3
Halvad	1	0	0	0	0	0	0	0	3	1
Dhangadhra (Rajasitapur)	1	0	0	0	0	0	0	0	3	2
Patdi	1	0	0	0	0	0	0	0	3	3
District	8	1	2	0	3	0	2	0	34	24

Source:-Compiled From the Data of CDHO

S Sanctioned
F Filled

CHCs – Specialist Services and Access

The CHCs are really the centres were specialist medical services are expected to be available. Since each taluka has a CHC access within 30 to 60 minutes. However, the problem is most of the specialist manpower post have remain vacant.

Existing vacancies such as multi-purpose health worker- female, Pharmacist, Lab Technicians and compounder need to be filled on priority basis. We had noted that in some PHCs health worker was not available in the afternoon. As a result, the public perception was that it is not a place for treatment even for minor ailment. It is necessary to ensure that at least one health worker is always in the PHC during the working hours for consultation and advise to visiting patients.

In Dasada, the staff quarters were in poor condition. It is suggested that the staff quarters for doctors and nurses be constructed and maintained in a manner so that it improves the quality of life and efficiency of the health personnel. The professional facility to stay is also likely to encourage the medical personal to stay longer in the place.

Moreover, at present it is not possible to diagnose the nature of ailment because the blood test of the patient cannot be done at the PHC. Lab technician is only for malaria program. Further, patients come with eye, ear, dental and skin problems. It is necessary to develop some transitory mechanism at PHC level to provide at least consultation on such ailments to increase the utility of PHC.

Special initiatives of Health Department for health and medical care of vulnerable occupational and social groups:

The Department has started three Mobile Health Units covering Patdi, Halvad and Dhangadhra talukas – areas of salt works. One mobile medical unit in Limbadi taluka serves large number of migratory Padhar Households.

It is observed that, among the Bharvad and Koli communities due to lack of education customs and tradition are given more importance than the scientific understanding. In order to counter such blind faith and beliefs educative programmes can be undertaken.

The department has appointed one ASHA worker per 1000 population in the interior villages while one ASHA worker is appointed for 2000 population in slum areas. It is suggested to fill up the vacancies of the middle and the lower level health personnel on priority basis.

Preventive Health Care:

Neglect of personal hygiene, ignorance and absence of sanitation are at the root of many of the ailments which not only shape the physical vitality of the people but also compel them to incur heavy expenses on curative treatment. Healthy living is made difficult in the absence of proper system of water supply, sanitation and hygiene at the household level as well as at community level. Poor village environment will affect every one, irrespective of who is responsible for it.

It is also known that the most widespread diseases are those transmitted by human faces - intestinal parasitic and infectious diseases, poliomyelitis, typhoid and cholera. These diseases spread easily in areas without safe community water supply and good sanitation and hygiene practices. They are also responsible for chronic and debilitating effects. It should be noted that many of these diseases including most causes of diarrhoea and many respiratory infections cannot be prevented by immunization and pesticides. They can be reduced through improvement in sanitary conditions, safe and potable drinking water, nutrition and changes in the individual habits.

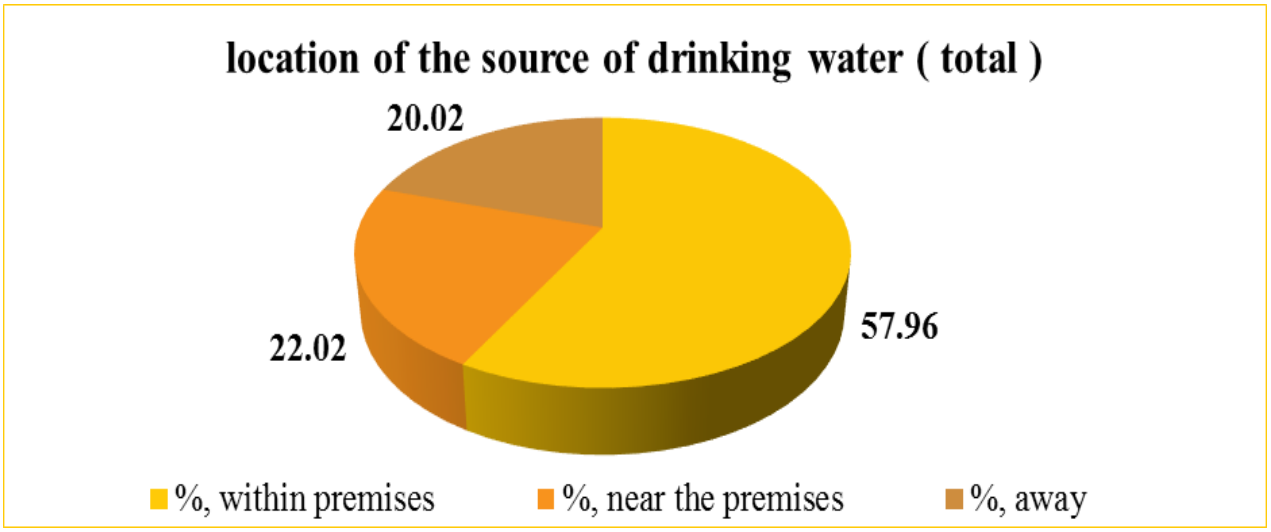
Drinking Water

The census 2011 has collected data on availability, location etc. of the sources of drinking water for the households.

Table 3.23: Source of drinking water in rural and urban areas

Location of the Source	Total number of Households	Rural Households	Urban Households
Within the premises	198405	119352	79053
%	57.96	49.35	78.66
Near the premises	75387	62284	13103
%	22.02	25.76	13.04
Away	68545	60195	8350
%	20.02	24.89	8.31
Total	342337	241831	100506
%	100	100	100

Source: Census of India, 2011

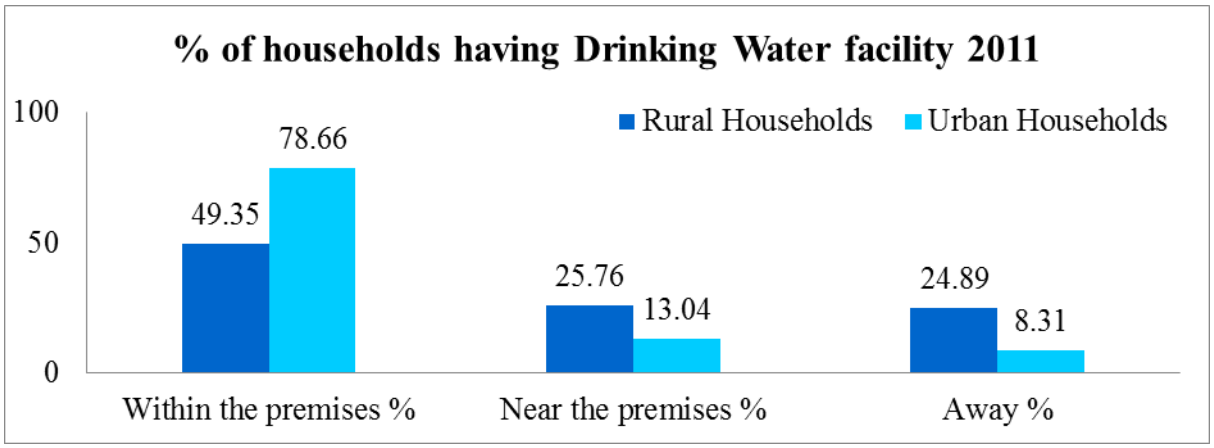


Among the total households in the district, 58% have the source of drinking water within the premises; 22% reported the source as "Near by The Premises" while, 20% of the households reported that their source of drinking water is Away.

In rural areas in the district 49% had the source of drinking water within the premises while 26% reported that the source of drinking water is near the premises. However, 25% reported the source of drinking water was Away.

Nature of Source of Drinking Water:

69-70% of the households in Surendranagar district get Tap water; 25% depend on covered and uncovered well, tube well and hand pumps (3.81% depend on hand pumps). Only 5.78% of the households depended on river / canal, pond / tank and other sources.



Drinking Water Facility: Government Initiatives

There are several initiatives of the government to ensure safe and potable drinking water supply to the people.

- Through Vallabhipur and Malia branch canals of Sardar Sarover Narmada project, 5 towns and 238 villages have been supplied drinking water since 2003.
- The Dhori Dhaja Dam was filled with Narmada waters which involved lifting of water from the canals by about 70 meters. As a result about 4 lakh people of Wadhvan and Surendranagar have benefited from the supply of safe and potable water.
- Moreover, a pipe line has been laid between Zinzuwada and Vachraj Bet. Due to this the Agaria families living and working in salt pan areas near the Little Rann of Kutch have the benefit of assured and potable drinking water.
- An integrated water supply scheme based on Saurashtra Branch Canal (which received Narmada Water) is providing drinking water to 224 villages and one town in Chotila, Sayla, Muli and Wadhvan talukas (bulk water pipeline).
- Water and Sanitation Management Organization (WASMO) has organized 648 Pani Samities in the equal number of villages for management and maintenance of water supply schemes.
- About 2 lakh households in 482 villages (out of 648 villages having Pani Samities) are given Tap Water connections in their homes.
- Also, under the Sujalam Suflam Yojana S-1, 241 villages and one town have been covered for the supply of safe and potable drinking water.
- Also, under Sujlam Suflam Yojana S-2 and S-3, 183 villages of the district and two towns are receiving drinking water supply.

Sometimes villages do not have source of potable water within the village. In order to develop sustainable water supply it is necessary to identify a reliable and adequate source of water which may be even away from the village, such as, in the basin of a river, or canal. In such cases, the main source of water has to be developed for a group of villages. It requires large investment and management of the network of pipelines by a group of villages. This is undertaken by the government through GWSSB projects while WASMO takes care of the distribution of water at village level.

Table 3.24: Taluka wise Tap water Connectivity

Talukas	No. of household (census 2011)	Household connection Feb-2015	%
Wadhvan	20758	19824	95.50
Lakhatar	14657	13718	93.59
Limbdi	25708	20834	81.04
Chuda	19218	17235	89.68
Sayla	25753	18891	73.35
Muli	20991	18674	88.96
Chotila	21467	13126	61.15
Halvad	7485	4713	62.97
Dhangadhra	27001	25807	95.58
Patdi	31853	27880	87.53
Total	**214891**	**180702**	**84.09**

Source: WASMO, Gujarat

As per WASMO, in almost all the talukas, nearly 85-95% of households in rural areas are having tap water connectivity except Sayla, Chotila and Halvad.

If such reliable source of water is developed, it would facilitate the development of water works at village level - drinking water taps, common bathing and washing platform for women and *havada* to provide drinking water for animals etc.

Usually, the responsibility of providing water supply services to the rural communities is with the government engineering and water supply boards/departments. In this approach one has to ensure the stake of the community by their involvement through putting on them the burden of maintenance and management. The village communities are not homogenous and cooperation among various social groups cannot be taken for granted. There are social dimensions for accessing even drinking water. These aspects deserve due priority.

The Pani Samitis are in charge of managing the village level water distribution with the support of WASMO. Maintenance of pipes, payment of electricity bills, collection of water charges are the responsibility of Pani Samiti. We must also ensure that water is not wasted. A great deal of education and awareness is yet to be created on these vital matters.

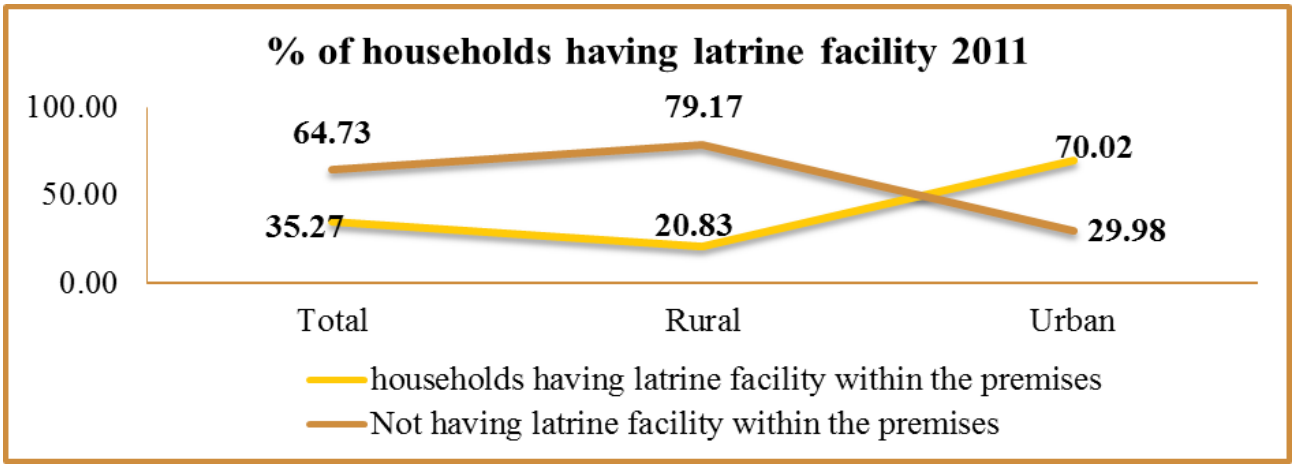
While the major water supply schemes are very welcome development, it is hoped that the village communities will not neglect the traditional source of drinking water on which they have depended all along. On the contrary, the need is to develop and preserve the standby sources for use in the periods of crisis. Hence, a special focus is needed to ensure this.

Sanitation:

We believe that to ensure low cost and effective healthcare for the masses, community sanitation planning implementation and maintenance are extremely important. Sanitation should not be narrowly viewed as latrine construction only.

Status of Latrine Facility:

The census 2011 give the data on the type of latrine facility used by the people in the district. In rural areas only 21% of the households in Surendranagar district reported that they have latrine facility within their premises. In rural Gujarat 33% reported to have latrine facility within the premises. Among those with latrine facility within the premises, 76% reported septic tank type latrine facility. Among the households without any type of latrine facility within the premises 98% reported that they were going in the open.



In rural areas a majority of the people neither find it convenient nor feasible to construct individual latrines. Even latrines in groups hardly evoke interest in the absence of assured and adequate water and drainage. Individual latrine in each household in rural areas is a medium term solution.

The district administration has implemented "Nirmal Gujarat Sauchalay Yojana" in urban sanitation. Under this scheme, urban families without toilet facility and APL families are the beneficiary of the scheme. Gujarat Municipal Finance Board has released the grant for the scheme. The major point of the scheme is that a family is not required to contribute any cost. Under the scheme Rs.8000 are given per toilet. In the year 2013-14 it was targeted to construct 2713 toilets. The work has been completed for 880 toilets and the work is in progress for the construction of 1833 toilets. It is proposed to construct 6324 toilets in 2014-15.

Short term solution:

Hence, the short-term solution can be viewed differently. It is suggested to provide for community latrines on the pattern of Sulabh Sauchalaya. Protection and Development of Common Property Resources:

However, these types of arrangements presuppose the availability of common property resources of land and water. Historically, uneven terrain and barren uncultivated land, gauchar and ponds surrounding each village formed a protective cover for village environment and it met all requirements of the people. Unfortunately, the village leadership have generally not been able to protect and develop these common property resources. These are also encroached upon,. Hence, in the absence of such common property resources a sustainable community sanitation and even water supply scheme becomes difficult.

Hence, we suggest to take steps for proper identification, documentation and development of the common property resources in each village. This is a necessary condition for community sanitation at village level.

Gokul Gam Yojana:

The rationale behind gokul gam yojana was probably the same. In line with this reasoning, the Government of Gujarat had launched Gokul Gram Yojana. In Surendranagar, 553 villages have been declared as gokul gams till the end of December, 2008. In the year 2008-09, 23 additional villages were declared as Gokul Gams for which Rs. 109.40 lakhs were provided. During the year 24 villages were made gokul gams.

Sampurna Swachhta Abhiyan:

This yojana was started in the year 2004-05 in the district. Under the yojana, individual latrines as well as latrines in primary schools, anganwadi and community latrines, are constructed. During the last 5 years, 39800 individual latrines were constructed for BPL families. The achievement was about 55% of the target.

Similarly, 445 latrines were constructed in primary schools and 312 were constructed in anganwadis. Moreover, 100 community latrines were constructed in villages. Under the programme, 88220 latrines were also constructed for above poverty line families which was 87% of the target.

Under the Abhiyan, 37 villages were awarded Nirmal Gam award for beautiful village planning, total sanitation and cleanliness. We suggest government work on ways to promote replicability of this achievement.

The Way Ahead...

- In our opinion the anganwadi centers are of critical importance in the formative years in the life of a child. Hence it is suggested to identify the Best Practices Anganwadi Centers. Such identified centers may be recognized as such and, be given awards. This will help such awarded institutions become very visible in the district and they can act as the agents of change for adopting such best practices and management by others.
- The grass root level functionaries such as ASHA in health, Anganwadi worker in ICDS, multi- purpose health worker female, Dai,women menbers of Panchayat, sakhi mandal and pani samiti constitute a very valuable pool of local resource for attending to the problems in maternal and child health, malnutrition, Mid – Day meal, drinking water and sanitation. It involves inter departmental coordination. It is suggested to work out such arrangement and train and empower them so that collectively they are able to contribute much more than their individual actions.
- The ANC program has the target of a large number of estimated deliveries in the district and the task is, early identification of pregnancy, registration of pregnant women, distribution of iron folic tablets, TT injection if necessary, periodic medical checkup, institutional deliveries etc. It is suggested that after the second medical checkup, the health functionary prioritise the high risk cases and, communicate the information to 108 medical service, CHC / PHC etc.
- In our understanding the enthusiasm of private medical practioners to participate in the Chiranjivi Yojana is lacking. It may be necessary to think of improving the financial package to be attractive enough on the one hand and, accelerate the training of ANMs and other paramedical personnels on the other.
- The public / primary health / medical institutions with their given infrastructure have also important role in maternal and child health. To the extent possible, the CHCs may be made professional institutions (at least some of them and make them centers of treatment, blood bank, radiology, pathological test etc). It is suggested that some of these extended facilities can be through the support of some companies as a part of their corporate social responsibility.
- It is also suggested to consider to start some mobile health care units cum ambulance in the radius of 15 to 20 km of the district general hospital on chargeable basis to bring patents with complications for treatment. The government has already introduced such mobile medical unit to serve the needs of special target groups like agaria, padhar etc. The objective is that in the areas with low population density this type of mobile health care units will be able to make the delivery of service more effective.

- Under the ICDS, the children are provided with nutritious food supplements and is not a substitute of intake of food at home. The Yashoda Gruh project under implementation in Patadi and Wadhvan talukas is highly innovative to identify children with severe malnutrition and takes steps to fight the problem. It is observed that children were given 3-5 time feeding and they are taking so many times. Hence, the question is why children are not having some food at home. It is in this context that, the working of PDS need to be looked at carefully particularly because highly subsidized food grains are available to BPL families. Hence it is suggested to go for cleaned, packed and certified grain distribution by PDS.
- Moreover, the Yashoda Gruh Project is based on voluntary contribution and donations. If it is to be replicated across the talukas the funding may be a constraint at some stage.
- On the other hand Gali Gali Sim Sim pilot project seems to be highly innovative using technology and encouraging creativity among children and impart good lessons in personal hygiene and habits. It is suggested to replicate this pilot project to other talukas.
- The findings from the school health checkups indicate that only less than 1% of the children medically examined, were found with some defect in 2010-11 as well as in 2011-12. However, in the check-ups a few cases of serious diseases such as heart, kidney and even cancer were found. It is therefore suggested that the head master and particularly the class teacher can also keep some watch in such cases.
- The 108 medical emergency service has become a boon. Due to the system of rapid response and high accountability the health personnel attending such duties are generally under constant pressure and suffer fatigue. Hence, it is suggested to provide good rest rooms and facilities for attending health personnel.
- Under the developing taluka scheme in Sayla and Chotila taluka initiatives such as providing sets of utensils for anganwadi and Mid – day meal program etc. are helping to strengthen these institutions. Micro level identification of the critical gaps such as regarding the provision of drinking water in the villages, identification of training needs and placement in jobs etc. can be also under taken under the state flagship schemes of developing talukas. This is a direction for further planning at micro level.
- The issue of preventive health care may be seen in relation to village planning, extension of gam tal and protection and development of natural resources of land and water at village level.
- While curative health care, particularly focused on maternal and child healthcare, is a crucial component for immediate attention, it is desirable to give equal emphasis on the preventive healthcare.
- The leadership & community action of a village have a great role in these matters. In fact most of the issues in preventive health care are in the domain of local government institutions – Municipalities and Panchayatas. Capacity building and training of the key functionaries is suggested so that they are in a better position to appreciate the seriousness and the dimensions of the issues and can play active role in finding the solutions.
- Capacity building and training program for the members of Panchayat and municipality are suggested so that they are not only acquainted but are able to appreciate the nature and the scale of the problems and play active role in finding solution with other stake holders.

Village Planning and "Gam -tal":

The village planning in today's context is as important as the planning of a town or a city. Villages have grown without any planning, the gamtal area have been fixed historically in the past. With the passage of time, therefore, villages have expanded out of their felt pressure in which the weaker sections of the society get left out for housing space while on the other hand the common property resources are encroached upon making the living particularly for the poorer sections more difficult.

Therefore, we recommend to increase the land area or gamtal almost all over the villages in the district keeping in view the requirement for next 25 years.

Once this is done, a blue print of village plan indicating the locations of key institutions and functional areas, or utility points can be prepared and made available to every village Panchayat for follow up action.

Sulabh Sauchalaya:

The need for having some common latrines at village level is recognized. However, the experience and observations have shown that they are rarely used because they are not usable and that there is no water source. We suggest to follow some guidelines of 'sulabh sauchalay'. lage panchayats for this purpose.

The other two aspects on which panchayat should take lead is the provision for safe and potable drinking water to all households, maintenance of the network of pipelines and water works, and design programmes for health education based on preventive health.

Health and Medical Care:

In order to increase the effectiveness & quality of outreach services, we recommend the following strategy and action:

Trained "Dai":

There are yet number of villages in each taluka where immediate access particularly for pregnancy and delivery related matters are not available. Hence, it is suggested to identify and train a local woman and appoint her as a 'dai' in every village. Trained dai may be provided with delivery kits.

Higher Secondary Pass Girls students:

Each taluka needs more multi-purpose health workers - females - so that the observed gaps in ANC, PNC, registration of pregnant women etc., are completely plugged. This shortage can be converted into an opportunity for employment for 12th pass girl students in each taluka or adjoining taluka. In view of low population density in the district, it is suggested to increase the number & variety of health workers for outreach survice.

The medical interns can be encouraged and incentivized to voluntarily take up some options which can help them either in their further career or in establishing practices or even in service with the existing qualifications. It is also suggested to allot one two wheeler to each PHC for outreach services.

Chapter 4

Sources of Livelihood, Sustainability and Alternatives

Background:

Sustainable Livelihood Opportunities are critical to overall wellbeing of the people. In a predominantly agrarian economy, there are several risks and uncertainties leading to low and fluctuating income of the rural households.

There are several dimensions to the issue. Types of economic activities pursued by the working population, education and skills and assets which the people own influence both the nature and quality of livelihood.

Further, the nature and potential of natural resources such as land, water and forest as well as agro climatic conditions in the area, have considerable bearing on the sustainability of livelihood activities.

The non-farm sector in the form of industrial activity and service sector are important to provide good quality of employment and reasonable levels of income. However, the nonfarm informal sector which remains a predominant component is characterised by low capital base, low technology and skill and low income scenario. We have analysed different livelihood options as observed in the rural economy in Surendranagar district.

Land Utilization Pattern in Surendranagar District and Gujarat State, 2007-08.

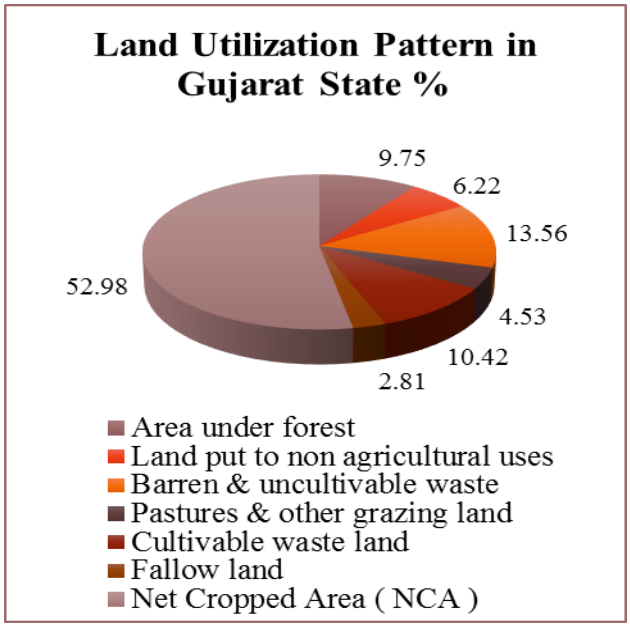
Land is a principal resource for livelihood for a majority of the people. Protection of environment and a variety of non-agricultural uses and human habitation are also dependent on the natural resource of land, water and forest.

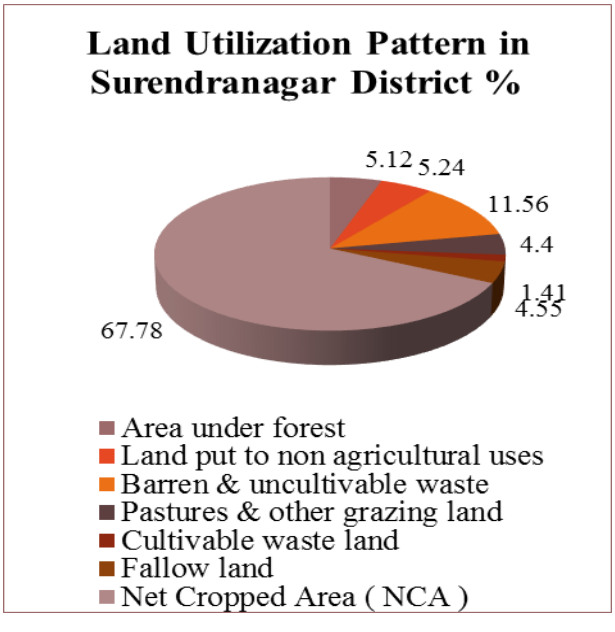
In an agrarian economy, the land available for cultivation, area under irrigation and the quality of land are the determinants of sustainable livelihood opportunities. The total Geographical area of the district is 10.49 lakh ha and the total Reporting area is 10.46 lakh ha.

Table 4.1: The Pattern of Land Utilization, 2007-08 (Area under '00 ha)

Category of land Use	Surendranagar District		Gujarat State	
	Area	%	Area	%
Area under forest	536	5.12	18340	9.75
Land put to non agricultural uses	548	5.24	11711	6.22
Barren & uncultivable waste	1209	11.56	25515	13.56
Pastures & other grazing land	460	4.4	8514	4.53
Cultivable waste land	148	1.41	19600	10.42
Fallow land	476	4.55	5286	2.81
Net Cropped Area (NCA)	7091	67.78	99658	52.98

Source: Director of Agriculture, GOG





The Net Cropped Area (NCA) in the district was 7.09 lakh ha or 67.78% as against 52.98% in the state. The Surendranagar district is predominantly rural and agriculture based economy and hence, a much larger percentage of land is brought under cultivation.

This is further seen in the extent of cultivable waste land – it was only 1.4% in the district as against 10.42% in the state. The scope of developing cultivable waste land in the district is very limited.

However, the barren and uncultivable waste land was 11.56% in the district and 13.56% in the state. Although, this land is not suitable for agriculture, it can be converted in to areas of forest, vegetation and shrubs which will help environmental protection.

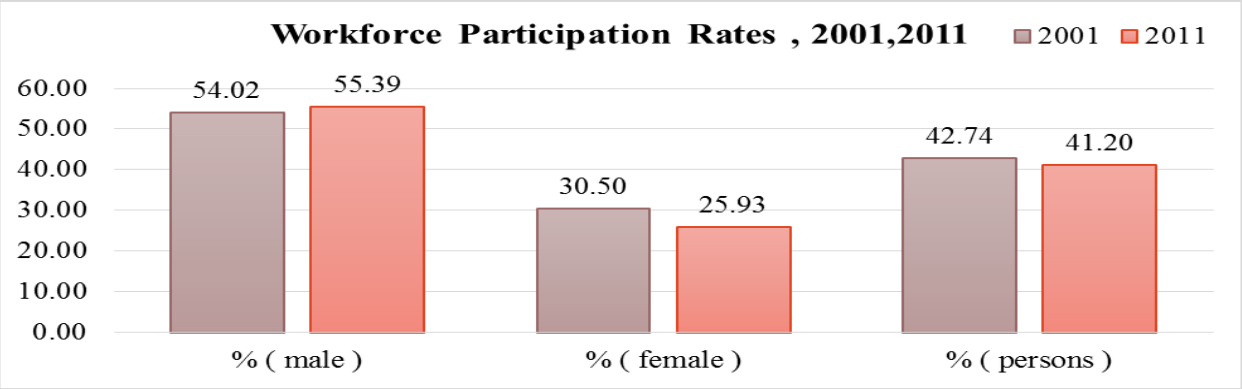
Workforce Participation Rates 2001 & 2011:

The overall workforce participation rate has somewhat decreased from 42.74% in 2001 to 41.20% or by 1.54% age points in 2011; the male participation rate has slightly increased from 54.02% in 2001 to 55.39 % in 2011. However, the participation rate of female has significantly decreased from 30.50% to 25.93% or by 4.57%age points.

Table:-4.2 Main Workers as Percentage to Total Workers (main + marginal) 2001,2011

Year	% (male)	% (female)	% (persons)
2001	54.02	30.5	42.74
2011	55.39	25.93	41.2

Source: Census of India, 2001,2011



Main and Marginal Workers:

Table:-4.3 Main Workers as Percentage to Total Workers 2001, 2011

Year	Male (%)	Female (%)	Persons (%)
2001	93.41	51.59	79.07
2011	93.26	52.99	81.05

Source: Census of India, 2001, 2011

The overall percentage of main workers increased from 79.07% in 2001 to 81.05% or by 2%age points between 2001 & 2011.

This increase is mainly reflected in the percentage of female main workers which increased from 51.59% in 2001 to 52.99% in 2011.

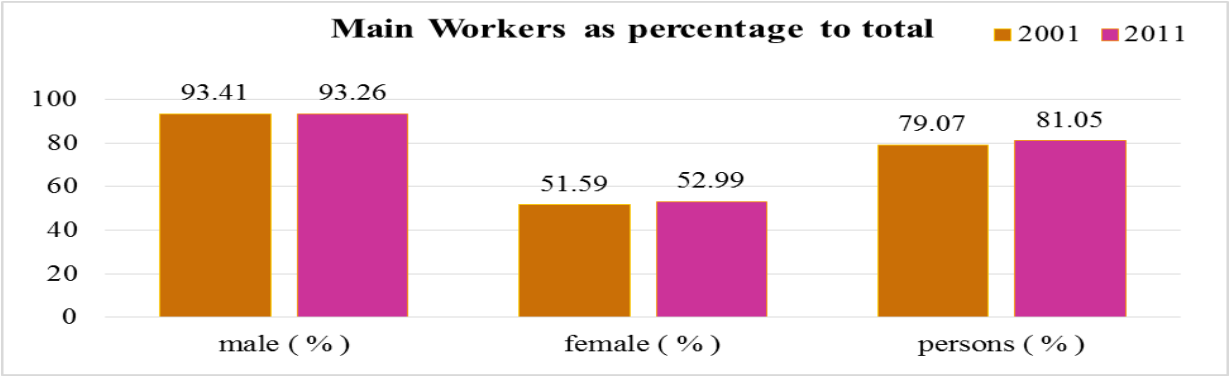
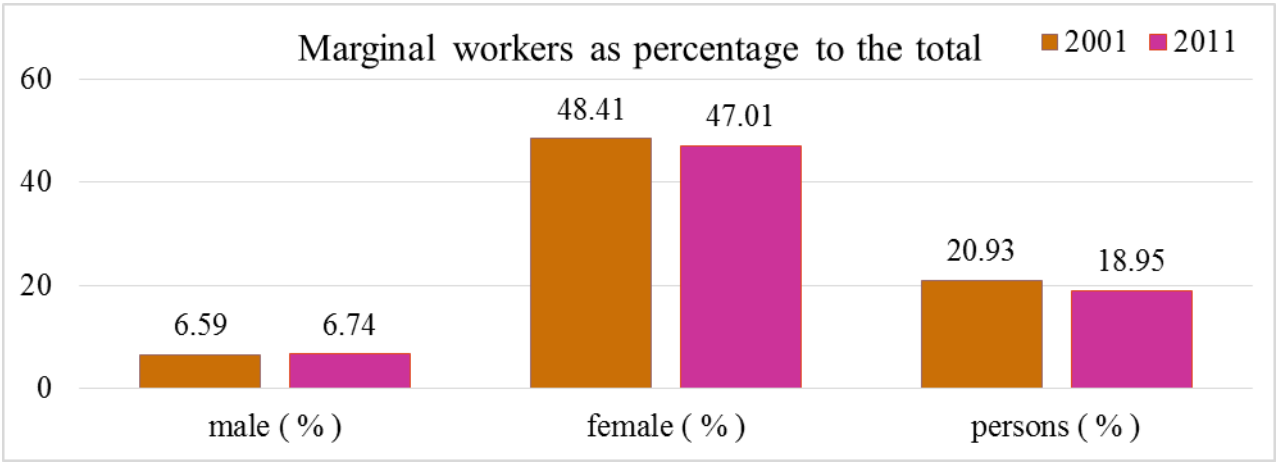


Table 4.4: Percentage Distribution of marginal workers across Industrial Categories

Year	Male (%)	Female (%)	Persons (%)
2001	6.59	48.41	20.93
2011	6.74	47.01	18.95

Source: Census of India, 2001, 2011

The overall percentage of marginal workers to the total decreased from 20.93% in 2011 to 18.95 % or by 1.98%age points. This decrease is mainly reflected in the %age decrease in female marginal workers from 48.41% in 2001 to 47.01% in 2011.



Occupational Pattern:

As per the data of workers in the Census 2011, there were 7.24 lakh total workers in the district. Among these 1.85 lakh or 25.60% were cultivators, 2.71 lakh or 37.44% were agriculture labourers and 2.58 lakh or 35.64% were "other workers". The household industry workers almost have remained the same during the decade. i.e. 10,000. It can be observed that there is considerable increase in the number of agricultural labourers between 2001 & 2011. This has emerged as a single largest category in 2011. This is followed by the number of other workers as a second largest category. On the other hand while cultivators accounted for 32% in 2001, the percentage decreased to 25.60% in 2011.

About 58% of the workers in the district were either cultivators or agricultural labourers in 2001. For the state as a whole however, 52% were either cultivators or agricultural labourers. Thus, the diversification of economic activities in to non-agricultural sector in the district is lower than at the state level.

Distribution of Workers across Industrial Categories

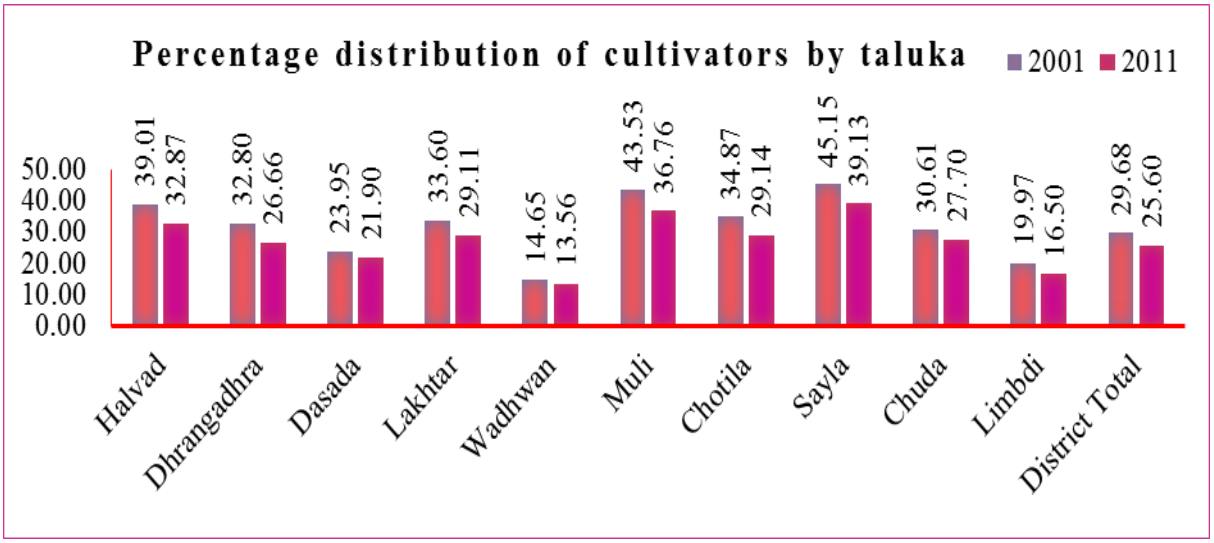
Year	Category of Workers (%)			
	Cultivators	Agricultural Labourers	Household Industrial Workers	Other Workers
2001	29.68	32.33	2.1	35.89
2011	25.6	37.44	1.32	35.64

Source: Census of India 2001, 2011

It can be observed that between 2001 & 2011 the percentage of cultivators has decreased 29.68% to 25.6%. The percentage of the household's industry workers also decreased from 2.1% to 1.32% during the decade.

On the other hand the percentage of agricultural labourers increased from 32.33% in 2001 to 37.44% in 2011. The percentage of other workers has decreased slightly from 35.89% in 2001 to 35.64% in 2011.

The industrial categories of main workers (workers who reported work of 183 or more days in the reference year) in the district, show that out of the total of 5.12 lakh main workers 1.66 lakh were cultivators, 1.29 lakh were agricultural labourers and 2.08 lakh were engaged in mining and quarrying, construction, manufacturing, trade, transport and other services. Thus the "other workers" – other than those in agriculture is a single largest category. About 10000 workers were in household industry.

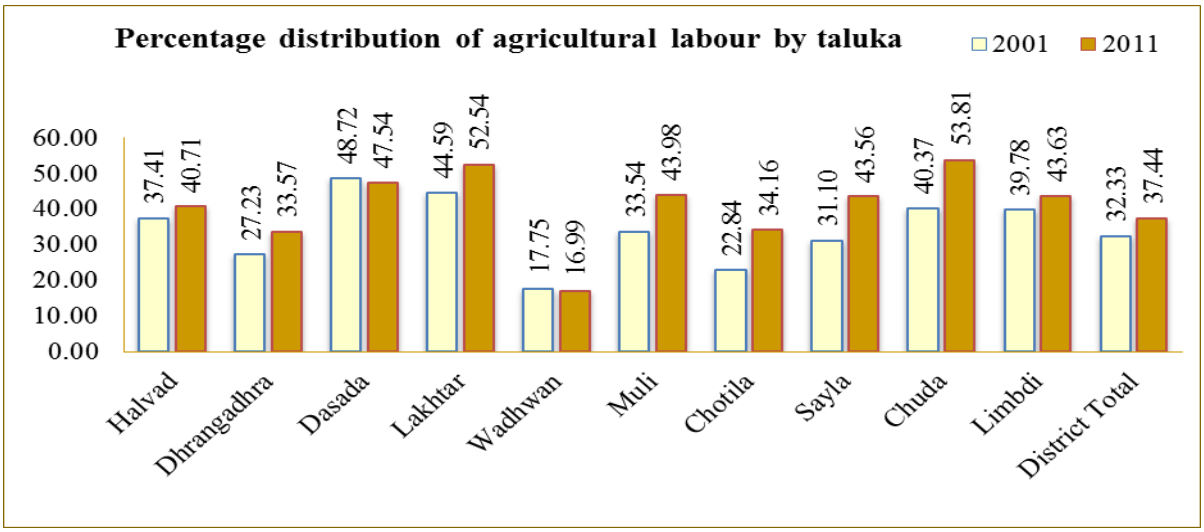


Distribution of Cultivators

The cultivators decreased from 29.68% in 2001 to 25.60% in 2011. Halvad, Muli and Sayla talukas are having 32-40% of cultivators. Wadhwan taluka has lowest 13.56% of cultivators.

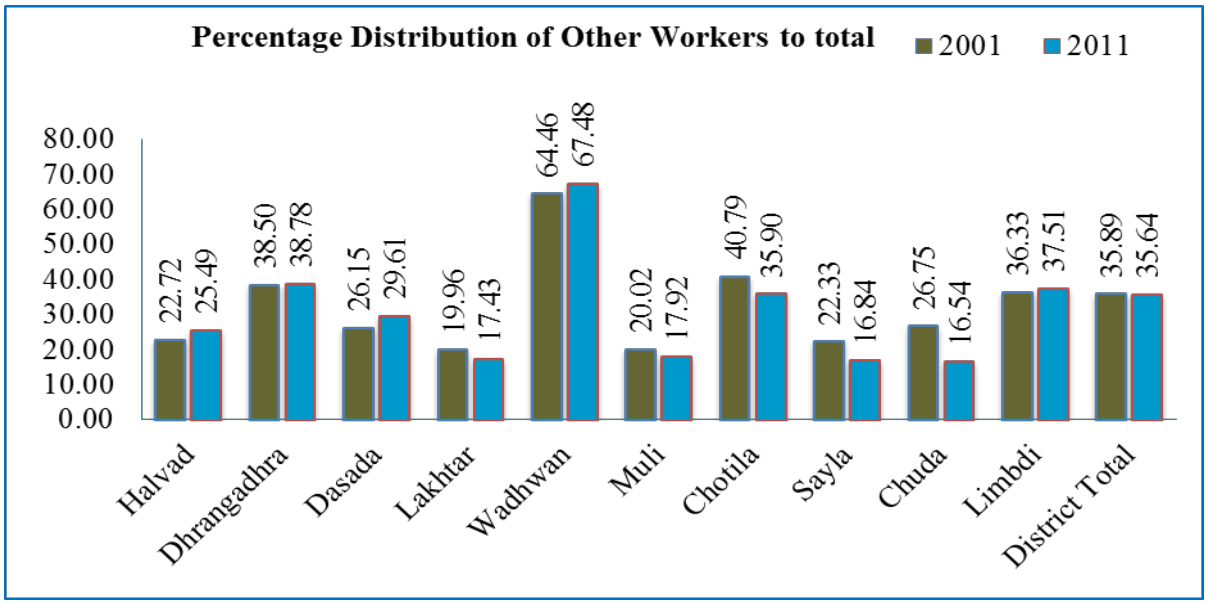
Percentage Changes in Agriculture Labour:

The percentage increase in agriculture laborer is maximum in Muli, Chotila, Sayla and Chuda talukas in 2011. Wadhwan taluka has lowest 16.99% of Agricultural labors.



Percentage Distribution of Other Workers:

The percentage change in the category of other workers during the decade is negligible across the talukas. The percentage of other workers in Wadhwan, Dasada and Halvad has somewhat increased. i.e. 3 to 4 percentage points. While in Lakhtar, Sayla and Chuda percentage of other workers have decreased.



Operational Land Holdings

The number of operational land holdings in the district were 2.27 lakh and they covered the area of 7.15 lakh hectares. The average size of holding was 3.15 hectares. There are 43.9% small and marginal land holdings (less than two hectares). In other words, 44% of land holders operated only 17% of land or the average size of 0.66 hectares. There were 99000 such small and marginal land holders - potential wage labour.

Table 4.5: Number and Area (ha) of Operational Land Holdings 2010-11

Size of Holding	Number of Holding	Percentage of Holding	Area	Percentage Area	Average size of Holding
Marginal (less than 1 ha)	32911	14.49	21786	3.05	0.66
Small Holding (1 to 2 ha)	66815	29.41	98156	13.73	1.47
Semi Medium (2 to4 ha)	73524	32.36	206535	28.89	2.81
Medium (4 to10ha)	48100	21.17	285655	39.96	5.94
Large Holding (10 and above ha)	5834	2.57	102731	14.37	17.61
Total	**227184**	**100**	**714862**	**100**	**3.15**

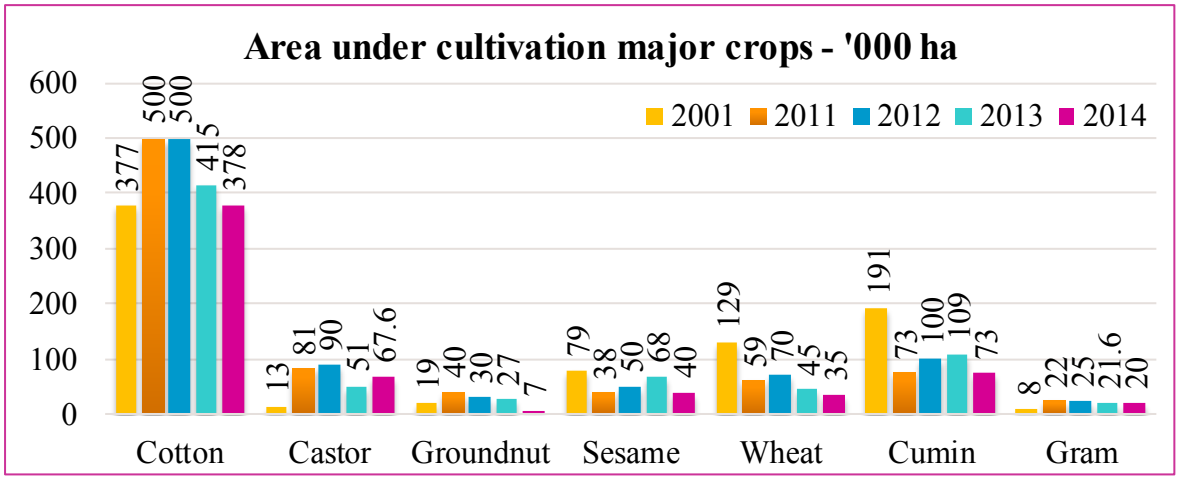
Source: Agricultural Census

On the other hand, 83% of land is operated by 56% of land holders. In the absence of irrigation, the marginal and even small farmers engage into agricultural labour as principal occupation.

Cropping Pattern:

Surendranagar district is one of the largest producers of 'Shankar Cotton' in the country and was home to the first Cotton Trading Exchange in India. In the year 2005-06, the State produced 9.83 lakh Metric Tons of cotton and Surendranagar district was one of the highest producers. In 2011-12, out of the total area of 30 lakh ha under cotton cultivation in the state, 5 lakh ha or 16% was in Surendarnagar district. Even today the district is a market leader in cotton trade. The agro-climatic conditions, despite low irrigation potential, are favourable for the crops like cotton, cumin and castor.

The area under the major crops in the district indicate diversified cropping pattern. The data on the area under cultivation are given in terms of '000 ha for the year, 2001, 2011 & 2012.



Source: District Agriculture Office

Cotton is the most important crop in the district. Nearly 4 lakh ha of land was under cotton cultivation in the year 2014.

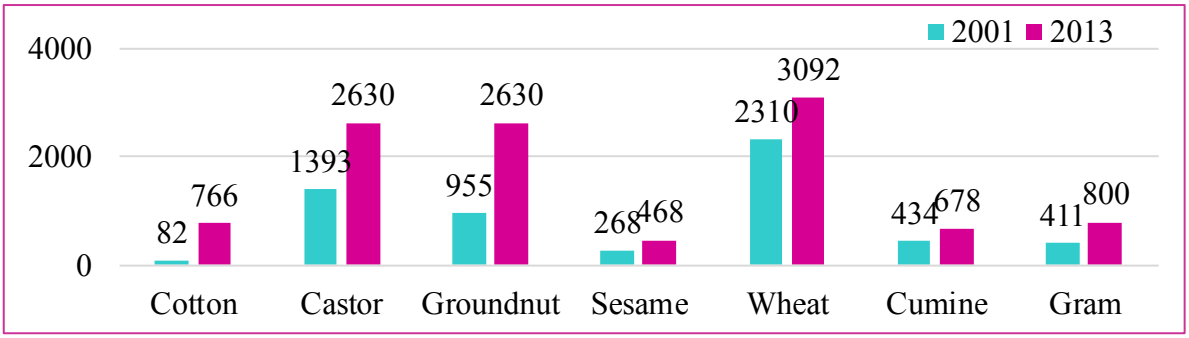
The importance of cotton crop in terms of area has actually increased over time. The area under cotton cultivation in 2001 was only 3.77 lakh ha as against 5 lakh ha in 2012 but again it decreases in the year 2014 to 3.78 lakh ha. .

Castor, cumin and sesame are now only next to cotton in terms of area under cultivation.

Area under groundnut has fallen while the area under wheat has increased. The by-products of wheat and groundnut as well as gram have high value as fodder for livestock. The livestock economy and the dairy activity is also expanding rapidly in the district.

Yield (Kg / ha) in Major Crops in the District:

The yields in most of the crops in the district have increased dramatically over the decade. Below table gives the level and trend in the yield in the major crops in the district during 2001 and 2013.



The yield of cotton (Kg / ha of lint) was only 82 Kg of lint in 2001. It jumped to 766 Kg of lint in 2013. The average yield of cotton crop (average of 2011 and 2012) is 555 Kg of lint in the district. The average yield at the state level was 612 Kg of lint. In other words the district yield in cotton crop is yet about 9% lower than the average yield in the state.

The yield in cumin, which is a high value crop and, which has emerged as an important crop in the district, was 434 Kg / ha in 2001. It increased to 678 Kg. The yield is impacted due to weather conditions. For example, the yield was high to 720 Kg in 2012. Cumin needs less number of watering than wheat.

The third important commercial crop is castor with per ha yield of 1393 Kg in 2001. The yield increased to 2630 Kg in 2013.

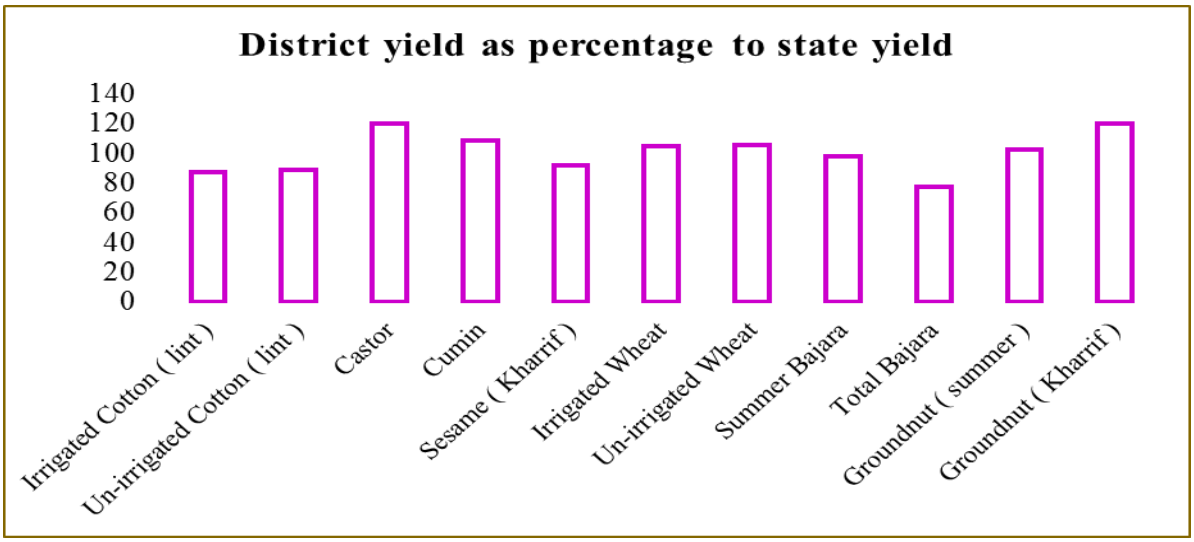
Sesame crop yield was only 268 Kg / ha in 2001. It increased to 468 Kg in 2013.

In order to eliminate year to year fluctuations in the yield per ha, we have taken an average of 2008-09 to 2010-2011 for area, production and yield.

Table 4.6: Area, Production and Yield in Major Crops (Average of 2008-09 to 2010-11)

Name of the Crops	Surendranagar			Gujarat		
	Area ('00 ha)	Production ('00 MT)	Yield (Kg / ha)	Area ('00 ha)	Production ('00 MT)	Yield (Kg / ha)
Irrigated Cotton (lint)	2503	8756	595	17361	69901	684
Un-irrigated Cotton (lint)	2175	2833	221	7443	10899	249
Castor	334	795	2379	4487	8897	1983
Cumin	578	349	605	2464	1370	556
Sesame (Kharrif)	623	214	343	2261	846	374
Irrigated Wheat	384	1171	3048	11227	32733	2916
Un-irrigated Wheat	53	40	761	633	458	724
Summer Bajara	17	41	2365	2439	5881	2411
Total Bajara	380	432	1137	7496	10970	1464
Groundnut (summer)	8	15	1875	1358	2482	1827
Groundnut (Kharrif)	191	316	1654	17481	24161	1382

Source: Director of Agriculture, GOG



It can be observed that the yield in crops like bajara and a sesame are lower in the district. The cotton is the most important crop in the district but the yield/ha is at the same level or even marginally lower than the yield in the state, particularly in irrigated cotton. In the second important crop like castor as also in cumin crop however, the yields are significantly higher than in the state. The noteworthy increase in yield of major crops is attributed to changing irrigation scenario on the advent of the waters of the Narmada together with increasing coverage under HYV seeds.

Technology Missions for Oil Seeds and Pulses:

Surendranagar district is identified for oil seeds development programme under the Technology Mission. Groundnut, castor, mustard, are identified oil-seeds.

Among these oil seeds, area under castor has expanded indicating positive shift in cropping pattern because of the profitability of the crop and probably technical support. In fact, mustard can substitute irrigated wheat and uses not only half of the irrigation water required for wheat but also the price of mustard is nearly double of the price of wheat. Hence, the efforts under the Technology Mission need to impress upon the farmers to substitute mustard for irrigated wheat to conserve scarce water resources.

Pulses:

The District is also identified for development of pulses. Unfortunately, the area under the crop has stagnated and in Dasada and some other talukas, farmers have altogether stopped sowing pulses partly because of the menace of pigs and khudgar.

As a strategy, one needs to focus on demonstrating best farm practices by setting up demonstration farms and by way of distributing improved seeds.

The idea of setting up of agro-clinics in a cluster of villages by agricultural graduates mooted by NABARD is worth supporting at least on pilot basis. Similar pilot projects can be also set up for veterinary services. Such centres may be promoted as multiple activity centres in the respective field of agriculture and dairy.

The government may think to set up experimental cum demonstration farms in several talukas to boost up technology transfer to farmers and act as a catalyst in production and distribution of HYV seeds.

Agriculture Technology Management Agency (ATMA):

ATMA is playing an important role in technology transfer of technology from laboratory to the farmer's fields. ATMA is organizing training, field visits, farmer's fields schools, shibirs and interactions with the experts and practioners. ATMA has set up 561 farmer's Interest Groups (FIGs).

Table 4. 7: ATMA organized the following training programs

Year	Training	Women	Men	Total
2012-13	Within District	435	6963	7398
2013-14	Within District	1848	8440	10288

Source: Office of the DDO, Surendranagar

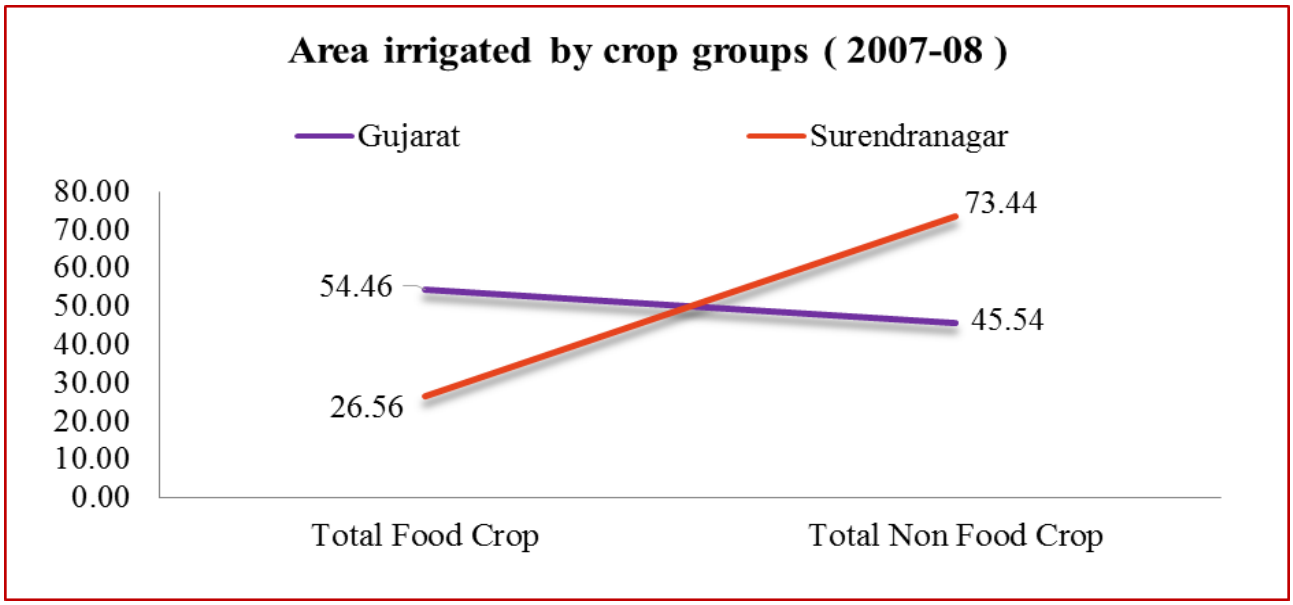
Horticulture: High Tech Initiatives.

In order to increase the productivity and quality in horticultural crops 63 Net Houses and 28 Green Houses have been setup. Green houses are set up in Halvad, Lakhtar, Muli and Chotila. The Net Houses are maximum in Dasada (28), Halvad (19) and Dhangdhra (10).

Irrigation and Agriculture:

The growth in agricultural sector is dependent on a variety of factors such as the fertility of soils, agro climatic conditions, irrigation, adoption of HYVs and other inputs as well as the improved farm practices.

The availability of assured irrigation water in fact facilitates many other changes for accelerating the change.

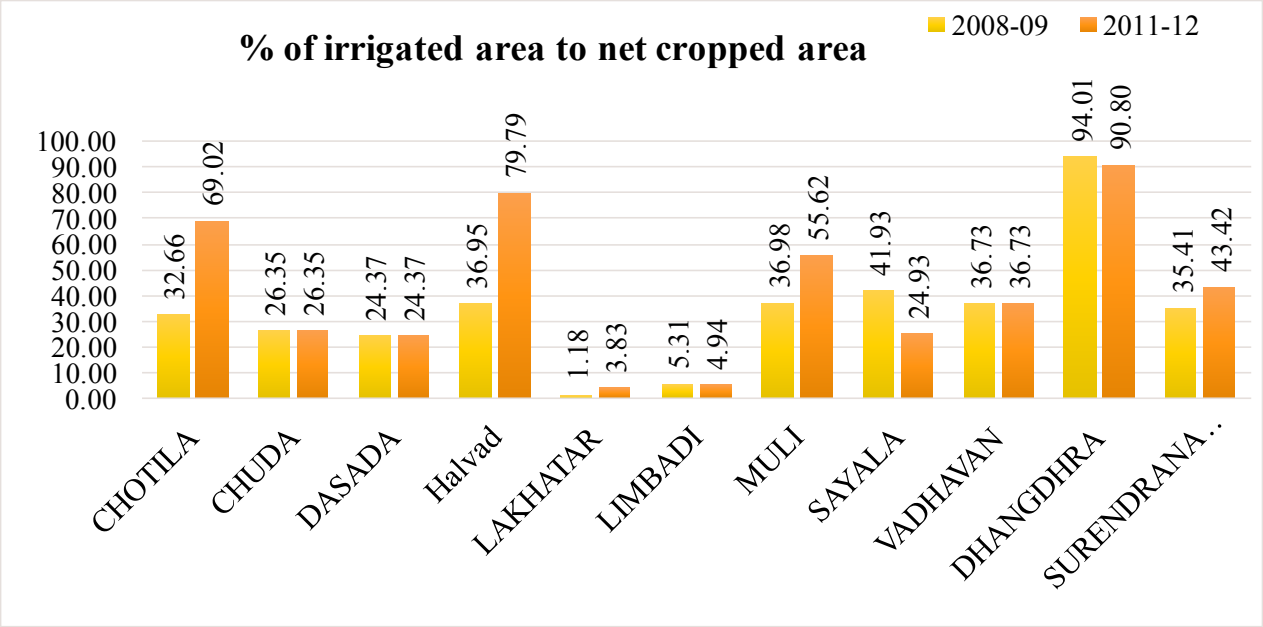


A look back at the area under irrigation before 7-8 years in the district makes it clear that the district had severe constraints in terms of irrigation for agriculture. The irrigation was more protective of khariff crops, multiple cropping and high irrigation intensity was limited. Out of the total Net Sown Area of 709100 ha in the district only 180600 ha or 25.47 % was irrigated in 2007-08. The crop wise irrigated area accept in the case of wheat, Cumin and groundnut was very limited. Only 28% of the area under cultivation of cotton was irrigated in 2007-08.

Table 4.8: Cultivated Area and Irrigated Area ('00) ha by crops

Crop	Net Cropped Area	
	2007-08	2013-14
Jowar	80	0
Bajra	639	95.53
Wheat	325	449.63
Gram	98	216.74
Cumin	462	1089.05
Groundnut	204	268.73
Castor	273	509.88
Sesame	929	675.9
Cotton	4481	4156.5
Total	**7491**	**7461.96**

Source: District Agriculture Officer



Impact of Narmada Waters on the Area under irrigation and Yields in Major crops:

Due to the availability of Narmada waters the area under irrigation in the cotton crop is likely to increase by 1.10 lakh ha. Given the differences in the yield in irrigated and un-irrigated cotton it is estimated that the cotton yield will go up to 850 kg of lint from the current level of 616kg.

The castor crop which has emerged as a major high value commercial crop is likely to benefit by additional 54000 ha under irrigation. This is likely to increase the yield per ha to 3500 Kg. Similarly cumin which is another high value crop in the district is likely to have additional 30000 ha under irrigation. This will increase yield per ha to 1000 Kg by 2015, from the yield of 524 Kg in 2012.

It may be also noted that the irrigated area under wheat crop is also likely to expand by 45000 ha. As a result the productivity of wheat is also likely to increase to 3600 Kg by 2015.

The additional irrigation benefits in the major crops can be seen in the context of the irrigation situation which prevailed in 2001. Out of 7.2 lakh ha of cultivated area only 1.52 lakh or 21% was the irrigated area, much of it was protective irrigation in nature. Further, the soil in different talukas in the district cannot be considered as very fertile. The land in Chotila, Sayla, Dhangdhra and Muli talukas is sandy lome type. The land in Wadhwan, Limdi, Chuda and Halvad talukas is sandy lome to medium black.

With the advent of Narmada waters, the agricultural income in the district which is estimated to be Rs. 7327 crores in 2011-12 is expected to increase to Rs. 8980 crores. It is obvious that in order to support this additional agricultural production and income marketing storage and value added processing will become highly attractive. There are 8 Agricultural Produce Market Committees (APMCs), with the increase in market arrivals of agricultural produce the APMCs will become vibrant.

Construction of rural godowns, support for Green house, Net house and Pack house projects are being promoted to benefit the small and marginal farmers. It is proposed to go for 100 Green house, 200 Net house and 500 pack house and 5 Cold storage with an estimated cost of Rs.6640 lakh. About 50% of this amount will be given by way of subsidy the public investment in agriculture under the Rastriya Krushi Vikas (RKVY) is expected to improve the yields and rural infrastructure for agriculture and animal husbandry.

The advent of Narmada waters for irrigation means flow irrigation and it is almost free to the farmers. In Order to promote water economizing techniques of irrigation the government has planned major initiatives to promote Drip and Sprinkler irrigation.

Table 4.9: Micro irrigation- Drip and Sprinkler Method

Year	Beneficiaries	Area (in ha)	Subsidy (Rs in Lakh)
2008-09	741	1013	2303.01
2009-10	947	1198	978.56
2010-11	1915	4442.56	1523.82
2011-12	2262	4808	1161
2012-13	8255	12713	2199.87
2013-14	3983	8386	4192.83
Total	18103	32560.56	12359.09

Source: District Agriculture Office, Surendranagar

Between 2008-09 to 2013-14, 32560.56 ha is already brought under drip and sprinkler irrigation. In the process 18103 farmers got the benefit of Rs. 12359.09 lakhs by way of subsidy. The drip irrigation is all the more important because of the quality of soil in the district. The over use of irrigation water is likely to adversely affect the quality of land in the district.

This challenge is realized and therefore, an action plan to adopt 100% drip irrigation technique in areas which are going to receive irrigation water from Narmada canal, is prepared.

The Government has prepared a plan to spread drip irrigation in 66000 ha for the year 2014-15. An estimated Rs. 300 crores is likely to be distributed by way of subsidy by the Gujarat Green Revolution Company (GGRC). Between 2014-15 to 2017-18, about 264000 ha of irrigated area will be covered under water economizing techniques of drip and sprinklers. The government would need to ensure that the adoption of Drip / Sprinklers method become sustained practice and does not end up as driven by subsidy.

Table 4.10: Action Plan for Drip Irrigation: 2014-15 to 2017-18

Year	Area (in ha)	Amount in Rs. Spent and Give Help (crore)
2014-15	66000	300
2015-16	66000	300
2016-17	66000	300
2017-18	66000	300
Total	**264000**	**1200**

Source: District Agriculture Office, Surendranagar

The augmentation of irrigation potential is also through the water harvesting and conservation works under taken by the Land Development Corporation in the district. It is proposed to deepen as well as construct new ponds and tanks, construct small and big khet talavadis, construct check dams and undertake land leveling and developing activities. For the purpose, Rs. 1500 lakhs have been provided. This will also add irrigation potential of 18000 ha. Micro irrigation projects can yield social returns provided they are implemented as per the objectives. It is suggested to have social audit at some stage of these projects.

Transformation of Irrigation Scenario in Surendranagar District:

Prior to the advent of the Narmada Waters only 1.25 lakh ha out of the total of 10.45 lakh Ha (21%) was having some irrigation facility. Some part of even this limited irrigation facility was only protective in nature rather than the assured irrigation.

This situation was due to the low and uncertain rain fall and lack of any major rivers in the district. The district is now blessed with the waters of Narmada so much so that among all the districts, the Surendranagar district is the largest beneficiary of Narmada waters.

Sardar Sarovar Yojana and its complementary yojana – Sujalam Sufalam have transformed the nature and scale of irrigation facility. As a result there is a paradigm shift in the state of agriculture and allied activities particularly animal husbandry and dairy. However even prior to the advent of Narmada waters, the efforts were made to increase the irrigation potential.

In fact, in the absence of Narmada waters, there was no alternative but to make all out efforts to conserve and harvest every drop of rain water through a variety of irrigation works such as minor irrigation works, check dams, tanks, boribandh etc. and also under take repair and maintenance of some of the existing irrigation structures.

Since 2001 and up to July 2011, 924 new check dams have been constructed. Under the minor irrigation projects, 107 minor irrigation projects, 660 water harvesting tanks and 170 check dams were constructed which created the irrigation potential of 14148 ha in 150 villages.

Under the Swarnim Jayanti Celebrations, 10 tanks, one in each taluka, were constructed at the cost of Rs. 62 lakh which created the irrigation potential of 200 ha.

Brahmi – 2 Irrigation dam in Halvad taluka was completed at the cost of Rs. 42 Crores. 2063 ha of land in 8 villages in Halvad taluka have benefited as a result of the completion of this project.

Moreover, a number of medium irrigation works in the district were damaged in the earthquake of 2001. All such irrigation structures have been fully repaired and made earthquake proof. Gujarat Land Development Corporation had constructed 1465 khet talavedi and Sim talavedi.

Under the water conservation program, the government had constructed 616 water conservation structures at a cost of Rs. 768.13 lakh. Moreover, 864 tanks were deepened at the cost of Rs. 3798.91 lakh.

Surendranagar district was a drought prone area hence, under the drought proofing program and under the Desert Development program as well as under the Integrated Waste Land Development program etc. a large number of structures for water conservation and harvesting were undertaken. For example 1925 check dams; 338 water harvesting tanks; 3085 bori bandhs; 830 khet talavdi; 441 gram vatika; 140 ha forestation; 526 varmi compost units; 334 kitchen gardens and 309 other works all to gather totalling 7928 works were under taken during the decade beginning from 2001.

Water Shed Projects (Hariyali):

The hariyali projects in the district were started from 1995 to 1996 under the programs, 1309 check dams, 221 farm ponds, 219 afforestation , 23 nursery, 327 kitchen garden and 365 vermi – compost and 441 gram vatika were constructed.

Subsequently the program was renamed as Integrated Water shed Management Program (IWMP). Under the new guidelines for IWMP scientific tools and information system etc. became very important. This program was started in 2009-10 and is under implementation in 88 villages in 2011-12.

These micro irrigation and water harvesting and water conservation programs have helped to improve underground water table and quality of water and hence have positive impact on agriculture.

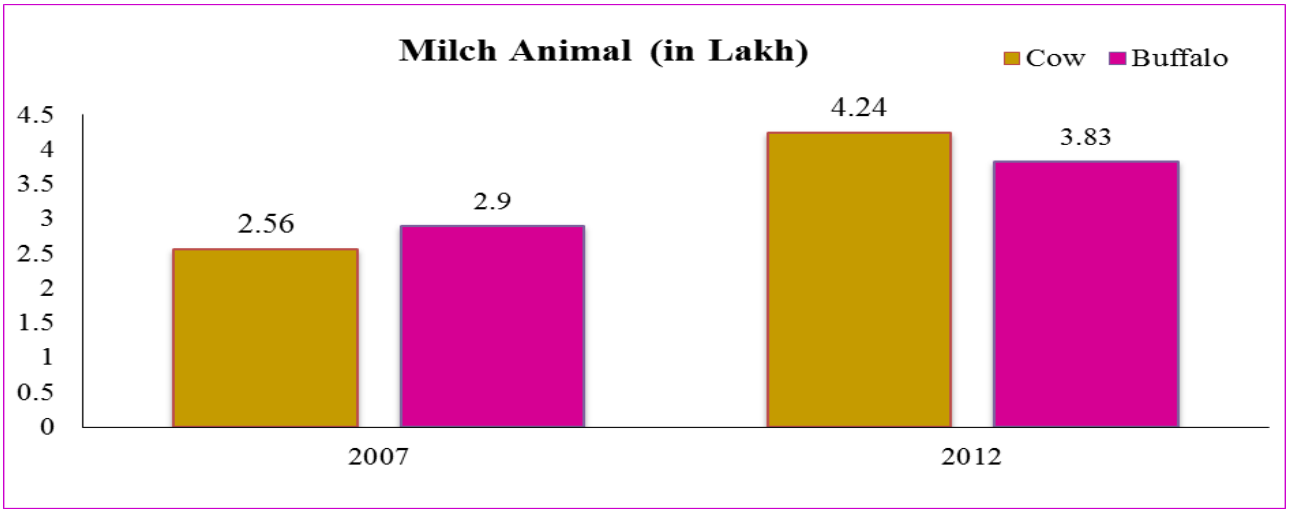
However, these small irrigation assets must be durable in construction and in function. Although these programs are participatory, the water users have remained indifferent regarding payment of user charges or maintenance. It is also important that the selection of the locations of such projects must be based on scientific and objective criteria.

Animal Husbandry and Dairy:

Generally, animal husbandry is a supplemental source of income along with farming. However, with the increase in the area under irrigation and availability of drinking water, the livestock economy has become sustainable. Many a times it becomes a principal source of livelihood for families.

According to the livestock Census of 2007, the total number of milch animals – cows and buffaloes was 5.46 lakhs of which, 2.56 lakh were cows and 2.90 lakh were buffaloes. The latest livestock census of 2012 shows spectacular increase in the number of milch animals.

The number of milch cows increased from 2.56 lakh to 4.24 lakh or by 65.6%; the number of milch buffaloes increased from 2.90 lakh in 2007 to 3.83 lakh in 2012 or by 42%. Among the milch animals, cows have increased at a higher rate than the milch buffaloes.



The significant increase in the number of milch animals can be viewed in the context of rising income of the people and the growing demand for the milk and milk products in the district.

The network of milk collection centers under the Surdhara Co-operative Dairy and the development of the associated infrastructure like chilling centers, bulk cooling centers have made dairy a reliable and ready source of income. Moreover, the members of the dairy co-operatives have many other benefits such as insurance for animals and families, supply of good quality of cattle feed at reasonable prices etc.

Trend in Collection of Milk and the Number of Milk Co-operatives:

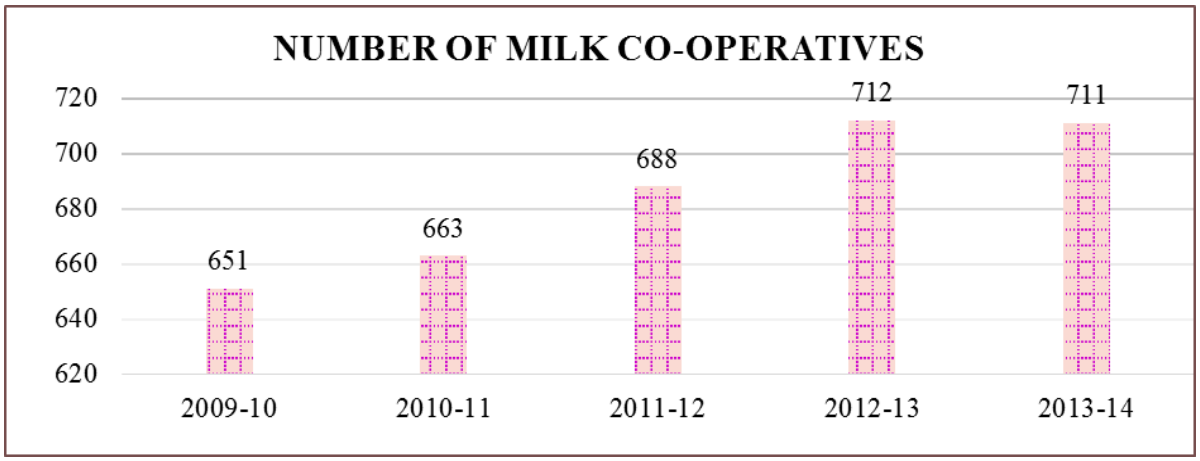
The Surdhara Dairy, Surendranagar was collecting 269552 litres of milk daily through its network of 651 milk co-operative societies in 2009-10.

In the year 2013-14, the daily milk collection increased to 396894 litres. The number of milk co-operatives societies also increased from 651 in 2009-10 to 711 in 2013-14. There are also 125 Mahila Milk Co-operatives Societies.

Table 4.11: Dairy Milk collection

Year	Surdhara Daily Milk Collection (Ltr)
2009-10	**269552**
2010-11	**289755**
2011-12	**308000**
2012-13	**348492**
2013-14	**396894**

Source: District Animal Husbandry Officer, Surendranagar.



Government Initiative to Support Dairy Activity:

The government has extended full support to Surdhara Dairy in various fields. The dairy has been supplied with bulk milk coolers in 34 milk co-operative societies to preserve the quality of milk and reduce the cost of transport.

A milk processing plant with the capacity to process 2 lakh litres of milk every day is under construction which is expected to cost Rs. 12 Crores.

In order to improve the animal breeds artificial insemination centers are necessary. 26 such centers have been opened by the government.

The most common cattle disease called Kharva is totally abolished in the district. The animal husbandry department actively participate in Krushi Mahotsav and also organizes animal health camps from time to time. Vaccination program in such animal health camps have not only improved the overall health of the animal but have also created awareness among the livestock owners.

With the advent of Narmada waters the livestock owners are encouraged to grow good quality of green fodder and grasses for which they supplied with good quality seeds kits.

It is suggested to increase seats or setup new institutions offering certificate and diploma level courses in veterinary and dairy science in the district.

In order to handle and preserve large quantity of milk chilling centers have been set up at taluka level in Chotila, Patdi and Halvad. To preserve smaller quantities of milk (about 5000 litres) several villages have been provided with such a facility.

In order to improve the dairy activity in the district the following programs need to be taken up on a priority basis. The productivity of the animal depends on breed improvement. Hence, a comprehensive breed improvement program is a must. It is also necessary that the already improved breed of animals are taken care of in a scientific manner so that their quality is not adversely affected.

It is also important to adopt scientific feeding practices to provide the proper nutrition to the animals and at the same time avoid wastage of fodder.

Forestry and Environment:

The deputy conservator of forest and social forestry Surendranagar undertakes a variety of projects to improve the environment and increase the density of trees. In Surendranagar district there is no area under the reserved category of forest. However, 2248 ha is under the protected category. With greater concentration in Wadhwan, Limbadi and Chotila.

Among the major projects undertaken are the development of Bhaktivan in 12 acres of land in the foothills of Chamunda Mata Dunger in Chotila. It has attracted not only devotees but also tourist and has also a great deal of educational value on account of a variety of sub projects in the complex.

The another project is the development of Bhogavo River Front Plantations started in 2010 as a part of 61st Swarnim Vanmahotsav on the banks of river Bhogavo 15554 plants in 14 ha of land were planted.

Above all, the department planted 60000 saplings as per the instruction of Hon's ble Chief Minister of Gujarat who came to Dhori Dhaja Dam for inauguration in January, 2010.

Livelihood of agarias (Salt Pan Workers):

The Salt pan workers – known as agariyas in Surendarnagar district, are mainly in villages bordering the Little Rann of Kutch covering talukas of Dasada, Dhangadhra and Halvad. According to the sources of Rural Labour Commissioner, Gujarat state, it is estimated that there are 20, 000 families or about 100,000 persons who directly or indirectly are working in salt production and other related activities. Taking into account the distribution of cycles in different districts, it can be said that about half of these families are in Surendrenagar district.

There are also those who lease land from cooperative mandali and identify traders, manufacturers, with whom they negotiate the price of salt for the sale of their production at the end of the season. In such cases, the mandali plays the role of an intermediary on behalf of agarias.

Here are also agarias who, due to customary rights of occupancy and use of salt pan, do not engage in salt production themselves but, hire a key skilled person who in turn would bring wage labourers to work on salt pans. This may emerge as a future pattern although at present it is not significant.

Some agarias in the district hold customary rights on salt pans, work with family of four to five members on about 2 patta and are self-employed based on family labour as a rule. This category is like small and marginal farmers but without access to concessional finance for working capital, the entire land belongs to the Government of Gujarat. Historically, this land was given on lease to salt manufacturing companies, to merchant traders and directly to agarias and hence acquired occupancy rights to work on the salt pan. However, the salt pan areas are declared 'Wild Ass Sanctuary' by the High Court and hence, the occupants of land have no legal status or title/lease.

Welfare of Salt Workers:

The office of the Superintendent of salt Dhrangadhra also implements welfare schemes for the salt workers. Such as organizing medical camps, sports, distribution of prizes for the children of agarias and construction of houses.

Under the Namak Majdur Awas Yojana, 217 houses have been constructed for agarias families till 2010-11. Similarly Rs. 4.37 lakh have been distributed as prizes 2344 students belonging to agaria families.

Special employment/self-employment promotion programs in rural areas:

SJSY (self-employment), and MGNREGA (wage employment) are the main schemes of the Government of India as special programs for wage paid and self-employment promotion in rural areas.

Under the SJSY, 3491 self-employment/micro-enterprise aspirants, received bank loan of Rs. 7.17 crore or about Rs. 21000 per person during 2004-05 to 2008-09. Alternatively, per year only 707 persons received loan for self-employment. As for SGRY 32.26 crore were available; Rs 25.50 crore or 79% were spent; and generated 15.45 lakh man-days of employment.

Half of this employment and expenditure was only into 2004-05. There was limited employment generated in the subsequent years and the scheme was closed down in 2008-09.

MGNREGA was launched in the district in 2008-09. During the year it provided employment to 7344 families and generated 2.34 Lakh man-days of employment or an average of 31 days per person under the scheme. The government has now modified the approach for MGNAREGA works. It was found that, the response to join for the works identified under the scheme was limited. Moreover, the works did not create any useful and durable assets. It is using funds for construction of community assets at village level. The construction of community halls has been identified as useful social and community asset and the labour is willing to work.

Non-farm activity as a source of livelihood:

Since 62% of the population is dependent on agriculture for employment and livelihood, agriculture remains as the main stay as livelihood source. However, Surendranagar has become a base for industrial sector such as textiles, chemicals, ceramics and food processing industries. During 1988-1997, Surendranagar received investment proposals of over Rs1950 cores while, during the same period, the investment was of Rs 1370 crores. There are several known industrial groups in Surendarnagar which include PEPSICO Indian Holding Ltd, PET Plastics, UNIFRAX, LUXITE Industries, MEPRO Pharmaceuticals and RIMTEX Group etc. The district also offers employment opportunities in textiles, chemicals and ceramics. However, in terms of employment a large part is in the informal sector.

Economic census 1998:

The enterprises in the unorganized sector are the main provider of employment and livelihood in the non-farm sector in the district. These enterprises are own account enterprises based on family labour. There are also establishments having at least one hired worker on regular basis.

There were 46243 own account enterprises and 73723 persons were working. Among these, 21% were women. These enterprises are mainly in retail trade followed by agricultural activities, manufacturing, community social and personal services and transportation.

The other category of the unorganized enterprises is Establishments. There were 9524 Establishments employing 61000 workers. 89 % of the workers were hired workers and 15 % among them were women. A majority of these establishments were in community social and personal services, followed retail trade and manufacturing.

Industrial Establishments by Category of Activity, 2008-09:

The district had 8639 industrial establishments other than medium and large units and gave employment to 49099 workers.

Taluka-wise distribution:

Wadhwan enjoyed the overall agglomeration economies. Chotila is second with 924 units and employment of 10,000 workers. Dhrangdhra, Patdi and Limdi occupied equal positions both in terms of number of industrial units – around 400 and employment of around 4000 workers. In other Talukas – Lakhtar, Chuda, Sayla, Halvad and Muli - there is very little industrial activity.

Category of Industrial Units:

The maximum number of industrial units were in repairs and servicing of trucks, tractors and other agricultural equipments, diesel engines, electric motors and pumps sets, cars and motorcycles (1922 units) followed by 1005 units in cotton textiles and handlooms and 982 units in machinery and parts. There were 854 units in non-metallic mineral products, 638 units in chemicals and chemicals products, 599 units in metal products, 493 units in food products, 292 units in tanning and leather products and 244 units in hosiery and ready-made garments.

The data on Enterprises under MSME Act:

There were 331 micro enterprises employing 2820 persons and were located mainly in Wadhwan, Chotila and to some extent in Limdi. As regards small enterprises, out of 102 enterprises 49 were in Wadhwan, 26 in Chotila and 11 in Muli.

As far as medium enterprises were concerned, there were only 3 in number of which 2 were in Wadhwan and one in Chotila.

It would thus be seen that the industrial development in the district is mainly concentrated in Wadhwan and to some extent in Chotila. Agriculturally developed talukas like Halvad, Dhrangdhra and Muli have little of industrial activity. The scope for industries based on agricultural raw material like cotton, oil seed, spices, salt, exists and can be explored.

Regarding the category of industrial activity maximum number of micro enterprises were in base metal products, machinery and parts, transport equipments (ores, minerals, lubricants etc).

Among the small units the products are ores, minerals, lubricants followed by textiles and products, base metal products machinery parts etc. The three medium size industrial units were also in base metal product and parts, ores, minerals fuels, lubricants etc.

Promotion of Self Employment and Micro Enterprises under PMRY and Vajpayee Bankable Scheme in Surendranagar District:

In the non-farm sector, micro enterprises are promoted through the above mentioned schemes involving bank finance and subsidy. The District Industry Centre (DIC) is the nodal agency for accepting applications and it carries out initial scrutiny and checks, provide guidance and on satisfaction of the required documents, forwards the applications with recommendation to banks for loans. The DIC, as promoter, provides subsidy for each such successful cases.

Between the two schemes the Vajpayee Bankable Yojana is sponsored by the Government of Gujarat and is on larger scale in terms of number of applications, sanctions of loans and payment of subsidy.

In 2008-09, the DIC recommended 1447 applications for loans against the annual target of 990. At bank level, however, large number of applications are rejected. Only 622 applications or 43% of the recommended cases involving the amount of rupees 381.30 Lakhs or an average of Rs. 61,000 /- were sanctioned. The DIC disbursed 43 lakhs subsidy in 424 cases with an average subsidy of Rs. 10,000 /- per case.

Since 2003-04, the number of applications recommended by DIC were between 1271 – 1675; while targets have increased from 480 in 2003 to 990 in 2008-09.

Progress under Vajpayee Bankable Yojana: September, 2011

The target for promoting self-employment through Vajpayee Bankable Yojana was 1140 potential micro entrepreneurs. During the period 908 applications were forwarded by district industry centers to the banks. Out of these 196 applications were accepted and sanctioned by the banks. In other words only 17% of the target was achieved.

In addition to the financial assistance under Vajpayee Yojana tool kits are provided under Manav Kalyan Yojana. Similarly the tools are given under Manav Garima Yojana by other departments, sometimes leading to over lapping of beneficiaries.

PMRY (PMEGP from 2008-09) the targets for promoting enterprises, number of recommended cases and sanctioned cases have been low and have decreased over last 4 to 5 years. In 2007-08, the target was 400, recommended cases were 421, number of cases sanctioned by banks was 161 or 38% with total loan sanction of Rs. 67.17 lakhs or Rs. 41720 per case and average subsidy amount was Rs. 3000 per case.

Thus, during 2003-04 to 2008-09, 8586 cases were recommended by DIC and 3448 cases were sanctioned to set up micro enterprises under the Vajpayee Yojana.

Under the PMRY, during the same period only 2663 cases were recommended and loans were sanctioned in 585 cases.

In other words, the total micro enterprises promotion program under the two schemes could cover only 4033 cases in five years or 807 cases per year which is insignificant - less than half per cent of the total non-farm employment in the district.

Types of Enterprises Promoted:

Under the bankable schemes, the enterprises promoted were in manufacturing and repairs activities – computer job work, readymade garment industry, weaving, tailoring, pashu palan and xerox units.

In services sector, it covered man dap decoration, centering work in construction slabs, hair cutting salons, mixing machine, rickshaw etc. While in trade and commerce they were mainly provision stores, cloth shops, cutlery and hosiery shops, auto parts, fodder and feed shops, pan and cigarette shops, cosmetics, readymade garment shops and hardware and building material shops.

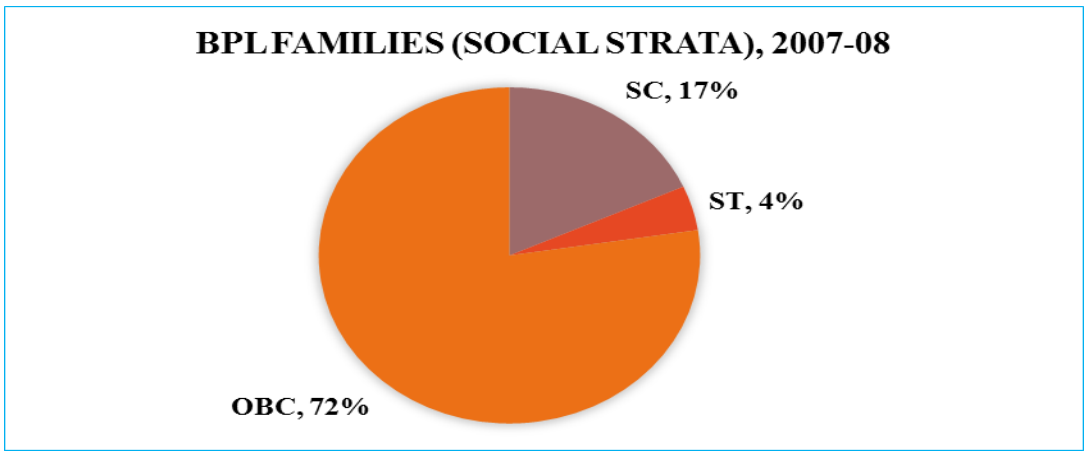
Under the PMRY, the promoted micro enterprises were in textiles / hosiery / readymade garments, electrical / electronic Equipment and gadgets, personal services, grocery shops etc. In the category of agriculture and allied activities the micro enterprises were like ghani oil industry, cattle feed etc.

Population Below Poverty Line and the Characteristics of the Rural Poor:

According to the BPL survey of 2007-08, there were 136924 families below poverty line accounting for 45.95% of the families in the district. Among these 115479 or 84.35% were landless.

Social strata:

- 17% of the BPL families were from scheduled castes;
- 4% belonged to scheduled tribes;
- 72% belonged to other backward castes in the district which shows that an overwhelming percentage of the BPL families belonged to Other Backward Class (OBCs) in the district. The remaining were others.



Ownership of House:

- 13 % of the BPL families were without their own house - accommodation
- 25 % of the total owned Kaccha house while, 6 % had semi Pacca dwellings;
- Also, 3% among them owned Pacca House but, were recorded as below poverty line.

It will be observed that an overwhelming number of BPL households are land less. Our interaction with the district officials reveals that the landless BPL households are mostly engaged in agriculture labour as a source of livelihood.

Land Ownership:

84 % out of the total of 136924 BPL families, were landless while, 16 % had some land mainly below 1 hectare and unirrigated.

Table 4.13: Population below the Poverty Line and Incidence of Poverty among Agricultural Labour Households across Talukas, 2014

Taluka	No of BPL Families		No of Landless BPL Families		Landless BPL Families as % to Total
	Number	%	Number	%	
Halvad	8575	6.26	7578	6.56	88.37
Dhrangadhra	15704	11.47	13971	12.09	88.96
Dasada	22691	16.57	20685	17.91	81.66
Lakhtar	10015	7.31	8247	7.41	82.35
Wadhwan	12799	9.35	11092	9.61	86.67
Muli	9627	7.03	8381	7.26	87.06
Chotila	15993	11.63	11943	10.34	74.68
Sayla	14072	10.28	10965	9.49	77.81
Chuda	11035	8.06	9037	7.83	81.89
Limbdi	16413	11.99	13580	11.76	82.74
District Total	136924	-	115479	-	84.35

Source: District Rural Development Agency (DRDA), Surendranagar

BPL Families:

There were 136924 families below poverty line in the district.

Garib Kalyan Mela:

Table 4.14: No of Garib Kalyan Mela organized during 2011-12 to 2013-14

Talukas	2011 - 12		2012 - 13		2013 - 14	
	No	Amount Rs. Lakh	No	Amount Rs. Lakh	No	Amount Rs. Lakh
Halvad	1	1439.13	1	418.06	0	16.57
Dhrangadhra	2	471.98	2	440.83	1	42.96
Dasada	1	872.38	2	1551.38	1	100.32
Lakhtar	1	490.2	1	739.82	0	18.45
Wadhwan	3	2282.13	2	2252.3	1	113.14
Muli	1	1112.53	1	516.18	0	64.28
Chotila	1	727.79	2	574.14	1	30.23
Sayla	1	568.12	1	527.89	0	18.17
Chuda	1	409.43	1	579.59	0	97.85
Limbdi	1	696.18	2	507.65	1	51.08
District Total	13	9069.87	15	8107.84	5	553.05

Source: DRDA, Surendranagar

During 2011-12 to 2013-14, 20 garib kalyan melas were organized, most of them in 2011-12. Mela was organized in each taluka but they were more in Wadhwan and Dhangdhra talukas. Large amount of cash benefits were directly distributed to the target group families. Rs. 90.70 crores in 2011-12, 5.08 crores in 2012-13 and 5.53 crores in 2013-14 were distributed.

Sakhi Mandals:

Table 4.15: No of Sakhi Mandals Organized and Active during 2011-12 to 2013-14

Talukas	2011 - 12		2012 - 13		2013 - 14	
	No of organized	No of active	No of organized	No of active	No of organized	No of active
Halvad	0	0	30	5	5	2
Dhrangadhra	0	0	44	6	18	2
Dasada	0	1	227	75	53	45
Lakhtar	4	0	30	8	8	2
Wadhwan	0	1	48	5	7	1
Muli	0	0	49	40	20	20
Chotila	0	1	160	125	56	56
Sayla	1	0	63	60	66	60
Chuda	0	3	45	30	65	50
Limbdi	0	0	145	63	29	26
District	5	6	841	417	327	264

Source: DRDA, Surendranagar

Sakhi Mandals have the potential for economic empowerment of women. During 2011-12 to 2013-14, 1173 sakhi mandals were organized, most of them in 2012-13.

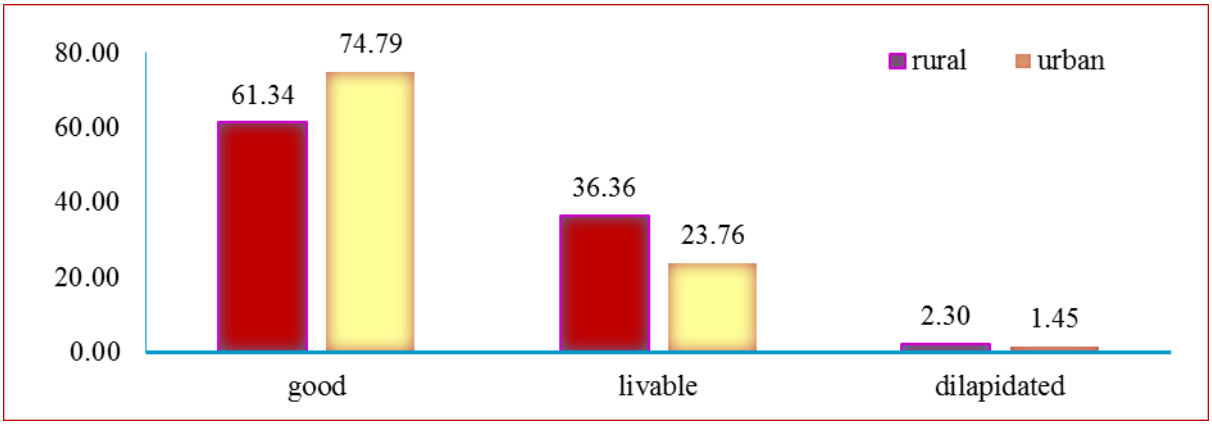
Although the large number of sakhi mandalas were organized across talukas only 687 or 59% were found to be active in terms of engaging in some form of economic activity for employment, collection of savings, bank loans and group formation for economic activity.

Housing:

The data on the condition of the houses occupied by the households are available for Gujarat as well as for the district in the census of 2011. Sixty five percent of the total households in Surendarnagar district are living in houses which have been categorized “good”; 32.66% live in “livable houses” and only 2.07% live in “Dilapidated houses”.

In rural areas, 61.24% live in “good, 36.43% live in Livable while, 2.32 % live in dilapidated houses.

Condition of census houses occupied (%), 2011



In rural areas 61.24% live in "good houses"; 36.43% live in "livable Houses" and 2.32% live in "Dilapidated Houses". In rural Gujarat 60.40% live in "good houses"; 37.47% live in "livable houses" and 2.12% live in "Dilapidated Houses" in 2011.

The Government constructed houses under the various Awas Yojanas. The number of houses which are constructed under the Indira Awas Yojana, Sardar Awas Yojana etc.

Houses constructed under Sardar Awas Yojana:

The target for construction of new houses for the BPL families was 5479. The work order to start construction are given for 5462 houses almost complete. The construction work has already started for 5233 houses. The estimated expenditure is 11.76 crores.

Main Source of Lighting by the Households:

85% of the rural households and 95% of the urban households are having electricity as the main source of lighting in the district. However, 12 % in rural areas still use kerosene for lighting and 1.7 % have no lighting.

Table 4.16: Households by Main Source of Lighting

T/R/U	Total Number of Households	Main Source of Lighting					
		Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting
Total	342337	302068	32781	389	547	2001	4551
Rural	241831	206654	28528	357	446	1726	4120
Urban	100506	95414	4253	32	101	275	431

Source: Census of population, 2011, Socio Economic review 2012-13, Gujarat State

Development and Progress in Energy Sector in Surendranagar District:

The district had only 43 electric sub stations in 2001. Between 2001-02 to 2011-12, 30 new sub stations have been added. Hence, as of now a total of 73 sub stations are providing uninterrupted quality power to industry, agriculture and for domestic use.

The Jyoti Gram Yojana provides quality three phase power on 24 hrs a day basis. Moreover, 47970 BPL families in the district have been given free of cost electric light connections at the cost of Rs. 17.36 crores.

Under the KHUSHI Yojana 12 electric power feeders, 1361 new transformers have installed. As a result, the quality power is supplied without any breakdown. 600 Gram Panchayats in the district have been also given electricity connections.

Similarly, electricity connections have been given to 981 primary schools, and 664 anganwadies. During 2001-2011, Government has provided 106464 electricity connections for domestic use; 11484 connections for commercial use; 18299 connections for agriculture use; 1320 connections for industrial use and 514 power connections are given for water works in villages. Moreover, 80 heavy load connections have been given to industry.

Because of these developments in the power sector the users in all categories are able to get uninterrupted quality power for 24 hours a day through out a year. Due to the availability of quality power, e-gram system is made operational in 615 villages.

The Way Ahead...

Agraias: (Agarias in their work place in the little rann of Kachchh)

Exceptionally harsh environment:

The environment in the place of work - salt pan - is exceptionally harsh with extreme variations in temperature. For weeks together or sometimes months together agarias are working and living in highly isolated spots without seeing any other human beings. The make-shift accommodation to stay and shortage of water even for drinking and non- availability of milk and other daily needs etc., mean that agarias work in unparallel harsh conditions. It is difficult to imagine as to why a family would want to work except under helpless condition.

Given this situation the government may consider to develop a system: "journey to work and back to home" for agarias. Such an arrangement is likely to have multiple positive impact on the welfare and dignity of women, education of children and on the quality of life.

Protective equipments:

The protective equipments like headgear, goggles, and shoes, are a must for agaria unfortunately, either because that they are not accustomed to put on such gears or because such equipments are not designed for comfort, it is found that they generally do not put on those. Hence, this has to be taken care of - right type of gears plus education for putting them on and explaining to them the consequences of not wearing such protective equipment.

Provide Tents:

The makeshift shelter needs to be replaced by tents of reasonable quality and size. For drinking water, fibre/plastic tanks like Sintex were in use and were of good utility. However, the water tanker comes only once in a week. Agaria is not taking bath for days together. We suggest the frequency of two instead of one for supplying water to the agaria families in their places of work.

Subsidise PYC/rubber pipes used in pumping brine:

We observed young adult agarias working hard on repairing some of the pvc/rubber pipes to prevent leakages and make them workable for pumping out brine from the dug well. These pipes are of the length of 25-30 feet on an average. Can we not subsidize them once in two years which will help to reduce the cost of production?

Certainty of access to salt pan land

As far as the salt production activity is concerned, we will only emphasize that the access to salt pan land on which agarias have been producing salt for over many years should continue without uncertainty and without changing the terms of paying rent and other charges to whoever owns that land.

Monopsony buying and unorganized small producers:

The existing framework is that there is a monopsony on the buying of salt. While the agarias are unorganized producers and do not possess any collateral for borrowing working capital from the banks. Even if they have some collateral, the product being perishable, lending to agaria is viewed as a risky proposition.

As a result, there are tying arrangements between merchants and traders on the one hand and salt producing agarias on the other. Sometimes there are more intermediate layers also. Agaria needs working capital as well as some amount for consumption loan throughout the season.

As a result, he has no alternative but to approach the merchant trader for working capital, monthly consumption requirement of the family, In exchange, he negotiates the price at which he will sell his final product at the end of the season in a highly unequal bargaining situation.

The government can bargain with the industry for a fair price for the producers, if not going for the minimum support price for salts.

Mobile Banking for agarias

Hence, the question is how can we increase the bargaining power of agarias. We suggest two types of interventions to make dent on the problem. One, introduce mobile banking. It will facilitate continuous touch with the family, it will also enable the banker to assess the stage of production on the ground in salt pans. It is worth experimenting with the idea of providing working capital through this channel.

Warehousing Facility

Second, we suggest that the government provide limited warehousing facility for storing the production at particular points in different areas which would not only provide protection to perishable items but can increase the bargaining power vis-a-vis the trader. The warehouse receipts will provide good collateral as well.

Adult Education cum Vocational Training Centre

It is observed that significant number of adolescents from agaria families drop out from Standard 6/7 onwards. Short term (three-six months duration) courses on vocational training may be identified on the basis of assessment of needs as well as subsequent local livelihood opportunities based on that training. ITI in the area can play important role in this regard.

Mobile Fair Price Shop

The Civil Supply Corporation will have to consider the following:

The quantity and items of food and other items of daily needs which are needed are in stock when the mobile van is on visit. The visit may also coincide with the day/week when the agarias receive their monthly instalment of consumption loan. Need analysis can be undertaken by the corporation for the purpose.

Mobile Health Van

It is observed that sometimes there is mismatch between the type of medicine needed and what is available in Van on that day. The medicines, creams and other items which are most in demand based on the good understanding of their ailment and disease pattern, should be available in adequate stock while on visit. Days and timing of the visit should be communicated in advance. The need is to match the prevailing ailment pattern and stock and categories of drugs and medicines.

Start a Bus Service

Why not to start a bus service covering the major locations of concentration of agarias in salt pan areas covering about 20-30 km of area? This however, will depend on the soil condition in the given season. The bus service will facilitate live contact with the village of residence and this might encourage many agaria families to keep one family member along with school going children at home, leading to many positive effects on the women and children.

Alternative livelihood opportunities for women:

The bus service along with a careful assessment of local employment opportunities for women and adolescent girls, and linking it with skill development program in food products, in forestry sector activities like, nursery beds, social forestry, development of common property resources, grass land etc., are suggestive programs.

Salt based manufacturing

Salt is a low value and more weight product. Cost of transporting the quantity of salt is likely to be higher than the price. Given these characteristics, it is desirable to attract salt based manufacturing and processing units to the area - Kharaghoda, Zinjuwada, Dhrangdhra, etc. Clusters of small enterprises can be also examined from the view point of their feasibility.

Agriculture

The identification of the factors responsible for low yield, may be attempted on the basis of trials and experimental farm results. If such results are available then, gaps in the communication and transferring of results from laboratory to field can be identified and removed.

Successful Farmers's Forum:

- Identify a group of successful farmers in each of the major crops in different talukas and support the formation of farmers' forum for transfer of knowledge and technology. The profile of such achievers can be placed on the Web Site.
- Organize inter district / interstate field visits for actual farmers for gaining hand on knowledge and training in best farm practices.
- The difference in yield of irrigated wheat and unirrigated wheat is almost three times. With the advent of Narmada waters, the acreage under the high water consuming irrigated wheat will increase even further. The strategy to advocate the adoption of drip is the step in the right direction. The problem is with the sustainability with or without subsidy.
- The actual users of irrigation facility created by tanks and ponds should be encouraged to have their own organization. They need to be stakeholders for such assets and hence, should pay some user charges and take the responsibility for maintenance.
- Before sanctioning new public works like ponds/tanks, check dams, boribandhs etc. A review of the functional status of already created irrigation assets is necessary. Sometimes, marginal expenditure on such existing assets, may be more useful than starting new works involving much higher expenditure.
- Timely availability and easy access to improved seeds of cotton, castor, cumin etc can be made possible by the co-operative credit societies.
- Wherever feasible, cash subsidy should be replaced by subsidy in kind such as in the form of - seeds, fertilizers, equipment and tools.

Trained Manpower for Agriculture:

The leadership in the district had visualized the importance of trained manpower, transfer of knowledge and technology of best farm practices, agricultural research and demonstration farms.

There is a need to give strong push to develop skilled manpower for agriculture and for animal husbandry. It is suggested to setup an agricultural college at district level and agricultural polytechnic and schools at taluka level. Demonstration cum Experimental farms can be also setup at taluka level as per the requirement of the major crops in the taluka. Certificate level courses in dairy technology, veterinary science and in soil sciences are also recommended.

Farmers also voiced their concern on damage to standing crops by pigs and khudghar as a result many farmers have abandoned the cultivation of pulses. There are also conflicts between farmers and maldharies due to damage to standing crops.

Livestock, grass/fodder land and production of milk:

During last few years, the number of livestock has increased by 46-62% and milk production has increased even much more. Yet the area under fodder/grass crops has not increased.

- A strategy is required to develop gauchers and uncultivable waste land, as sources of fodder/grass and there by create fodder bank/go downs which can be of used in periods of scarcity. Such projects should be developed on the basis of public investment.

- Maldharis may be given technical and financial support to encourage them to opt for optimum size of number and composition of cattle to maximize the income. This will also help to reduce the pressure on arable land and avoid unnecessary conflicts. Model gaushalas of religious trusts / NGOs can play useful role in this matter.
- Rapid development of dairy need to be supported by proper development of markets for milk and milk products. Rural infrastructure of cold storage and transportation will have to keep space with the development of the dairy sector.

Nonfarm employment:

In the non-farm sector, the micro enterprise programme mainly through PMRY and Vajpayee Bankable Yojna, indicate that they together are able to promote just about 1000 such self-employment/micro enterprises with an average bank loan of Rs. 20-30,000/-. This is only a fraction of the total of about 2.00 lakh non-farm workers in the district in 2001.

Lack of co-ordination: DIC & Banks:

The DIC and Banks need constantly to update their bankable projects list. This can be done on the basis of analysis of emerging opportunities in the market, monitoring of the progress of funded projects, investment etc.

Moreover, the number of applications sanctioned by banks were only 40-45 per cent of the recommended applications by District Industries Centre. This suggested lack of coordination among the concerned agencies.

Clusters of Artisan based Village Industries:

It is recommended to set up two or three Clusters for village industries for artisans in collobaration with Khadi Gramodyog Board. In doing so it is necessary to ensure the backward and forward linkages. The objective also can be promote a brand for the area in particular types of products. The cluster, if includes Gramudhyog products other than textiles also it may become economically viable center.

Tourism can have employment potential

Surendranagar is gateway to Saurashtra and Kutch regions of Gujarat. It is home to some of the prominent tourist places especially the Nalsarovar bird sanctuary and the Wild Ass Sanctuary of Little Rann of Kutch, Chamunda Mata temple located on the top Chotila Hill and the Tarnetar fair. Each Taluka (Block) has something to offer to the visitors. If developed properly, it can significantly improve the livelihood of local unemployed without bringing any form of conflict as is done by industry. Unfortunately there is no record of inbound domestic as well as international tourist to this place and how much they contribute in terms of income and employment the district treasury.

So far as domestic tourism is concerned, it is observed that there is a significant flow of Tourists from other states like Maharastra, Rajasthan, Madhya Pradesh, to this place. It is also reported that during the Tarnetar fair number of foreign tourists also visit. In other time they also visit to the Little Rann of Kutch (LRK) to enjoy the natural wilderness and have a rann safari. Similarly the Non Resident Gujarati (NRG) from Kutch and Saurashtra use the rail and road ways while back from abroad and hence form a part of tourist inflows.

Other Interests:

Surendrangar is famous for three white things like Wool, Cotton and Salt and interested visitors can explore this. The district is also home to large number of domesticated animals famous for their specialty and can be of much interest. Kankrej Cow, Jhalawadi Goat, Kathiyawadi Horse, Camels, Sheep, Donkey still exists in large number and may be of much interest. The number of these animals is so large that a Mela is organized each year during the month of October/ November (Kartak Punam) at Bautha near Surendranagar. Large number of donkeys and other animals are brought for sale during this festival which shows the importance of pastoralist animals and people.

Rabari Embroidery, Padhar Embroidery, Kathi Embroidery, art Embroidery is beautiful and attractive and still they wear their own dress and ornaments. Beadwork, Ikkat work, brassware, silver handicrafts are found in Surendrangar. In Zainabad, we can find Rabari and Bharwad pastoral colonies, where girls work on embroidery. In Wadhwan there exists a large community of Khatris (a community of people involved in coloring clothes). They prepare the famous Bandhani (a type of colouring and designing clothes). Samasar village lived by Vankar Community weave the famous for Patola saree made by the handloom weavers.

Sonpura Stone arts and the artists are famous for their temple and palace construction and very few such artists are still surviving in Dhangadhra. Any tourist visiting Surendrnagar must visit this place. Government has made an attempt to preserve their arts and there is small exhibition hall at Dhangadhra preserving the arts of Sonpura. Those who are interested to understand the ceramics product and industry, process cumin and cotton cultivation must visit Surendranagar.

Ranakdevi Temple, Bhogavo River, Madha Vav (built in 1294) and the Ganga Vav (built in 1169), are other place of interest. Madha Vav and Ganga Vav fine examples of subterranean architecture can be of interest to the tourist. Halvad also known as (Chota Kashi) has lot to offer and people may be interested to explore. Dhangadhra, Zinjuwada, Lakhtar, Sayala are erstwhile feudatory state and has a rich history and heritage. Renovation of the palaces and other feudal property can be of interest. The district also hosts a numbers of fairs and festivals that could attract tourist.

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