

District Human Development Report

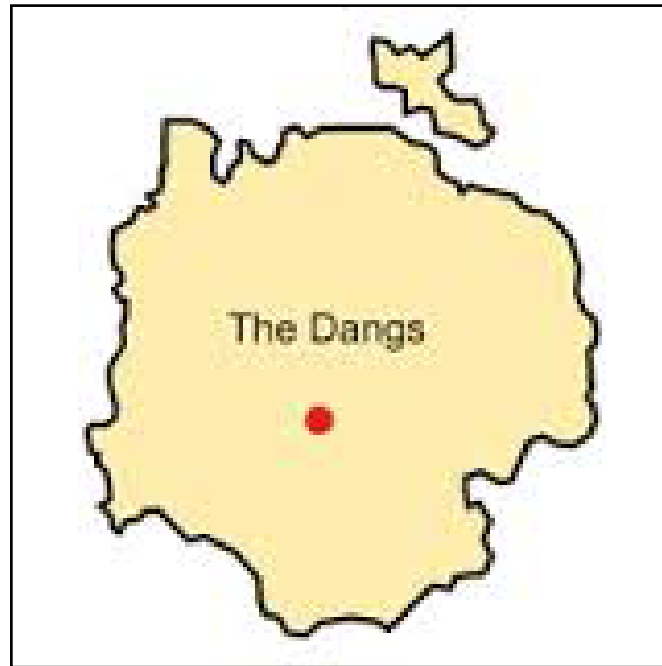
The Dangs



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

District Human Development Report

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General Administration Department (Planning)
Government of Gujarat

DISTRICT HUMAN DEVELOPMENT REPORT: THE DANGS

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सत्यमेव जयते

Gujarat Social Infrastructure Development Society (GSIDS)

General Administration Department (Planning)

Government of Gujarat





No. F.E.T.D./268/2015
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Forest and Environment, Tribal
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Date : - -20

-3 JUL 2015

MANGUBHAI PATEL

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 people's 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 will serve as a guide for future planning in various fields which leads towards inclusive development of the people of district.

I appreciate the endeavor.

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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.

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**




MESSAGE

I am extremely happy that the District Human Development Report (DHDR) for Dangs has been prepared. The Basic objective of preparing this report, as understood, is to strengthen the district planning process, measure development by combining the indicators of life expectancy, education and income into a composite human development index, to encourage innovation in human development, capacity building for people-centered development policies and working together towards a strategic planning.

The Dangs DHDR would help the administration to implement district plans from a human development perspective. It would help us in a comprehensive understanding of the issues in the district.

I would like to thank all the people, departments and agencies, who have contributed to the preparation of this report. I am sure this report will form a milestone in the overall planning and development of the district.

July 2015
Ahwa-The Dangs


Ardra Agarwal
Collector-The Dangs



Government of Gujarat

FOREWORD

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

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

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

Human Development is increasingly becoming an area of concern and increasing 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 is mobilized and actively participate in the development process. In the year 2008-09, the state government has initiated the work of preparing District Human Development Report.

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

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

July 2015
The Dangs

Shri. N. L. Pujara
District Development Officer – The Dangs



ACKNOWLEDGEMENT

The UNDP has been putting more and more emphasis on Human Development. In India, two District Human Development Reports of Bankura and Malda have been published first. Looking to the significance of the Human development, GoG had assigned responsibilities to five Universities/Institutions to prepare DHDRs. The districts selected by GoG to prepare DHDRs were Surat, Surendranagar, The Dangs, Jamnanagar and Sabarkantha. The work of preparing DHDR for The Dangs district is with GSIDS, GAD (Planning), Government of Gujarat.

I would like to whole heartedly thank to Hon. S. Aparna (Principal Secretary and Chairperson GSIDS, General Administration Department (Planning), Government of Gujarat) for providing us an opportunity for such a challenging job. Further, the support and guidance received during the preparation of this publication from Shri. Kalpesh Shah, Joint Secretary (Planning) has played a vital role in adding to the quality of the document. I am thankful to Ms. Adra Agrawal, District Collector, The Dangs, Shri. N. L. Pujara, District Development Officer, The Dangs and Shri. J. R. Dodiya, District Planning Officer, The dangs, for taking kind interest and extending all possible support in the preparation of the project. I also thank to Shri S. S. Leuva, Deputy Director, GSIDS for his valuable inputs in completion of this report. I am also thankful to the officers of the concern line departments who spared their time to provide us the required information. We also thank to Dr. H. P. Trivedi, Professor and Head of P.G Department of Economics, at Sardar Patel University and his team for his valuable contribution.

I express my thanks to the team members of GSIDS who lent us a great support to carry out this task.

I am sure that this study will prove useful to policy makers in supporting various policy decisions relating to the development of The Dangs district.

July, 2015
Gandhinagar

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Executive Summary

Concept of Human Development

The concept of Human Development became popular after the first Human Development Report was published by UNDP in 1990. Introduction of the concept of Human Development is to assess the quality of life of the people. Conceptually, human development index is the combination of the indices of education, health and livelihoods. Thus, the concept of human development places people at the centre instead of macro level achievements. The human development approach basically identifies three essential areas in which enlargement of people choices must take place. These are for people, to lead a long and healthy life, to acquire knowledge and to have access to the resources necessary for a decent standard of living.

Introduction to The Dangs

The Dangs district is the only district of the Gujarat with dense forest. In The Dangs, there are total 311 villages and one Taluka named Ahwa (In 2013, The Dangs district divided into 3 talukas). In 1960, The Dangs became a part of Gujarat State. The Dangs is the most backward district in India. The area covered by the district is 1,764 sq km. The rank of this district is 25th in area of the State. There are total 70 Gram Panchayats: 3 Gram Panchayat and 3 Group Gram Panchayats. As per census 2011, the total number of households in The Dangs district are 48448.

The total population of The Dangs is 2,28,291 of which male and female are 1,13,821 and 1,14,470 respectively. It constitutes 0.38 percent of population to that of total population of the state. The Dangs district has recorded increase of 22.26 percent in its population compared to 2001. The Dangs district has majority of rural population constituting of 89.19 percent while urban population is 10.81 percent. In total 2,03,604 (out of 228291) people lives in Rural area of which 1,01,710 are males and 1,01,894 are females while total 24,687 people lives in Urban areas of which males are 12,111 and females are 12,576. Thus, The Dangs district has urbanization of only 10.89 percent. The population density of The Dangs district is 129 people per square kilometers and state's population density is 308.

The Dangs district stands at 1006 per 1000 male in sex ratio as compare to Gujarat state's sex ratio (919) which represents a good picture of the district. Sex Ratio in urban region of The Dangs district is 1038 whereas in rural areas of The Dangs district, the sex ratio is 1002 females per 1000 males.

The child sex ratio of the district is also very good having 964 per 1000 boys compare to state's child sex ratio (890). The sex ratio in urban area of The Dangs district is 931 while for rural area it is 967 which is higher than the state's average. Child population (0-6) in urban region is 2,755 of which males and females are 1,427 and 1,328 respectively, while Child population in rural areas is 37988 of which males are 19,316 and females are 18,672. In other words, child population figure of The Dangs district is 11.78 percent of total urban population & 18.99 % of total rural population. The Dangs district stands on second position in Sex Ratio and first in Child Sex Ratio among the districts of Gujarat.

As per census 2011, In urban area, 36.71 percent households receive drinking water through tapwater from treated source while 34.02% of households get drinking water from Handpumps and 10.20 percent from Un-covered well while rest of them receives from other sources of water. In rural area, about 46.26 percent households get drinking water from handpumps, 21.21 percent from un-covered well, 9.35 percent and 9.92 percent through tapwater from un-treated source and covered well respectively.

About 90% of the villages are having connectivity through ground surface water whereas only 10 percent of the villages are having surface source connectivity (as per Gujarat Water Supply and Sewage Board – 2015).

As per census 2011, total 25.26 percent of households in the rural area while 57.79 percent of households in Urban area of The Dangs have Sanitation facility within premises. As per Census 2011, only 61.50 percent of the households have electricity facility, 0.28 percent uses other source of lighting while 1.09 percent have no lighting, while in 2015, 75.40 percent of households have electricity (as per DGVCL).

A total of 1179 kilometers of Surfaced Roads existed in the district. This constitutes of State Highways of 277 kms and other district roads of 147 kms and the village approach road constituted of 755 kms.

Tourist flow at Saputara (leisure destination) has increased by 27.9% in 2013-14, compared to 2012-13. This indicates that Saputara is new emerging leisure destination of Gujarat. The majority of tourists at Saputara (73% of them) are from Gujarat itself. The share of Other India States (OIS) tourist in the flow at Saputara is 27%, while that of NRI/Foreigner is 0%.

Natural Resources

The total area under forest in the year 2015 is 1054.88 sq. kms which is 59.80% of total geographical area of the district. The Dangs is rich in timber as most of the trees are of high quality teak. The total forest area of The Dangs consists of two parts namely, protected forest (PF) and reserved forest (RF), which are under the jurisdiction of the Forest Department, Government of Gujarat (GoG). The Reserved Forest is of 864.17 sq. km. while Protected Forest comprises of 190.71 sq. km. For preservation of wildlife, the GoG has set up the Purna Wildlife sanctuary (160 sq. km) around Purna River in the northern part of The Dangs and the Vansda National Park with an area of 23.9 sq. km. The important species living here are hyena, sambar, chital, barking deer and monkey.

In parts of the PF, people have been granted the rights of cultivation while in RF neither lopping nor timber cutting is allowed. The RF in The Dangs is amongst the richest forests in the whole of Gujarat. The Forest cover of The Dangs is classified into three density categories: Very Dense Forest, Moderate Dense Forest and Open Forest which encompasses 209, 745 and 414 sq. km. respectively.

The collection of NTFP is still a major source of livelihood for the people in The Dangs. Timru leaves, teak seeds and mahuda flowers and seeds are mostly collected during the summer and they provide an alternative livelihood source during that period. The mahuda trees are traditionally privately owned, whether standing in RF or PF. Men mostly collect gum and honey while collecting of mahuda flowers is mostly done by women. Honey, gum (marginally), mahuda flowers and seeds are mostly sold at the private market, whereas teak seeds, timru leaves and bamboo is mainly sold through the government as the rate offered by Government is higher than the private market.

The employment to the people of The Dangs is offered by the Forest Department which employes a large number of people but for a limited period during a year. This activity consist of the cutting of trees, grasses, bamboo growing and plantation. Currently bamboo cutting is mostly done on lease contracts for the Central Pulp Mill (CPM) situated in Songadh. Manufacturing of various household bamboo products, a major source of livelihood, is done by Kotwalia community.

The Dangs receives an annual average rainfall between 1500 to 3000 mm, which is higher than the average rainfall of Gujarat (798 mm). About 95 percent of annual rainfall in the district is received during the southwest monsoon months June to September, July being the rainiest month. The Dangs encompass of four major rivers: Gira, Purna, Ambika and Khapri. The Gira and Khapri are major tributaries of Purna and Ambika respectively.

The number of families per functional handpumps is 8-9 families. While 18-19 handpumps are installed in a single village.

Literacy & Education

The total number of literates in The Dangs district is 140968 of which males are 77314 and females are 63654. Average literacy rate of The Dangs is 75.16 percent of which in urban area the literacy rate is 73.42 and for rural area it is 88.32 percent. If things are looked out at gender wise, male and female literacy is 83.06 and 67.38 percent respectively. The district has seen 15.51 percent of growth in literacy rate. The female literacy is lower than male literacy but it has increased in compare to 2001. The total ST population of the district is 216073 while only 992 SCs. The literacy rate of ST is 74.45 percent and SC has 90.26 percent.

The student enrolment in primary and upper primary schools in The Dangs district is showing increasing trend over the past years. In the year 2013-14, the enrolment of the district is turn down a bit. Girls enrolment in the primary and upper primary level in the district has also shown a boost. The highest enrolment recorded was in the year 2011-12.

The retention rate of the district is raised to 94.74 percent. The transition rate from primary to upper primary is increased to 82.91 percent. The promotion rate for class 1-5 is 92.70 percent. The dropout rate of the district for class 1-5 is 5.26 percent and for class 1-7 is 6.49 percent; while girls dropout rate is decreasing as compare to past years.

The total number of schools in the district is 423 in the year 2013-14 comprising of 404 government schools and 19 private schools. Pupil per Teacher is as per national standards i.e 30:1. Teacher per school (approximately four teachers per school) is consistent over the years. The qualification of the teachers in the district ranges from matriculation to graduate. There are only few countable teachers who are having qualification more than graduation.

The ratio of male-female teachers is increasing over the years. In year 2013-14, there are 1070 male teachers and 827 female teachers with ratio of 0.77 percent.

If we go through schools by management then in the year 2013-14, there are 22 schools which are managed by Tribal/Social welfare department, 378 schools are government schools, 1 schools is private aided schools, 19 are private but unaided schools, while 3 schools are under Kasturba Gandhi Balika Vidhyalaya.

The government has made the basic physical infrastructure mandatory in all the schools. Thus all the schools must have 100 percent basic facilities. In The Dangs, 95.98 percent schools have electricity, 95.98 percent have compound wall while 69.50 percent and only 45.40 percent of the schools have play grounds and computer lab respectively.

All the schools in the district have drinking water facility and separate toilet for girls in the year 2013-14.

Health

As per Census 2011, Sex ratio of The Dangs district (1006) has shown a sign of improvement as compared to Census 2001, and it is far better than the Sex ratio of the State (919). Child Sex ratio of The Dangs (964) has decreased by 10 points as compare to previous decade (974). The CBR of The Dangs (31.4) district is higher than the State average (20.8) and CDR is same as the state average as per the CRS-2013. The natural rate of growth of population (NRGP) which varies inversely with economic development is higher than the State average.

There are 59 SCs, 9 PHCs and 3 CHCs. Average population serve by each SCs (3,451) and PHCs (22,623) is almost as per the prescribed guideline of IPHS and average population served by each CHCs (67,868) is below the guideline.

The Dangs district is well equipped with Health Infrastructure but availability of Health Personal is not adequate. The district hospitals are lacking with Specialists officers and medical officers. In case of Specialists officers, only 5 posts are filled instead of 16 sanctioned post while only 4 posts are filled instead of 7 sanctioned posts for medical officers.

During the latest reference year (2013-14), about 87 per cent of pregnant women of The Dangs district have received 3 check-ups while for State the figure is only around 75 per cent. In terms of institutional Delivery, the district is poor performer. During 2013-14, district reported institutional delivery of only 57 per cent while 43 per cent deliveries are done at home. Over the years Government Hospitals constitute most of the institutional delivery in The Dangs district whereas for the State, Government Hospitals constitutes below 50 per cent of the total Institutional delivery. In the year 2013-14, Government hospital has constituted 74.60 percent institutional delivery in the district.

In the year 2014-15, it shows that all required immunization doses coverage is above 90 percent against total live birth for the district as well as for the state, although district performance is below the state performance.

With respect to new born care, the district performance is better than the overall State performance. In 2014-15, about 98 per cent of children are put to the breast feeding within the first day of life for the district, which means below only 3 per cent infants are deprived of the highly nutritious first milk (colostrum) and the antibodies it contains. In 2013-14 it was around 95 percent. In 2014-15, Percentage of low birth weight new born babies is found to be much higher in the district (16.2%) as compare to the state average (10.3%).

The number of children examined though school health checkup is increasing. Among all the referral services, numbers of children are more under ophthalmic Surgeon and Paediatrician. Due to lack of Safe drinking water and better sanitation facility, the people of the district suffers from various water borne diseases such as Acute Diarrheal, Bacillary Dysentery, Acute Viral Hepatitis and Enteric Fever. The highest occurrence of Bacillary Dysentery disease is seen in the district (around 3 to 4 per cent) over the years.

Livelihood Patterns

The livelihood is very much dependent on natural and economic endowments and institutional arrangements. The livelihood hunt of the people of The Dangs depends on the rich forest and natural resources. Due to hilly terrain, the people of The Dangs have limited options of livelihood to choose from i.e there is limited agriculture, non-existent industrial activity and poor human development. The district occupies a unique existence in terms of occupational and livelihood patterns in the state.

The main source of livelihood for the tribal population of The Dangs is forest based activities and agriculture. Agriculture is mainly rain-fed and due to limited irrigation facilities, there are limited opportunities for Dangs. The quality of land in The Dangs is poor and major proportion of the agricultural land is situated on slopes, which makes irrigation difficult.

In 2012-13, the total geographical area of The Dangs is 176400 Ha. It comprises of 105488 Ha of forest area. The net sown area is 57911 Ha while total irrigated area is 1790 as per statistical outline of The Dangs. The major crops grown are paddy, Nagali, Varai, Groundnut, etc. major cereals crops are Black Urad and Toor and winter crops are gram, wheat. The farmers have increasingly started to grow vegetables in the district. Most farmers take only one crop. Only one third of the villages cultivate a winter crop. The district is showing increasing trend of rice replacing traditional crops like ragi, banti, sava and kodara, etc.

The major fruits grown in the district are Mango and Cashew nut while major vegetables grown are Okra, Brinjal, Cucurbits.

The forests based activities include collection and sale of non-timber forest produce (NTFP), cultivation and grazing of livestock, grass and wood cutting and bamboo plantation activities which are monitored through forest department of government.

As the majority of the population is ST, the landholding is more of the ST population. Medium holding to total landholding of STs is 49 percent of the STs while Large holding to total landholding is about 27 percent. The average large landholding per person for all social groups for the year 2005-06 was 14.01 percent and for the year 2010-11 it is 13.80 percent. In the district average land holding per person has marginally decreased.

The total livestock and total poultry in the district in the year 2007 is 135810 and 156242 respectively and for the year 2012 is 133012 and 193452 respectively. There has been decrease of 2.06 percent in the total livestock population as compare to 2007 while total poultry has been increase by 23.82 percent.

Government has started many initiatives in the district like Krishi Mahotsva, growing new crops like strawberry, sugar cane, sweet corn, etc. The agricultural crop production is increasing due to measures like financial assistance, providing a variety of agricultural equipment and providing scientific awareness regarding agricultural developments and focusing on extension work. Green houses are being propagated in the district.

Government has started new initiative - Dairy Development in the district in the year 2000-01. Two chilling centers were established at Waghai and Subir with capacity of 60,000 liters per day from the government fund. 45 dudh ghars were constructed in villages. In the year 2014-15, total 194 milk co-operatives are there in the district among which 191 co-operatives are female Milk Co-operatives.

The Work Participation Rate of The Dangs is highest among all the districts of the State. The WPR of The Dangs is 51.80 percent which encompass 53.88 percent of males and 49.73 percent of females. The WPR in rural area is more than that of urban area. Going through worker classification, the main worker in The Dangs (74.5 percent) is highest and that of State is 82.2%. The total percentage of cultivators is 54.60 percent in the district, whereas for State it is 22 percent.

Introduction

1

CHAPTER

Chapter at Glance

Total Area
1764 sq km

Forest Area
1055 sq km

Population
228291

ST Population
94.65%

Density
129 sq km

Sex Ratio
1006

Villages
311

District HQ
AHWA

Households
48448

Child Sex Ratio
964

Major Castes
Bhil, Konkana, Varli

Banks
14

Gram Panchayats
70

Cooperative Societies
743

Tourist Places

Saputara Hill Station, Giradhod, Purna Wildlife Sanctuary, Pandav Gufa (Caves), Botanical Garden Waghai, Shabridham and Pampa Sarovar

Human Development

Understanding a Perspective

Abstract

The concept of Human Development was first time introduced by UNDP in Human Development Report of 1990. Since then, the individual has been placed at the center of process of development. In this chapter a brief presentation of socio-economic profile of The Dangs including genesis, culture and history, population, socio economic context, administrative units, resource inventory, economic resources, education, health, basis infrastructure and amenities and finally a SWOT analysis of the district has also been attempted.

Development is a process of bringing desirable changes inside as well as in the surrounding environment of a society. Human development is about putting Human (people) at the centre of development. It is about people realizing their potential, increasing their choices and enjoying the freedom to lead lives they value. Under the leadership of late Mahbub-ul-Haq, UNDP introduced the concept of human development in the first Human Development Report of 1990. Since then, the individual (people) has been placed at the centre of the process of development. There are two dimensions of human development. One is to increase human capabilities – such as improved health, increase literacy, knowledge and develop skills. The other is the best possible use of acquired core capabilities – for leisure or for active participation in cultural, social or political life. Since 1990, annual Human Development Reports have explored challenges including poverty, gender, democracy, human rights, cultural liberty, globalization, water scarcity and climate change.

1.1 Glimpse of The District

1.1.1 Formation of the District

Dandakaranya of epic Ramayan was nothing but The Dang District of Gujarat State. The historical District is the only District of State with dense forest. Total 311 villages are covered by The Dangs. The Dangs district is a newly created district, formed after the merger of The Dangs States of the former Gujarat States Agency with the province of Bombay in 1947. On the creation of the new district of The Dangs, 4 villages were transferred in Surat district and 3 villages from Surat district were included in it. In November 1956, the States were reorganized and the bigger bilingual State of Bombay was formed with Vidarbha, Marathawada, Saurashtra and Kachchh regions.

The Dangs district along with the other districts formed part of the bigger bilingual State. Lastly, the Bombay State was bifurcated on 1st May, 1960 and separate state of Gujarat and Maharashtra were formed. The Dangs district became a part of the Gujarat State and placed under the administrative control of the Collector of Surat immediately. Shortly, thereafter, it was constituted as a separate district of only one taluka. The Dangs is the most backward district in India.

1.1.2 Location

The Dangs district is situated between the parallels of latitude $20^{\circ} 33'$ and $21^{\circ} 5'$ and the meridians of longitude $73^{\circ} 27'$ and $73^{\circ} 57'$. The length from north to south of this territory is about 59 kms (36.7 miles) and from east to west about 50 kms (30 miles). It is bounded in the North by Surat and Dhule district of Maharashtra State, in the east by Nasik district of Maharashtra State and west by Valsad district. As per census 2011, the area covered by the district is 1,764 sq km. The rank of this district is 25th in area in the State.



1.1.3 Culture & History

Dangi dance is famous in local culture. It is famous in India and in foreign countries as well. Many times dangi dance is performed in foreign country. Holi is the main festival of The Dangs; even people unquoted for labour work come back & celebrate the Holi festival with dance. There is no place of entertainment in The Dangs, so people of the district entertain themselves with local talk media TAMASHA. Tamasha is very famous in The Dangs. Dangi, is native language of The Dangs tribals and its inhabitants. It is the language of trade in this region. Dangi is a sub-group of Khandesi, which belongs to the Indo-Aryan language family. The Dangs were originally very poor, having few material possessions and survived by gathering food from the forests. They had no time for intellectual pursuit, but sought only to survive. They lived a hard, droning life in the mountainous forests, causing them to become individualistic and somewhat introvert. Nevertheless, their love for freedom has made them a people of strong character.

Dang Darbar

5 Bhil Kings ruled The Dangs District, which was in ancient times known as Danda-Karanya, till the Britishers came in the scene. Britishers were unable to conquer the area because of its hilly and difficult terrain. In 1842, they executed a forest lease with these 5 Rajas and Naiks in lieu of annual sum to be paid to the Rajas. This amount was paid to the Rajas and Naiks by holding Darbars. It was considered to be a great honor to receive payment from the hands of European Political Agents. Thus Dangs Darbar has arisen out of a payment to be made on account of forest lease and thus virtually a function which was organized by the District Administration for the last 154 years.

Till the turn of the 19th century Dangs Darbar was held traditionally at the time of Holi Festival and mostly at a district place other than Ahwa. In those times, it was celebrated with much funfair in which food grain, oil and other eatables were distributed to those who participate in Dang Darbar. The Dang Darbar of 1876 was a Darbar with a difference. It was held at Dhulia and was basically to honor the proclamation of Queen Victoria as an Empress of India. The Darbar held in later years find no mention in the history of The Dangs as they were held relatively quietly. In the Piplaidevi Darbar held in 1888, Dangi Chiefs gave their consent to forest demarcations. However, there were objections from the Chiefs to such demarcation as they felt their rules in forest areas were being curtailed. This was reflected in Dangs Darbar of 1895 and 1896. There is a mention of three Darbars been held in the year 1904 wherein it was suggested that the annual Darbar should be held at Waghai in April or May.

Upto 1947, The Dang Darbar was held annually, however, in some years the Darbar was held to highlight some or the other aspects of the District Administration. The Darbar after 1947 has also been an annual feature though in 1954, the rights and privileges of the chiefs were extinguished and instead hereditary political pension was granted to the chiefs.

DHDR: The Dangs

Though in 70's the political pensions of privy purses of Kings and Rajas were abolished in the whole of the country, the Dangi Rajas still enjoy it to a limited extent. This was turned to maintain their post-merger status. The Dang Darbar also continues on account of the same.

Dang Darbar (A Historical Legacy)

On this day, five Rajas are honoured and given political pension which is due to them. Besides this honor, rewards are also given to villagers having contributed significantly for fire protection.

Dang Darbar goes on for 3 days. However, the Darbar fair actually starts a week in advance. The merchants and tourists from outside participate in Dangs Darbar fair where Sweets and farsan, Utensils, Toys Cutlery, Radio, Tape, TV Cassette Recorders, Clothes, Articles of Bamboos, Household goods, Ornaments etc. are put up for sale. Besides this, Cinema and tamasha parties also do a brisk business. People almost from all villages visit Ahwa and enjoy the Darbar with their family and purchase household articles. Now a day, even outsiders come to witness this historic event.

The Dang District has not only been isolated geographically but historically too. Historians have had very little to say about this area between Vedic and British period as Britishers could not annex the area. Instead the Britishers virtually connected the bhil Rajas and made them enter into an agreement of Forest lease. The Dang Darbar is the outcome of the agreement between Bhil Rajas and Britishers.

Today, it has become more of a cultural event. Today all the traditions, cultural beliefs etc. can be seen and are reflected in Dang Darbar. Slowly it is becoming a rendezvous for the district cultural identities of The Dangs.

The Dangs after Bifurcation (09-09-2013)

There was only One taluka, Dang (Ahwa) with 311 villages in The Dangs district before bifurcation.

On 09-09-2013, The Dangs divided into three talukas, i.e. *Ahwa, Waghai, Subir*

Out of total 311 villages of Dang (Ahwa), 100 villages remained there with Ahwa, while 106 villages were shifted to Waghai taluka and 105 villages were shifted to Subir Taluka.



Note: This DHDR covers data/information about The Dangs District as per before bifurcation i.e. 1 Taluka- Dang (Ahwa)

1.1.4 Administrative Setup of the District

The geographical area of the District is 1764 sq.km. and the rank of this district is 25th in terms of geographical area of the State. The district has only one taluka. The administrative headquarters of the district are located in Ahwa. Out of 26 districts, The Dangs is the least populous district of Gujarat (as of Census 2011). Saputara and Waghai are important villages in this district. There are total 70 Gram Panchayats in the district which comprise of 3 Gram Panchayats & 67 Group Gram Panchayats. The Dangs also have 3 Taluka and 1 district Panchayat. The district has 311 inhabited villages.

Table 1.1 - Units of Administration

Sr. No.	Heads	Nos.
1	Area (Sq. Kms.)	1764*
2	Prants	1
3	Municipal Towns	0
4	Total Gram Panchayats	70
4.1	Gram Panchayat	3
4.2	Group Gram Panchayat	67
4.3	Taluka Panchayat	3
4.4	District Panchayat	1
5	Villages	311
5.1	Inhabited	311
5.2	Uninhabited	0

*Source: (1)*Census of India – 2011, Registrar General of India
(2) District Statistical Department- The Dangs 2014-15*

District collector looks after the general administration, maintenance of collection of land revenue and settlement of law related disputes, civil supplies, district planning, Mid-day meal scheme, etc. at the district level (as per district Census handbook). The functions of administration of law and order and control and investigation of crimes are done by the Superintendent of Police of the district with the help of police stations working under him. For the purpose of maintaining law and order there are 3 police stations at Ahwa, Waghai and Saputara and 3 Police out posts at Chinchli, Kalibel and Subir.

1.1.5. Demography

According to census 2011, the total population of The Dangs district is 2,28,291 comprising of 1,13,821 males and 1,14,470 females. The Dangs district constitutes of 0.38 percent population to total population of the Gujarat State. The 10.81 percent of district's population lives in urban area while 89.19 percent of them lives in rural area. As per census 2011, The Dangs is the least populous district of Gujarat after Tapi district. The major caste groups prevailing in the areas include Bhils, Konkans, Warlis, Kotvadiya and Nayak. There are also other numerically smaller tribal groups such as Gamits, and Chodras.

Table 1.2: Total Population in The Dangs

	Person	Male	Female
Total Population	228291 (100%)	113821 (49.86%)	114470 (50.14%)
Urban	24687 (100%)	12111 (49.06%)	12576 (50.94%)
Rural	203604 (100%)	101710 (49.95%)	101894 (50.05%)

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

The rural-urban distribution of population shows that the district has a lower percentage (10.81 %) of households staying in urban locations when compared with state average (42.6 %)

Table 1.3: Total Child Population (0-6) in the District			
	Person	Male	Female
Total Population (0-6)	40743 (100%)	20743 (50.91%)	20000 (49.09%)
Urban	2755 (100%)	1427 (51.80%)	1328 (48.20%)
Rural	37988 (100%)	19316 (50.85%)	18672 (49.15%)

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

The population of children with age group between 0 to 6 years is 0.52 percent to the total child population in the state. This means, there are 40743 children (0-6 years) of which 20743 are male child while 20000 are girl child. The percentage of child population in the district to that of total district population is 17.81 per cent out of which 1.21 percent child population lives in Urban area and 16.64 percent lives in Rural area.

Table 1.4: Decadal Change in The Dangs		
State / District	% of Decadal Change (2001-2011)	
	Population	Child Population (0-6 years)
The Dangs	22.26	11.48
Gujarat	19.28	3.25

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

The population growth during the last decade is 22.26 percent. This is significantly higher than the state’s population growth (19.28 percent). The change in child population (0-6 years) between 2001 and 2011 is 11.48 percent, much higher than the state average (3.25 percent).

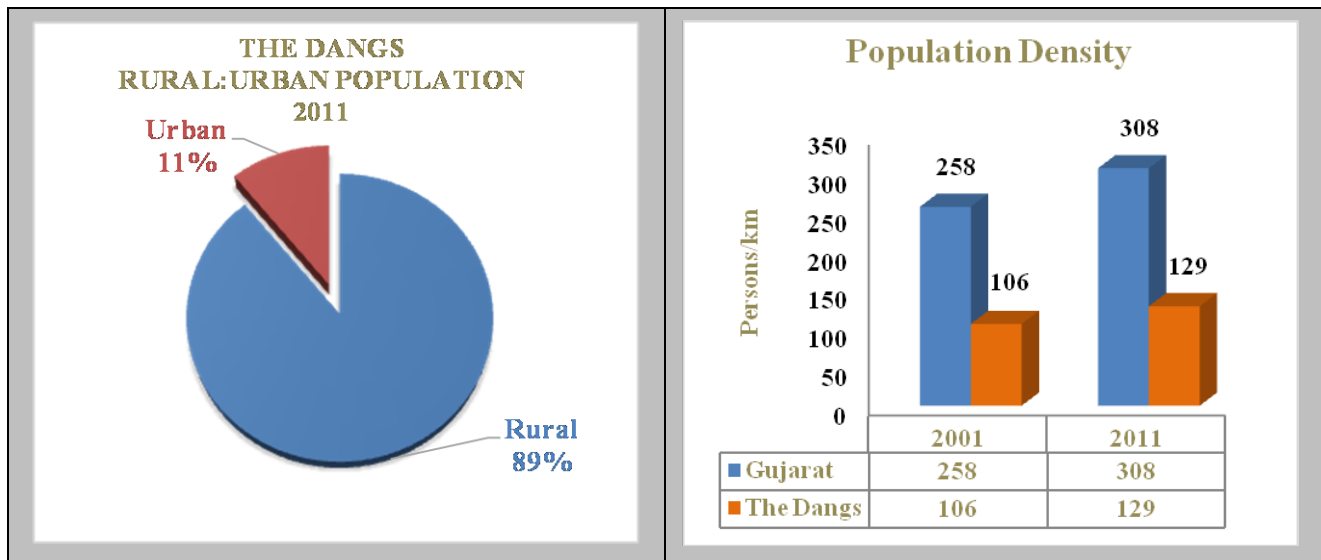
Table 1.5: Demographic Details: The Dangs		
	2001	2011
SC Population to Total Population	0.49%	0.43 %
ST Population to Total Population	93.76%	94.65%
Population Density (Per Sq. Km)	106	129
Sex Ratio	987	1006
Child Sex Ratio (0-6)	974	964

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

The districts Scheduled caste population (0.43%) is lower than the state average (6.74 %), whereas the S.T Population is very high (94.65 %) than the state average of 14.75 %. The population density (129) is almost half that of the state average (308) signifying the area to be far flung.

The sex ratio of the district (1006) is much higher than the state average of 919. The child sex ratio of the district is 964 which is higher than State’s average (890).

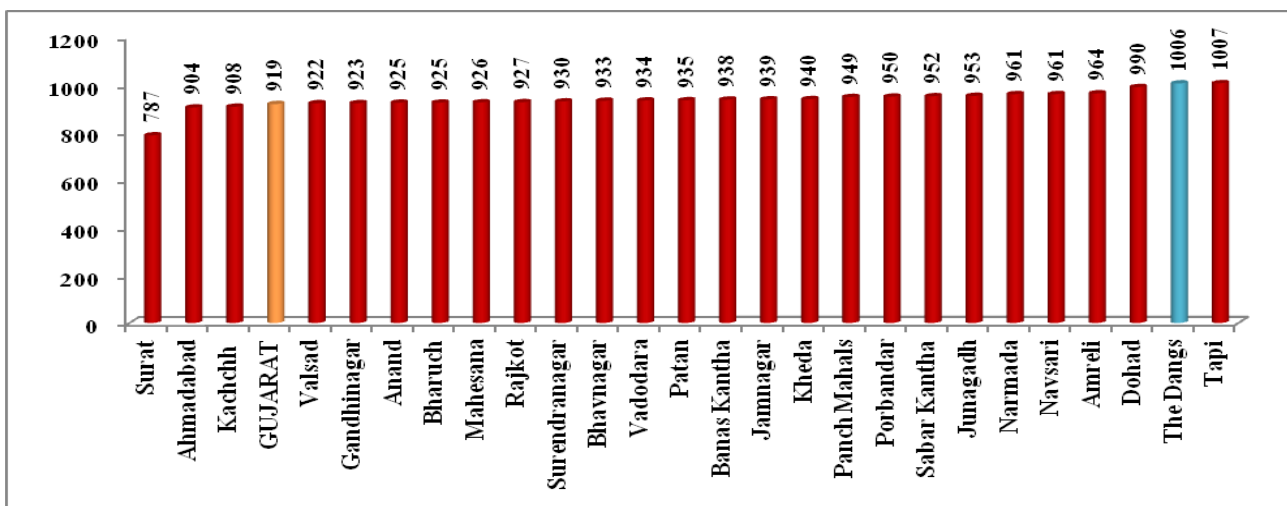
Figure 1.1 Population and Density of the district



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

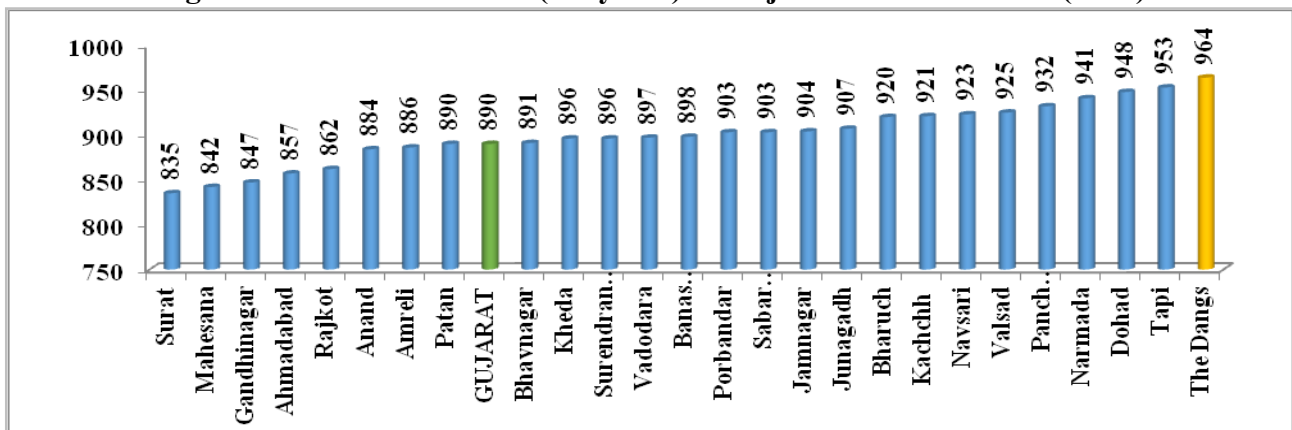
The above figure shows the Urban Rural Population and Population density in The Dangs. It can be seen that The Dangs consist of majority of rural population (89%) while urban population is only around 11 per cent.

Figure 1.2: Sex Ratio of Gujarat and its districts (2011)



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

Figure 1.3: Child Sex Ratio (0-6 years) of Gujarat and its districts (2011)

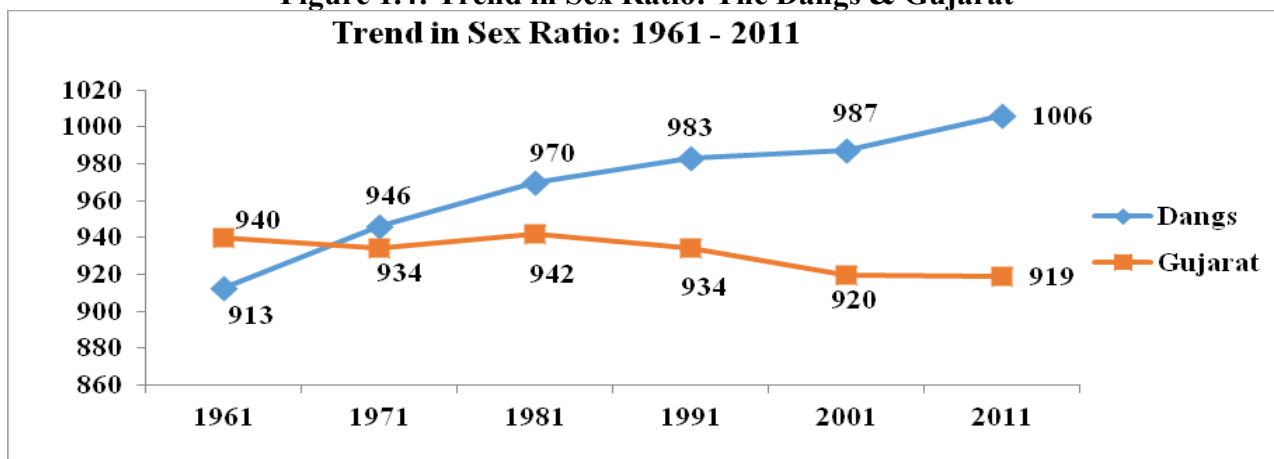


Source: Census of India – 2011, Registrar General of India

Figure 1.2 & 1.3 shows the sex ratio and child sex ratio (0-6 years) of Gujarat and its all districts. The Dangs district stands on second position in Sex Ratio and first in Child Sex Ratio among the districts of Gujarat.

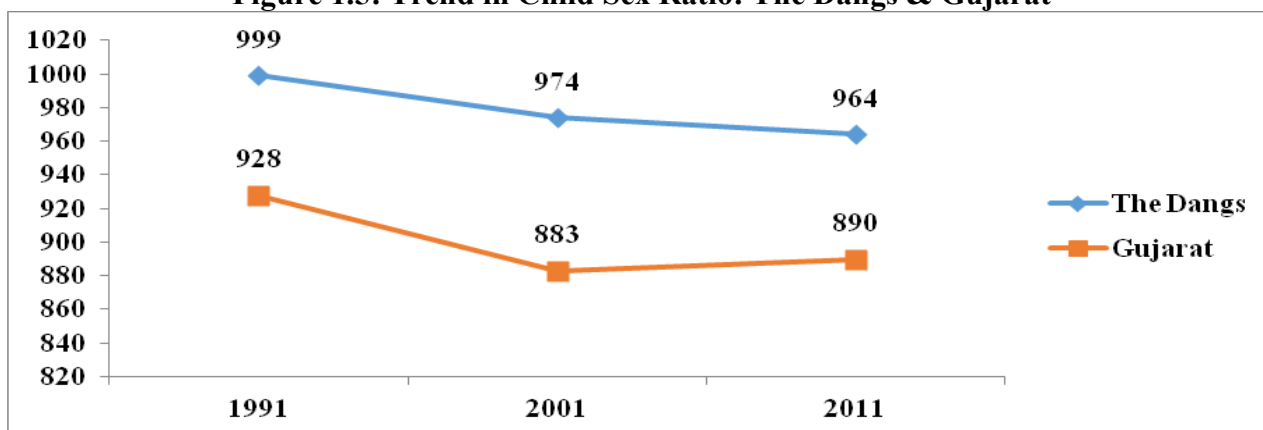
Figure 1.4 indicates the trend in Sex Ratio from 1961 to 2011 for The Dangs as well as Gujarat. It can be seen that the sex ratio of the district in 1961 was below than the State average while after that has showed an increasing trend over the decades.

Figure 1.4: Trend in Sex Ratio: The Dangs & Gujarat
Trend in Sex Ratio: 1961 - 2011



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

Figure 1.5: Trend in Child Sex Ratio: The Dangs & Gujarat



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

In contrary, Figure no. 1.5 shows the decreasing trend in Child Sex ratio for the district, which is a matter of concern. Here, the child sex ratio for Gujarat has been improved as compare to the last decade.

1.1.6 Physical Features

a) Geological Formation

The Dangs district is a part of the Eastern Hilly Region and is subdivided into two sub-micro regions, namely, Lower Dangs and Upper Dangs on the basis of physiography climate, geology, soils and natural vegetation.

Physiography of Lower Dangs region is characterized by low hills with an altitude ranging from 560 and 590 metres above M.S.L. The entire water of this region is drained by Gira, Purna, Khapri and Ambika rivers with their tributaries. The region has a thick vegetation cover. The geological structure of this region is composed of Deccan Trap. The region contains Orthents-Ochrepts formed and Orthents-Rock-Outcrops types of soils.

Upper Dangs region is a hilly tract having thick forest cover. The elevation of this region varies between 675 and 1290 metres above M.S.L. The main rivers of this region are Gira, Purna, Khapri and Ambika. The geology of this region is formed of Deccan Trap. Soils found in this region are black rock-outcrops, shallow black, brown and alluvial soils of recent origin.

The Dangs district is essentially a mountainous tract covered with dense forest which occupies 53 percent of its total area of The Dangs starting from the rugged chains of the Sahyadris in the east and descends on the Western side extending to the edge of Plains of Gujarat State. It starts in the east with chain of rugged mountains running up to about 1,100 meters (3,500 ft). Most of the areas in The Dangs lies in elevation between 300 to 700 meters above mean sea level.

b) Climate

The climate of this District, with a hilly terrain, is characterized by general dryness except during the monsoon season. The year may be divided into four seasons. The cold season from December to February is followed by the hot season from March to May. The period from June to September constitutes the South-West monsoon season. October and November may be termed the post monsoon or retreating monsoon season.

The temperature begins to increase from about the latter half of February. June was the hottest month with maximum temperature about 36.4° C in the year 1995-1996 and minimum temperature at 23.1° C. January is the coldest month with maximum temperature of about 31.4° C and minimum temperature of about 11.6° C. Thunderstorm occasionally occurred in the later half of the summer and monsoon season.

Winds are generally light with some strengthening in force during the later part of the summer and monsoon seasons. In May and in the south-west monsoon season winds are generally from directions between south and west. In the post monsoon season winds are variable in direction in the mornings and north-east to east in the afternoons. In the winter and early part of the summer season winds are from directions between south-west and north-west, with northerly and north-easterly winds blowing on some afternoons.

c) Rainfall

The average annual rainfall in the district between 1500 to 3000 mm. The rainfall in the district decreases from the West towards East. About 95 per cent of annual rainfall in the district is received during the South-West monsoon months June to September, July being the rainiest month.

d) River Network

The area is composed of undulating and rolling hills which has proved helpful in good drainage network. The important rivers are Purna, Ambika, Gira & Khapri. The Ambika & Purna originate from The Dangs district and flow through Valsad district to meet the Arabian Sea in the west. The other river, the Khapari Originate from Bhegu valley and meet Ambika river near Borkhal Village of The Dang, while The river Gira rises from direction of Malangdevota in Maharastra and passes through The Dangs and meets river Mindhola in surat district. The rivers have high density of drainage and steep incline resulting in to quick runoff during monsoon. This cause a higher rate of land erosion and the transport of silt load.

Moreover, the river Dhodhad flourishing in the Davad hills of the Western Ghats and it finally empties itself in Purna river near Lavchali. The Sarpgana River is rising in Western Ghats and passing through Saputara village proceeds in the direction of the Nasik district of Maharastra state. The entire rainfall receipt is drained out of The Dangs only from two points: one near Waghai for Ambika & Khapori and another near Bhenskhatri for Purna & Gira Rivers. Thus, the drainage pattern follows the slope gradient of the topography.

1.2 Soil and its Productivity

1.2.1 Soil and Cropping pattern

The Dangs mainly cultivate food crops as it produce for self-consumption and not for sale. Agriculture is mainly rain fed and there is lack of irrigation facilities in the district due to hilly terrain. Hence, percentage of cash crops cultivated in The Dangs has always been quite negligible.

1.2.2 Soil Type

The soils in The Dangs range from red to black. Red soil is found along the upper parts of the valley and black soil in the plain of the western Dang. In some parts medium loam to sandy loam type is found. Lateritic soils generally formed due to silting of the soil particles. The soils of The Dangs are of the residual type derived from the trappean basalts. They are severely eroded and become stony in surface.

In absence of storage mechanism and failure of afforestation, large scale soil erosion takes place in monsoon and the topsoil is getting completely washed away in course of time. The traditional slash and burn cultivation practices also contribute to the erosion. The poor soil conditions lead to poor yields, low returns, reservoirs sedimentation, ecological imbalance and flash floods.

1.2.3 Forests

The district is very rich in protected forest (PF) as well as reserved forest (RF), which comprises 59.80 % of total land of The Dangs. This 59.80 per cent includes the parts of the protected forest, where people have been granted the rights of cultivation. This right increases cultivation area shown outside the forest area. The 82 % forest land consists of RF and for a small part of PF that has not been cultivated. In RF area neither forest lopping nor timber cutting is allowed. The RF in the The Dangs is amongst the richest forest in the whole of Gujarat having most of teak trees of high quality whereas in its other parts there is great biodiversity with Sadad, Khair, Khakhro, Umbero, Rayan, Bamboo and many others timber species. It also produces important natural product like timber, Firewood, Charcoal, industrial wood, gum, fruits, honey, herbs, and medicinal plants. The forest of the district has been classified as south Indian moist deciduous forest (38%) and southern dry deciduous forest (58%).

1.3 Civic Amenities

1.3.1 Drinking Water

The sources of drinking water comprises of Tap water from treated source, Tap water from untreated source, Covered well, Un-covered well, Hand pump, Tube well/Borehole, Spring River/Canal, Tank/Pond/ Lake and Other sources. The total number of households in The Dangs district is 48448 (Census-2011).

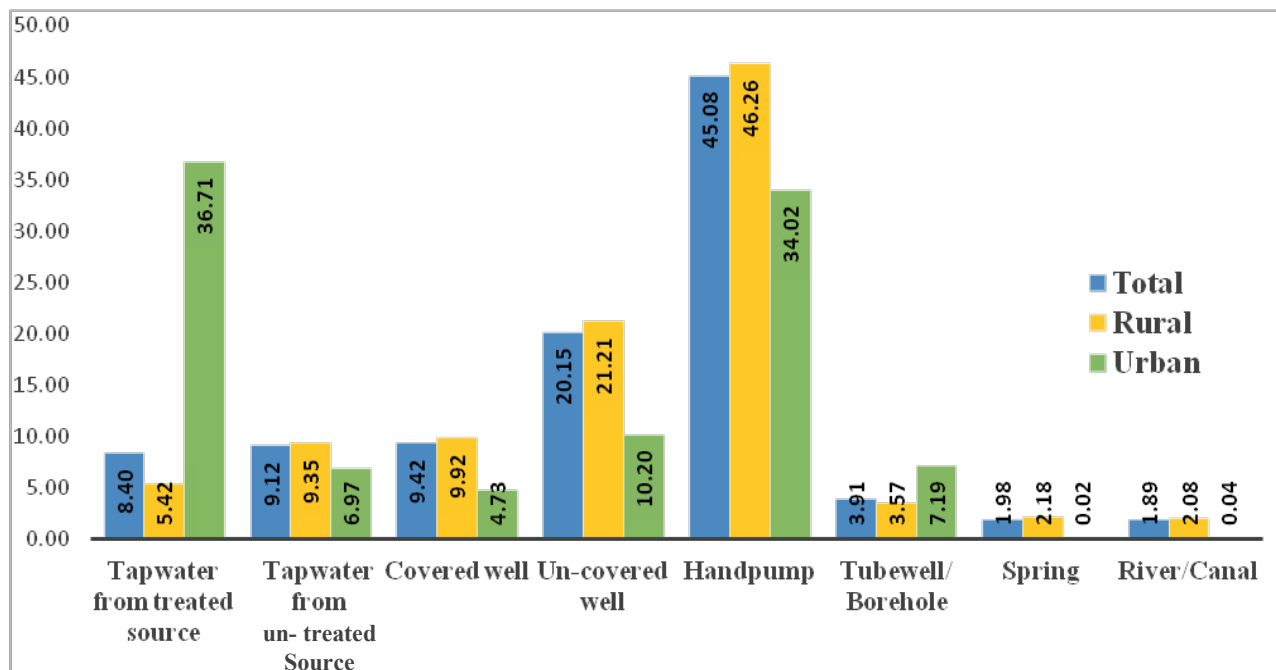
It can be seen from the below figure that in 2011, 45.08 percent of the population depended upon hand pumps and 20.15 percent of the population depended upon wells for their drinking water requirements.

Thus, a large amount population is depended upon ground water for drinking water requirements. As per census 2011, the dependence on groundwater for drinking water purpose has indeed declined over the years as households are now having access to tap water provided by the authorities. This should be hailed as a step in the right direction. On the other hand, the amount of utilizable ground water is continuously declining. The depletion of groundwater aggravates during summer season. Many sources become non operational by the end of February (the onset of summer). During this

time, the pressure on groundwater increases many fold, as the consumption gets higher both for human beings and animals. This also leads to health problems as both cattle and human share the same source of drinking water.

In Urban area of The Dangs district, with 4606 households, 36.71 percent households receive drinking water through tap water from treated source while 34.02% of households get drinking water from Hand pumps and 10.20 percent from Un-covered well.

Figure 1.6: Main Source of Drinking Water in The Dangs as per Census 2011 (in %)



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

Whereas, in Rural area of The Dangs district, 43842 households, the major source of drinking water is Hand pump. About 46.26 percent households get drinking water from hand pumps, 21.21 percent from un-covered well, 9.35 percent and 9.92 percent through tap water from un-treated source and covered well respectively.

Table 1.6: Coverage of Water Supply in the District (2014-15)

District	Total Villages	Covered in RWSS			Individual	% Connectivity by Surface Source	% Connectivity by Ground Source
		Total	Other Surface Source Based RWSS	Ground Water Source based RWSS			
The Dangs	308*	139	29	110	169	10%	90%

Source: Gujarat Water Supply and Sewage Board, Gandhinagar, 2014-15

RWSS: Regional Water Supply Scheme

The above table shows the coverage of the drinking water. About 90% of the villages are having connectivity through ground surface water whereas only 10 percent of the villages are having surface source connectivity.

* Current number of villages i.e. 308 villages after the bifurcation of 3 talukas of The Dangs district in 2013

Table 1.7: Drinking Water Facilities in the District (2014-15)

District	Total Villages	No.s of Hand Pumps	Nos. of Mini Pipe	Solar Mini	In village Water Supply Scheme	Household Connectivity	Roof Top Rainwater Harvesting Structure
The Dangs	308*	5935	376	30	268	28406 (64.25%)	4646

Source: Gujarat Water Supply and Sewage Board, Gandhinagar, 2014-15

The above table represents the other drinking water facilities available in The Dangs district. In the year 2014-15, around 65 percent of the households are drinking water connectivity either through Hand pumps, Mini Pipe or Solar Mini or Invillage water supply schemes.

1.3.2 Sanitation

The urban locations are better endowed with sanitation. Only 28.35 percent of total households have latrine facility within premises comprising 25.26 percent of rural households and 57.79 percent of urban households. 71.65 percent of households do not have latrine within the premises. So they often use public latrines or open area.

Table 1.8: Sanitation Facility in the district (%)

Total / Rural / Urban	Total number of households	% of households having latrine facility within the premises	% of households not having latrine facility within the premises	No latrine within premises (%)	
				Alternative source Public latrine	Open
Total	48448	28.35	71.65	2.37	69.28
Rural	43842	25.26	74.74	1.79	72.95
Urban	4606	57.79	42.21	7.86	34.35

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

The difference as regards to sanitation facilities available to residents in the districts living in rural location shows that open defecation is practiced by majority of the households. Of about 69.28 percent of households don't have latrine facility within premises and go in open area, while 2.37 percent of households with no latrine in premises use public latrines. The worse picture is in rural area. The open defecation is practiced by about 72.95 percent of households in rural area while 34.35 percent in urban area households.

1.3.3 Bathing Facility and Type of Drainage Connectivity for Waste Water Outlet

Table 1.9: Bathing Facility & Type of Drainage Connectivity in the district (%)

Total / Rural / Urban	% of households having bathroom facility within the premises			% of households having Waste water outlet connected to		
	Yes		No	Closed drainage	Open drainage	No drainage
	Bathroom	Enclosure without roof				
Total	13.73	29.00	57.27	1.36	2.96	95.68
Rural	9.84	29.93	60.24	0.34	2.61	97.05
Urban	50.83	20.17	29.01	11.03	6.27	82.70

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

* Current number of villages i.e. 308 villages after the bifurcation of 3 talukas of The Dangs district in 2013

From the above table it is visible that majority of the households (57.27 percent) are not having bathing facility within the premises. 42.73 percent of the households have bathing facility within premises out of which 29 percent are in the form of enclosure without roof.

Large amount of households don't have drainage facility for waste water i.e. about 95.68 percent of the households are not having drainage facility for waste water.

1.3.3 Household Lighting

The Dangs district comprises of only 61.50 per cent of households with electricity which is very low as compare to State average (90.41%). In the district, 58.67 per cent of the total households in rural areas have electrical connection within their house. Around 0.28% household have other source of electricity, whereas 1.09 % do not have any source of lighting. The urban locations shows that 88.38 % of the households have direct connection of electricity, 0.69 % have other source of lighting and 1.15% does not have any source for lighting.

State/ District	T/R/ U	No. of Households	Electricity (%)	Other Source (%)	No Lighting (%)
Gujarat	Total	12181718	90.41	0.42	0.96
	Rural	6765403	84.98	0.60	1.36
	Urban	5416315	97.19	0.20	0.45
The Dangs	Total	48448	61.50	0.28	1.09
	Rural	43842	58.67	0.23	1.09
	Urban	4606	88.38	0.69	1.15

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

Below figure reveals the number of households with electricity connection as per Dakshin Gujarat Vij Company Limited (DGVCL).

District	Total / Rural / Urban	Electricity (No. of Households)	Electricity (%)
The Dangs	Total	36532	75.40
	Rural	31926	72.82
	Urban	4606	100.00

Source: DGVCL, The Dangs

As per the above table, in The Dangs, the percentage of households having electricity facility are 75.40 percent comprising of 72.82 percent of rural households and 100 percent households of Urban area which shows a good picture.

1.4 Support Infrastructure

1.4.1 Transport and Communication

A well-knit transportation system is a pre-requisite for social and economic development of any society. An efficient transportation and communication system also plays a crucial role in influencing livelihood pattern of people. A total of 1179 kilometers of Surfaced Roads existed in the district. This is constituted of State Highways of 277 kms all of which are Black Top Roads. There are no Major district roads in The Dangs. Other District roads accounted for a total of 147 kms. The Village Approach Road constituted of 755kms (including Planned & unplanned both). There are no National Highways in the district.

Table 1.12: Class-wise Road Length in The Dangs (2012-13)

Type of Road	Total Roads (in Kms)
National Highways	0
State Highways	277
Major District Roads	0
Other District Roads	147
Village Roads (Planned & Non Planned)	755
Total	1179

*Source: (1) Executive Engineer, R & B (Panchayat) – The Dangs (Ahwa)
(2) Executive Engineer, R & B (State) –The Dangs (Ahwa)*

Table 1.13: Total Road length in The Dangs (2012-13)

Type of Roads	Length (in Kms)
Kuchcha Road	190
Pucca	1085
Total	1275

*Source: (1) Executive Engineer, R & B (Panchayat) – The Dangs (Ahwa)
(2) Executive Engineer, R & B (State) –The Dangs (Ahwa)*

As per the latest year the total pucca roads in the district is 1085 kms while total kuchcha road is 190 kms.

All the villages are connected through State and other private transport facilities, like buses and other means. In The Dangs district railway facilities are limited due to hilly terrain. A railway line connects Waghai with Navsari district. Other nearest railway stations are Surat and Valsad on the Ahmedabad Mumbai broad gauge. The railways are also available from Nashik in Maharashtra around 80 kms from Saputara and 119 kms from Ahwa, the district headquarters.

1.4.2 Posts offices

There is one main post office with 5 sub offices and 59 branches in The Dangs in the year 2013-14. There are total 255 villages with no posts offices which means that there is a wide absence of post offices in the villages of the district (as per village profile 2013-14).

1.4.3 Trade and Commerce

The trade and commerce activities in the district include wholesale and retail trade of all kinds and other commercial activities like financial, insurance, real estate, tourism and other business services. The district is well known for carpet weaving and forest produce like timroo leaves, medicinal plants and timber wood. It had 61 Primary Agricultural Credit Societies, 16 Primary Non-Agricultural Credit Societies, 12 Marketing, 205 Milk and Livestock, 2 Fishery Cooperative Societies as on 2012. Besides there were 4 Consumer Stores, 13 Housing, 52 Labour, 27 Forest Labour, 36 Irrigation, 4 cooperative Union, 45 Industries, and 264 other Non-credit Societies. Thus, a total of 743 Cooperative Societies and Banks existed in the district as on 2012 (statistical abstract of Gujarat state- 2013).

The extent of Banking indicate economic activity in a region. The Dangs has a total number of 6 centres of Scheduled Commercial Bank, having 11 offices accounting for ₹ 34170 lakh in deposits, while credit extended is ₹ 7358 lakh with a Credit to Deposit Ratio of 21.53 during the year 2013. Out of 11 offices, 4 belongs to the State Bank and its associates, while 7 offices were of Other Scheduled Commercial Banks including Nationalized, Foreign and Regional Rural Banks as on 2013. The poor telecommunication services only contribute to a few jobs created for local people.

This is owing to the fact that telecommunication is predominantly dependent on government owned BSNL and its penetration is at a very low level in the district. Life Insurance Corporation of India plays an important role in tapping a portion of public savings through the collection of insurance premium. Other private insurance companies are gradually entering the district however insurance business in the districts is dominated by the LIC and privatization of insurance services is not creating jobs in the district.

1.4.4 Gram Panchayats- its role in the development of village economy

The primary function of the District / Taluka Panchayats is to provide facilities for primary education, health, drinking water, electricity, construction and maintenance of roads, bridges etc., and managing gauchers and village commons, organizing relief work at the time of scarcity and draught situation and social welfare. Various rural development schemes are implemented by Panchayats like, ‘food for work’, ‘mid-day meals’ etc. for local people. Hence, Panchayats play an important role in the development of village and its economy. Out of 311 villages there are 70 Gram Panchayats in The Dangs district which encompasses of 3 Gram Panchayats and 67 Group Gram Panchayat. The Gram panchayats also provide seasonal work to the local people through various promotional programmes funded by Central and State government schemes for rural development, employment creation and poverty alleviation.

1.5 Tourism

The tourism and services related hold considerable potential to create employment and income but its development in the district is at its minimum. A lot of effort needs to be put in to harness full potential of tourism for benefit of people in the district. At present it is not fully developed and provides employment to a few hundred people approximately at the most throughout the year.

However, The Dangs district is gradually emerging into a tourism hub. It is a tourism destination having rich and dense forest and interesting culture. Rich wildlife, gardens, ropeway, sunrise point and echo point are some of the main tourist attractions in The Dangs.

Saputara is an important tourist destination in the district. There are other places like Waghai, Chankhal, and Ambapada, etc., with great potential for tourism. There are around 20 small and big waterfalls in the district. Botanical Garden situated at Waghai, another tourist attraction is famous for its cactus house and plant diversity. Campsites, developed by forest department, are the best places to stay in forest and experience the real thrill.

Saputara being a leisure destination for tourist, below are some statistics on tourist and tourist flow visiting there.

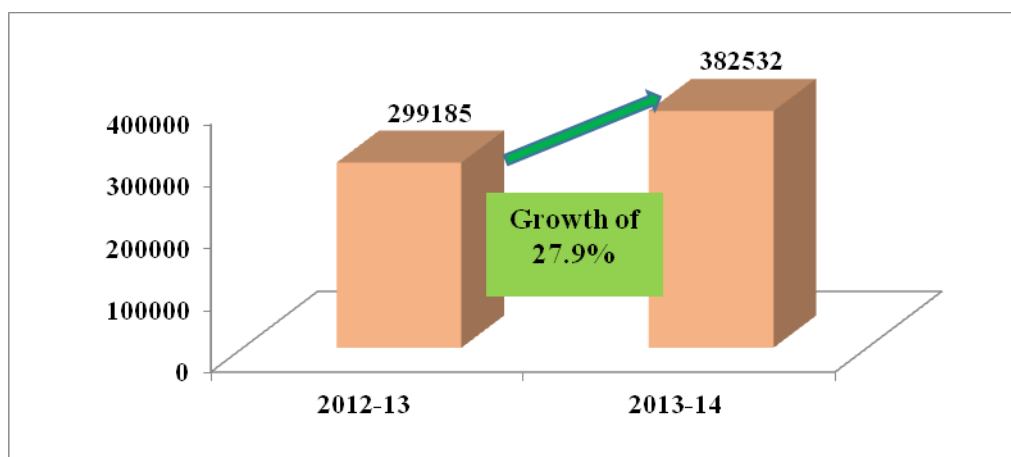
Table 1.14: Tourist Flow in Saputara – The Dangs (2013-14)

Destination	Flow	%age
Saputara	382532	1.3
Gujarat	28787967	100.0

Source: Annual Report 2013-14, GITCO & Tourism Corporation of India

The above table shows the number of tourist in Saputara for the year 2013-14. The percentage share of tourist in Saputara to total gross tourist in Gujarat is 1.3 percent.

Figure 1.7: Growth in Tourist at Saputara



Source: Annual Report 2013-14, GITCO & Tourism Corporation of India

From above figure it can be seen that Tourist flow at Saputara (leisure destination) has increased by 27.9% in 2013-14, compared to 2012-13. This indicates that Saputara is new emerging leisure destination of Gujarat.

Table 1.15: Origin of Tourists (2013-14)

Destination	Within Gujarat		Other Indian State		NRI		Foreigner		Total	
	No	%	No	%	No	%	No	%	No	%
Saputara	277780	73	104721	27	31	0	0	0	382532	100
Gujarat	894328	77	246849	21	10190	1	3591	0	1154958	100

Source: Annual Report 2013-14, GITCO & Tourism Corporation of India

The majority of tourists at Saputara i.e 73% of them are from Gujarat itself. The share of Other India State (OIS) tourist in the flow at Saputara is 27%, while that of NRI/foreigner is 0%.

Table 1.16: Other Indian States tourist Flow at Saputara (%) – 2013-14

Destination	Maharashtra		Madhya Pradesh		Rajasthan		Uttar Pradesh/Bihar		Other North/East Indian State		South India		Total
	No	%	No	%	No	%	No	%	No	%	No	%	
Saputara	79249	76	12050	12	9737	9	2920	3	285	0	480	0	104721
Gujarat	140716	57	32643	13	37099	15	20897	8	1906	1	8823	4	246849

Source: Annual Report 2013-14, GITCO & Tourism Corporation of India

Above table represents the tourist at Saputara from other states of the Country. The majority of OIS tourist are from Maharashtra which accounts 76%; while Madhya Pradesh, Rajasthan and Uttar Pradesh/Bihar accounts for 12%, 9% and 3% respectively.

Thus, the Dangs, thus have a great opportunity to influx huge number of tourist and generate employment opportunities for the local people.

Here are major tourist attractions in the district.....



Saputara Hill Station

Saputara: also known as “Abode of Serpents”, is hill resort on a plateau of the Sahyadri range of mountains that offers rich wildlife for tourists.



Saputara Museum

It contains interesting information about the topography and anthropology of The Dangs.



Gira Falls

It (3 km from Waghai) is a 30 meter natural drop into Ambika river and offers solace and relaxation. A natural waterfall which is an eye treat, its height is approximately 200-250 feet, almost whole year it is full with water.



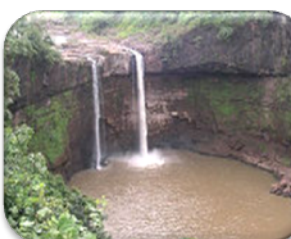
Purna Wildlife Sanctuary

This sanctuary in the district has the thickest forest cover in the State and is filled with canopies of teak and stands of bamboo with water.



Shabridham and Pampa Sarovar

This place is said to be place where Shriram(an hindu god), while his journey through forest, met with Shabri, who was a devotee of him, This Place is located in Subir village of Subir block of The Dangs district.



Pandav Gufa (Caves)

Pandav Gufa situated in Pandava village on the route to Chinchali village. It is said here that Pandavs in the period of their ‘Vanvas’, stayed here, One can observe five different rooms(khands) in those caves, One of them is a bigger one(approx. length of 40 to 50 feet), said to be the room for Bheem.



Botanical Garden Waghai

It is situated in Waghai Block, 1 KM away from Waghai on Saputara road, it's area is around 24 Hectare, which is divided into 9 Plots. Around 1028 types of plants are available here. Few plots here are Medicine plot, Green house, Arctic House, Bamboo Plot, Museum etc.

1.6 SWOT Analysis

<p><u>Strengths</u></p> <ul style="list-style-type: none"> -The highest area under protected and reserved forest in the state ,results rich in biodiversity including non-timber forest produce -High level of annual rainfall (1500-3000 mm) -Four main rivers along with a number of nallahs and streams -Strong traditional knowledge regarding issues like farming, conservation of seeds of different varieties of grains and medicinal plants is another major strength of The Dang district 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> -Low skill profile of the tribals, majority population of the of The Dangs is engaged in low skill based occupations which directly impacts their livelihood -<i>Scattered inhabitation:</i> the tribal people of The Dangs are residing in sparsely located hamlets which increase the per capita development investment to a great extent -Low level of Agricultural productivity -Poor connectivity of Road, many villages get cut off during monsoon. -The undulating topography with shallow soil, morrum soil, heavy erosion and poor water retention capacity
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> -Promotion of timber produces particularly of teak woods and setting up processing units for agriculture and forest produce -Natural availability of Bamboo trees creates scope of Bamboo craft units' promotion -Abandon Potential for promoting tourism at Saputara, the only hill station of Gujarat -The productivity of the people can be enhanced substantially by skill based capacity building, creating awareness and making them literate 	<p style="text-align: center;">SWOT</p> <p><u>Threats</u></p> <ul style="list-style-type: none"> -Forest Conservation (Reserve and Protected forest) Act is rigorous -Tough Child Sex Ratio for the district is highest than the other districts of the Gujarat but still it is showing decreasing trend from 1991 to 2011.

Natural Resources

2

CHAPTER

Chapter at Glance

Forest Area
59.80 %

Reserved Forest
48.99%

Protected Forest
10.81%

Very Dense Forest
209 sq km

Moderately Dense Forest
745 sq km

Open Forest
414 sq km

Average Rainfall
1706 mm

Major Rivers
**Gira, Purna, Ambika and
Khapri**

Soil types
**Black Cotton,
Laterite and Rocky**

Natural Resources

Abstract

This chapter discusses the endowment and development of natural resources viz. forests, land, water, livestock and mineral wealth in The Dangs. The district is quite rich in resource endowment, but its harnessing and productive use is insufficient. Forest resources in The Dangs need to be expanded and enriched in order to provide sustainable livelihoods to the tribals and strengthen the ecology. Abundant rainwater in The Dangs needs to be harnessed so that drinking water could be provided for the whole year and irrigated area could be expanded. Government efforts in this regard need to be strengthened. Land resources are seriously endangered due to continuous deforestation and land erosion during monsoon. This needs to be mitigated so that agricultural productivity could also improve and new crops could be grown here. Traditional agricultural crops of TheDangs also need to be supported. Livestock rearing and dairying could act as a lucrative supplementary occupation which could help reduce forced migration.

2.1 Forest Resources

2.1.1 History and Political Economy

In medieval times The Dangs was known as a country of thick and moist forests and deep river valleys, which was considered almost impenetrable by armies from outside. At the time of the entry of the British in the 1820s, The Dangs was an independent kingdom ruled by 5 Kings and 9 Naiks. In those days, cultivation in forestlands, hunting, fishing and gathering of wild-fruits and roots were the main forms of economic activities of the people. The concept of private ownership of land was non-existent and cultivation in forestlands was done wherever it was possible and according to needs of the family. Shifting cultivation was practiced.

The British made several unsuccessful attempts to subjugate the Dangi kings. Finally, in 1842 the British succeeded in convincing the Dangi kings to enter into a lease-agreement with them. The lease was further extended in 1862. As per the terms of this lease, the British rulers acquired certain parts of The Dangs forest from which they could fell and transport timber, while the Dangi kings continued to be nominally independent political rulers. Till 1948, The Dangs was administered under the Foreign Jurisdiction Act of the British Government. In essence, the Dangi kings and the people continued to exercise their traditional rights over forest-lands, forest-produce and resources; and at the same time, granted the British, the right to fell and transport timber from certain areas of the forest for a limited period.

The 1870s Forest Act and other sets of rules made by the British officials provided a framework to maximize revenues from The Dangs forest. Conservation of the forest was compromised in the process. The British rulers also initiated measures to demarcate the forests into 'Reserved' and 'Protected' areas. Shifting cultivation (also called Raab Cultivation), collection of fuel-wood, wood for building of houses, mahuwa, and other forest produce was banned in the 'Reserved' and 'Protected' forestland. This led to decreased rights of the Dangis over the use of forestlands and forest-produce which were the only source of livelihood for them. The Dangis resisted these measures in a spontaneous and sporadic manner which could not sustain. By 1911, two-thirds of the land formerly held by the Dangis was taken over by the British government. The large-scale displacement and deprivation of the traditional rights of Dangis was further accentuated by a total absence of alternative sources of economic activity and livelihood.

2.1.2 Present Scenario

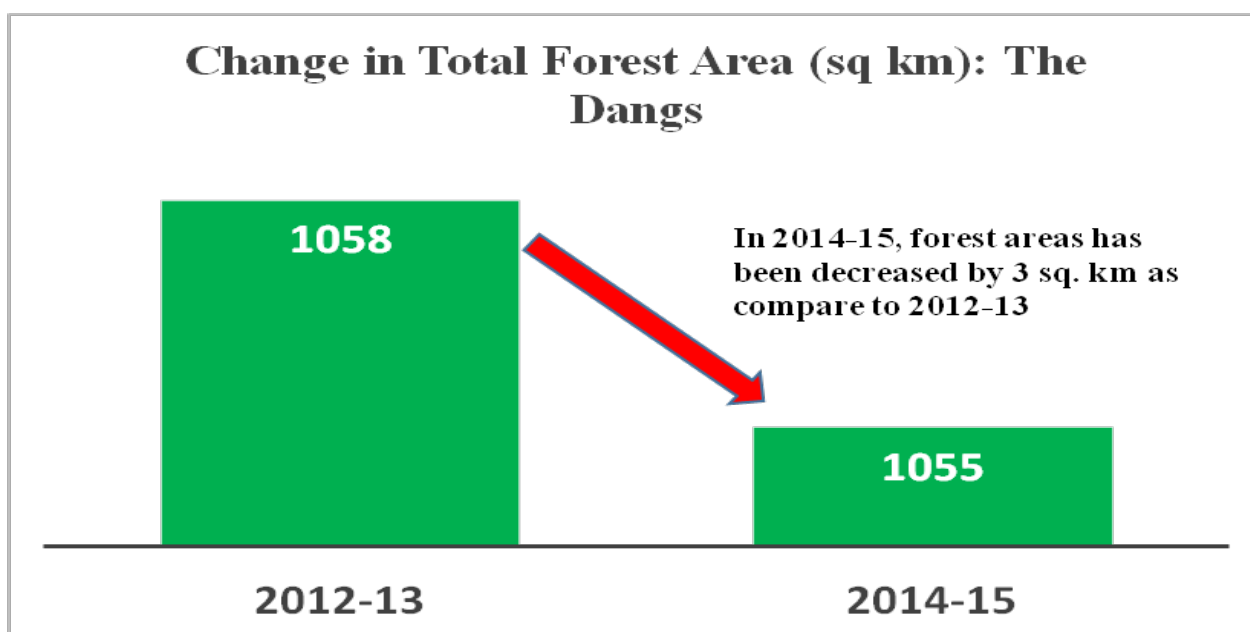
The Dangs district abounds in dense forests named as Mahal, Kalibal, Galkund, Don, Waghai and Pipaldahad. The total area under forest in the year 2015 is 1054.88 sq. kms in the district. The Dangs is rich in timber as most of the trees are of high quality teak. Besides, important natural products like, firewood, charcoal, industrial wood, bamboos, gum, fruits, honey, herbs and medicinal plants are also produced. The total forest area of The Dangs consists of two parts namely, protected forest (PF) and reserved forest (RF), which are under the jurisdiction of the Forest Department, Government of Gujarat (GoG). Together, they comprise about 60 percent of the total area of The Dangs. The Dangs forests lie within the belt of heavy rainfall and can be classified as South Indian Moist Deciduous Forest and Southern Dry Deciduous Forest. They fall in the bio geographic zone 5 “Western Ghat”, under biotic province 5A “Malabar Coast” and 5B “Western Ghat Mountains”. They provide a suitable ecological habitat for the wild life in terms of natural cover, food and water. For preservation of wildlife, the GoG has set up the Purna Wildlife sanctuary (160 sq. km) around Purna River in the northern part of The Dangs and the Vansda National Park with an area of 23.9 sq. km. The important species living here are hyena, sambar, chital, barking deer and monkey. The distribution of forest land in The Dangs in 2015 is as follows:

District	Geographical Area	Reserved Forest	Protected Forest	Total Forest Area
The Dangs	1764 (100%)	864.17 (48.99%)	190.71 (10.81%)	1054.88 (59.80%)
Gujarat	196024 (100%)	14387.16 (7.34%)	2888.85 (1.47%)	21664.99 (11.05%)

Source: 1) Forest Department, The Dangs (2015), 2) Gujarat Forest Statistics 2012-13

Above table represents that around 49 percent of the area to the total geographical area of The Dangs is Reserved Forest while around 11 percent is Protected Forest area.

Figure 2.1: Change in Total Forest Area of The Dangs



Source: Forest Department, The Dangs

In parts of the PF, people have been granted the rights of cultivation. Due to this, the PF has been subjected to intermittent and rotational cultivation, which has resulted in its degradation.

In RF neither lopping nor timber cutting is allowed. The RF in The Dangs is amongst the richest forests in the whole of Gujarat. While in some parts there is a monoculture of teak trees or ‘Sag’ (Tectonagrandis), in other parts there is great biodiversity with, Sadad (Terminaliacrenulata), Khair (Acacia catechu), Khakro (Buteamonosperma), Umbero (Ficusracemosa), Rayan (Manilkerahexandra), bamboo and many other timber species. The Dangs forests are also a source of medicinal plants like Mardasingi (Helicteresixora) and Baheda (Tecomestansmicrocarpa). The Dangs is also known for its floral diversity (550 species of plants). Many plant species are endemic to The Dangs. Plants like Embeliaribes, Solanumindicum, Mallotusphilippensis, Gloriossasuperba, Tylophoraindica, Nordostachysjatamansi, Gymnemasyvestre, Coleus forskohlii, Costosspeciosus, Chlorophytumborivillianum, Chlorophytumtuberosum etc. are found in abundance.

Table 2.2: Forest Cover: The Dangs
(Area in sq.km.)

G.A.	VDF	2011 ASSESSMENT			% OF G.A.	SCRUB
		MDF	OF	TOTAL		
1764	209	745	414	1368	77.55	3

Source: State of Forest Report, 2011, Forest Survey of India, Dehradun

G.A.: Geographic Area

VDF: Very Dense Forest (All lands with tree canopy density of 70% and above)

MDF: Moderately Dense Forest (All lands with tree canopy density of 40% and more but less than 70%)

OF: Open Forest (All lands with tree canopy density of 10% and more but less than 40%)

SCRUB: (Lands not included in any of the above classes)

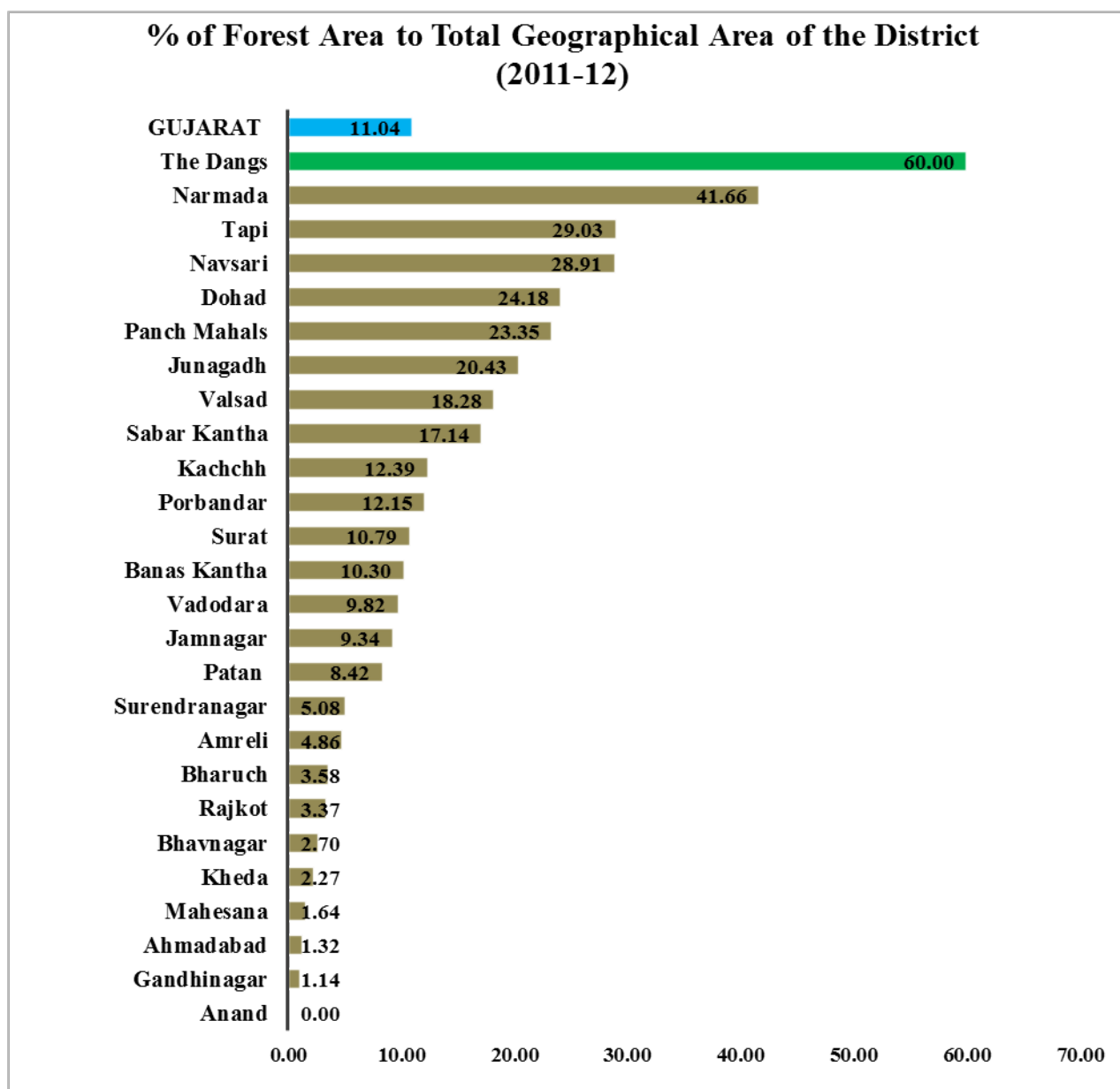
According to State Forest Report, 2011, the forest cover of The Dangs is 1368 sq. km. which is 77.55 per cent of the total geographical area of the district. The forest cover of the district is shown in three density classes viz. Very Dense Forest with more than 70 percent canopy density, Moderately Dense Forest with canopy density between 40 percent to 70 percent and Open Forest with canopy density between 10 percent to 40 percent.

Above table signifies that Very dense forest (VDF) in The Dangs is about 209 sq km., Moderately Dense Forest (MDF) 745 sq. km and Open forest 414 sq. km. The total forest cover³ to the total geographical area of the district is 77.55 per cent. Major part of the Dang forest is Moderately Dense forest (54.45 per cent).

The below figure 2.2 shows the % of forest area to the total geographical area of the district for the year 2011-12. It is clear that The Dangs has the largest forest area¹ (60%) than other districts of Gujarat as well as state itself.

³ Geographical area recorded as forests in government records is Forest Area. It is also referred to as recorded Forest Area. All lands, more than one hectare in area with a tree canopy density of more than 10 per cent is called Forest Cover. Such lands may not be statutorily notified as forest area.

Figure 2.2: Forest Area of Gujarat & its District



Source: Statistical Abstract of Gujarat State 2013

2.1.3 Forest Produce

The major livelihood in The Dangs is traditionally forest based. Forest based livelihoods could be classified into three major groups of activities.

A) Collection and Sale of Non-Timber Forest Produce (NTFP):

Even though the potential of forest based livelihoods is decreasing ever since the forest was demarcated as RF and PF, the collection of NTFP is still a major source of livelihood for the people in The Dangs. For commercial purposes teak seed, bamboo, mahuda flowers and seeds, honey and gum, are collected. Timru leaves, teak seeds and mahuda flowers and seeds are mostly collected during the summer and they provide an alternative livelihood source during that period. The mahuda trees are traditionally privately owned, whether standing in RF or PF. Men mostly collect gum and honey, while the more strenuous and labour intensive work –the collecting of mahuda flowers- is mostly done by women, sometimes together with their husbands or children.

Honey, gum (marginally), mahuda flowers and seeds are mostly sold at the private market, while teak seeds, timru leaves and bamboo is mainly sold through the government. This may be because, usually, the rate for teak seeds and bamboo offered by government is higher than the rate in the private market. Hence, government intervention in the local market for determining the prices of forest produce is important; in order to protect the sellers against the vagaries of the market which exhibits a limited demand and strongly fluctuating prices.

B) Cultivation and grazing:

For RF there are special regulations and rights concerning grazing and the collection of NTFP. Also, in parts of the PF, people have been granted the rights of cultivation.

C) Employment in wood cutting and plantation activities undertaken by the Forest Department:

A major labour intensive activity, where employment is offered by the Forest Department, comprises of the cutting of trees, grasses, bamboo growing and plantation. It employs a large number of people, but only for a limited period during a year. For example, in North Dangs, an employment of only about twenty five human days per year is available through wood cutting and plantation activities. Hence, at best, the activities of the Forest Department provides only a minor contribution to people’s livelihood. Currently bamboo cutting is mostly done on lease contracts for the Central Pulp Mill (CPM) situated in Songadh. The Kotwalia community manufactures various household bamboo products, which is a major source of their livelihood.

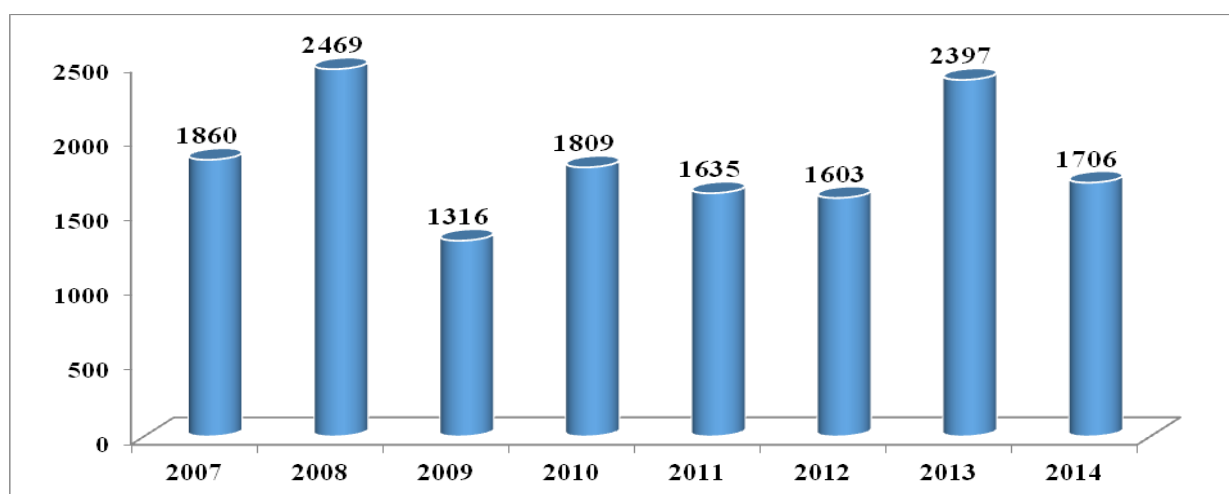
Dangi people also depend on forest produce for their day to day needs. Fodder for livestock and fuel for households are their chief requirements from the forest. Apart from this, medicinal plants, herbs and fruits are collected for household consumption, along with bamboo and wood for the construction of houses. In summer, the peoples’ diet is complemented with berries and tubers from the forest and with fish in the areas close to a river.

2.2 Water Resources

2.2.1 Rainfall

Dang receives an annual average rainfall between 1500 to 3000 mm, which is higher than the average rainfall of Gujarat (798 mm). Rainfall is spread over a period of about four months from May to September. About 95 percent of annual rainfall in the district is received during the southwest monsoon months June to September, July being the rainiest month. Rainfall decreases as one goes from the west towards the east. The rainfall which usually starts form July in The Dangs was found to have started from June in 2011-12. Below Figure represents year-wise average annual rainfall from the year 2007 to 2014 in the district.

Figure 2.3: Year-wise Average Rainfall in The Dangs (2007-2014) in mm



Source: Socio Economic Review 2014-15

Above figure 2.3 shows that rain is fluctuating in The Dangs district. In the year 2008 the highest rain was recorded (2469 mm) while after that it is showing a decreasing trend. However, in the year 2013, the rainfall recorded is 2397. In the year 2014, the rainfall has decreased to 1706mm.

2.2.2 Rivers

The four major rivers in The Dangs are the Gira, Purna, Ambika and Khapri. The Gira and Khapri are major tributaries of Purna and Ambika respectively. Besides, the river Dhodhad rises in the Davad hills of the Western Ghats, passes by the villages of Pipaldahad, Ghana and Uga in The Dangs and finally merges with river Purna near Laochali. The river Sarpaganga rises in the Western Ghats, flows nearby the Saputara village in a serpentine manner and proceeds in the direction of Nasik district in Maharashtra.

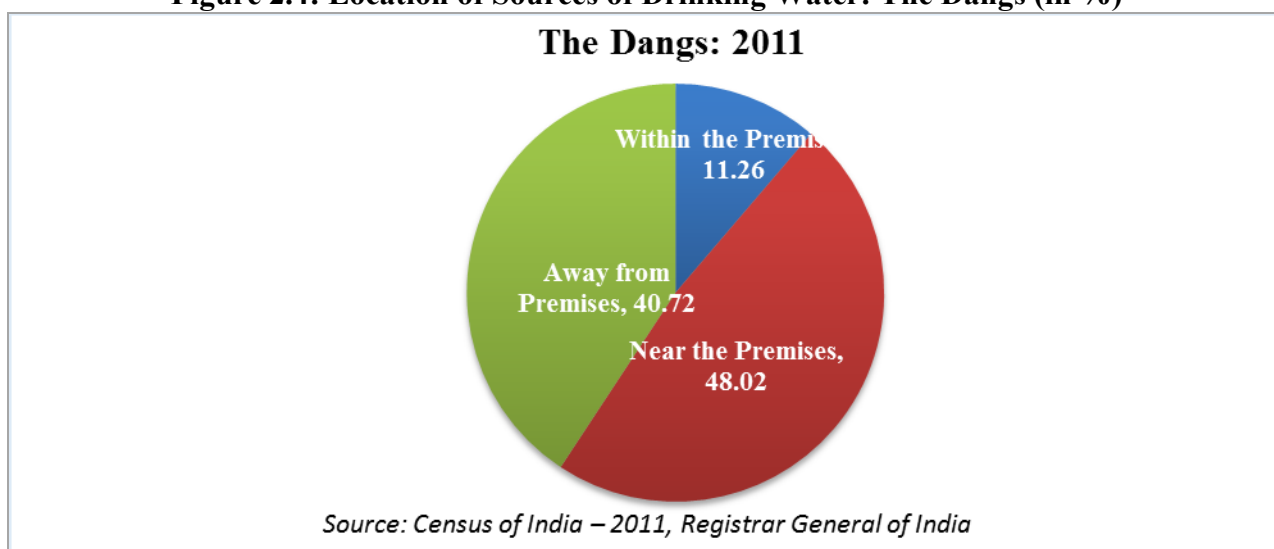
Besides the above rivers, there are a few small catchment pools which have been formed out of rocks namely Umara, Dhamda, Kunda and Kasarapada. In addition to these, some small perennial streams like Koshmal, Vanar, Ukhatia, Morzira, Don and Ambapada also exist.

All rivers in The Dangs originate from the northeastern side and flow towards the southwestern part. Hence, most of the rivers basins are situated in the southwestern part of the district. A special feature of The Dangs is the fact that watershed limits coincide with the administrative boundaries. There is hardly any rainfall runoff entering from any adjoining areas to The Dangs and there is no transfer possible for water from one basin to another. The entire rainfall receipt is drained out only from two exit points: one near Waghahi for the Ambika-Khapri rivers and two near Bhenskhatri for the Purna-Gira.

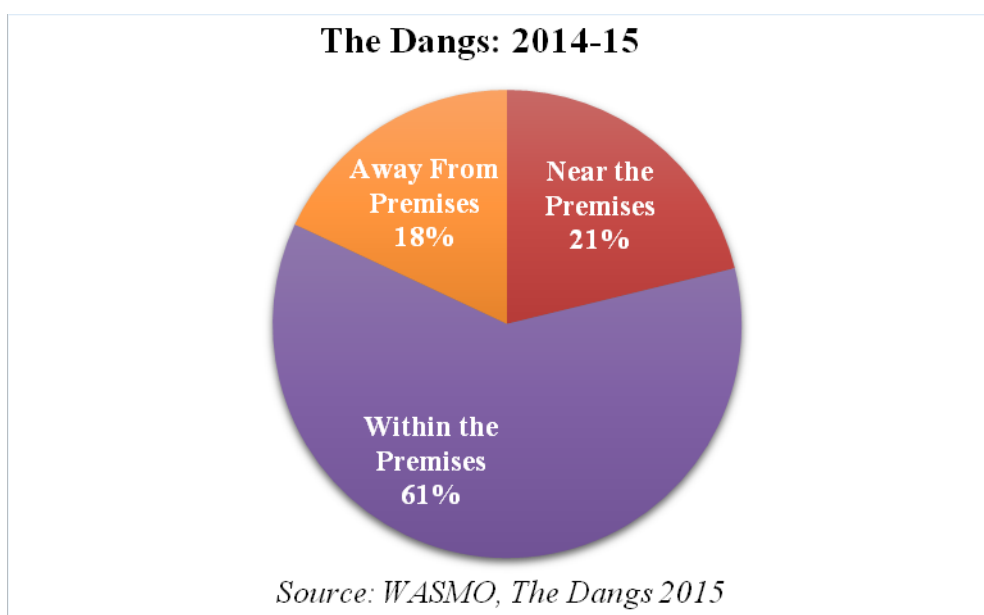
2.2.3 Drinking Water

The centralized drinking water supply system in The Dangs, which consists of hand pumps, open wells, water tanks, stand posts, internal pipelines, cattle-troughs and washing facilities is precariously dependent upon ground water availability. Hence, water provision from the centralized water supply is irregular and not secure. Various sources of drinking water is already discussed in Introduction chapter.

Figure 2.4: Location of Sources of Drinking Water: The Dangs (in %)



Improved drinking water facility is defined as drinking water being supplied from a tap or a hand pump/ tube well situated within or outside the living premises. Above figure represents location of source of drinking water in the district. As per census 2011, Drinking water facility within the premises is available in only 11.26 per cent households while 48.02 per cent households are having this facility near their premises. Large quantum of households, 40.72 per cent, have to travel inconveniently longer distances for their drinking water need.



However, the above chart shows the data received from WASMO, it can be seen that in 2015 this gap has been decreased to only 18 percent while larger number of households i.e 61 percent are having drinking water facility within the premises.

The distance from a hamlet to the water source is also an issue worth considering. A longer distance increases the drudgery and inconvenience of the women who are usually responsible for collecting water for the family needs. Proximity to the source of water increases its dependency as well. The Dangs has a dispersed pattern of habitat with a population density of just 129 per sq. km. A substantial percentage of villages have hand pumps installed within 100 meters. However, during the summer months when many of these become non-functional, this distance increases. Hand pumps and open wells at strategic locations would contribute to the reduction of the distance from the source, especially for the settlements where drinking water insecurity is most prevalent.

Table 2.3: Status of Handpumps in the district

Sr.No.	Indicator	2014-15
1	Total Number of Villages	311*
2	Total Number of households	48,448 *
3	Total Number of Hand pumps	5,832
4	Hand pumps installed per village	18.75
5	Number of families per installed hand pump	8.31

*Source: 1) *Census of India – 2011, Registrar General of India, 2) GWSSB*

In the year 2014-15, the total number of handpumps installed are 5832. This ensures that around 19 hand pumps are installed per village on an average. The number of families per hand pump are 8.31, this means that on an average 8-9 families are sharing one hand pump which is quite satisfactory.

Even though data about probable reasons for the existence of a the number of non-functional hand pumps is not available, one could assumed that it may be due to **i)** break down due to lack of proper operation and maintenance, or **ii)** unavailability of water due to the receding water table. Whatever may be the reason, the non-functional hand pumps certainly indicate the need to increase the productivity of drinking water infrastructure in The Dangs. Moreover, the efforts for proper upkeep and maintenance of hand pumps are further needed to improve the receding water level through rain water harvesting and artificial recharge.

The lack of effective and simple operation and maintenance mechanisms creates the situation that even if an organized and decentralized water supply system is available the village, it does not provide water all through the year.

Drinking water security is not only an issue of an adequate quantity of water; but the quality of drinking water is also a concern. During monsoon drinking water sources are contaminated by the runoff carrying pollutants from the waste around the villages. During summer (and winter to a lesser extent) the acute scarcity compels communities to utilize sources of drinking water with poor water quality. Shortage of water also affects the personal hygiene and sanitation practices. Hence, water borne and skin diseases are common health disorders.

2.2.4 Government Initiatives

Rural Group Water Supply Schemes under which Pani Samitis are created in villages to oversee the planning, implementation, operation and maintenance of village water supply. This scheme works in a decentralized manner with active involvement of gram Panchayats in drinking water supply. It has been modelled on the lines of the Sujalam Sufalam Yojana. WASMO is the nodal agency for this programme which focuses on public-private partnership in the provision of drinking water.

Vanbandhu Kalyan Yojana started for the development of tribal population, focuses on providing drinking water to tribal villages facing water scarcity. Under this scheme, sources of drinking water are created in schools in tribal areas, village water distribution system is operated with public participation; and rain water storage tanks etc. are created. It is also planned to provide piped drinking water through taps and stand posts in tribal villages under this scheme.

2.3 Land Resources

There are three types of soil in The Dangs: Black Cotton, Laterite and Rocky. Red soil is found on the upper parts of the valley and black soil is found in the plains of western Dangs. In some parts medium loam to sandy loam type is found. The plain lands with black cotton and laterite soil are scarce but conducive for agriculture. The soils of the district are of the residual type derived from the trappean basalts. They are stony in surface and severely eroded.

The quality of land in The Dangs is poor and majority of the agricultural land is situated on slopes, which makes irrigation difficult. The elevated land coupled with deforestation, results in increased erosion, which strongly affects fertility of land and subsequently, agricultural productivity. Again, due to the high degrees of slope and the high annual rainfall, the top soil is washed away each year, thus depriving the land of precious top soil. Further, the practice of using tree canopy for adar enforces the negative effects of the rainfall, since there is no tree cover to break the force of the rainfall. Due to erosion, deforestation and inadequate input of organic matter the land has become less fertile.

Education

3

CHAPTER

Chapter at Glance

Total Schools

423

MDM Centers

378

Total Enrolment

57304

Literacy Rate

75.16%

Male Literacy Rate

83.06%

Female Literacy Rate

67.38%

ST Literacy Rate

74.45%

GER

101.22

NER

87.84

Retention Rate (1 to 5)

94.74

Drop- out Rate

5.26%

Girls Drop- out Rate

5.08%

GPI (P)

0.93

GPI (P+UP)

1.00

Total Colleges: 7

**Arts & Commerce College: 1, Science College: 1, Agriculture College: 1,
PTC College: 2, ITI College: 1, Diploma Engineering College: 1**

Education

Abstract

The type of education which one receives enhances opportunities for earning, social status and individual freedom of choices in respect to the type of life which one chooses to live. Hence access to education and quality of education play an important role in the human development strategy.

However this process of education and development does not seem to benefit the disadvantaged tribal groups in The Dangs as much. Attempts have been made by the government and different voluntary agencies to promote education among tribal groups. They have tried to attract disadvantaged children to the mainstream education by opening schools, creating enrolment drives, taking measures for the retention of students, in the form of scholarships, stipends, supply of textbooks and other teaching/learning material, the opening of residential schools etc.

3.1 STATUS OF LITERACY

3.1.1 Literacy

Literacy level plays a major role in the economic development of a nation. If people are literate, then there will be minimum violence in the country. If literacy level is high in a nation, then there will be more number of entrepreneurs and the flow of money will be huge. If new enterprises come up, the economy of the country grows with the amount of tax collected. New enterprises lead to more employment generation and in turn reduce the unemployment status. A Nation with a low unemployment rate will develop very rapidly.

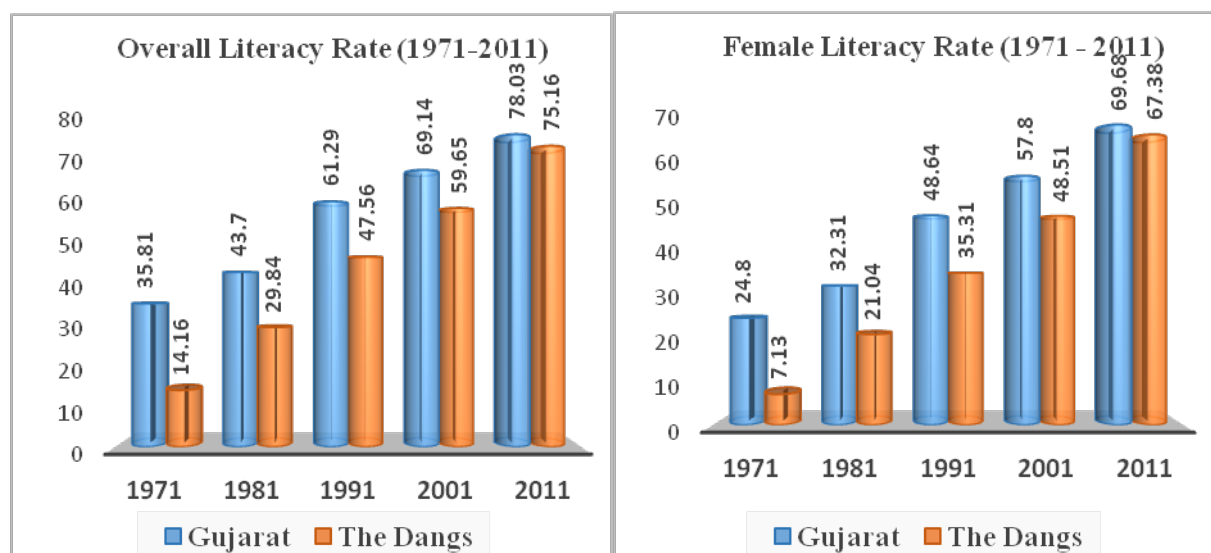
The Overall literacy of the district showing 75.16 percent in 2011 is up from 59.65 per cent in 2001 and 47.56 per cent in 1991, The Dangs district has definitely have made noticeable gains in the literacy front but still it is on 16thrank in overall literacy rate among 26 districts in Gujarat.

The gains are impressive both for male and female literacy rates, at 83.06 percent and 67.38 percent, respectively (Table 3.1). However, the literacy rate in female is very less than males. The decadal percentage increase indicates the incremental improvement of the literacy rate of the district during 2001-2011 and has maintained pace with that of the State's average. Another noticeable feature is the decadal improvement in the Female Literacy being higher than that of Male Literacy per cent (Table 3.1).

Table 3.1: Literacy Rate of the District from 1991 to 2011

Census Year	Overall	Male	Female
2011	75.16	83.06	67.38
2001	59.65	70.68	48.51
1991	47.56	59.55	35.31
Decadal % increase (2001-2011)	15.51	12.38	18.87

Source: Census of India (1991, 2001 and 2011), Registrar General of India

Figure 3.1: Overall and Female Literacy Rate in The Dangs, 1971-2011

Above figure shows Overall Literacy Rate and Female Literacy Rate of The Dangs compare to the State. It is clear that the literacy rate in The Dangs (75.16 percent) is slightly less than the state's average (78.03 percent). There is a noticeable increase (15.51 percent points) in Overall Literacy Rate between 2001 and 2011. However, there is 18.87 percent points increase in Female Literacy rate of The Dangs.

3.1.2 Status of Literacy in ST Population Group

The literacy rates of Schedules Tribes is shown in the table 3.2 below. The literacy rate of SC in the district is 90.26 percent, while literacy rate in ST is 74.45 percent. The female literacy rate in ST is low in 2011 with 66.50 percent.

Table: 3.2: Literacy Rates of ST Population Groups, 2011: The Dangs

ST Population Group	Persons	Male	Female	Gender Difference
ST Population in District	216073	107539	108534	-995
ST Literacy Rate	74.45	82.54	66.50	16.04
<i>ST Urban literacy</i>	87.97	92.40	83.94	8.46
<i>ST Rural literacy</i>	73.26	81.71	64.91	16.8

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

3.1.3 Gender and Residence Variations in Literacy

The Scenario of the literacy status of district is quite varied in terms of gender and residence distributions of population. Following table reflect these differentials. The urban literacy gap between male and female is 8.71 percent points, while the rural gender variation is 16.68 percent points. The urban rural divide of the overall effective literacy rate is 14.90 percent points. While the urban rural divide of the male literacy rate is 10.99 percent and female literacy rate is 18.96 percent

Table 3.3: Gender based Literacy Rates (2011)

Particulars	Persons	Urban	Rural	Urban-Rural Differentials
Persons	75.16	88.32	73.42	14.90
Male	83.06	92.79	81.80	10.99
Female	67.38	84.08	65.12	18.96
Gender Differential	15.68	8.71	16.68	-

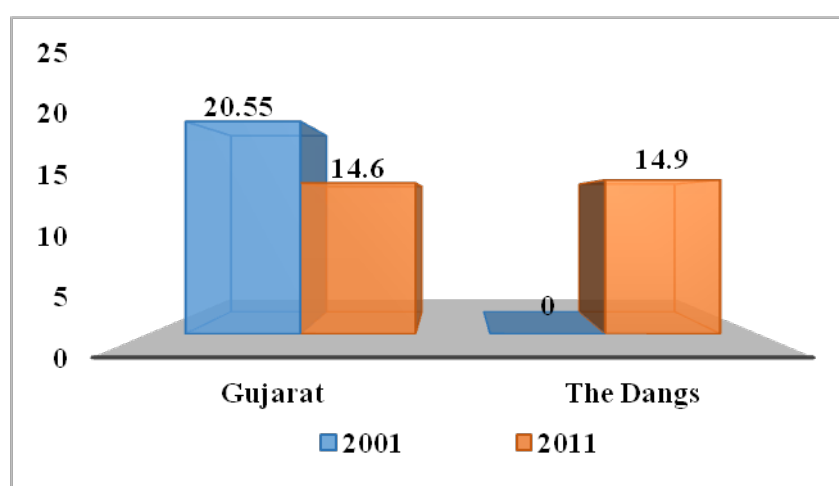
Source: Census of India – 2011, Registrar General of India

The below table 3.4 denotes residence based literacy rate of the district in 2001 and 2011. There was no urban area in 2001 thus there was no urban-rural differentials. In 2011, the urban-rural differential of the district (14.90 percent) is bit more than the State (14.60 percent).

State/ District	Literacy Rate 2001			Literacy Rate 2011		
	Urban	Rural	Urban-Rural Differentials	Urban	Rural	Urban-Rural Differentials
Gujarat	81.84	61.29	20.55	86.31	71.71	14.60
The Dangs	N.A.	59.65	-	88.32	73.42	14.90

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

Figure 3.2: Gap in Male and Female Literacy Rate in The Dangs



Above figure 3.2 shows the Male-Female literacy gap in The Dangs district and Gujarat. In 2001, the Urban area of The Dangs was not existing.

3.1.4 Gender Parity Index (GPI)

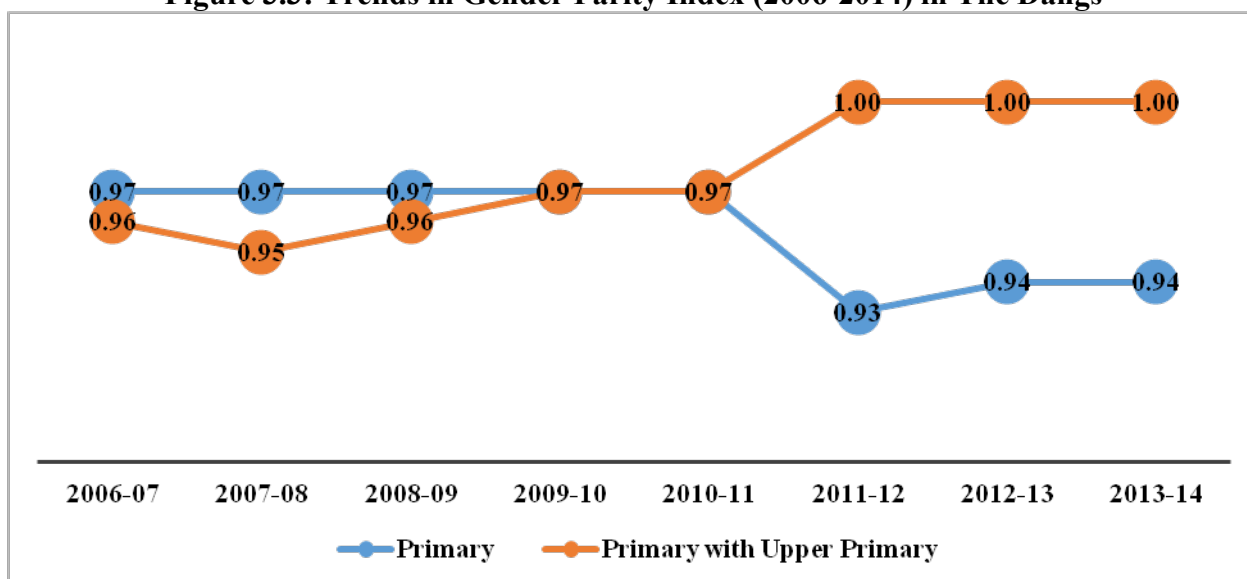
GPI denotes the number of Female enrolment to Male enrolment in a given stage of education. GPI measures the progress made towards gender parity in educational participation and/or learning opportunities available for women in relation to those available to men.

Below table 3.5 shows Gender Parity Index from 2006 to 2014. The GPI at primary schools is decreasing from 0.97 percent to 0.94 percent. The GPI at Primary with Upper Primary schools is stable at 1 percent from 2011 to 2014 which indicates a good sign towards female enrolment part.

Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Primary	0.97	0.97	0.97	0.97	0.97	0.93	0.94	0.94
Primary with Upper Primary	0.96	0.95	0.96	0.97	0.97	1.00	1.00	1.00

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar (2006-14)

Figure 3.3: Trends in Gender Parity Index (2006-2014) in The Dangs



Source: Gujarat Council of Elementary Education (SSA), Gandhinagar (2006-14)

The GPI at primary schools was consistent at 0.97 from 2006 to 2011, but has decreased to 0.94 in 2013-14. This parity index points out that number of girls enrolled are equal or nearly equal to number of boys in schools. Concerted effort in enrolment and in retention of girls in the education system would be required to make the GPI move towards 1.0. This change in primary level is because girls are enrolled more in Primary with Upper Primary Schools rather than Primary schools due to the schemes such as Vidhya Lakshmi Yojana introduced by State Government.

3.2 ENROLMENT, RETENTION AND DROP OUT

Enrolment plays an important role in the quantitative expansion of education and literacy rates. Various factors play an important role in determining enrolment. The environment of the school, distance, syllabus, instruction method, etc. are external factors while household income, parental education, peer groups etc. are internal factors that determine enrolment rates.

Government is doing a lot of efforts to increase the literacy rate of the State / District. From the below table 3.6, a sudden increase in enrollment can be seen from the year 2010-11 and is slightly fluctuating in the following years. In 2013-14, the enrollment has decreased by 1051. Since 2010-11 to 2013-14, the enrollment in the district has been recorded between 55 and 57 thousand.

Table 3.6: Enrolment in Schools (in numbers)

Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Enrollment	46397	47524	48346	49363	55837	58614	58355	57304
Change over previous year	-	1127	822	1017	6474	2777	-259	-1051
Change since 2006-07	-	1127	1949	2966	9440	12217	11958	10907

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

School Category wise Enrolment:

Below table 3.7 shows the enrolment in the government and private schools in The Dangs district for the year 2013-14. It can be seen that due to the large presence of the government schools in the district the enrolment is more in the government schools while only 3633 students are enrolled in private schools.

Table 3.7: Enrolment in Government & Private Schools (2013-14)		
School Category	Govt	Private
Primary only	19273	278
P + UP	34118	3248
P + UP + Sec + HS	0	107
UP Only	176	0
UP + Sec + HS	0	0
P + UP + Sec	0	0
UP + Sec	104	0
Sub Total	53671 (93.66%)	3633 (6.34%)
Total	57304	

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

3.2.1 Enrolment of girls in Primary and Upper Primary levels

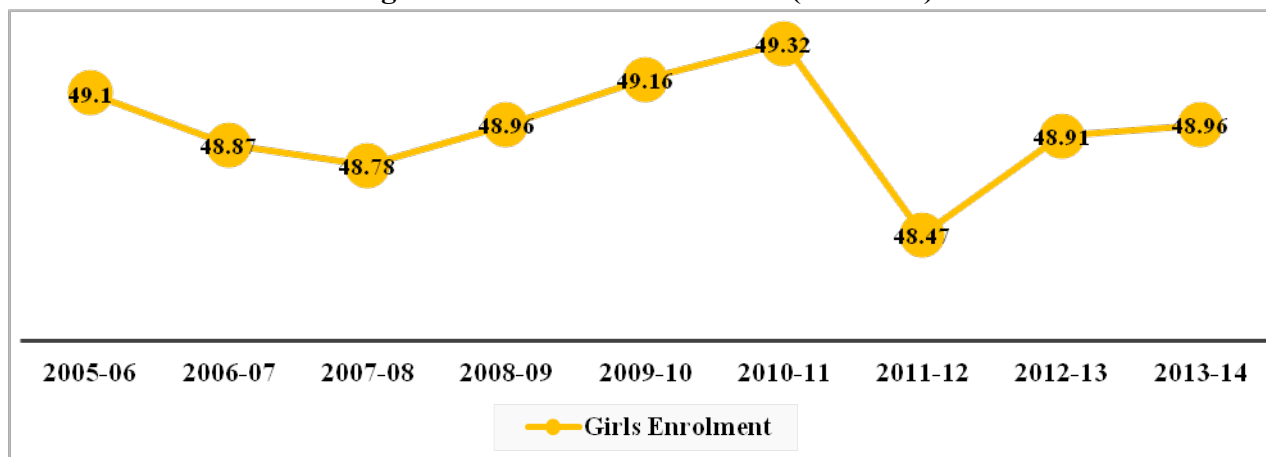
Below table shows girls enrolment in the district from 2006 to 2014. In the year 2013-14, the enrollment of girls has been decreased by 490 from the previous year. The highest enrollment of girls (28544 girls) is seen in the year 2012-13.

Table 3.8: Enrolment of Girls (2006-2014) in The Dangs								
Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Enrollment	22675	23182	23668	24265	27537	28408	28544	28054
Change over previous year	-	507	486	597	3272	871	136	-490
Change since 2006-07	-	507	993	1590	4862	5733	5869	5379

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

The gross number of girls enrolled with respect to boys enrolled during that particular year shows an interesting trend. The percentage of enrolment continues to hover around 48 %. See figure below. In the 2010-11, the enrollment of girls was 49.32 which is highest enrollment from 2005 to 2014.

Figure 3.4: Enrolments of Girls (Class 1-7)



Source: Gujarat Council of Elementary Education (SSA), Gandhinagar (2005-14)

3.2.2 Flow Rates

Flow Rates	2009-10	2010-11	2011-12	2012-13	2013-14
Retention Rate (Class 1-5)	91.53	91.50	95.51	93.46	94.74
Transition Rate (Primary to Upper Primary)	75.07	73.15	87.54	74.09	82.91
Repetition Rate (Class 1-5)	15	18.46	13.52	0.16	0
Drop-out Rate(Class 1-5)	8.47	8.50	4.09	6.54	5.26
Promotion Rate (Class 1-5)	76.53	76.45	80.03	85.94	92.70

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

The above table shows the flow rates in the The Dangs district. The Retention rate in class 1-5 for the year 2013-14 is 94.74 percent.

The Transition rate in Primary to Upper Primary has increased as compare to last year. In the year 2013-14, it is 82.91 percent. The Repetition rate (Class 1-5) is for the year 2012-13 is 0.16 percent, which is lowest from the past records. In the year 2013-14, the repetition rate is zero percent.

The percentage of the dropout in the district for the year 2013-14 is 5.26 (higher than the State's average of 2.00). The Promotion rate (Class 1-5) in the year 2013-14 is 92.70 percent.

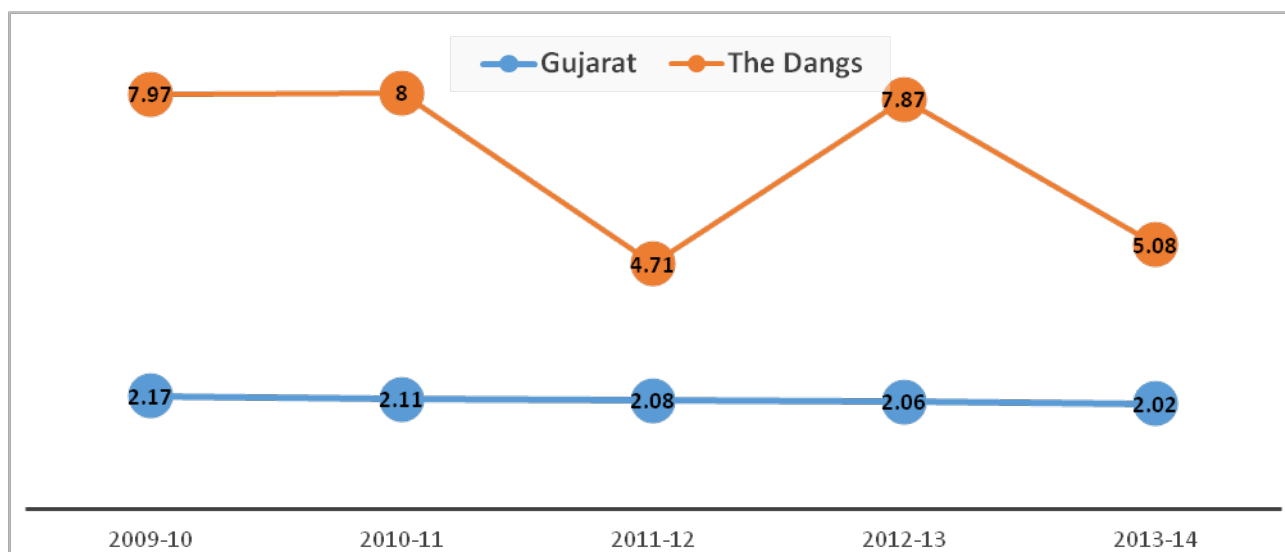
Year	Gender	Class 1-5		Class 1-7	
		Gujarat	The Dangs	Gujarat	The Dangs
2009-10	Boys	2.14	8.95	8.33	5.66
	Girls	2.17	7.97	8.97	7.23
	Total	2.20	8.47	8.65	5.66
2010-11	Boys	2.08	8.98	7.87	4.21
	Girls	2.11	8.00	8.12	3.75
	Total	2.09	8.50	7.95	3.98
2011-12	Boys	2.05	3.51	7.35	7.34
	Girls	2.08	4.71	7.82	7.28
	Total	2.07	4.09	7.56	7.31
2012-13	Boys	2.02	5.21	6.87	10.90
	Girls	2.06	7.87	7.37	12.17
	Total	2.04	6.54	7.08	11.70
2013-14	Boys	1.97	5.42	6.53	7.19
	Girls	2.02	5.08	7.28	6.17
	Total	2.00	5.26	6.91	6.49

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

The above table shows trend in drop-out rate in class 1 to 5 and class 1-7 in The Dangs district & the State. The drop-out rate of The Dangs district is 5.26 which is too high than the State (2.00). This drop-out can be due to migration of the local people to the nearby location for the search of livelihood.

The dropout rate has also decreased due to seasonal hostels for the children of migrating people. Thus this helps their children to continue their education without any interruption. Still district has to do a lot for decreasing dropout rate.

Figure 3.5: Girls Dropout (Class 1-5) in The Dangs (2009-14)



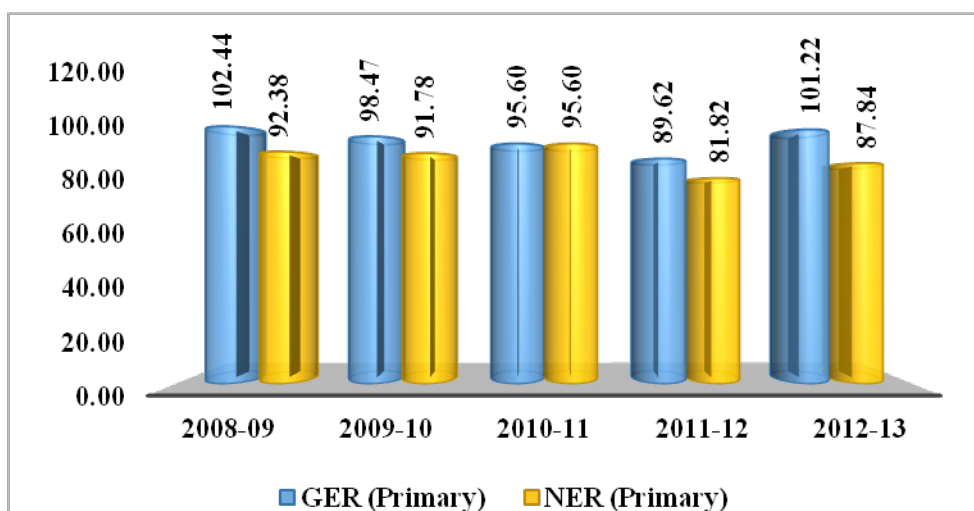
Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

Above Figure 3.5 shows girls drop-out rate in The Dangs district from 2009 to 2014. Over the past years, the girl's drop-out rate is decreasing drastically. In 2012-13, Girls drop-out rate for class 1-5 was 7.87 percent while it decreased to 5.08 percent in the year 2013-14. The Girl's dropout rate in class 1-7 for the year 2012-13 and 2013-14 is 12.17 and 6.17 respectively (see Table 3.10). This shows that there is rapid decrease in dropout rate of girls in compare to past year.

3.2.3 Gross Enrolment Ratio (GER) & Net Enrolment Ratio (NER)

For the year 2012-13, the GER (Primary) and NER (Primary) for The Dangs district is 101.22 percent and 87.84 percent. The NER was the highest in the year 2010-11 (95.60%); while, it has decreased in the following years.

Figure 3.6: GER & NER in The Dangs (2008-13)



Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

3.3 Students & Teachers in School

3.3.1 Pupil Teacher Ratio and Teacher per School in The Dangs

The total number of schools in the district is 423 comprising of private as well as government schools. Below table 3.11 reveals the year-wise data of PTR and TPS. The Pupil Teacher ratio is fairly good in the district i.e around 30:1. The teacher per school ratio is around 4 for the year 2013-14.

Year	Pupil Teacher Ratio (PTR)	Teacher per School (TPS)
2009-10	31	4
2010-11	25	4
2011-12	32	4
2012-13	31	4
2013-14	30	4

Source: Calculated from the data from the database of Gujarat Council of Elementary Education (SSA), Gandhinagar

3.3.2 Teachers in Primary Schools

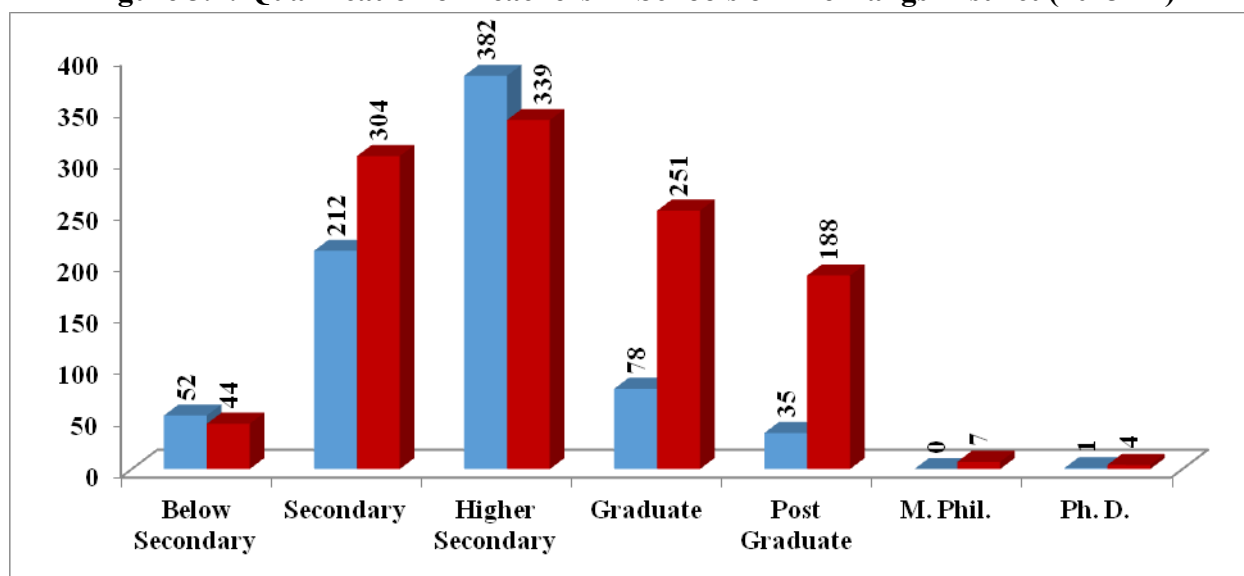
The quality of the teachers in the district is quite different. Their qualification ranges from secondary to graduation level. Moreover the literacy rate of The Dangs is poor; thus most of the teachers in the districts come from outside The Dangs.

In the year 2013-14, there are total 1897 teachers in primary and primary with upper primary schools. There are 329 graduate teachers, 223 post graduate teachers, 5 Ph. D teachers and 7 M. Phil teachers in the district, rest of the teachers are having qualification below graduate.

Level of education	2011-12		2012-13		2013-14	
	Primary	Primary + UP	Primary	Primary + UP	Primary	Primary + UP
Below Secondary	70	95	54	64	52	44
Secondary	215	342	216	319	78	251
Higher Secondary	368	358	376	334	382	339
Graduate	71	180	70	242	78	251
Post Graduate and above	43	113	35	183	36	199

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar (2011-14)

The detailed qualification of the teachers in The Dangs district is shown in below figure 3.7. The number of Post-graduate, M. Phil, PhD teachers is less than the teachers with qualification from matriculation to graduate.

Figure 3.7: Qualification of Teachers in Schools of The Dangs District (2013-14)

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar (2013-14)

Table 3.13: Regular Male and Female Teachers in The Dangs

Year	Male	Female	Female: Male Teachers Ratio
2007-08	947	600	0.63
2008-09	944	604	0.64
2009-10	944	632	0.67
2010-11	1030	748	0.73
2011-12	1059	796	0.75
2012-13	1076	817	0.76
2013-14	1070	827	0.77

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

From the above table 3.13, it can be seen that the number of male and female teachers are increasing over the years. However, the number of female teachers is low as compare to male teachers. This can be due to the large numbers of teachers are from outside of The Dangs districts. Compare to the year 2007-08, the number of female teachers is increasing; there is an increase of 227 female teachers in the year 2013-14 as compare to 2007-08.

3.4 Physical Infrastructure

The availability of educational institutions equipped with an infrastructural facility plays an important role in providing better quality education. This section shows the inputs from the government towards escalating education in The Dangs district.

3.4.1 Number of Schools

In the year 2013-14, there are total 423 schools in The Dangs district consisting 404 government and 19 private schools. Below table 3.14 shows the number of government and private schools from 2009 to 2014.

Table 3.14: Number of Schools in The Dangs district

School Category	2009-10		2010-11		2011-12		2012-13		2013-14	
	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.
Pr. + Up Pr. & Secondary Only	-	-	-	-	-	-	1	-	-	-
Pri + Up.Pr. Sec.&H.Sec.	-	-	-	-	-	-	1	-	-	1
Primary	274	3	270	3	259	7	258	6	260	7
Pri + Upper Primary	128	7	130	9	141	10	142	11	140	11
Upper Pr. and Secondary	-	-	-	-	-	-	5	-	3	-
Upper Primary only	1	-	1	-	1	-	1	-	1	-
Sub Total	403	10	401	12	401	17	408	17	404	19
Total	413		413		418		425		423	

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

The below table 3.15 shows the total number of schools by management in The Dangs district. Total 22 schools are run by Tribal/Social Welfare Department, whereas, 378 schools are government schools. There are 19 private unaided schools and only 1 private aided school. In the year 2013-14, there are only 3 Kasturba Gandhi Balika Vidhyala (KGBV) in the district.

Table 3.15: Schools by Management in The Dangs

Year	Tribal/ Social Welfare Dept.	Government	Pvt. Aided	Pvt. Unaided	KGBV	Grand Total
2009-10	3	386	13	10	1	413
2010-11	22	378	1	12	0	413
2011-12	22	378	1	17	0	418
2012-13	22	378	1	17	7	425
2013-14	22	378	1	19	3	423

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

In other words, it can be said that the schools in the district are majorly run by government and Tribal/Social welfare department.

3.4.2 Infrastructure facilities in Primary Schools

The data regarding the infrastructural facilities prevailing among the primary schools in The Dangs district, available for the year 2013-14, have been presented in below table 3.16. About 96 percent schools of the district are having electricity while only 15.84 percent of schools have computer. In 95.98 percent of schools, the compound wall facility exists and only 69.50 percent schools are occupied with playground.

Table 3.16: % of physical amenities available at schools (2013-14) in The Dangs

State / District	Total No. of Schools	Electricity (%)	Computer (%)	Compound Wall (%)	Play Ground (%)
Gujarat	43176	93.63	55.18	93.76	75.68
The Dangs	423	95.98	15.84	95.98	69.50

Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

The below table shows other amenities available at schools in the district. All the schools of the district are approachable by all weather roads while only 22.8 percent of schools are having no female teachers.

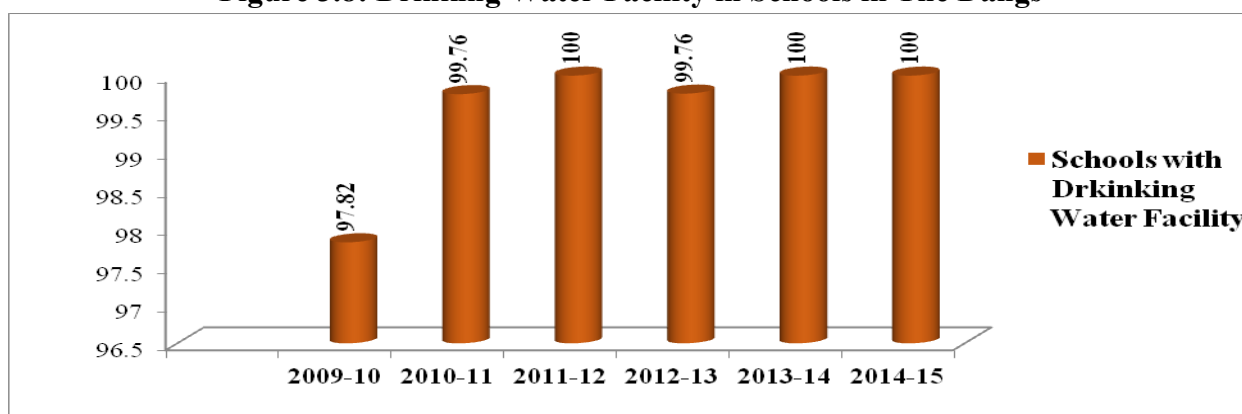
Table 3.17: Other amenities available at schools (2013-14) in The Dangs

Particulars	2011-12	2012-13	2013-14
% no female teacher schools (teacher \geq 2)	27.8	26.9	22.8
% Government Schools with kitchen-shed	96.9	96.1	99.6
% Government Schools providing MDM	100	100	100
% Schools approachable by all-weather roads	100	100	100

Source: District Information System for Education 2013-14

Below figure 3.8, reveals drinking water facilities in the schools of The Dangs district from the year 2009-10 to 2014-15. In the year 2013-14 and 2014-15, 100 percent of the schools are having drinking water facility.

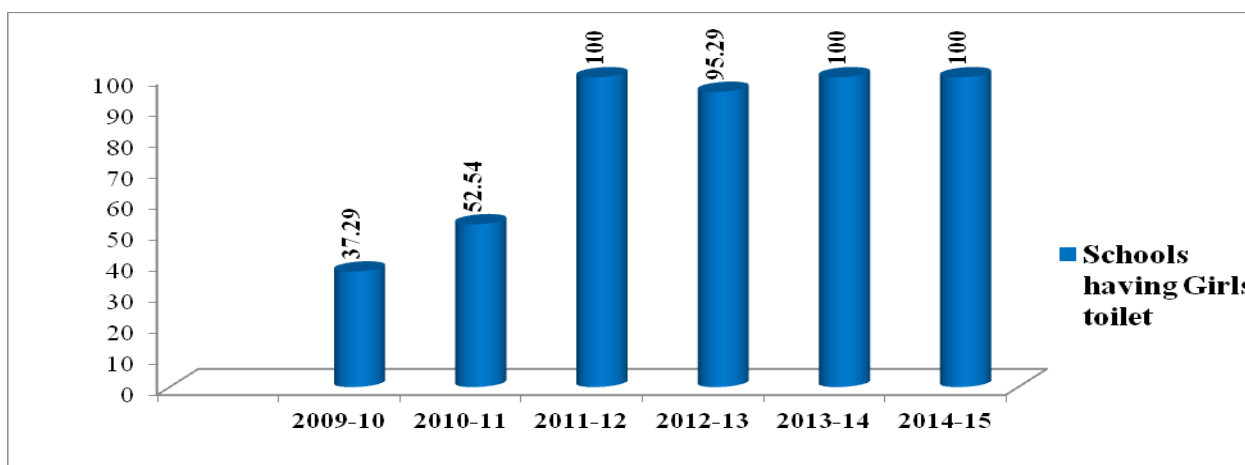
Figure 3.8: Drinking Water Facility in Schools in The Dangs



Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

The lack of separate toilet facility for girls is the major indicator behind high percentage of girl’s dropout. The following figure shows the schools with girl’s toilet in the district. In the year 2013-14 and 2014-15, all the schools are having girl’s toilet.

Figure 3.9: Schools with Girls Toilet in The Dangs



Source: Gujarat Council of Elementary Education (SSA), Gandhinagar

This chapter divulges that the education facilities are finely provided in the district in terms of number of schools, basic facilities in schools, teachers, etc. Gender parity index is also quite good in the district. But still there is high dropout rate. Literacy level of the district is also showing an increasing trend. However the district is still on 16th rank on literacy as compare to other districts of the State. There are some issues such as local dialect, irregular attendance of students and teachers as well, provision of residence for teachers, migration are the reasons behind the low literacy in the district.

3.5 SWOT Analysis

<p><u>Strengths</u></p> <ul style="list-style-type: none"> - The district prevails to no gender differentials as far as the enrolment of students in primary as well as primary with upper primary schools is concerned - The literacy rate of the district is increasing over the years. - The Dangs district is well equipped with the basic infrastructure for primary schools such as electricity, compound wall, etc. 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> - The teachers who are not from local area do not speak the local dialect which creates a problem for local students to comprehend - In The Dangs, the total urbanization is only 10.81 percent. It means majority of area is rural. Hence, the residential provision for teachers who are from outside have few options for stay - The financial conditions of parents is weak, this affects the education of the students - The dropout rate of the district is very high
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> - The Dangs stands at 16th rank in with reference to literacy rate. The district has seen radical increase in literacy rate against past decade - There are only countable numbers of colleges for higher education. Thus, prevents students to pursue the higher education which directly impacts on the educational status of the district. There is an opportunity with Government to start up the new colleges 	<p style="text-align: center;">SWOT</p> <p><u>Threats</u></p> <ul style="list-style-type: none"> - The livelihood options are very limited in The Dangs, thus majority of families migrate to nearby places for satisfying their livelihood needs. This affects the quality of education provided to children as well as their education process as children also migrate with their parents. - In rural area, children are expected to perform household chores, to help parents with their work, as well as looking after their siblings, etc. This prevents children from attending school. Thus, attendance of the children in remote areas is also a major threat in the schools - The schools in the district has high girl's drop-out rate; much higher than the state's dropout rate

Health

4

CHAPTER

Chapter at Glance

CBR
31.4

CDR
5.6

NRGP
25.8

SCs
59

PHCs
9

CHCs
3

Institutional
Delivery
57 %

Home Delivery
43 %

Institutional Delivery at
Govt. Hospitals
74.60 %

AWC
Operational
439

Severe
Underweight
2.77%

Fully
Immunization
90.3%

ANCDR of
Leprosy
106.68 %

Year-wise performance of School Health Programme

Children Examined: 84823

Children Provided Referral Services: 1214

S tatus of Health

Abstract

Health is an important indicator of human development. The common diseases in the district are scabies, skin diseases, TB, chronic anemia etc. It has the highest prevalence of leprosy in Gujarat. Major health risks are malnutrition, lack of safe drinking water, poor hygiene and sanitation and above all, poverty. Especially during the rainy season, the lack of sanitation facilities creates major health hazards. In villages people lack the basic sanitation facilities and for toilet purpose people use open places (mostly in forest and mountains).

4.1 Introduction

Since the Alma – Ata Conference in 1978, which declared health as a fundamental human right, health and nutrition have been accepted as important national concerns in the developing countries. In the Indian federal system, health is the concern of state governments, though some of the important health programmes are funded by the central government. Health policies in developing countries, including India, have focused on the issues related to population growth – common diseases, nutrition, and disability, newly emerging diseases like AIDS, occupational diseases, mental diseases and so on. Reducing population growth rates continues to be a very important goal of the health sector owing to the high fertility rates in many states. Malaria, tuberculosis, waterborne diseases, respiratory diseases, and diseases related to under – nutrition continue to trouble the population. Nutritional deficiencies among women, children and the poor; particularly deficiencies of basic minerals, some vitamins, and proteins resulting in stunted growth of women and children, is a major concern. There are new challenges because of environmental pollution and increased exposure to toxic substances in everyday life. The challenges in the health sector are thus multiple.

Health is defined by the World Health Organization (WHO) as “a state of complete physical, mental, and social well – being and not merely the absence of diseases or infirmity.” The purpose of this definition was to bring the positive concept of general well – being into focus rather than a negative definition of absence of disease.

Health is important in three distinct ways Firstly, being healthy is a valuable achievement in itself. The ‘basic needs approach’ considers health as a basic need along with food, clothing, shelter, and education. Secondly, better health can have interpersonal benefits. There are many externalities of morbidity. Continuous illness can stifle the options for a family. More often than not, it is the woman, who is socially obliged to take the responsibility of a sick person in patriarchal family. Thirdly, good health has an economic rationale. It leads to reduced medical costs of the government and households. The more the public sector expenditure on preventive health, the less household sector expenditure on curative health.

4.1.1 Population

Table 4.1: Population, Decadal Growth Rate, Sex ratio (2011)

Year	2001-11	1991-01	2011	2001	2011	2001
	Decadal Growth Rate		Sex Ratio		Child Sex Ratio	
The Dangs	22.3	29.6	1006	987	964	974
Gujarat	19.3	22.7	919	920	890	883

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

According to 2011 census the population of The Dangs is 2,28,291 with 2,16,073 ST population (94.65 %). In terms of population growth rate the district (22.3 %) has shown higher growth as compare to the State (19.3%). Although the dent of around 7 points in decadal growth rate (29.6 % during 1991-2001) from the previous decade has shown a visible reduction for the district whereas the dip is only 3 points for the state (22.7% during 1991-2001). Eventually, it is a good sign for the district that ever increasing population is now showing some sign of deceleration.

The sex ratio (female per 1000 male) of district in 2011 is 1006 which is second highest among (after Tapi 1007) the all 26 districts of the State. Not only that, the district is also showing a continuous increasing trend in sex ratio over the past decades. Child sex ratio of the district (964) in 2011 is also highest among the all districts of the State & far above the State average. It is also necessary to mention here that Child Sex ratio has decreased as compared to earlier decade (974). Since the low child sex ratio is a grim indication of future sex ratio of the district, hence it is needed to be taken care of at the earliest. In accordance with India’s National Population Policy, Gujarat’s population policy also focuses on improving the quality of life of the people, reducing gender discrimination and empowering women. So, women’s education can be an important weapon to fight with fertility transition which can be one of the reasons forreducing child sex ratio.

Lastly, demographic factors like age at marriage have a bearing on the health of both the mother and child. The average age at marriage of males in the district is 20.8 years and that of the females, 18.5 years which is lower as compare to the State average which is 22.3 years for male and 19.6 years for female⁴. Not only that, Percentage of marriages below legal age at marriage is (29.9%) in is also very high as compare to the state average (18.7 per cent).

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

Crude Birth Rate (CBR) is a simple measure of fertility which is defined as the number of live births in a year per 1,000 of the midyear population. Similarly, Crude Death Rate (CDR) is defined as the number of Death in a year per 1,000 of the midyear population. The CBR of TheDangs district is higher than the State average and CDR is same as the state average as per the CRS-2013. Accordingly, the Natural Rate of Growth of Population (NRGP) which varies inversely with economic development is also higher than the State average. This implies that the district is expected to experience relatively lower demographic transition along with economic development as compare to the State.

	CBR	CDR	NRGP
The Dangs	31.4	5.6	25.8
Gujarat	20.8	5.6	15.2

Source: CRS-2013, CDHO – The Dangs

4.2 Health Care Infrastructure

Sound health infrastructure ensures efficient and effective utilization of essential public health services. The totality of the health infrastructure includes all governmental and non-governmental entities that provide public health services to the people. This chapter has mainly focused on analysing the performance of the public sector health entities of the District.

Health infrastructures of the district comprise of a single major health facility (District Hospital) available is at Ahwa, 3 Community Health Centre (CHC), nine Primary Health Centres (PHCs) and 59 Sub Centers (SCs). Besides there are one Ayurvedic Hospital (AH), 6Ayurvadic Dispensaries (ADs) in the Government health care domain (Table-4.3). Apart from these, a total of 439 operational AnganwadiCentres (ACs) are also there in The Dangs District.

*www.gujhealth.gov.in

⁴District Level Household and Facility Survey (DLHS-3), 2007-08: India. Gujarat: Mumbai: IIPS.

**Table 4.3: Health Infrastructure Facility (As of April, 2015)
(In Nos.)**

The Dang	SCs	PHCs	CHCs	DH	AH	AD	AC
	59	9	3	1	1	6	439

Source: MPR-2015, CDHO- The Dangs

Rural Health Care system is delivered in the district as well as state through the network of the SCs, PHCs and CHCs. As per IPHS⁵ guidelines each PHC should cater approximately 20,000 populations in tribal areas through a team of health personnel under the leadership of Medical Officer. Four PHCs will be included under each CHCs and will cater 80,000 population. Again under each PHC around six SCs will be covered and each SC will be managed by one female health worker and one male health worker covering approximately 3,000 people in Tribal areas. CHCs are also performing as First Referral Units for referral and special medical care. Table 4.4 shows that average population serve by each SC, PHC and CHC in TheDangs district. Average population serve by each SCs and PHCs is almost as per the prescribed guideline of IPHS and average population served by each CHCs is within the guideline.

Table 4.4: Average population served by SC, PHC & CHC: The Dangs (April-2015)

SCs	PHCs	CHC
3,451	22,623	67,868

Source: Calculated from the data of Rural Population, Census-2011 & CDHO- The Dangs

As per above it can be said that the rural areas of the district is well equipped in infrastructural facility for health care, but it is also important to mention here that people of this district may less inclined to make use of the services of modern health care facilities. There is no homeopathy dispensary in the district. Tribal people have over the centuries developed their own medicinal system of diagnosis and treatment based on herbs and other items collected from the forest that are processed locally. In some cases they also believe in taboos, spiritual powers and faith healing. These two health care systems exist parallel and there are no attempts made to incorporate traditional medical knowledge into the modern system or vice versa. The district has a huge reservoir of medicinal plants and herbs provided as a natural asset in the forest. However no effort has been made to promote the traditional methods of healing so far. The district head quarter has an ayurvedic hospital to explore the possibility of utilising natural medicinal system. This would be an opportunity for integrating the two knowledge systems and in that way making health care facilities more accessible. Hence, it can be said that the inadequate infrastructure and the lack of initiative in developing the traditional medicinal methods leads to a growing discrepancy between the medical problems perceived in reality and the medical solutions that are available.

4.2.1 Health Personnel Availability

Rural health care system is mainly dependent on Auxiliary Nurses Midwife (ANM) and female paramedical worker posted at the sub-centers. They are supported by a male Multipurpose Worker (MPW) who is the front line worker in providing the health services to the community. Under the NRHM, the Accredited Social Health Activist (ASHA) is being envisaged in each village to promote the health activities.

Table 4.5: Health Personnel at CHCs as of April, 2015

The Dangs	General Surgeon		Physician		Gynecologist		Pediatrics		MO (MBBS)	
	S	F	S	F	S	F	S	F	S	F
	1	0	1	0	1	0	1	0	3	2

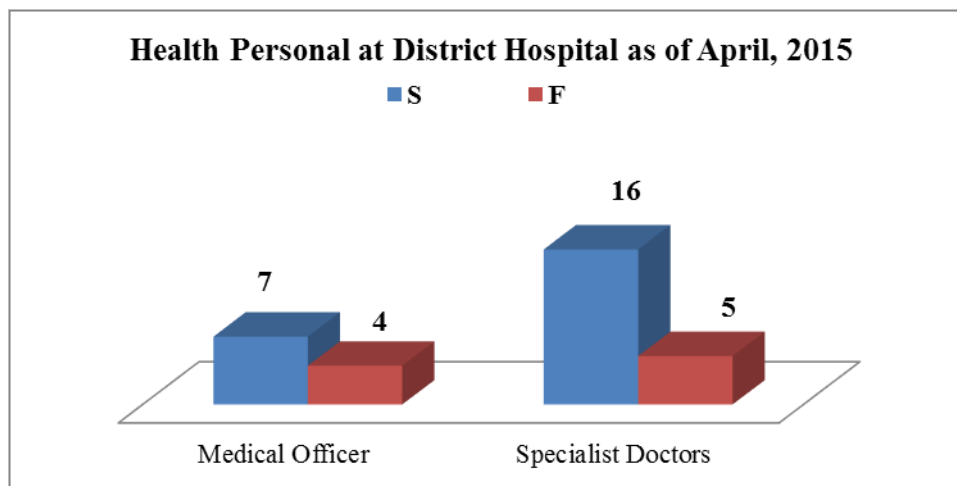
Source: CDHO, The Dangs

S=Sanctioned **F=Filled up**

⁵<http://mohfw.nic.in/NRHM/iphs.htm> availed on 7th March, 2013

Table – 4.5 shows that 4 specialist doctor’s sanctioned positions are there at CHC but all are vacant. Availability of Medical Officers are good; among 3 sanctioned post, 2 are filled up. Figure 4.1 shows the availability of Medical Officers & Specialist doctors at District Hospital which is also as vacant as CHCs. Among 16 specialist sanctioned post, only 5 are filled up. Availability of Medical officers is also almost half of the sanctioned post.

Figure 4.1: Health Personnel at District Hospital as of April, 2015



Source: CDHO, The Dangs

4.3. Maternal & Child Health

Maternal & Child health care is coming under the RCH Programme (Reproductive Child Health Care). The concept of RCH is to provide need based, client centered, demand driven, high quality and an integrated package of RCH services. It is different from the earlier Family Welfare Programme implemented in the country to stabilize population at a level consistent with the needs of national development.

Maternal Health: Promotion of maternal and child health has been one of the most important components of the Family Welfare Programme of the Government of India and the National Population Policy-2000 reiterates the government’s commitment to the safe motherhood program within the wider context of reproductive health. Among the national socio-demographic goals for 2010 specified by the policy, several goals pertain to safe motherhood that 80 per cent of all deliveries should take place in institutions by 2010, hundred per cent deliveries should be attended by trained personnel, and the maternal mortality ratio should be reduced to a level below 100 per 100,000 live births.

In view of above, NRHM is being implemented in the State with the aim of reducing infant mortality rate & maternal mortality ratio, ensuring population stabilization, prevention & control of communicable & non-communicable diseases. The most crucial part of maternal health is Ante natal Care (ANC) , Post Natal Care (PNC) and Institutional Delivery.

4.3.1 ANC & PNC

Factor, that acts as determinants of safe motherhood are the antenatal and post-natal medical cares. Ante natal care (ANC) is the care of the woman during pregnancy, aim of which is to achieve at the end of a pregnancy a healthy mother and a healthy baby. One of the most important components of antenatal care is to offer information and advice to women about pregnancy related complications and possible curative measures for early detection and management of complications. Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the woman and her health care provider and by individualizing promotional health messages. Further antenatal visits may raise awareness about the need for care during delivery or give women and their families a familiarity with health facilities that enables them to

seek help more efficiently during a crisis⁶. Minimum ante-natal care includes at least three antenatal checkups, at least one tetanus toxoid injection (TT), and supplementary iron in the form of IFA⁷ tablets daily for 100 days.

The ante-natal cares of the latest year (2013-14) & five years before (2009-10) for the district as well as State have been shown in Table 4.6. During the latest reference year about 86 per cent of pregnant women of the district have received 3 checkups while for State it is around 74 per cent. Again, if we look back for 5 years earlier data for the same, it was 93 per cent for district and about 75 per cent for the State. Another important component of ANC is TT doses during the pregnancy which also shows decrease in percentage during the latest year as against five years earlier for the district while for state it has improved around 1 point.

Table 4.6: Performance of ANC (% against ANC registration)				
	2009-10		2013-14	
	3 ANC	TT	3 ANC	TT
Dist. Average	93.18	92.84	86.22	81.24
State Average	75.40	82.95	74.24	83.98

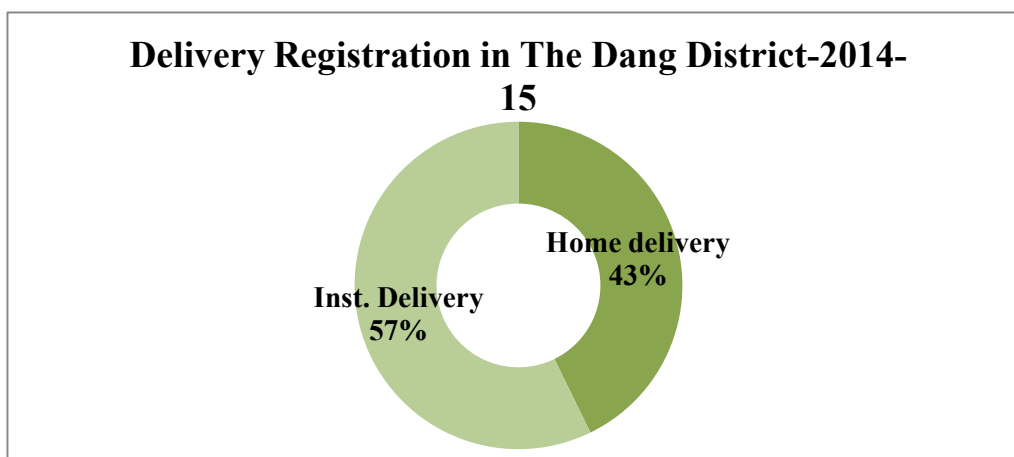
Source: Health Statistics (2013-14). Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar

As per the latest year, district performance is far better than the State for 3 ANC visits while for TT doses district performance is below the State.

4.3.2. Institutional Delivery

Another important indicator of safe motherhood is the extent of Institutional Delivery of mother. Which implies Safe motherhood depends mainly on delivery by trained /professional personnel, particularly through institutional facilities.

Figure 4.2: Performance in Delivery Registration, 2015



Source: CDHO, The Dangs 2015

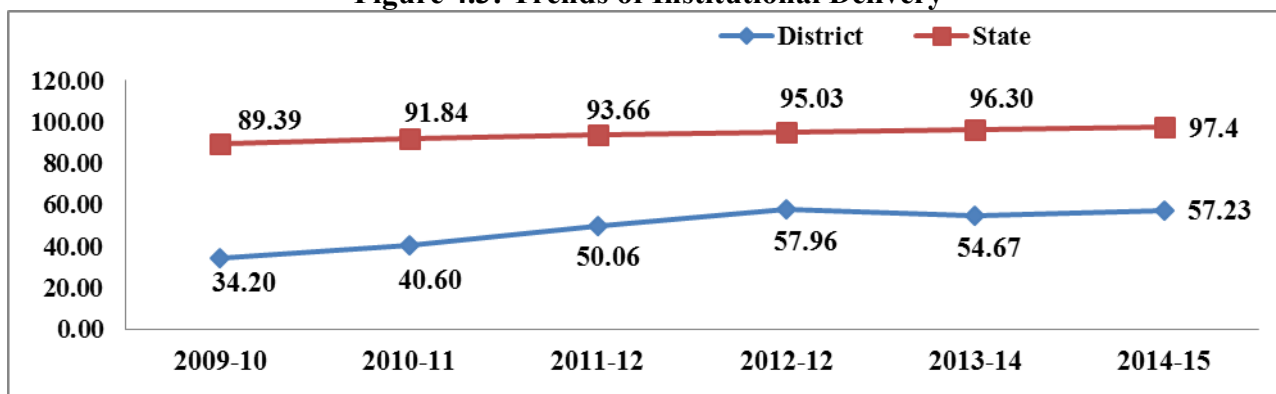
The status of Institutional Delivery registration in the district in 2014-15 is 57 per cent as against 54 per cent for the previous year.

⁶ Nomita Chandhiok, Balwan SDhillon, Indra Kambo, Nirakar C Saxena, Determinants of antenatal care Utilization in rural areas of India : Across-sectional study from 28 districts (An ICMR task force study), J Obstet Gynecol India Vol. 56, No. 1 : January/February 2006 Pg 47-52

⁷ Nutritional deficiencies among women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth; therefore a pregnant woman needs six times more iron than a non-pregnant woman. So receiving iron folic acid tablets/syrup during pregnancy is important.

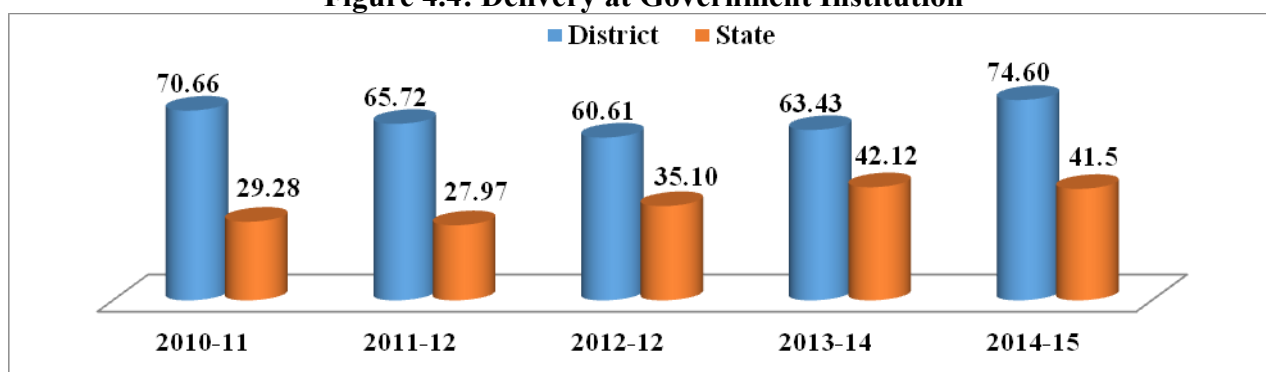
The five years trend in Institutional delivery for the district as well as for State is shown in Figure 4.3. It shows over the years, Institutional Delivery is continuously increasing for the district as well as State. Although the district is far behind of state average in terms of institutional delivery. This large number of delivery at home is mainly because of traditional reasons, not for the lacking of medical infrastructure facilities. As we have already mentioned that tribals are less inclined to follow the mechanism of modern health care system which bars them to avail the benefit of existing Government initiatives for safe delivery.

Figure 4.3: Trends of Institutional Delivery



Source: Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar and CDHO, The Dang

Figure 4.4: Delivery at Government Institution



Source: Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar and CDHO, The Dangs

The above figure 4.4 shows that over the years Government Hospitals constitute most of the institutional delivery (above 60 per cent) in The Dang district whereas for the State, Government Hospitals constitutes below 50 per cent of the total Institutional delivery. Data shows that during the latest year (2014-15) Government hospital has constituted around 75 per cent institutional delivery in Dang District while that of State is only around 42 percent. It is the indication of Lack of private health care system of the district.

Table 4.7: Institutional Delivery

Year		2009-10	2010-11	2011-12	2012-12	2013-14	2014-15
District	Institutional Delivery	34.20	40.60	50.06	57.96	54.67	57.23
	Govt. Hospitals	77.80	70.66	65.72	60.61	63.43	74.60
State	Institutional Delivery	89.39	91.84	93.66	95.03	96.30	97.4
	Govt. Hospitals	32.71	29.28	27.97	35.10	42.12	41.5

Source: Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar, CDHO, The Dangs-2015

4.3.3. Government Initiatives

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

Chiranjeevi Yojna: In view of the shortage of qualified medical and health personnel for ensuring safe motherhood to pregnant women, the *Chiranjeevi* 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 *Chiranjeevi* Yojana are as under:

- The private medical practitioners (mainly gynecologist) in the region are being empanelled in the scheme to provide maternity health services.
- A pregnant woman is free to go to any of the empanelled gynecologist for delivery. The system is voucher based and hence the woman has freedom to choose.
- 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.

Benefits:

- For every delivery, the private doctor is given Rs. 3800/- while a grant-in-aid institution is aid Rs. 3800/- per delivery.
- The pregnant woman is given Rs. 200/- for transportation for 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 Chiranjeevi Yojna the private gynecologist can also enter into contract with the Community Health Centers in the area.

Performance Report of CY

Year	The Dangs				Gujarat			
	Total Institutional delivery	Delivery under CY	% of CY delivery to Total Institutional delivery	Empanelled Doctor	Total Institutional delivery	Delivery under CY	% of CY delivery to Total Institutional delivery	Empanelled Doctor
2009-10	1612	407	25.2	4	942972	155721	16.5	721
2010-11	2563	168	6.6	0	1098277	269942	24.6	867
2011-12	3987	0	0.0	0	1133558	150107	13.2	646
2012-13	3276	0	0.0	1	1104965	89762	8.1	475
2013-14	1832	0	0.0	0	1087169	78510	7.2	433

Source: Compiled from Health Statistics, Commissionerate of Health & Medical Services, Medical Education and Research, Gujarat

Last five years performance report of the district are shown in table- 4.8. During last three years there is no empanelled doctor under CY, hence the result is nil.

e-Mamta: Recognizing the short comings of the health system to effectively deliver the most crucial services for a safe pregnancy and delivery as well as ensure child survival, the Ministry of Health and Family Welfare, Government of India, launched a major initiative, the National Rural Health Mission (NRHM) in 2005 to carry out various corrections in the basic health delivery system. Taking lead from this, the Government of Gujarat was the first to launch a program, the *e-Mamta*, whereby health workers are enabled to track all pregnant women in their area and provide timely antenatal services and subsequently also provide immunization services after childbirth to ensure better reach of maternal and child services.

Child Health:

4.3.5. Infant Mortality Indicator

There are various indicators of infant and child mortality. Among the more commonly used, infant mortality rate (IMR) refers to the number of deaths per thousand live births in the first year of a child's life. It reflects the probability of a child dying before attaining the age one year. Similarly, under five mortality rate (U5MR) refers to the probability of child dying before the fifth birthday. The infant and child mortality indicators are likely to be more sensitive to changes that have a bearing on the quality of life, particularly, to the health and longevity of people. Thus, it is also useful from the point of policy targeting and tracking changes in health attainments of a population at more frequent intervals, particularly when the population is yet to complete its demographic transition.

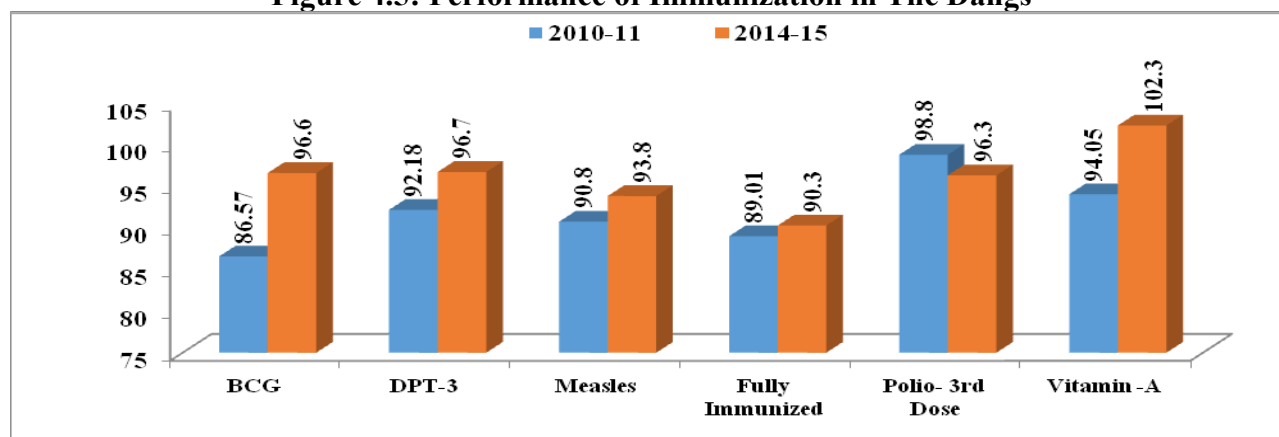
4.3.6. Status of Child Immunization

Immunization is a form of preventive medicine. Its aim is to protect individuals and communities from infectious diseases. Immunization operates like an early warning system. It prepares the body to fight against infection. Following the successful global eradication of smallpox in 1975 through effective vaccination programmes and strengthened surveillance, the Expanded Programme on Immunization (EPI) was launched in Gujarat in 1978 to control other VPDs. The aim was to cover 80% of all infants. Subsequently, the programme was universalized and renamed as Universal Immunization Programme (UIP) in 1985 targeting all infants with the primary immunization schedule and all pregnant women with Tetanus Toxoid immunization. Following the successful launch & implementation of universal immunization programme in 1985, there has been considerable reduction in vaccine preventable diseases. In 1992, the UIP became a part of the Child Survival and Safe Motherhood Programme (CSSM), and in 1997, it became an important component of the Reproductive and Child Health Programme (RCH). The standard immunization schedule developed for the child immunization programme specifies the age at which each vaccine should be administered and the number of doses and the interval at which it is to be given. Routine vaccinations received by infants and children are usually recorded on a vaccination card that is issued for the child.

According to the data of Health Department of the state shows a moderate performance in child immunization for the district during the latest available year (2014-15). In the year 2014-15, it shows that all required immunization doses coverage is above 90 percent against total live birth for the district as well as for the state, although district performance is below the state performance.

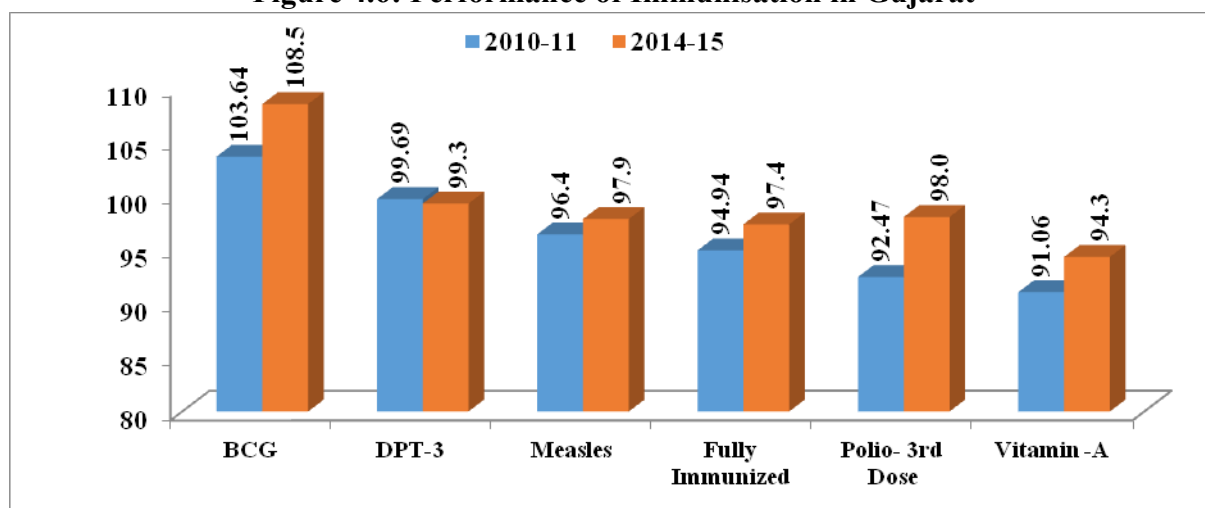
If we look back to the figure of five years before (2010-11), it shows except polio 3rd dose, all other immunization coverage has increased for the district.

Figure 4.5: Performance of Immunization in The Dangs



Source: Health Statistics, Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar

Figure 4.6: Performance of Immunisation in Gujarat



Source: Health Statistics, Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar

New born Care:

Table 4.9: New Born care 2014-15

New Born care	The Dangs	Gujarat
	2014-15	2014-15
Newborns breastfed within 1 hr of birth (to reported live births)%	97.5	92.7
Newborns weight less than 2.5 kg (to total newborns weight at birth)%	16.2	10.3

Source: Health Management Information System-2014

To promote child survival and prevent infant mortality, NRHM envisaged new born care, breastfeeding and food supplementation at the right time and a complete package of immunization for children. With respect to new born care, the district performance is better than the overall State performance (Table-4.9). In 2014-15, about 98 per cent of children are put to the breast feeding within the first day of life for the district, which means below only 3 per cent infants are deprived of the highly nutritious first milk (colostrum) and the antibodies it contains. In 2013-14 it was around 95 percent. In 2014-15, Percentage of low birth weight new born babies is found to be much higher in the district (16.2%) as compare to the state average (10.3%).

Nutritional Status: Immunization only protects children from the fatal diseases but it does not ensure nutrition level. Nutrition is linked to the economy of the district and cannot be overcome just by providing better health services. It is a problem related to poverty. Low-income families fail to provide adequate nutritious food to mother and children resulting in malnutrition. Malnutrition affects the physical and mental growth of children. Information from ICDS on nutritional status of children shows that around 30 percent of children are underweight across the district till March, 2015.

Table 4.10: Nutritional Status (as of March, 2015)

District	No. of AWC Operational	Nutrition Status		
		Total no. of child weighed (0M- 6Y)	% of underweight Children	% of severe underweight children
The Dangs	439	25052	30.14	2.77
Gujarat	52079	3879887	8.86	0.84

Source: MPR March-2015, Department of Women & Child Development

In case of Severely Malnourished Children, the district average is lesser than the State's average (0.84 percent). On an average 3 percent of children are severely malnourished across the district.

4.3.7. Government Initiatives for Child Health

Strategies adopted State-wide to curb malnutrition include micro-nutrient supplementation, protein substitution, treatment of infections, and provision of safe drinking water and sanitation facilities. Early and exclusive breast feeding for the first six months, appropriate complementary feeding, fortification of wheat flour, calcium and vitamin-A supplements to pregnant mothers, use of iodized salt and provision of nutritious Mid-Day Meals in schools have been promoted.

Bal Sakha Yojana: Bal Sakha Yojana was incepted in January 2009, to make accessible expert care by private pediatrician to all BPL and tribal children born under the ambit of the Chiranjeevi Yojana or in Government Health care institution.

The Scheme is operationalized in two parts:

- Bal Sakha Yojana Part 1
- Bal Sakha Yojana Part 2

Bal Sakha Yojana 1: This part of scheme is applicable to all babies born in BPL, neo-middle class families (with income limit of Rs. 2 lakh) and Tribal APL families (Non Income Tax Paying) under Chiranjeevi Yojana, or at CHCs and District Hospitals, where specialized pediatric services are not available.

Under this scheme, the pediatrician attends all eligible new-borns at the place of birth and has to ensure their survival by providing early neonatal care including immunizations at birth, nutrition advice, etc. The gynecologist has to ensure 2 days stay of mother and baby after delivery to cover dangers of immediate post-partum period. In case the infant requires any further care, the baby has to be transferred and treated in the pediatrician's NICU. If the infant requires any high level of care such as ventilator care, the baby will be transferred to Level 3 NICU in medical college hospitals and given facility / money for ambulance charges.

A package of remuneration is worked out for a total of 100 babies covered as under: Thus the pediatrician will receive Rs 2,69,000 for 100 consecutive babies treated. Transfer charges shall be given for transfer of babies from one facility to another by the pediatrician as above and will be reimbursed to him / her as per actual.

Bal Sakha Yojana Part 2: This is applicable to all babies born to BPL, neo-middle class (with income limit of Rs. 2 lakh) and Tribal APL families (Non Income Tax Paying) born at other places than those mentioned in part 1, i.e. born at home, sub centre or a PHC.

The babies born at all places are examined as per IMNCI protocols and those who are identified in Red zone i.e. those who require further medical assistance are referred to the private pediatrician partnering under this scheme. The health worker such as ASHA or anganwadi worker escorts the baby to the pediatrician and is paid incentive for this. The pediatrician will examine and treat 100 such children referred and will admit those who require indoor care. The transfer to higher level will be done as and when required as in part

Output of the Scheme: The scheme has given tremendous results in the first year of its launch for the State. A total of 322 private pediatricians have been empanelled under the scheme (Table 4.10). For the district also the performance was good during the starting year, even it was better than the State performance; in The Dangs district percentage under BSY beneficiaries was 9.6 % whereas for the State it was only 7.1 %. Over the years the schemes performance was increasing till 2011-12 for both, state and district, after that it is showing a decreasing trend. Percentage of beneficiaries under BSY was highest during 2011-12 for the district as well as state. Numbers of enrolled doctors are also decreasing over the year for State while for district it is constant (only 1 enrolled doctor).

Table 4.11: Year wise performance under BSY

Year	The Dangs				Gujarat			
	Total Institutional Delivery	Total New Born under BSY	% BSY beneficiaries to total Institutional Delivery	Enrolled Doctor	Total Institutional Delivery	Total New Born	% BSY beneficiaries to total Institutional Delivery	Enrolled Doctor
2009-10	1612	155	9.6	1	942972	66553	7.1	322
2010-11	2563	307	12.0	1	1098277	80515	7.3	266
2011-12	3987	441	11.1	1	1133558	92500	8.2	267
2012-13	3276	222	6.8	1	1104965	54116	4.9	194
2014-15	3484	184	5.3	1				

Source: Health Statistics (2009-10 to 2013-14) Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar, CDHO, The Dangs-2015

School Health Programme: To ensure good health for our school children the Department of Health & Family Welfare conducts School Health Program every year which the single, largest, health program operating in the state of Gujarat. Department of Health in collaboration with Education Department & WCD started innovative School Health Program since 1997.

A State level steering committee, under the chairmanship of Hon. Health Minister takes important decision about School Health Program.

Now School Health Program of Gujarat is integrated with RashtriyaBalSwasthyaKaryakram and regular health checkup activities will be carried out through dedicated mobile health teams.

Beneficiaries

- Newborn to 6 years Anganwadi (AW) children
- Children up to 18 years of age enrolled in classes 1 to 12 in all schools (Government , Grant in aids & Private)
- Non-school going children up to age of 14 yrs.
- Children / Juvenile home, Madrassa children

Table 4.12: Year wise performance under School Health Programme (The Dangs)

	2014-15	2013-14	2012-13
Children Examined	84823	85764	84859
Children provided Referral Services	1214	590	659
Referral Services			
Pediatrician	262	165	181
Ophthalmic Surgeon	591	163	289
Dental Specialist	93	62	73
Skin Specialist	157	52	51
ENT Surgeon	111	48	60

Source: CDHO, The Dangs

Table 4.12 shows that the year wise performance of School Health Programme in The Dangs District. Total number of children examined under the scheme is 84823 during 2014-15 among which 1214 children has been provided the Special Referral Services. While during 2013-14, the total number of children examined was 85764 and children got referral services was 590. Among all referral services, number of children are more under Pediatrician and Ophthalmic Surgeon over the years.

4.4. Preventive Indicators of Health:

4.4.1. Drinking Water:

Safe drinking water is an essential element for life and of course for better health of an individual. Water born disease like acute diarrhoea, dysentery, acute viral hepatitis, cholera, enteric fever etc. are directly related to the source and storage habits of drinking water of the households (Table. 4.13). As far as The Dangs district is concerned, about 76 per cent of total households are using safe drinking water.⁸ This figure is not satisfactory as compare to the state level average where around 93 per cent of total households are using safe drinking water. If we look at the urban & rural scenario, there is a gap around 16 points for safe drinking water availability which needs special attention. In The Dangs, handpumps are major source of drinking water rather than tap water. This handpumps becomes non-functional before the onset of summer. Thus, creating water crises in the district.

Table 4.13: Basic Amenities related to Health (in %)

	The Dangs			Gujarat		
	Total	Rural	Urban	Total	Rural	Urban
HH having Safe drinking water source	75.93	74.49	89.62	92.60	88.60	97.50
H.H Having Latrine Facility within the Premises	28.35	25.26	57.79	57.34	33.04	87.70

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

4.4.2. Latrine Facilities:

Apart from the availability of safe drinking water, lack of sanitation, particularly sewage and disposal of solid waste has been observed as among the main reasons for prevailing ill health and morbidity, especially in rural scenario. As per Census 2011, around 29 per cent of total number of Households of the district are having toilet facility within the premises of their residence which is nearly half of the State average (57.34%). Here also rural urban gap is noticeable; around 58 per cent for urban households having toilet facility within the premises but only around 26 per cent for rural households in the district have that facility.

4.4.3. Diseases Trend Analysis: Water Borne Diseases

Drinking water security is not only an issue of an adequate quantity of water; but the quality of drinking water is also a concern. During monsoon drinking water sources are contaminated by the runoff carrying pollutants from the waste around the villages. During summer (and winter to a lesser extent) the acute scarcity compels communities to utilize sources of drinking water with poor water quality. Shortage of water also affects the personal hygiene and sanitation practices. Hence, water borne and skin diseases are common health disorders.

Table 4.14: Status of Water Born Diseases

Year	Acute Diarrheal	Bacillary Dysentery	Acute Viral Hepatitis	Enteric Fever
2009	12167 (1.88%)	1210 (3.65%)	81 (0.73%)	242 (1.52%)
2010	10817 (1.61%)	1679 (4.42%)	686 (4.30%)	720 (3.49%)
2012	9199 (1.45%)	1331 (3.53%)	702 (1.54%)	451 (2.05%)
2013	10558 (1.56%)	1237 (4.00%)	918 (2.33%)	716 (2.90%)

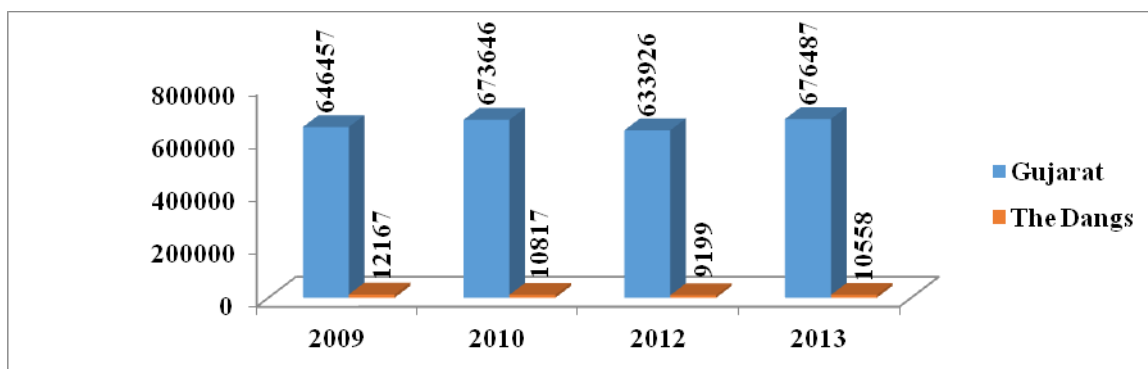
Source: Health Statistics, Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar
Parenthesis are showing the % of district to state total

⁸ Tap water, hand pump, tube well / bore well and covered well are considered as a Safe drinking water sources

Acute Diarrheal:

As per WHO/UNICEF definition “Acute Diarrheal” is an attack of sudden onset, which usually lasts 3-7 days, but may last up to 10-14 days. This is the major public health problem in India as well as Gujarat. Diarrheal related diseases are significant causes of mortality among children under 5 years of age. During the year 2013, a total of 10558 clinically diagnosed cases of Acute Diarrheal were reported in The Dangs district which covers 1.56 per cent of the of the State’s total Acute Diarrheal cases. Cases of Acute Diarrheal have increased in the district during 2013 as compare to 2012.

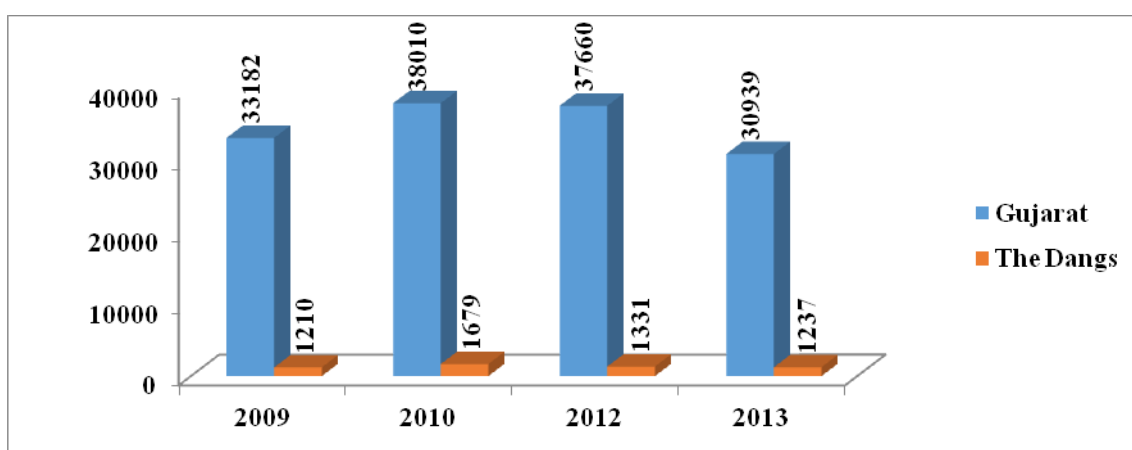
Figure 4.7: Year wise case reported in Acute Diarrheal



Bacillary Dysentery:

There are a total of 1237 clinically diagnosed cases of Bacillary Dysentery reported during the year 2013 in the District which occupied 4 per cent of the State total cases (table 4.14). Trend of last three years shows that The Dangs is mostly affected with this disease. The highest number of total cases (1679) was reported by the district during the year 2010 as compared to rest of the years.

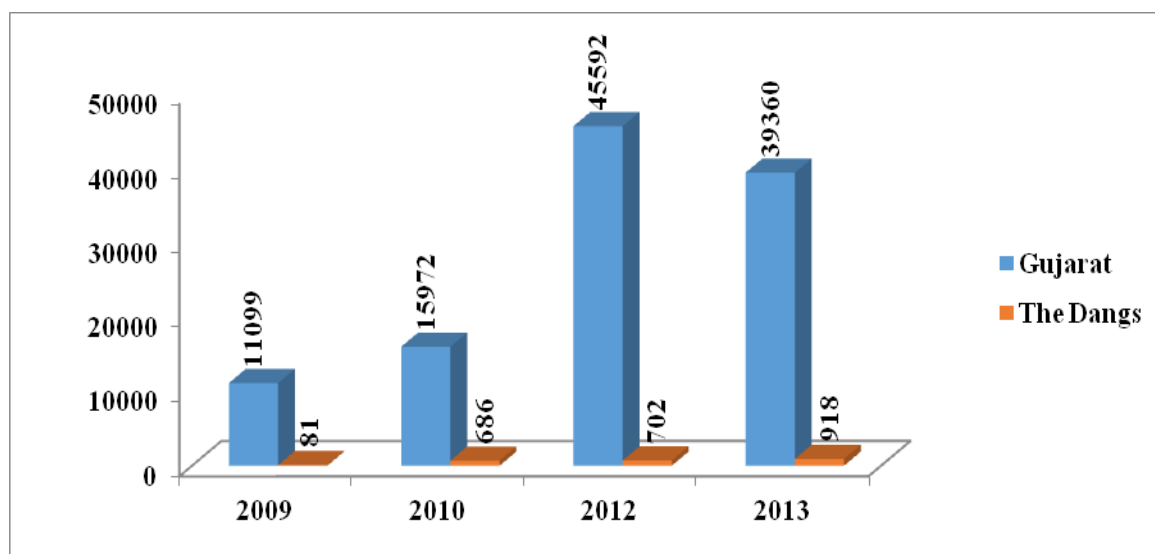
Figure 4.8: Year wise case reported in Bacillary Dysentery



Acute Viral Hepatitis:

Although Hepatitis is a feature of many viral diseases; the five most common virus which cases Acute Viral Hepatitis are HAV, HBV, HCV, HDV and HEV those primarily target the liver. Table 4.14 shows that in latest year (2013) in The Dangs district 918 cases were reported which occupies 2.33 per cent of the total cases of the State. Over the years number of cases in continuously increasing.

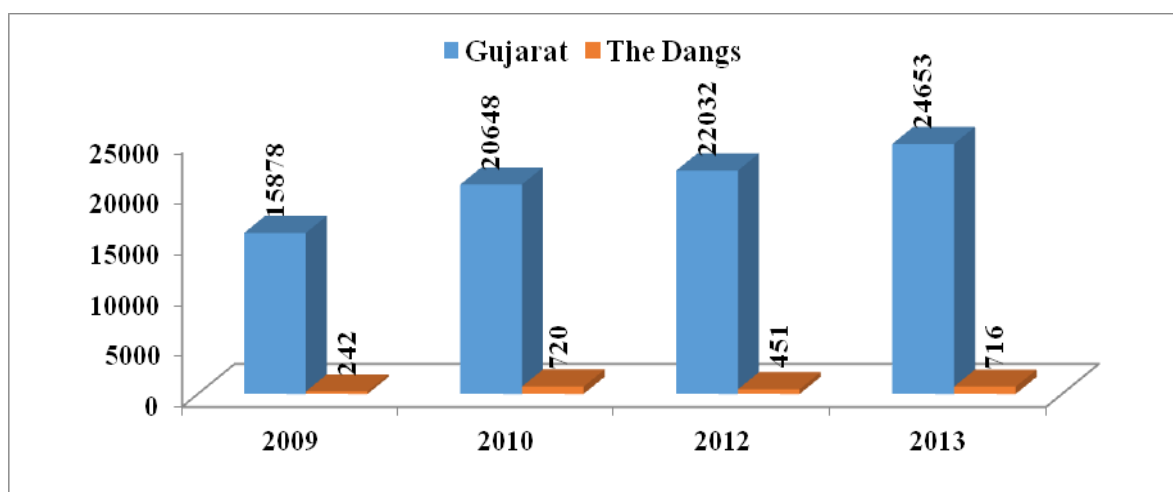
Figure 4.9: Year wise case reported in Acute Viral Hepatitis



Enteric Fever:

Enteric Fever is a substantial public health problem in India as well as states. There are 716 cases of Enteric Fever were reported in the year 2013 in the District which occupied 2.90 per cent of the State total cases. Trend shows that it is almost 3 times more than the cases reported during the year 2009. The below figure shows fluctuating trend in The Dangs district. The factors like contamination of water and food, poor sanitation food handling practice are the most probable reasons for high prevalence of this diseases.

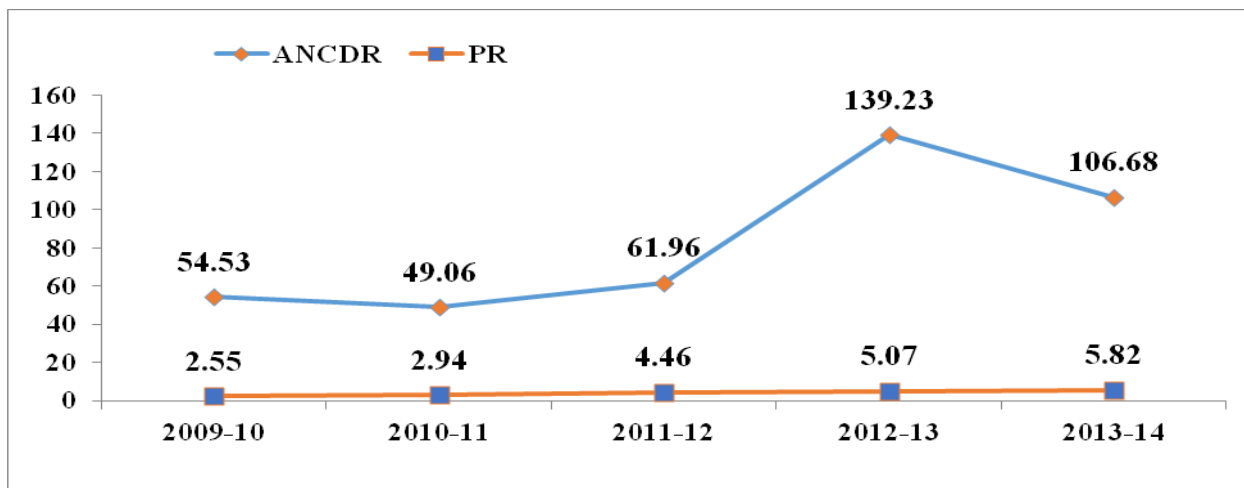
Figure 4.10: Year wise case reported in Enteric Fever



4.4.4. Leprosy: A major disease in the District

Leprosy: Leprosy is a chronic infectious disease caused by Mycobacterium leprae. It usually affects the skin and peripheral nerves, but has a wide range of clinical manifestations. The disease is characterized by long incubation period generally 5-7 years and is classified as paucibacillary or multibacillary, depending on the bacillary load. Leprosy is a leading cause of permanent physical disability. Timely diagnosis and treatment of cases, before nerve damage has occurred, is the most effective way of preventing disability due to leprosy.

Figure 4.11: Trend of ANCDR & PR of Leprosy in The Dangs



Source: Health Statistics 2013-14, Commissionerate of Health, Medical Services, Medical Education and Research, Gandhinagar

The district has highest prevalence (5.82) rate after Tapi (6.02) district. National Leprosy eradication Program is functioning in the district. The Annual New Case Detection Rate (ANCDR) in The Dangs for the year 2013-14 is 106.68, which is highest among all the districts. In the year 2013-14, total 255 cases were detected in The Dangs. The trend of leprosy prevalence rate and ANCDR is shown in the above figure 4.11.

4.5 SWOT Analysis

<p><u>Strengths</u></p> <ul style="list-style-type: none">- The district is having highest child sex ratio and is 2nd in Sex ratio- The performance of 3ANC is good in the district- Government hospitals are the major source of Institutional delivery	<p><u>Weaknesses</u></p> <ul style="list-style-type: none">- Lack of health personnel availability at district hospital. Many of the sanctioned posts are unfilled.- The performance of child immunization is decreasing over the years- Though government has started various initiatives for maternal and child health, The Dangs is not showing any performance- The culture of the Dangs is also a main constraint in accessing the health facilities available in the district
<p><u>Opportunities</u></p> <ul style="list-style-type: none">- The district has abandon reservoir of medicinal plants and herbs. If efforts are made to promote it, then it can be very useful for as traditional healing methods- Various nutritional grains are produced and favourable to The Dangs environment. This can improve the nutritional status of child and women too- Private players are very rare in the district in Health Care System. Effort is required to encourage private players to invest in the district.	<p>SWOT</p> <p><u>Threats</u></p> <ul style="list-style-type: none">- Lack of safe drinking water and sanitation facilities is contributing to various diseases in the district such as water borne diseases- There are highest percentage of children who are underweight in the Dang district i.e 30.14 percent- Only 57 percent of the deliveries are institutional while rest of them are done at home- Inadequate medical facilities in the district is a major issue

LIVELIHOOD PATTERNS

Chapter at Glance

Gross Cropped Area

44717 ha

Net Sown Area

57911 ha

Total Irrigated Area

1790 ha

Total Livestock

133012

Total Poultry

193452

Major Food Crops

Rice (Paddy), Ragi
(Nagli)

Major Fruit Crops

Mango, Cahew Nut

WPR

51.80%

Rural WPR

54.46%

Male WPR

53.88%

Female
WPR

49.73%

Livelihood Patterns

Abstract

The Livelihood pursuits of people of The Dangs are dependent on the rich forest and natural resources. In the wake of mountainous terrain, limited agriculture, non-existent industrial activity and poor human development the tribal people have very limited livelihood options to choose from. However, efforts are being made to ensure sustainable forest development for harnessing its natural product. The new initiatives like Krishi Mahostava are being organized to motivate people to take up new crops in agriculture. Further, special schemes and programmes to develop livestock sector and artisans are being encouraged in a planned manner. Other pioneering initiatives like Urja Shakti, Jan Shakti, Raksha Shakti and Jal Shakti are made popular among tribal population for initiating participative development and increasing livelihood opportunities by the state government in recent years.

The Economy

The livelihood pursuits of people are conditioned by the level of economic development. The nature and variety of occupations pursued depends on the extent to which available resources are exploited for industrial and economic growth. The Dangs territory is a one taluka district having 311 villages in it. It is the most backward district of Gujarat, in majority of the socio and economic parameters. However, it is endowed with highest per cent area under forests (60.00 %). It is predominantly inhabited by tribal people, with a literacy rate of 75.16 per cent as per 2011 population census. The people have unique customs and traditions and peculiar agricultural and livelihood practices. It, thus, occupies a unique existence in terms of occupational and livelihood patterns in the state.

The economy and livelihood pattern of the people is forest-based subsistence. The people are mostly Bhils, Konkani, Kunbis, Warlis and Gamits. Except for Bhils, other tribes are mainly agriculturalists. The nature of soil, primitive methods of cultivation and limited land for cultivation in the district cannot provide full-time employment all the year round to inhabitants. The people, therefore, depend on other primitive forest based occupations to supplement their incomes.

The Dangs had no urban area in 1991 & 2001 census. As per census 2011 the district comprises of 10.81 percent urban area, with three main towns; Ahwa, Subir & Waghai. Its density of population per sq. km. was 129 persons, one of the lowest in Gujarat.

Economic Resource Base

The means of livelihood of people is mainly dependent on economic resource availability besides other factors. The principal resource base in The Dangs district is its forests which occupies 60 per cent of total geographical area of the district. The detail on forest resources has already been discussed earlier. The forests based activities include collection and sale of non-timber forest produce (NTFP), cultivation and grazing of livestock, grass and wood cutting and bamboo plantation activities which are monitored through forest department of government.

The district is rich in timber and teak of high quality is in abundance. The forest produces important natural product like timber, fire wood, charcoal, industrial wood, bamboos, gum, fruits, flowers, honey, herbs and medicinal plants.

The mining activities are absent and non-existent in the district. The minor minerals available are building stones, brick earth, sand and road metal. However, the elevated land forms and the thick forest cover are indicative of presence of minerals in the region. The soil in The Dangs is most suitable for

fruit production. Red soil is found along the lower part of the valley and black soil in the plains of the western Dangs. Soil fertility is poor and lands are subject to erosion on slopes and terraces.

The capacity to develop agriculture is limited owing to forest covered hilly terrain and limited irrigation facilities in the district. Although it receives maximum rainfall among all the districts in the state, during non-monsoon months agricultural production cannot be undertaken due to lack of irrigation infrastructure and shortage of water resource in the district. The livelihood options are also hindered due to poor literacy and skills of population which is further restrained due to extremely poor industrial activity in the district.

5.1 Agriculture

5.1.1 Land Use Classification

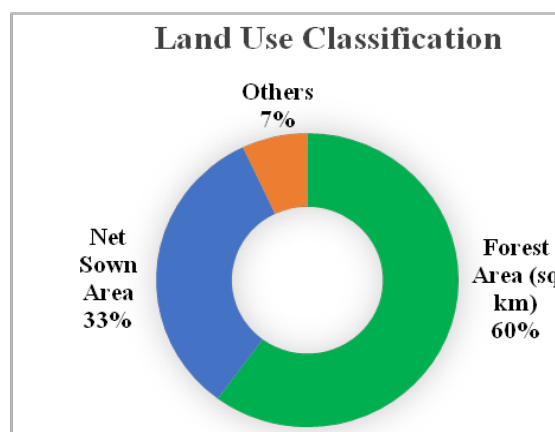
Emerging from the traditional system of slash and burn agriculture, subsistence farming is the primary source of livelihood for the tribal population of The Dangs. The total land area of The Dangs is 176400 hectares. Since a major portion of the land is forestland (60%), plain and cultivable land in order to support agriculture and the growing population is scarce. The quality of land in The Dangs is poor and major proportion of the agricultural land is situated on slopes, which makes irrigation difficult. The elevated land coupled with deforestation, results in increased erosion, which strongly affects fertility of land and subsequently, agricultural productivity. Again, due to the high degrees of slope and the high annual rainfall, the top soil is washed away each year, thus depriving the land of precious top soil. Further, the practice of using tree canopy enforces the negative effects of the rainfall, since there is no tree cover to break the force of the rainfall. Due to erosion, deforestation and inadequate input of organic matter the land has become less fertile. The use of land resources in The Dangs could be shown as follows.

Table 5.1: Land Use Classification in The Dangs

Particulars	Area (Ha)
Total Geographical Area	176400
Forest Area	105488
Net Sown Area	57911
Area Sown more than once	12225
Permanent Pastures and other Grazing Lands	247
Total Irrigated Area	1790
Gross Cropped Area	44717

Source: 1) Directorate of Agriculture, Gandhinagar- 2011-12, 2) District Statistical Outline (The Dangs) 2012-13

A total Net Sown Area is 57911 hectares (33%) land in the district in 2012-13. The crops grown are paddy, Nagali, Varai, Sorghum, Maize, Groundnut, Kharasani and Soyaben, major cereals crops are Black Urad and Toor, winter crops are gram, wheat. The farmers have increasingly started to grow vegetables in the district. In 2011-12, Total Irrigated Area is 1790 hectares while Gross Cropped Area is 44717 ha in the district.



5.1.2 Crops and Productivity

The agriculture provides for a limited proportion of economic activity undertaken by people of The Dangs due to hilly terrain. The agricultural crop production is increasing due to measures like

financial assistance, providing a variety of agricultural equipments and providing scientific awareness regarding agricultural developments and focusing on extension work. Green houses are being propagated in the district.

A) Food Crops

The area under major crops in The Dangs for the years 2010-11, 2011-12 and 2012-13 are presented in below table 5.2. According to the Table the major crops cultivated by the farmers of The Dang District are Ragi, Pulses, Paddy.

The Dangis mainly cultivate food crops for self-consumption. The cropping pattern is suited to rain fed conditions and hilly terrain. Most farmers take only one crop. Only one third of the villages cultivate a winter crop. Major kharif crops are paddy, ragi, jowar and tur.

Traditional crops like ragi, banti, sava and kodara are highly nutritious coarse grains and are best adapted for the climate, rain fed conditions and slopes in the district. However, it is alarming to see the increasing trend of rice replacing these traditional crops.

Moreover, the productivity of rice fluctuates more, whereas ragi has a stable productivity. There could be several reasons for this. The seeds used for rice are bought from external sources due to which their quality may fluctuate. Moreover, hybrid rice is not adapted to local climate therefore may not be able to withstand the stress of rain fed conditions. On the other hand, local seeds are being used for the production of ragi, which are more adapted to local rain fed conditions. Chemical fertilizer and pesticides are also hardly used in the production of ragi and are more frequently used for rice. This makes the input costs of rice much higher, creating a need for cash to be able to produce even a subsistence quantity of rice. On the other hand, the production of ragi is not dependent on the use of pesticides and chemical fertilizers. Further, the use of hybrid seeds in rice is stimulated by extension services. Hence, future extension services and facilities should focus on stimulating the production of ragi.

In the year 2010-11 & 2011-12, the Total Rice was cultivated in 18000 hectares in the district while in the year 2012-13 the area has been decreased to 13800 hectares as compare to previous year. Groundnut accounted for 400 hectares (2012-13) while still the production was highest as compare to last two years. Onion has highest yield in all the years.

Table 5.2: Statement showing Major Food Crops in The Dangs

Area in 00 Ha., Production in 00 M.T., Yield in k.g./Ha.

Sr. No.	Food Crops	2010-11			2011-12			2012-13		
		Area	Prod	Yield	Area	Prod	Yield	Area	Prod	Yield
1	Total Rice (Paddy)	180	234	1300	180	307	1706	138	218	1580
2	Total Jowar	23	24	1043	33	45	1364	28	34	1214
3	Total Maize	27	44	1630	27	37	1370	36	59	1639
4	Total Wheat	24	81	3375	44	139	3159	38	113	2974
5	Total Udad	53	35	660	52	38	731	71	50	704
6	Total Groundnut	40	73	1825	45	74	1644	4	10	2286
7	Total Oilseeds	116	116	997	85	85	1000	21	15	737
8	Total Onion	6	170	28333	6	182	30333	3	86	28667
9	Kharif Ragi (Nagli)	104	70	678	104	93	900	77	72	946
10	Kharif Tur	29	12	417	29	31	1053	19	18	984
11	Gram	15	21	1380	140	159	1139	4	3	978

Source: Directorate of Agriculture, Gandhinagar

B) Fruit Crops

There are no garden crops but cultivators have been encouraged by government to take up fruit crops like mango, guava, kagdi, lime, etc. In the year 2013-14, the total area under fruits was 5782 hectares and value of production of fruits was 32279 M.T. It was mainly contributed by Mango and Cashew nut. Small areas had been devoted to Chiku and Banana and other fruits.

Table 5.3: Estimated Area, Production and Productivity of Fruit Crops										
<i>Area in Ha., Production in M.T., Productivity in M.T./Ha.</i>										
No.	Fruits	2011-12			2012-13			2013-14		
		Area	Prod	Yield	Area	Prod	Yield	Area	Prod	Yield
1	Mango	3710	22260	6.00	3910	23460	6.00	4360	25811	5.92
2	Chiku	22	245	11.14	18	205	11.39	21	231	11.00
3	Banana	23	771	33.52	18	740	41.11	20	810	40.50
4	Custard apple	79	1225	15.51	80	1240	15.50	90	684	7.60
5	Aonla	11	77	7.00	15	107	7.13	19	133	7.00
6	Cashewnut	1050	3413	3.25	1145	3975	3.47	1225	4250	3.47
7	Others	12	312	25.47	33	620	18.79	47	360	7.66
District Total		4907	28303	5.77	5219	30347	5.81	5782	32279	5.58

Source: Directorate of Horticulture, Gandhinagar, Government of Gujarat

B) Vegetable Crops

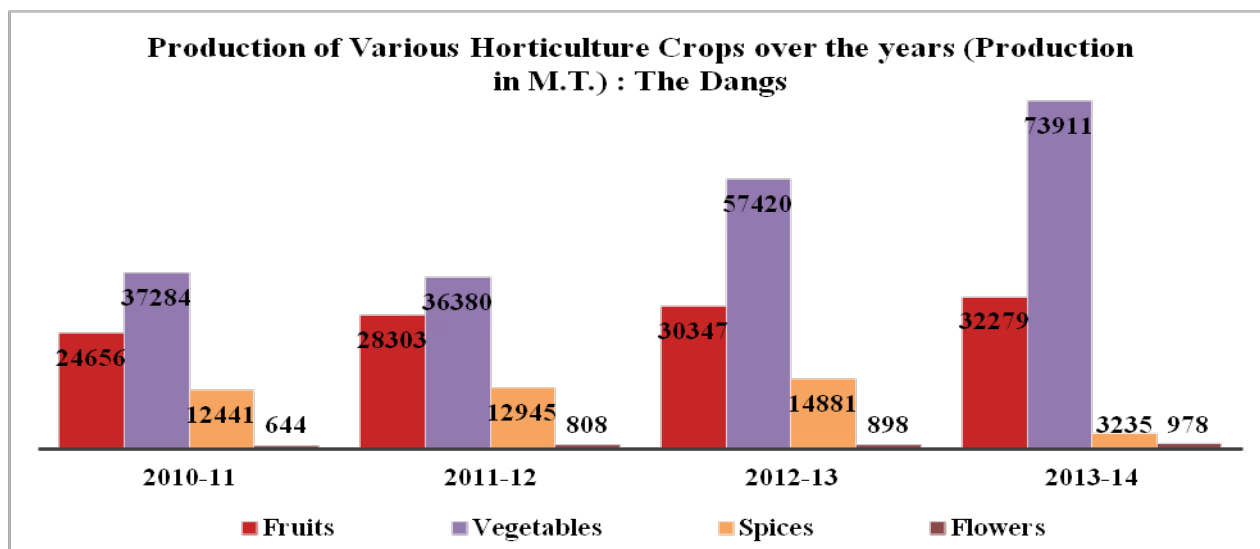
The farmers have increasingly started to grow more vegetables in the districts. In the year 2013-14, the total area under Vegetables was 4192 hectares and value of production was 73911 M.T. The vegetables produced included Okra, Brinjal, Cucurbits etc. Okra is the vegetable with highest production for all the years.

Table 5.4: Estimated Area, Production and Productivity of Vegetable Crops										
<i>Area in Ha., Production in M.T., Productivity in M.T./Ha.</i>										
No.	Vegetables	2011-12			2012-13			2013-14		
		Area	Prod	Yield	Area	Prod	Yield	Area	Prod	Yield
1	Brinjal	435	6525	15.00	452	6441	14.25	504	8568	17.00
2	Okra	740	11100	15.00	782	11811	15.10	904	13601	15.05
3	Tomato	233	5359	23.00	245	9450	38.57	265	5830	22.00
4	Clusterbean	200	2506	12.53	210	2656	12.65	222	2220	10.00
5	Cowpea	70	595	8.50	80	681	8.51	84	714	8.50
6	Cucurbits	445	9345	21.00	582	9973	17.14	603	7236	12.00
7	Others	40	950	23.56	505	16408	22.20	1610	35742	22.20
District Total		2163	36380	16.82	2856	57420	20.11	4192	73911	17.63

Source: Directorate of Horticulture, Gandhinagar, Government of Gujarat

It can be seen from below figure, the production of Vegetables is growing over the years. While production of Fruits is increasing gradually. Whereas production of Spices is decreasing trend in 2013-14 compare to previous years. Flowers production in the district is negligible.

Figure 5.1: Production of Various Horticulture Crops in The Dangs



Source: Directorate of Horticulture, Gandhinagar, Government of Gujarat

5.1.3 Land Holding Pattern

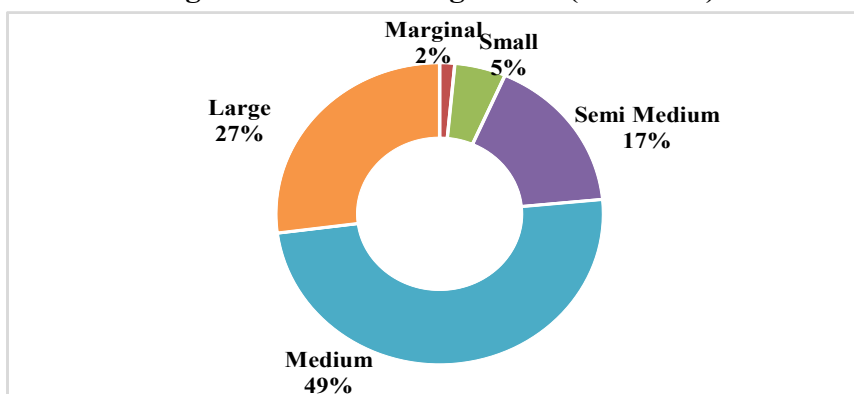
The land-holding pattern in The Dangs is predominantly titled towards small, medium and uneconomic holdings (table 5.5). The landholdings are small and hardly sufficient to support a household. The registration and calculation of landholders and cultivators only partly reflects the reality since the division of land over generations is often not reported and administrated. Therefore it is difficult to make an estimation of the actual number of landholders and their average landholding. In many cases, more than one household or family is dependent on a plot of land registered on one person’s name.

Besides, a certain percentage of forestland is also used for agricultural purposes. The amount of forestland being cultivated and the duration of cultivation is not known, but an indication is that there is currently a substantial number of claims for the regularization of forestland under cultivation. In the mid-1960s when the Gujarat Government decided to survey the lands in The Dangs to allot legal titles to the cultivators, the adivasis were either not informed about the survey or were misinformed. As a result, a good number of the cultivators found their land brought under ‘Reserved’ and ‘Protected’ forest.

The agricultural land during 2005-06 in the district was distributed among total of 12145 farmers and institutions, which is increased in 2010-11 to 12573. In the district average land holding per person has marginally decreased. Operational Holding of all Social Groups is mentioned in table 5.5.

Below figure 5.2 indicates the % holding of STs in The Dangs district for the year 2010-11. It is shown that majority STs are having Medium land holding.

Figure 5.2: % Holding of STs (2010 – 11)



Operational holding defined as "all land which is used wholly or partly for agricultural production and is operated as one technical unit by one person alone or with others without regard to title, legal form, size or location" is taken as statistical unit for data collection in Agriculture Census.

The below table 5.5 shows the land holding in The Dangs district. Out of total operational holding (in numbers), 0.08 percent belongs to SC, 99.53 percent belongs to ST while 0.32 percent belongs to other categories. Out of total operational holdings (in hectares), 0.06 hectares belongs to SC, 99.72 hectares belongs to ST while 0.20 hectares belongs to other categories. The average land holding per person in the year 2010-11 is 4.56 hectares.

Sr. No	Size Class	Year	Institutional		SC		ST		Others		All Social Group		Avg. Land Holding per Person (All Social Groups)
			% No	% AREA	% No	% AREA	% No	% AREA	% No	% AREA	No	AREA	
1	Marginal (below 1 hect.)	2005-06	0.25	0.25	0.12	0.12	98.94	99.25	0.68	0.62	1607	805	0.50
		2010-11	0.12	0.12	0.12	0.12	99.13	99.19	0.64	0.70	1721	862	0.50
2	Small (1.00 to 1.99 hect.)	2005-06	0.16	0.18	0.11	0.11	99.18	99.13	0.55	0.58	1827	2755	1.51
		2010-11	0.10	0.10	0.05	0.07	99.28	99.28	0.57	0.58	1938	2908	1.50
3	Semi Medium (2.00 to 3.99 hect.)	2005-06	0.09	0.09	0.13	0.13	99.40	99.39	0.38	0.39	3183	9396	2.95
		2010-11	0.03	0.02	0.12	0.12	99.40	99.38	0.45	0.47	3311	9754	2.95
4	Medium (4.00 to 9.99 hect.)	2005-06	0.02	0.02	0.09	0.08	99.80	99.84	0.09	0.07	4397	27935	6.35
		2010-11	0.02	0.02	0.07	0.06	99.82	99.85	0.09	0.07	4480	28356	6.33
5	Large (10.00 & Above hect.)	2005-06	0.00	0.00	0.00	0.00	99.82	99.82	0.18	0.18	1131	15846	14.01
		2010-11	0.00	0.00	0.00	0.00	99.82	99.82	0.18	0.18	1123	15498	13.80
All Classes		2005-06	0.09	0.03	0.10	0.07	99.49	99.71	0.32	0.19	12145	56738	4.67
		2010-11	0.05	0.02	0.08	0.06	99.53	99.72	0.34	0.20	12573	57379	4.56

Source- Agriculture Census:2005-06, 2010-11

5.2 Animal Husbandry

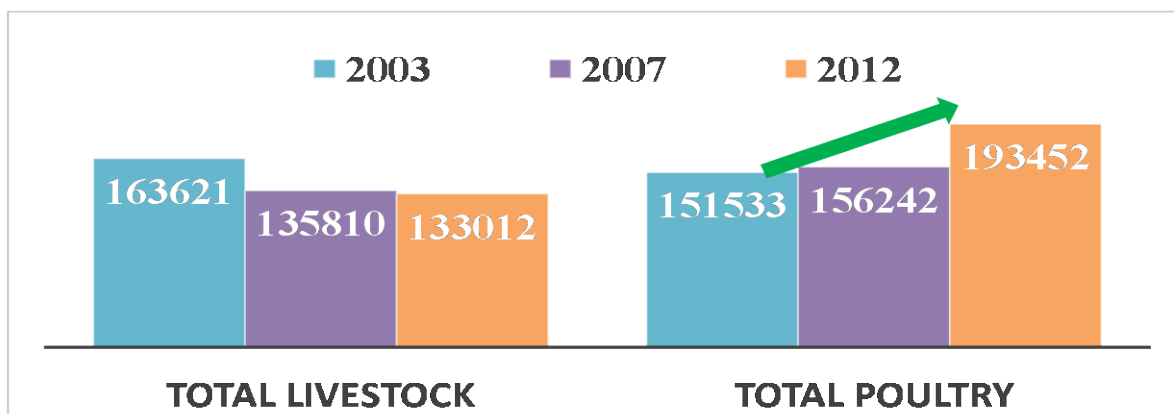
Cattle wealth plays a pivotal role in any rural economy. If the number of milch animals increases, it has a positive impact on the capacity of income generation and hence, human development. Animal husbandry, particularly dairy industry could act as a lucrative allied activity alongside agriculture. The livestock population in The Dangs is as follows:

Sr. No.	Type of Livestock	Numbers			% Change (2003-07)	% Change (2007-12)
		2003	2007	2012		
1	Cattle	80672	69934	78160	-13.31	11.76
2	Buffalo	27345	20727	24767	-24.20	19.49
3	Goat	42669	36917	29568	-13.48	-19.91
Total Livestock in District		163621	135810	133012	-17.00	-2.06
Total Poultry in District		151533	156242	193452	3.11	23.82

Source: Livestock Census

As per the Livestock Census 2007 total number of livestock in the district are 135810 and 156242 poultry exist in the district and for the year 2012, the same is 133012 and 193452 respectively. In 2007, The Dangs had a population of Cattle 69934, Buffaloes 20727 and 36917 Goats and in 2012 it became 156320 Cattles, 24767 Buffaloes and 29568 Goats. Compare to 2003, in 2007 total Livestock has decreased around 17 per cent and total poultry has marginally increased by 3.11 per cent; while in 2012, there is decrease of 2.06 percent in Livestock however poultry has increased by 23.82 percent.

Figure 5.3: Total Livestock & Poultry in The Dangs



5.3 Distribution of Work Force

Of the Total Population, **51.80** percent are total Workers in the district. WPR in the district has increased from 49.80 per cent (2001) to 51.80 per cent (2011). In the last two decades the proportion of total workers has remained the same. As per census 2011, The Dangs district has one of the highest WPR among all districts of Gujarat. Among Total Workers, 53.88 per cent are Male and 49.73 per cent are Females i.e. both men and women have equal participation in the district. This indicates female actively participate in various economic activities along with male in the district.

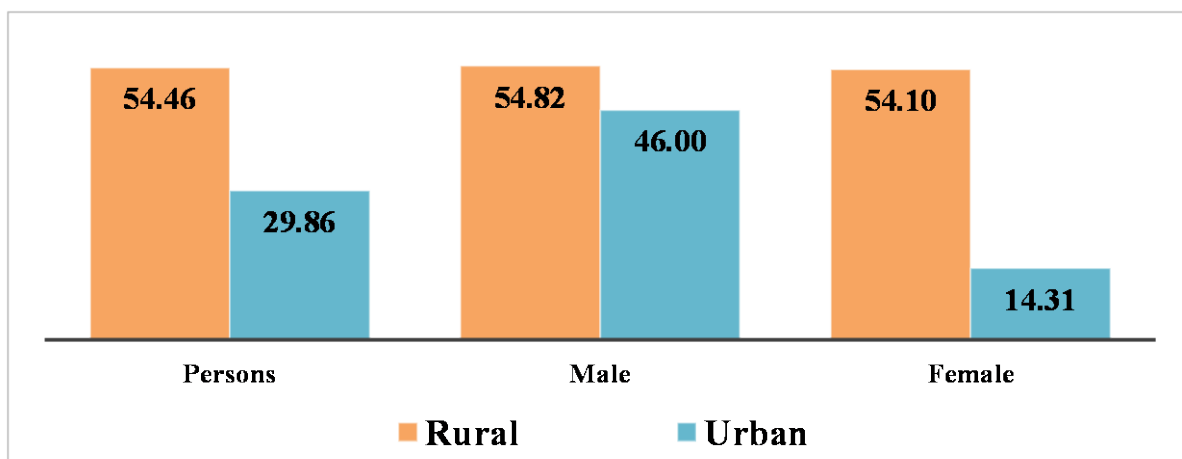
Table 5.7: Work Participation Rate (Total)

	1991			2001			2011		
	P	M	F	P	M	F	P	M	F
The Dangs	50.55	53.51	47.53	49.80	52.36	47.21	51.80	53.88	49.73
Gujarat	40.24	53.57	25.96	41.95	54.87	27.91	40.98	57.16	23.38

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

Below figure shows the proportion of WPR in Rural and Urban area of the district. There was no urban area in 2001. In 2011, the WPR in rural area is 54.46 per cent, while in urban area it is 29.86 per cent in the district.

Figure 5.4: % WPR in The Dangs (2011)



Below Table 5.8 and Figure 5.5, provides percentage of Main Workers, Marginal Workers, Total Cultivators, Total Agricultural Labourers, Total Household Industry Workers, and Total Other Workers in The Dangs district. Out of the total population 51.80 per cent are classified as workers of which 74.45 per cent are Main Workers and 25.55 per cent are Marginal Workers. Among Main Workers 87.93 per cent are Male and 59.92 per cent are Females.

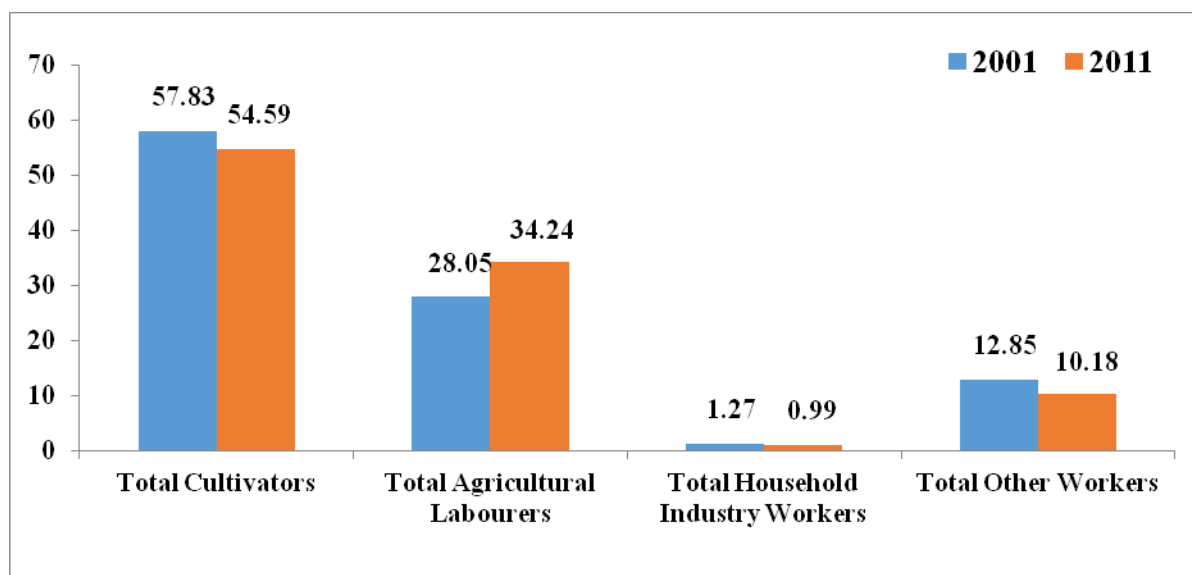
Unit	T/R/U	2001			2011		
		P	M	F	P	M	F
Main Workers	T	73.77	88.14	57.61	74.45	87.93	59.92
	R	73.77	88.14	57.61	73.53	87.53	59.36
	U	NA	NA	NA	88.25	91.89	77.00
Marginal Workers	T	26.23	11.86	42.39	25.55	12.07	40.08
	R	26.23	11.86	42.39	26.47	12.47	40.64
	U	NA	NA	NA	11.75	8.11	23.00

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

During the last ten years, the proportion of Marginal Workers has gradually decreased in the district while numbers of main workers are increased slightly. Larger percentage of male workers is engaged as main workers while females are engaged as marginal workers.

Below figure 5.5 shows the classification of the workers in The Dangs district for 2001 & 2011. The total numbers of cultivators are higher than the other types of workers. However the numbers of agricultural labourers has increased in 2011 as compare to 2001.

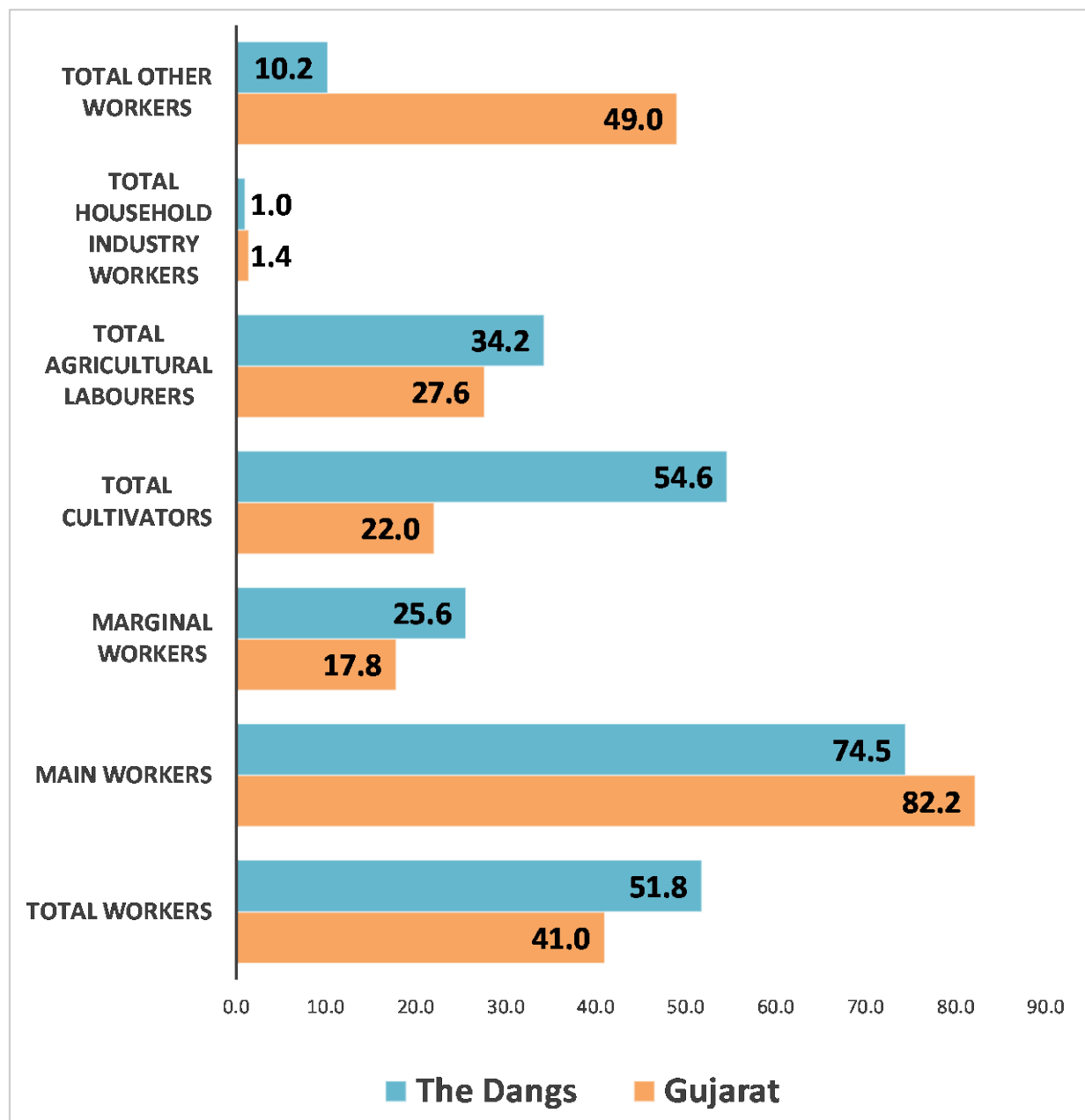
Figure 5.5: Classification of Workers in the Dangs (2001-2011)



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

Below figure 5.6 indicates data for distribution of workers for various economic activities in the district and State in the year 2011.

Figure 5.6: Classification of Workers : The Dangs V/s Gujarat (2011)



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

5.4 Government Initiatives in The Dangs

5.4.1 Dairy Development in the district:

In year 2000-01, Milk Chilling centre managed by Vasundhara Dairy was established at Waghai in The Dang district. Before that there was no network of milk co-operatives & dairy activities in villages of this district. Very few interested persons were keeping one or two milch animals preferably she buffaloes and selling the milk door to door nearby Ahwa, Waghai & Saputara villages.

In 2000-01, Milk Chilling centre at Waghai with capacity of 20,000 litres established in collaboration with Vasundhara Dairy under provision of fund of DRDA. In the year 2001,9 women managed rural milk co-operatives around Waghai centre formed. The beneficiaries were given good milk producing crossbreed cows. In the year 2001-02, the average milk procurement was 1462 litre per day. By the way of dairy profession, people were getting profit of Rs. 1500/- monthly per animal.

Observing the good profitability & sustainable profession more and more people joined & year by year more milk co-operatives were formed. Below table shows the information of the Milk Co-operatives and Milk Collection in The Dangs

Year	Milk Co-operatives Societies	Members of Milk Co-operative Societies	No. of Female Milk Co-operative Societies	Members of Female Milk Co-operative Societies	Milk collection from village Co-operatives (in kg)
2014-15	194	8522	191	7951	79,62,266
<i>Source: Director of Animal Husbandry, Gandhinagar</i>					

Help from the Government:

1. Establishment of two chilling centres at Waghai & Subir capacity of 60,000 litres per day from the government fund.
2. Subsidies for purchase of about 10,000 of milch animals to beneficiary under various schemes.
3. Construction of 45 “DudhGhar” in villages.
4. Establishment of 39 Artificial Insemination centre for the breeding of cows & buffaloes.
5. Veterinary services, treatment, vaccination & Health management for the milch animals.
6. Implementation of various components related with the dairy development including calf rearing, pregnant cow care, fodder development, training at various levels, automatic milk collection system, Chaff cutter, etc. Health campus and infertility camps.

5.4.2. Krishi Mahotsav:

From 2005, the state government has started organizing KRISHI MAHOTSAVA annually before rainy season to disseminate best practices to the farmers suitable for the region.

Before rainy season farmers are informed of new Agriculture Technology. Every farmer can participate in the farmers meet on their own village. Agriculture Scientist and Agriculture Extension workers corresponds with village farmers face to face. Farmers are educated through audio-video instruments.

In every villages, 10 ST BPL farmers are assisted upto Rs. 2800 each which can help them to purchase seeds and fertilizer.

Through this, the introduction of new crops like ginger, turmeric, mushroom, soybean, suran, sweet corn, onion and vegetables, etc., the land is observed to be optimally utilized by the farmers of the district. The latest efforts undertaken by the state government are likely to bring in more opportunities of livelihood to people of district through adoption of commercial practices and diversification to crops of high value.

New crops like strawberry, sugar cane, sweet corn and other crops are being produced as a result of new initiatives. The agricultural crop production is increasing due to measures like financial assistance, providing a variety of agricultural equipment and providing scientific awareness regarding agricultural developments and focusing on extension work. Green houses are being propagated in the district.

5.4.3 SELF – HELP Groups:

The importance of self – help group for empowering women gained focus of attention in 1987 with the expansion of "Development of women & children in rural Areas" (**DWCRA**), as a sub scheme of **IRD**P. The main objective of scheme was to help and promote self – employment among rural women below poverty line by providing training in vocations through formation of groups of

women. Along with this promotion of economic and social self – reliance of women, there would also be provision of care of children of working women by providing an improved environment, care and food.

Across India, the scheme is more or less successful to enable BPL women to cross poverty line. This has encouraged formation of self – help groups on an expanded scale covering different other categories of rural women in addition to BPL category. Initiation in this line is taken by NGO's individuals and a major part by government department & machineries. The SHG's in Gujarat were supported for long 14 years by the **SGSY** (Swarnajayanti Gram Swarozgar Yojna), the **Sakhi Mandal scheme** of the state government and now the **NRLM** (National Rural Livelihood Mission) / Mission Mangalam.

The total number of Self – Help groups in The Dangs district formed up to the month of **October 2013** under different government schemes are **2447**. The detailed bifurcation of these 2429 SHG's is mentioned in the below table

Total SHG	Women SHG (in Nos.)	Male SHG (in Nos.)	Total Members (in Nos.)	Total Savings (inLacs.)	Total BPL Members (in Nos.)	% of Women SHG to Total SHG's
2447	2436	11	26714	130.11	19053	99.56

Source: Director, District Rural Development Agency, Ahwa–The Dangs

Out of the 2447 SHG's in The Dangs, **1939 SHG's** have completed 6 months and all of these **1939 SHG's** have been graded by Banks. Along with this a total of **1511 SHG's** have been provided with the Revolving Fund amounting to **Rs 79.80 lacs** under different schemes. The number of **SHG's with internal loaning is 2321** and the total amount of internal loans in circulation is **Rs. 60.23 Lacs**.

Out of the 2447 SHG's in The Dangs, about 845 are involved in various Economic & Livelihood activities the bifurcation of the same is as follows. A good 515 SHGs are involved in Agricultural Activities, 58 SHG's in Horticulture activities, 102 in Animal Husbandry related activities, 83 SHG's in Cottage Industries and 87 SHG's in Service Sector activities.

5.4.4 The Green Kisan Credit Card -a boon for tribals in The Dangs:

The Green Kisan Credit Card, as it is known, taken up as a pilot in 2010, in the predominantly tribal district of The Dangs nestling in the Sahyadri ranges is now a comprehensive scheme that has come as a boon for the beneficiaries.

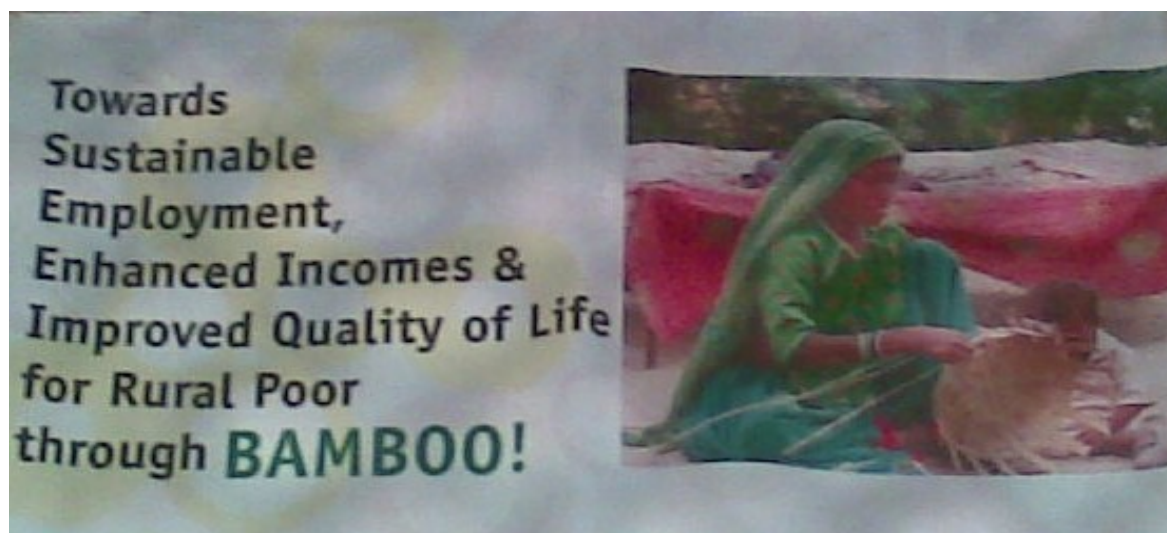
The Green Kisan Credit Card Scheme is reversing the migration trend through fair use of rich natural resources providing employment and livelihood at home itself. Significantly, this has reduced the anti-establishment tendency in remote pockets.

Additionally in The Dangs, where people are home bound, have an agriculture mindset and are familiar with forest plantation and tree species, giving a credit line to them by recognizing their Trees of Value as capital assets has encouraged them to plant more, go green and keep them moored to the district . The landed lot can thus utilize the landless for protection and up keep of plantations and providing livelihood balance. The other outcomes, like carbon sequestration, better relations with the Forest Department, economic dependence on forestry as an economic asset and living on one’s own income for filling gaps and reducing their costly credit line are manifestations of a new life line in this district. This scheme has brought new nuance in collateral for banks, made microfinance reach remote pockets and addressed the problems of under development by an alternate source of income generation that triggers greening to advance more and more and make forests and green cover an integral part of livelihood generation.

The Green Kisan Credit Card (GKCC) has made a significant impact. 929 Farmers have been assessed worthy of a total of Rs. 12.63 Crore of credit of which a sum of Rs.11.77 Crore has been disbursed so far. The immediate result is that the number of farmers planting teak seedlings has gone up from 300 in 2009-10 to 2000 in 2012-13.

BOX 5.1: TRAINING PEOPLE IN BAMBOO BASED MANUFACTURING

The state government is making conscious efforts to use locally available resources to initiate development of tribal region and inhabitants. With a view to achieve this objective, one of the new initiatives during 2010, of the state government was starting a centre for training local tribal people from 'Kotvadiya Community' in manufacturing of a variety of products from locally available Bamboo. The centre was started in March, 2010 in the premises of the Government Sawmill at Waghai. The government has roped in 'Eklavya Foundation' from Ahmedabad to coordinate activities of the centre.



The centre is providing training and employment to 55 tribals from kotvadiya Community during first year itself. The experts have been specially called from Manipur and Tripura to impart training to tribal people in manufacturing of decorative items, furniture and other such products. The products like baby chair, photo frame, CD – stand, sofa set, lamp, wall hangings, serving tray and other items of utility are being manufactured. The tribal people are paid a fixed sum of money in the form of stipend cum salary during training period. The initially trained people can train other people in the district, thereby creating more value addition and incomes of the poor people. This will lead to creation of sustainable employment, enhanced incomes and improved quality of life for rural and tribal poor through Bamboo.

BOX 5.2: Van Bandhu Kalyan Yojana

Van Bandhu Kalyan Yojana is an ambitious programme initiated for overall development of the district. The programme aims to diversify and expand economic activities in The Dang district. Under the programme tribal people have been given financial help for equipments and they have been promoted to develop fruit orchards "Vadi" along with traditional agriculture, to enhance supplementary incomes. Use of modern equipment in agriculture has increased productivity. Besides, livestock and animal husbandry is being promoted to encourage dairy activity in the district. Efforts have been made to improve quality of livestock through artificial insemination. In order to improve quality of education and for improving vocational training more than 2796 students have benefited through training in related training Industrial Training Institute in the district. Further, a residential Girls school has been started in the district, for promotion of employability of beneficiaries. Many other steps have been taken by the government to improve the lot of population of the district.

5.5 Success Story:

Krimisha Sakhi Mandal- Waghai

The **Krimisha Sakhi Mandal of Waghai** was formed under the Sakhi Mandal Scheme of the Gujarat Government in the year **2007**. This SHG was formed with the assistance of the DRDA – The Dangs staff and the Extension Officers working for the scheme. The SHG was constituted with the help of 10 female members of the village with a savings of Rs 100 / Member. **Smt. Bhartiben Patel is the President** of the SHG and **Smt. Savitaben Patel is the Secretary**.

To begin with the members of this SHG were confined to agriculture labour or were just house wife, a few of them also went to work in nearby districts as Sugarcane Laborers. After assembling as a SHG unit the members started savings regularly and used to meet regularly. Slowly and steadily the savings increased which resulted in internal loaning among the group members. After the completion of 6 months the SHG was **graded in Category A** by the Bank Of Baroda – Waghai Branch and was eligible for **Revolving fund** and an amount of **Rs 10000** was provided to the SHG under the SGSY scheme. The internal loaning available and the amount of Revolving fund became useful for the group members to address their minor needs and they did not had to go to others for the petty small amount of money. The group lead by Bhartiben was enthusiastic and they were quite keen to take **training for making different Nagli (Ragi) products** so that they can get into the production activity and earn a steady livelihood apart from the amount of internal loaning.

The training to the group was provided by DRDA free of cost and the members soon learnt to make different types of Nagli Products such as (Biscuits, Papad, Papadi, Laddu, Nankhatai, Makhaniya, Sev, Sakkarpara etc.) They took this as a major activity of the group and since then the SHG has never looked back. This was the time when the members going to work as labourstopped, the housewives were now entrepreneurs and had earned social respect from within the society. The **value addition** training and information provided by the **Navsari Agricultural University** was very helpful to the group.

The SHG was in to the commercial arena of Nagli food products manufacturing and as the production increased so was the need of money and finance. To support the SHG in terms of Finance and Credit the DRDA assisted them to get a **subsidized loan under the SGSY Scheme** and also got a couple of **Cash Credit dose** for their contingency expenditures from the Bank Of Baroda – Waghai Branch. This helped them gain a lot of confidence and their enthusiasm almost doubled. The SHG also was a motivation for the other SHG's of the area and they thought all others how to succeed against odds if the will is strong.

As the production steadily increased the **need for marketing and speedy selling** of the finished products also increase. This is again where in the DRDA and the **Mission Mangalam** again came in to picture to help and assist the SHG. The groups were provided a lot of exposure to different district and state level melas where in the SHG products were displayed and sold. Apart from this the DRDA also helped them start a **local selling point near the Waghai Botanical Garden** under a Canopy. The SHG has attended & participated in lots of Melas, Fairs, Government programs and functions where in they were provided free stalls and sometimes stalls at discounted rates. The DRDA also assists them in terms of transportation and packaging also.

In the last couple of years the SHG has regularly participated in **Shristi Fair** at Ahmedabad, the **Sadbhavna Mission at Ahwa**, the **Garib Kalyan Melas**, the **summer and monsoon festival at Saputara**, the **Ahmedabad Gram Haat**, the **different trade fairs in the nearby districts**, the **National level Saras Mela at Baroda** along with this the SHG's also book orders on phone and supply the goods to other SHG's and traders at Saputara, Valsad, Navsari & Ahmedabad. If we go

by the sales figure the SHG managed a sales of about **50000** at Monsoon Festival saputara, **27000** at May Day celebration at Navsari, **20000** at Sadbhavna Mission Ahwa, **25000** during Garib Kalyan Mela of 2011, **55000** during Shristi Mela Ahmedabad, and likewise. Today the **average yearly turnover of the group is estimated at around 400000** with the **average monthly income of the member** being around **3200 to 3500** just from trading and production activity.

The SHG started in 2007 has a story in itself to share. No one from among the group works as a labor now and no one has to ask for money from outsiders. Their **standard of living has increased**, their **children can afford to go to good schools** and no dropouts are reported from them. Their identities have changed positively and **are respected in the society**. The SHG members also appreciate the support received from the DRDA and the benefits that they have managed to get from different government schemes along with the assistance in marketing, packaging. They have always been positive about the overall support of different government departments and officers also who have played an important role in changing their lives for the good of the society and the women empowerment.

5.6 SWOT Analysis

<p><u>Strengths</u></p> <ul style="list-style-type: none"> -The Dangs district abounds in forest which occupies 59.80 percent area to the total geographical area of the district -Highest Work force participation among all district and also higher than State -The district is rich in timber and teak of high quality in abundance -The district records highest rainfall in the State -2447 SHGs in the district which is empowering women 		<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> - The district has very less agricultural land which limits the livelihood through agriculture produce - Agriculture is mainly rain fed - The hilly terrain and large forest cover in the district allows negligible or poor industrial activity - The livelihood options available in the district are limited and less remunerative - In spite of highest rainfall in the district, there are hardly any provision for utilization of surface water i.e rainwater harvesting is not practised in The Dangs
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> -Due to large forest area, the district produces important natural product like timber, fire wood, charcoal, industrial wood, bamboos, gum, fruits, flowers, honey, herbs and medicinal plants. This can create employment to the local people -It is emerging as an eco-tourism hub which accounts for huge influx of tourists in the district. This holds a potential to create employment and income opportunities in the district -Plantation and nursery development activities have the potential to generate maximum wage employment -Tourism would also stimulate local handicrafts production, which can provide livelihood opportunities for women, Kotwalias and other artisans -The farmers of The Dangs have increasingly started growing vegetables in the district which can be helpful to raise the income 	<p>SWOT</p>	
		<p><u>Threats</u></p> <ul style="list-style-type: none"> - Agriculture provides for a limited proportion of economic activity undertaken by people of The Dangs due to hilly terrain - Seasonal Migration in search of livelihood is the biggest threat in the districts development - The overall capabilities and quality of skills possessed by people of the district are relatively poor which is a threat to development of the district - The Agricultural production pattern of The Dangs is changing from nutritious grains like ragi, tuver to rice which affects the nutritional security of the Dangs. It also increases the cost of production

Way Ahead

This chapter narrates the sector wise Way Ahead and Measures to be implemented to improve the status of human development in The Dangs. The major issues relating to human development such as natural resources and livelihood pattern, education, health, migration etc. are taken into consideration.

Forest

- **Plantation of variety of species suitable to land and climate of The Dangs:** Since per capita availability of forest land is meagre in The Dangs, it is difficult to provide sustainable livelihoods to the tribals. Hence, efforts for increasing the forest cover and enriching the density of the existing forestland is urgently required. Moreover, the biodiversity of the forest could be increased by planting a variety of species which are suitable to the land and climate. If remunerative species like medicinal plants or rare herbs could be planted in a planned manner, it could not only strengthen the ecology, but also prove to be lucrative in terms of income for the tribal population.
- **Forest based production must be sustained:** A sizeable population of the district depends on forest resources for their livelihood and hence efforts are required in the proper direction to ensure sustainability of the forest based production in the district.
- **Continuation of various programs to strengthen the farmers:** The motivational programmes for farmers such as Krishi Mahotsav, Wadi Yojna etc. need to be emphasized and continued to strengthen the agricultural economy of the district.

Agriculture & Horticulture

- **Construction of Checkdams and Khet Talavdis needed:** Poverty and agricultural backwardness are closely related, which in turn have a negative impact on human development of the district. The transformation of agriculture from a subsistence activity to a surplus income generating activity would require the provision of irrigation all the year round. In order to overcome the scarcity of irrigation water, it is necessary to harvest and store rainwater which is available in abundance, every year. However, due to the typical terrain of The Dangs, construction of surface water storage structures for irrigation is a difficult proposition. This challenge needs to be met with the help of superior technology and emphasis on smaller, localized and less capital intensive water structures like check dams and khet talavdis. The entire rainfall receipt is drained out of The Dangs only from two exit points: one near Waghai for the Ambika and Khapri rivers and one near Bhenskhatri for the Purna and Gira. The geophysical possibility of creating water storage structure in this area needs to be investigated. This could not only improve the security of irrigation, but also ensure adequate year round drinking water for both humans and cattle. This could have a huge positive impact not only on agriculture but also on livestock rearing, dairying and a deterrent to migration of labour.

- **Rainwater Harvesting should be done through RRWHS, Bore wells and tube wells:** Groundwater is the major source of irrigation and drinking water in The Dangs, due to difficulty in the terrain in developing surface water structures. The drinking water supply system in The Dangs, which consists of hand pumps and open wells, is precariously dependent upon ground water availability. Many drinking water sources become non-operational by the end of February (the onset of summer). Hence, urgent steps to increase ground water resources through artificial recharge could be undertaken. This would help in not only livelihood security for the irrigating farmers, but also help in increasing the productivity of agriculture and expand cultivated area. Apart from the utilization of surface water, efforts need to be made to harvest rainwater which is available in abundance, every year. Roof Rainwater Harvesting Structures (RRWHS) as well as artificial recharge of bore wells and tube wells need to be popularized through awareness campaigns, along with financial and technical support from the government. Local government bodies like Gram Panchayats as well as Non-Governmental Organizations and Community Based Organizations should take up this work on a war footing.
- **Uplifting the agriculture allied activities:** In order to uplift the tribal economy of The Dangs, allied activities to agriculture such as livestock rearing, poultry rearing, dairying etc. should be encouraged on a scientific line.
- **Increasing the cultivation of Fruits and Vegetable crops:** The potential for lucrative agriculture, particularly the production of cash crops, is limited in The Dangs, owing to its sloped terrain and deforestation, which results in severe land erosion. However, this same feature could be turned into an advantage. Due to the sloped terrain, good drainage occurs on the cultivated area. Hence, it is very suitable for fruit crops like mango, guava, kagdi lime etc. Hence, cultivation of fruit and vegetable crops needs to be encouraged.
- **To increase production and selling of Traditional Crops:** Traditional crops which are more suitable to the local climate and land are being neglected. Regionally well-adapted coarse grains like bunti, sava and kodara are hardly cultivated anymore. The hybrid variety of paddy is not adapted to local environmental conditions and is therefore not able to withstand the stress of rain fed conditions. Hence, increased cultivation of hybrid paddy at the expense of traditional crops may have a negative impact not only on the productivity of land but also on the subsistence livelihoods of marginal or landless cultivators. Hence, future extension services and facilities should have more focus on stimulating the production of ragi. Providing ragi as a coarse grain through the PDS system could further stimulate this.

Civic Amenities

- **Proper and regular maintenance of Handpumps is required:** Even though the number of installed hand pumps to provide drinking water is high, one hand pump is shared amongst about eight –nine families for their drinking water needs. Considering the small and dispersed habitat pattern of the district, this may have negative implications on the quality of life of people and hence, overall human development. The focus, therefore, should not be on installation of new hand pumps but rather, on the maintenance and upkeep of the existing ones. Thus, a not so costly effort on maintenance of drinking water structures could bring multiple benefits in the form of increased convenience, decrease in water related diseases, reduction in conflicts related to water, decrease in hardship of vulnerable groups, particularly women.

- **Proper Sanitation facilities should be provided:** Sanitation, both community-based and private is underdeveloped in The Dangs. The percentage of households having access to sanitation facilities is very low in comparison with the percentage of rural households elsewhere in Gujarat. This situation needs to be reversed, as it could have a major implication on public health and spread of diseases.

Dairy Development

- **Dairy Development should be emphasized and extended:** Majority of families now in The Dangs district are livestock keepers, out of which, most of families live below the poverty line. Hence, the importance of holistic efforts for the development of livestock rearing and dairying in The Dangs cannot be overemphasized. Dairy extension services should be the prime focus area in The Dangs in the coming years. If extension services for goat rearing and dairying are provided, it could be an additional employment and income generating opportunity for the tribal goat rearers.

Education

- **More qualitative staff in the schools of the district is needed:** As far as the primary education is concerned, it was observed that almost in every village in The Dangs there existed a primary school. Against the total 311 villages, there are 423 primary schools meaning thereby a greater number of primary schools available in the district. It is, therefore, suggested not to increase the number of schools but to strengthen the existing schools by equipping them with more qualitative staff and enhancing the programmes such as ensuring vocationalization of education etc.
- **Playgrounds and computer labs in all the schools:** All the schools should be equipped with electrification, sanitation, drinking water, compound wall, playground, computer facility etc. in view of the fact that of the total 423 schools in the district only 69.50% of schools playground and only 15.84 percent of schools have computer labs.

Health & Nutrition

- **Emergency medical aids throughout the year:** Proper medical facilities should be created in the villages of The Dangs which lack it. Further, all the villages should be provided with all-weather pucca roads in order to ensure emergency medical aids throughout the year.
- **Incentives from Government:** It is a praiseworthy fact that the people of The Dangs have accepted sterilizations on a fairly high level. It is, therefore, suggested to continue the incentives provided by the GOG for such programmes.
- **Increase nutrition level among children:** As Ragi is highly nutritious food and is favarouble in the district, it should be promoted to local people to consume as well as the ragi products should be served to the children in anganwadis and schools.

Migration

- **Migration should be reduced:** Every year, tribals of the hilly Dang district migrate to the plains of south Gujarat (to Surat and Valsad area) in search of employment. Usually they are hired by the sugar factories and are paid according to the piece rate system (on the basis of the sugarcanes they cut). But this migration is seasonal and lasts for six to eight months. They return to their villages as soon as the monsoon begins to carry out the agricultural activities. It should be reduced up to some extent by providing work to migrant people

(village people) at this native place or nearby village. Since independence, the issue of seasonal migration is rather serious than it looks like. Government has tried to reduce and stop the seasonal migration by implementing different schemes during different periods. The issue of migration is not new for The Dangs district. Its reasons are also well known for district administration as well as for people.

To reduce or stop the seasonal migration:

- The main causes for migration are no or less options of livelihood and poor irrigation facilities. Hence it is way out to create ample livelihood options at village level and develop irrigation facilities in The Dangs.
- The agriculture is the main occupation of the tribal farmers and provides good irrigation facility is one of the steps toward reduction of migration. Even though, highest rainfall in The Dangs, the irrigation facility is poor and not sufficient to take second crop. It is also related to natural resource management issue. It is desirable to construct irrigation infrastructures and water harvesting structures in The Dangs can help to reserve and recharge of groundwater as well as storage of irrigation water.
- Looking to the technical feasibility of the area, water harvesting structures like, check dam, gabions, anicut, check wall, Ad-Bandh, etc. should be constructed to store water and reduce erosion of top fertile soil. All the water harvesting structures should be constructed by following ridge to valley (top to bottom) approach. Lift irrigation can also be one of the options to provide irrigation from low lying area to upper side. If farmers have access of taking second crop, the migration will be reduced and period of migration will also become less. To provide employment through different developmental schemes to the poor is rather less effective in comparison with creation of irrigation facility because first is the time being solution while second will remain lifelong. It is better to develop such infrastructures which are useful to people for further earnings of livelihood. To generate resource like water needs special efforts like detail survey of sites, types of structures, technical feasibility report, estimation of budget, area expected to be irrigated etc., It requires huge amount as well as machinery to work. To provide irrigation facility is direct support to their ongoing agriculture occupation which does not require much effort while to divert them to another livelihood options other than agriculture would require more efforts.
- To develop entrepreneurship skill among village people who are landless or having less land under cultivation, the special skill is required to be developed through training which can help in reduction of migration. Income generating activities like making of bamboo furniture, agarbatti, mombatti, soap, or other home used item so that they can get work at village level. This also requires detail survey of families and persons who are migrating and desire to develop entrepreneurship skill in them. It is totally need base programme which require identification of type of entrepreneurs, trainees, trainers and related infrastructures, market etc.

Tourism

- **The Dangs district is gradually emerging into a tourism hub:** Saputara, the only hill station of the state is situated on the border of Gujarat and Maharashtra. This hill station is famous for natural and scenic beauty of forest on hilly terrain and pollution free atmosphere. Thus, The Dangs have a great opportunity to influx huge number of tourist and generate employment opportunities to the local people. Therefore there is a need of providing better and competitive infrastructure facilities, to compete with the present requirements of the market which includes road, water supply, drainage, electricity marketing core infrastructure, tourism infrastructure and communication facilities.

List of Abbreviations

ACs	Anganwadi Centres
ADs	Ayurvedic Dispensaries
AH	Ayurvedic Hospital
ANC	Ante Natal Care
ANCDR	Annual New Case Detection Rate
ANM	Auxiliary Nurses Midwife
ASHA	Accredited Social Health Activist
AW	Anganwadi Worker
BSY	Bal Sakha Yojana
CBR	Crude Birth Rate
CDR	Crude Death Rate
CHC	Community Health Centre
CPM	Central Pulp Mill
CRS	Civil Registration System
CSSM	Child Survival And Safe Motherhood Programme
CY	Chiranjeevi Yojna
DH	District Hospital
DLRHS	District Level Rural Household Survey
DRDA	District Rural Development Agency
DWCRA	Development Of Women & Children In Rural Areas
EPI	Expanded Programme On Immunization
G.A.	Geographic Area
GER	Gross Enrolment Ratio
GKCC	Green Kisan Credit Card
GoG	Government of Gujarat
GPI	Gender Parity Index
GWSSB	Gujarat Water Supply And Sewage Board
ICDS	Integrated Child Development Scheme
IFA	Iron Folic Acid
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
IPHS	Indian Public Health Standard
IRDP	Integrated Rural Development Programme
JSY	Janani Suraksha Yojana
KGBV	Kasturba Gandhi Balikavidhyala

M.S.L	Mean Sea Level
MDF	Moderately Dense Forest
MO	Medical Officer
MPR	Monthly Progress Report
MPW	Multipurpose Worker
NER	Net Enrolment Ratio
NICU	Neonatal Intensive Care Unit
NRGP	Natural Rate Of Growth Of Population
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NTFP	Non-Timber Forest Produce
OF	Open Forest
PF	Protected Forest
PHCs	Primary Health Centres
PNC	Post Natal Care
PR	Prevalence Rate
RCH	Reproductive Child Health Care
RF	Reserved Forest
RRWHS	Roof Rainwater Harvesting Structures
SCs	Sub Centers
SGSY	Swarnajayanti Gram Swarozgar Yojna
SHG	Self Help Group
SSA	Sarva Shiksha Abhiyan
SWOT	Strength Weakness Opportunity Threat
TB	Tuberculosis
TT	Tetanus Toxoid Injection
U5MR	Under Five Mortality Rate
UIP	Universal Immunization Programme
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UP	Upper Primary
VDF	Very Dense Forest
WASMO	Water and Sanitation Management Organisation
WCD	Women & Child Development Department
WHO	World Health Organization
WPR	Work Participation Rate





GIRAFALLS - The Dangs

