CHAPTER -2
MATERIAL AND METHODS

2. 1 Chhattisgarh

Chhattisgarh state was born on 1st November 2000 in the map of Indian republic with its 16 districts from Madhya Pradesh. At present Chhattisgarh comprises of 27 districts. Chhattisgarh is a land locked state of India between seven states viz Uttar Pradesh, Madhya Pradesh, Maharashtra, Andhra Pradesh, Telangana, Orissa and Jharkhand. Ratio of longitude and latitude of state gives special features resembling sea horse. The state lies at 17°46’ north to 24°5 north latitude and 80°15 east to 84°20 east longitude.

2.1.1 History of Chhattisgarh

The term Chhattisgarh came into popular usage during the rule of the marathas in the 17th century and was used for the first time in official documents in 1795. According to local lore, the region had 36 forts from whence it derived its name, but the forts have been never identified. Another story relates that the real name is Chhattisgahar and not Chhattisgarh, referring to the homes of the 36 families of leather workers who settled here many centuries ago. However, the more widely accepted explanation is that it was corruption of Chedisgarh meaning the forts of the local rulers, the Chedis, also known as the Haihayas. Chhattisgarh previously known as Dakshin Koshal and Dandakaranya in the ancient time has richest archaeological evidence of early man, plants remain and burnt charcoal discovered from the Kutumsar and Dandak cave in Bastar district. Paintings found in Kanker, Raigarh and Sarguja district testify to the fact that this region has been inhabited since early times. It's first known rulers appear to have been Satvahans, during 2-4 centuries A.D. In the Chhattisgarh at different time period different dynasty ruled different parts of Chhattisgarh in the early 11th centuries. The Kalachuri king Ratandeva founded his capital at Ratanpur. In the 14 th century, the dynasty split with the older branch continuing at Ratanpur, and the younger branch setting at Raipur, in 1741, the Maraths led by Bhaskar Pant, attacked Ratanpur and deposed Raghunath Singh, the last surviving member of the Kalachuris of Ratanpur. Till 1758, the whole part of Chhattisgarh was ruled by Maratha after the last Anglo-Maratha war in 1818. Orissa and Chhattisgarh were annexed by the British, though the colonisers acquired full
administrative control only in 1853. In 1854 Chhattisgarh was made into Depty Commissionership with its head quarters at Raipur. Indeed, between 1774 and 1910, Chhattisgarh’s tribals staged ten major revolts, one of which lasted almost two decades. In 1857, Bastar was actively involved in the uprising that shook the foundation of British Empire. South Bastar was the centre of the revolt in the region, where the people rebelled under the relationship of Dhruvarao, who belonged to the Maria tribe. The British made many territorial adjustments in the region right up till Indian’s independence. In 1956, the state of Madhya Bharat, Vindhya Pradesh, Mahakoushal and Bhopal were merged into Madhya Pradesh, with Bhopal as its new capital. Although the demand for a separate state of Chhattisgarh arose in the 1920s, there is no single factor responsible for its creation. The parallel creation of Jharkhand and Uttaranchal accelerated this process. It was also felt that such a move would give emphasis to the district its socio-cultural identity of region and a boost to the development of its economy. In 1998, the union Government drafted a bill for the creation of separate state including sixteen districts of Madhya Pradesh. Finally in November 2000, in accordance with Madhya Pradesh Reorganisation Act, the new state of Chhattisgarh was formed.

2.1.2 Geography of Chhattisgarh

It is a matter of historical irony that one of India’s newest states sits on the oldest rocks in the Indian subcontinent. These are the Archaean granites and gneisses, on which shallow sediments (sandstone, limestone, shale and volcanic ash) sit uncomfortably. Here we have the Gondwana formations bearing coal deposit dating back to 250-300 million years, as also 65 million year old. Deccan trap, formed from volcanic basalt flows capped with laterite. Endowed with forest, rich mineral deposits and precious stones, this land was held as irresistible allure to a succession of rules. The central part of Chhattisgarh lies in the fertile upper basin of the Mahanadi and its tributaries. The Mahanadi river basin is separated from the Indo-Gangetic plains to the north by the Chhotanagpur plateau, and from upper Narmada basin to its west by the Maikal hills. The Maikal hills that connect the Vindhyas and the Satpuras, from abroad plateau extending 1430 sq kms. Its elevation is highest at Lafagarh, which stands at 1067 m, 75 kms north of Bilaspur, in Korba district. Raigarh hill to the north-east and the Raipur uplands to the south-east distinguish Chhattisgarh plain from Orissa. To the south, the plain runs out in the former princely state of Kanker, beyond which are the ghats of Keshkal, ascending to the Bastar plateau to the south. 44 percent of Chhattisgarh is under forest consisting of teak, saal,
bijia, saja, dhawra, mahua, and tendu. The Mahanadi, the Jonk, the Rihand, a tributary of the Ganges, and the Indravati, a tributary of the Godavari, are the main rivers of the state.

2.1.3 Economy of people of Chhattisgarh

Chhattisgarh has agriculture based economy and its main crop is paddy. Chhattisgarh is called “Dhan ka Katora (Boul of Paddy)” because of its variety of paddy. Wheat, maize, kodo, ganna, and very few percent of dalhan (tuwar, lakhdi/tiwda) and tilhan (soyabean and groundnut) crop are produced. Two sugar mills stabilises in the state, Bhilai Steel plant, BALCO, NTPC, SECL, Cement industry, and couple of industry stabilises by central government some private sector industries are its distinguished features. In the tribal area biggest source of income of tribals are minor forest products.

2.1.4 Education

More than 6 years age group population have to be considered for computation of literacy rate. According to census of India 2011, the literacy rate of Chhattisgarh State was 74.04% (80.27% male literacy rate and 60.24% women literacy rate Census, 2011). Only during the last 15 years after the state was born, the state government established more infrastructure and human resources for all the vulnerable groups in order to raise their literacy rate.

2.1.5 People of Chhattisgarh

At this time Chhattisgarh is a heterogeneous ethnic groups from all over the country working together to create incredible Chhattisgarh. State established international identity itself. More than 40 percent of total population of Chhattisgarh belong to Schedule tribe (30.6%) and schedule caste (12%) rest of the population belong to other backward class, general category, and minority (Census, 2011). Ethnicity of Chhattisgarh comprises of 42 types of tribes and five tribes of the state have been reported as particular vulnerable tribe. They have varied cultural practices.

2.1.6 Culture and art of Chhattisgarh

Chhattisgarh is marked for its rich traditional heritage. It is known not only for tribal folk art and culture but also for non tribal culture. Since remote past, the diversified art and cultural forms were generated by the tribes and rural people of Chhattisgarh. Chhattisgarh primarily derives its identity from the culture, music and craft of the 42 different tribes.
inhabiting it. More than 94.7 percent tribal are living in the southern, northern and the north-eastern area of Chhattisgarh. Traditionally the tribals lived in the forest: hunting, fishing, gathering herbs and fruit, and practising shifting agriculture, which meant that they never built permanent houses for settlement in villages. Even now, most tribals are reluctant to build brick and mortar house, for they feel they are forbidden to plough or burn earth, which they worship as “Dharti Mata” Mata or Mother Earth today, agriculture and forestry serve as the mainstay of the tribal economy. The tribal village rarely have ‘shops’ though they do have communities or individuals designated to perform certain tasks, like carpenters, priests etc. So, they pay regular visit to the haat or local markets, where they sell their own produce, including craft, in return for necessities like kerosene, matches, salt, etc (Mitra, 2008). Tribals have multiple gods and festivals like Anga Dev, Bara Deo or Bura Deo great god of Gond tribe and Thakur Deo of Baiga tribe, Hareli, Dasherah, Jatra parab. Abhujmarias famous dances are Kaksar. Muria have Ghotuls as youth dormitories. Tribal women believe that Godna (taitu) is their permanent jewellery. They also wear several ornaments of iron, silver, some amount of gold etc. Necklace around their necks they use rupee coin as a necklace. They put on ear and nose rings, bangles etc. They have beautiful handicraft bell metal, iron craft, wood carving, clay pottery and terracotta, tumba craft, bamboo craft and stone carving. The main hand loom industry of Chhattisgarh is silk weaving.

2.1.7 Theatre, Music and Dance

Among the most famous theatrical forms of Chhattisgarh is Pandvani and Nacha. Pandvani is narrative performance tradition that is based on the Mahabharata. Some of the other popular oral narrative tradition are Chandaini, Sonha-Bihan, Kari, Hareli, Gammatiha and Rahas. The most prominent tribal and non tribal dance forms include the Dandari, Gerhi, Karma, Panthi, Sua, Gaura, Bhagoriya, Saila and Raut Nacha.

2.1.8 Language of Chhattisgarh

Chhattisgarhi is a dialect of Hindi language in its own right and it is spoken and understood by majority of people in Chhattisgarh. Chhattisgarhi was also known as Khaltahi to surrounding Hill-people and laria to Oriya speakers. In Koria, Sarguja and Jashpur, it appears as Surgujia sub-dialect. Including Chattisgarhi, a total of 93 dielcted or languages are spoken in the state which together represent all three of Indian major language families except Tibeto-Burman; Munda (Austro- Asiatic languages), Dravidian
and Indo-European. All these dialects use the devanagari script of Hindi irrespective of the language group to which they belong. Chhattisgarhi is mainly an Indoeuropean dialect/language with heavy presence of vocabulary and linguistic features from Munda and Dravidian languages.

**Figure No. 2.1 Map of Chhattisgarh (Studied district covered in blue colour)**

Source: [www.surveyofindia.gov.in/files/Chhatisgarh_English.pdf](http://www.surveyofindia.gov.in/files/Chhatisgarh_English.pdf)
2.1.9 Administrative Division of Chhattisgarh

The state of Chhattisgarh has five administrative division viz. Sarguja, Bilaspur, Raipur, Durg and Bastar consisting of 27 districts. They are Jashpur, Koria, Surajpur, Sarguja, Balrampur, Bilaspur, Mungeli, Korba, Janjgir-champa, Raigarh, Raipur, Dhamtari, Gariyaband, Mahasamund, Baloda Bazar, Durg, Rajnangaon, Kawardha, Balod, Bemetara, Bastar, Kanker, Bijapur, Sukma, Dantewada, Kondagaon and Narayanpur. It has 149 tahsils, 146 blocks and 20,126 Villages. The state has total population of 2,55,40,196 and population density of 189 per sq. Km. As against the national average of 382 per sq. Km (Official Web Site of Chhattisgarh Government, 2017).

2.1.10 Health Indicators of Chhattisgarh

Demographic, socio-economic and health profile of Chhattisgarh state as compared to India. The Total Fertility Rate of the State is 2.4. The Infant Mortality Rate is 46 and Maternal Mortality Ratio is 269 (SRS 2012-2013) which are higher than the National average. The Sex Ratio of the State is 991 (as compared to 940 for the country). Comparative figures of major health and demographic indicators are as follows:

<p>| Table No. 2.1 |
| Health Indicator of Chhattisgarh and India |</p>
<table>
<thead>
<tr>
<th>Indicators</th>
<th>Chhattisgarh</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population (In crore) (Census 2011)</td>
<td>2.55</td>
<td>121.01</td>
</tr>
<tr>
<td>Decadal Growth (%) (Census 2011)</td>
<td>22.59</td>
<td>17.64</td>
</tr>
<tr>
<td>Crude Birth Rate (SRS 2013)</td>
<td>24.4</td>
<td>21.4</td>
</tr>
<tr>
<td>Crude Death Rate (SRS 2013)</td>
<td>7.9</td>
<td>7</td>
</tr>
<tr>
<td>Natural Growth Rate (SRS 2013)</td>
<td>16.5</td>
<td>14.4</td>
</tr>
<tr>
<td>Infant Mortality Rate (SRS 2013)</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td>Maternal Mortality Rate (SRS 2010-12)</td>
<td>269</td>
<td>178</td>
</tr>
<tr>
<td>Total Fertility Rate (SRS 2012)</td>
<td>2.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Sex Ratio (Census 2011)</td>
<td>991</td>
<td>940</td>
</tr>
<tr>
<td>Child Sex Ratio (Census 2011)</td>
<td>964</td>
<td>914</td>
</tr>
<tr>
<td>Schedule Caste population (in crores)</td>
<td>0.24</td>
<td>16.6</td>
</tr>
<tr>
<td>Schedule Tribe population (in crores)</td>
<td>0.66</td>
<td>8.4</td>
</tr>
<tr>
<td>Total Literacy Rate ((%)/Census 2011)</td>
<td>71.04</td>
<td>74.04</td>
</tr>
<tr>
<td>Male Literacy Rate (%) (Census 2011)</td>
<td>81.45</td>
<td>82.14</td>
</tr>
<tr>
<td>Female Literacy Rate (%) (Census 2011)</td>
<td>60.59</td>
<td>65.46</td>
</tr>
</tbody>
</table>

(Source: RHS Bulletin, March 2012, M/O Health & F.W., GOI)
Table No. 2.2
Health Infrastructure of Chhattisgarh

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Required</th>
<th>In position</th>
<th>Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-centre</td>
<td>4904</td>
<td>5111</td>
<td>NA</td>
</tr>
<tr>
<td>Primary Health Centre</td>
<td>776</td>
<td>755</td>
<td>21</td>
</tr>
<tr>
<td>Community Health Centre</td>
<td>194</td>
<td>149</td>
<td>45</td>
</tr>
<tr>
<td>Health worker (Female)/ANM at Sub Centres &amp; PHCs</td>
<td>5866</td>
<td>16943</td>
<td>NA</td>
</tr>
<tr>
<td>Health Worker (Male) at Sub Centres</td>
<td>5111</td>
<td>2514</td>
<td>2597</td>
</tr>
<tr>
<td>Health Assistant (Female)/LHV at PHCs</td>
<td>755</td>
<td>749</td>
<td>6</td>
</tr>
<tr>
<td>Health Assistant (Male) at PHCs</td>
<td>755</td>
<td>153</td>
<td>602</td>
</tr>
<tr>
<td>Doctor at PHCs</td>
<td>755</td>
<td>435</td>
<td>302</td>
</tr>
<tr>
<td>Obstetricians &amp; Gynecologists at CHC</td>
<td>149</td>
<td>18</td>
<td>131</td>
</tr>
<tr>
<td>Pediatricians at CHCs</td>
<td>149</td>
<td>19</td>
<td>130</td>
</tr>
<tr>
<td>Total Specialists at CHCs</td>
<td>596</td>
<td>71</td>
<td>525</td>
</tr>
<tr>
<td>Radiographers at CHCs</td>
<td>149</td>
<td>87</td>
<td>62</td>
</tr>
<tr>
<td>Pharmacist at PHCs &amp; CHCs</td>
<td>904</td>
<td>611</td>
<td>293</td>
</tr>
<tr>
<td>Laboratory Technicians at PHCs &amp; CHCs</td>
<td>904</td>
<td>444</td>
<td>460</td>
</tr>
<tr>
<td>Nursing Staff at PHCs &amp; CHCs</td>
<td>1798</td>
<td>552</td>
<td>1246</td>
</tr>
</tbody>
</table>

(Source: RHS Bulletin, March 2012, M/O Health & F.W., GOI)

2.2 Gariyaband District

Out of the nine new districts of Chhattisgarh, Gariyaband became operational from January 1, 2012 and was launched by Chief Minister Dr. Raman Singh on January 1, 2012. Gariyaband is situated at 833 ft above sea level. This area is situated between N 20°57’46” to 20°17’36” longitude and E 82°53’05” to 81°53’05” latitude. The average rainfall in the district is 1037.7 mm, and the geographical area of the district is 5822.861 sq km. Gariyaband town is a district head quarter and it was carved out from Raipur district. Mahasamund and Dhamtari are the neighbouring districts. The district is full of natural resources. The rivers Parry and Sodhur flows north from here and makes triveni sangam in Rajim. Rajim is famous pilgrimage centre. Every year “Kumbh Mela” is held from “magh purnima” to magh shivratri. The district has five geographical area (talukas) namely Chhura (714.62sq km), Gariyaband (726.12 sq km), Mainpur (670sq km),
Devbhog (301.53sq km) and Rajim (474.27sq km) and Gariaband district experiences severe high temperature in summer. The maximum temperature goes upto 42.6° C and the minimum temperature is about 10.2°C. Rainy season is primarily from the month of June to September. Sometimes few scattered rainfall is experienced in winter months. Bhhata, Mattasi, Domat and Kanhar are few principal types of soil found in the district, which are very helpful for agriculture.

Chhura, Gariyaband and Mainpur blocks have multiplicity of tribals. Vulnerable tribe Bhunjia and Kamar tribes live here. The government has formed the Kamar and Bhunjia Vikas abhikaran for social and financial upliftment of these people, and many programmes are being conducted and seen for the same. Out of four urban bodies in the district there is one municipality (Gariyaband) and 3 Nagar Panchayats (Rajim,Chhura and Fingeshwar). Gariyaband forest covers an area of 1951.861sqm and “Udanti sita Nadi tiger reserve forest covers 983.94 sq km. Gariyaband district initiates from ancient Rajim temple. Fingeshwar block being planner area is irrigated and is equalled with high modern agriculture methods. Chhura is a famous tourist attraction because of “Jatmayi” & “Ghatarani”.Gariyaband district is rich in forest resources such as Saal and Teak and has a forest area from the confluence of the Parry, Sodhur River making Dhamtari border. Udanti wildlife sanctuary has made tropical dry peninsular Saal in the forest and southern tropical area has dry autumn forest. The main plant of the sanctuary includes teak, saal, salaai, bamboo, mahua, semal, gooseberry, tendu, harra and ber etc. Udanti sanctuary also has wild buffalo, leopard lion, cheetal, four horned antelope, chinkara, buck, sambar, neel gai, wild cat, backing dear, sroth bear wild dogs, monkey, bison, and python etc. Among the bird population parrots, bulbul, pea fowl, heron, magpve robin, laser etc are found around the sanctuary. Udanti sanctuary is a paradise for all nature lovers as varieties of animal and birds are to be seen. Gariyaband district also have Kimberlite, Payalikhand and Jangra mines ,both of which are Bhunjia dominated villages.

2.2.1 History of Gariyaband district

Initially Gariyaband district was called Bindranawagarh tehsil and it was part of Mahasamund tehsil during British period. To expand and reach public access for administrative facilities sub tehsil of Fingeshwar, Chhura, Devbhog and Maipur have been created. Some certified documents point to the evidence as Bindranawagarh being administrative region of tribal king and landlord. Gariyaband district started from ancient
temple. The temple was built in 14th or 15th century. Among the group of several temples, “Rajiv lochan is among one. The prestigious feature is of lord Vishnu. One inscription probably of 8th and 9th century could be found on the wall inside the temple. Rajiv lochan temple is surrounded by 7 temples.

2.2.2 About Gariyaband

Total population of Gariyaband district is 597653, sex ratio 1020, total fertility rate 68.26% (Census 2011). Decadal growth is percent 37.7, crude birth rate 37.7, infant mortality rate 50, and maternal mortality rate 243.

Figure No. 2.2
Map of Gariyaband district

Source www.mapofindia.com
2.3 The Bhunjia

In Chhattisgarh, 42 groups have been identified as schedule tribes. They form approximately 32 percent of the total population of Chhattisgarh. Bhunjia is a declining population in Chhattisgarh (Tiwari, 2001). The total population of Bhunjia is 10603, consisting of 5225 males and 5378 females. Bhunjia tribe is one of the vulnerable tribes of Chhattisgarh. Bhunjia inhabit the deep hilly and reserved forests, 30-100 km away from Gariyaband district of Chhattisgarh state and Nuapada district of Orissa. Bhunjia mainly comprise of two social groups Choukhutia and Chinda Bhunjia (Russel & Hiralal, 1916; Dube, 1948; Dubey, 1961; Mohanty, 2004) but today another subdivision came into existence “Kholarajia” Bhunjia which is subdivision of Choukhutia Bhunjia. Kholarajia Bhunjia inhabit Khallari region of Mahasamund district. It is one of the most isolated tribe. Lalbangala (kitchen) is typical characteristic of Choukhutia Bhunjia. Before attainment of menarche, a girl gets married to an arrow which is called “kand byah”.(Arrow Marriage) After kand byah, it is mandatory for the Choukhutia Bhunjia women to dine inside the lalbangala. They consume raw food only and they do not consume fried food or roasted food prepared outside lalbangala (Sabar, 2014).
2.3.1 Origin of Bhunjia

On one occasion a Bhatra Gond named Bacher cast a net into the Pairi River and brought out a stone. He threw the stone back into the river and cast his net again, but a second and yet a third time the stone came out. So he laid the stone on the bank of the river and went back to his house, and that night he dreamt that the stone was Bura Deo, the great God of Gonds. So he said ‘if this dream be true let me draw in dear in my net tomorrow for a sign’ and next day the body of a deer appeared in his net. The stone was since then called as Burha Deo and Gonds were called to worship him. But Gonds demurred to donning so himself, and said he would provide a substitute as a devotee. To this Bura Deo agreed, but said that Bacher, the Gond, must marry his daughter to the substitute worshiper. The Gond then set out to search for somebody, and in the village of Lafandi he found a Halba of the name of Konda, who was a cripple, deaf and dumb, blind, and a leper. He brought Konda to the stone, and on reaching it he was miraculously cured of all his ailments and gladly began to worship Bura Deo. He afterwards married the Gond’s daughter and they had a son called Chaukhutia Bhunjia, who was ancestor of the Choukhutia Bhunjia tribe. The above story says that Choukhutia Bhunjias are mixed descent from the Gond and Halba (Russel & Hiralal, 1916). Choukhutia Bhunjia are also called Chukitia.

Chinda Bhunjias says about themselves ‘Chinda Raja, Bhunjia Paik’ and they say that there was originally a Kamar ruler of Bindranawagarh who was dispossessed by Chinda. Kamar is particular vulnerable tribe of same locality. Paik means a foot-soldier, and it seems therefore that Bhunjia formed the levies of this Chinda, who may very probably have been one of themselves. The term Bhunjia have two word Bhu means Land and Jia means live that means whose life depends upon land. The Binjhwar and Birjia are synonyms. The Binjhwars are Hinduised offshoot of the ancient Baiga who may probably have been in possession of the hill bordering the Chhattisgarh plain as well as of the Satpura range before the advent of the Gonds, as the term Baiga is for a village priest over a large part of this area. It thus seems not improbable that the Chinda Bhunjia may have been derived from the Binjhwars, and this would account for the fact that the tribe speaks a dialect of Hindi and not Gondi. As already seen, the Gonds and halbas, and as the Chindas are considered to be an offshoot from these three important tribes (Russel & Hiralal, 1916).
2.3.2 Tradition and Culture of Bhunjia

Bhunjia have oral tradition. There is no writing evidence of Bhunjia tradition. The religious life of Bhunjia is very simple. They believe in many Gods and Goddesses who are worshipped in different months on different ritual occasions. The choukhutia sub tribe specially worship Bura Deo, and sing a song relating the finding of stone in their marriage ceremony as follows:

*Johar, johar Thakur Deotu, Tumko lagan*

*Do matia ghar men dine tumhare nam,*

*Johar, Johar Konda, Tumko lagon,*

*Do matia ghar men etc.*

2.3.3 Language of Bhunjia

They speak Halbi language, a mixture of Odia, Marathi and Chhattisgarhi. They belong to Dravidian language ethnic group.

2.3.4 Dress pattern of Bhunjia

Bhunjia male wear Lungi and dhoti, young men wear pant-shirt and Bhunjia women wear peticoat, blouse and saree, young girls also wear salwar kamiz but choukhutia Bhunjia women and young girls have very unique pattern of clothing. Women including young girls were restricted from wearing peticoat, blouse and any type of footwear. Girls even at lower age particularly after pre puberty marriage wear small saree. Married women blessed with child were compelled to wear white saree. The reason behind is that coloured saree is the seat of Goddessess; second Goddesses was insulted by her big brother Budhauraja because of her irresponsibility of the protection of inhabitants. She then went to the earth to get rid of insult. She was wearing white saree during that time which is being followed by Choukhutia Bhunjia women (Sabar, 2014). But today we find some changes in dress pattern. Some Bhunjia married young women are seen wearing coloured saree, sayaa and blouse.

2.3.5 House pattern of Bhunjia

Around the Bhunjias house wood boundary covers wide open space. Most of the Bhunjia have two or three rooms. It is made of mud and woods. The second hut is built for his
cattle. That pattern of house is common for both Chinda and Choukhutia Bhunjia but Choukhutiya Bhunjia have smallest hut built little way in front of living room is their kichen room that is called “lalbangla” lal meaning red and bangla meaning room. It is made of mud and coloured around wale with red mud and roof with wild grasses. Lalbangla has two parts. One is for cooking and another is for keeping utensils. Floor is plastered with mud and cow dung. The doors of lalbangla are made of either bamboos or wild grasses. Their gallery have “machan” (porch) of wood bamboo and thatched with wild grasses. This is the way for water supply to lalbangla from tap because they want to avoid shadow of house top “khappar” during water supply for cooking and drinking. The most particular characteristic of lalbangla is that no outsider including any other community of the same village can touch it. If anybody mistakenly touches it they immediately set fire and construct new one. It is because they believe that outsiders have polluted lalbangla. The married daughter is not allowed to enter into the lalbangla being considered as outsiders. Women in the states of pollution- puberty, child birth and monthly menstruation are not allowed to touch. They can enter only after purificatory ritual. Some houses have been seen to possess own tap. Choukhutia Bhunjia also avoid water from common tube well and tap. They only use their community member’s tap water.

2.3.6 Food habit of Bhunjia

Bhunjia main food is rice but Bhunjia wake up early morning and takes tea two-three times without taking any meal after that they go for their daily work. They come back around afternoon and take rice with some vegetables. Bhunjia take rice twice. They consume meat occasionally. They left their traditional food karoo kanda, pit kanda and other roots.

2.3.7 Marriage system among Bhunjia

Monogamy is the common form of marriage among both subdivision of Bhunjia. Polygamy has been also observed although, very few. Their most preference of marriage is cross cousin. They have no “roti-beti” (Marital relationship) between Chinda and Choukhutia Bhunjia but there is no restriction. Generally three types of marriage are socially accepted: first arrange marriage, second udharia (elopement Marriage) and third paisamudi (force marriage by girls). After marriage the couple live separately from parents’ house. Widow marriage is permitted.
2.4 Material and Methods

2.4.1 Selection of Problem

Anthropologists have always been interested in examining the demographic determinants and consequences of cultural processes. Demographic research in anthropology attempts to collect demographic data from a well defined community and communities and requires an approach involving understanding of both biological and socio-cultural process that lead to population change (Zubrow, 1976).

There is a wide gap of study regarding maternal health status and utilization of reproductive child health services among the Bhunjia tribe of Chhattisgarh therefore an attempt has been made in the present study.

Figure No. 2.4
Research Design

Total 227 Women were selected using Census methods from 27 Bhunjia dominated villages

173 Lactating Women

49 Pregnant Women

Primary data collection

Secondary data

Research Journals

C.G. Government Data

SRS –Data and NFHS

Census report

Data Entry Data Analysis (MS-Excel & SPSS-16)

Quantitative

Semi structured interview schedule for Utilization of RCH

Socio-Demographic Data

Anthropometric

Hb- Test and BP

Qualitative

Observation

Case Study

Group Discussion
2.4.2 Research Design

The research design of the present study is population based cross-sectional study. In this study approach of research was quantitative and descriptive. Present study was planned to analyze availability of health facilities and infrastructure and socio-cultural and biological factors affecting the utilization of reproductive child health services among Bhunjia tribe of Chhattisgarh. For data collection census method was adopted.

2.4.3 Area selection

Chhura, Gariband and Mainpur blocks were selected purposively out of which Bhunjia dominated 7 villages were selected from Chhura, 9 villages from Gariyaband and 11 villages from Mainpur block.

2.4.4 Pilot Survey

Without understanding the field area, people and their culture and the nature of study area we cannot work properly. Therefore, pilot survey is important for conducting fieldwork. The pilot survey was carried out during Jun 2013. The output of this pilot survey was that 27 predominated Bhunjia villages were ear marked from deep and reserved forest. 227 women were listed for data collection.

After the pilot survey was completed, the field work was planned which comprised of three phases. In the first phase, data was collected from various villages of Chhura block during the month of April, May and Jun 2014. In the second phase, villages of Gariyaband block have been covered during October, December 2014 January, Feb, April, May and Jun 2015 and third phase of data collection has been collected from villages of Mainpur block during October, November and December 2015 and January, Feb, March April 2016.

Table No.2.3
List of Study area with the number of Villages selected

<table>
<thead>
<tr>
<th></th>
<th>Chhura</th>
<th>Gariyaband</th>
<th>Mainpur</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>7</td>
<td>25.93</td>
<td>9</td>
<td>33.33</td>
<td>11</td>
</tr>
</tbody>
</table>

For the present study the data was collected from 223 households. 27 Bhunjia predominated villages were selected purposively from Chhura, Gariyaband and Mainpur.
block of Gariyaband district of Chhattisgarh. From each village each and every lactating and pregnant Bhunjia women were selected for the study.

<table>
<thead>
<tr>
<th>Table No. 2.4</th>
<th>List of respondents (Bhunjia women)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choukutia Bhunjia</td>
</tr>
<tr>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Lactating</td>
<td>93 40.97</td>
</tr>
<tr>
<td>Pregnant</td>
<td>21 9.25</td>
</tr>
<tr>
<td>Total</td>
<td>114 50.22</td>
</tr>
</tbody>
</table>

2.4.5 Tools and Techniques used for data collection

For the achievement of objective of the study a number of tools and techniques were used viz. interview schedule, observation, group discussion, and case study. The ethical approval for the present study was taken from Institutional ethical committee (IEC) for human research, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. Oral and written consents were taken from respondents before data collection.

(i) Interview schedule

Interview schedule was used for the collection of Primary data Interview schedule had three sections. The study was conducted using structured interview schedule among 15 to 49 age group pregnant and lactating Bhunjia women.

Interview schedule section (I)

In the first section, general information of village and household were collected. Household information such as age, sex, marital status and education were gathered. Information regarding availability of mitanin/ANM, presence of Sub Health Centre (SC), mobile network, approachable road, etc. was also enquired. Household facilities such as source of drinking water, light and fuel for cooking and ownership of other durable goods were also collected. Besides these, infant mortality and maternal death were also investigated. Interview schedule viz. structured, closed as well as open ended were used.
**Interview schedule section (II)**

Section second was related to maternal health status. In this section information related to haemoglobin level was estimated using HemoCue 301 analyser. The HemoCue analyser has been used extensively for estimating the haemoglobin concentration in capillary blood in field situations. It has been found to give accurate results, comparable to estimates from more refined laboratory instrument (Ghosh S., 2009; Gehring, et al., 2002; Gupta, Arnold, Kishor, & Parasuraman, 2007; Medina, Mundy, Kandulu, Chisuwo, & Bates, 2005).

Blood pressure was measured using automatic blood pressure monitor (Digichek Model SJBP 1031). Respondents were asked to remain seated with uncrossed position, their left arm level with their heart taking three deep, slow breaths before measurement was started and then remaining relaxed and still while their blood pressure (BP) was taken three times with a five minutes gap between each measurement and lowest one was recorded (WHO, 2013), anthropometric measurements following Weiner & Lourie, 1981 for height and weight for estimation of BMI (Weiner & Lourie, 1981) were gathered.

**Interview schedule section (III)**

In this section questions related to utilization of antenatal care (ANC), place of delivery, use of mahtari express (102 number), post natal care, utilization of supplementary food provided by anganwadi, Immunization status of child, occurrence of diarrhoea and pneumonia among young children aged 0-59 months and family planning practices were asked. Information about feeding practices, the length of breast feeding was enquired. Numbers of conception and complications faced during last pregnancy were also gathered.

**(ii) Observation**

Semi-participatory observational method is a systematic approach which is used by all anthropologists to observe subjects, in their natural state. The anthropologist must have a sense of awareness of their presence within that environment. The main strength of observation techniques lies in that it can gather data even when respondents are unable or unwilling to cooperate. In the present study observation technique was brought in use at various stages of data collection. Detailed observations about physical and social setting
of people were conducted during the home visits. Special attention was paid on basic infrastructural facilities, sanitation and hygiene.

(iii) Case study

A report about a person, group, or situation that has been studied has been defined as case study. Case studies of some respondents, elderly women who work as traditional “Dai” as well as Mitanin has been reported.

(iv) Secondary Data

Secondary data was collected through various sources from District web site, CG Health Portal on web site, National health mission government of India web site, Sample Registration system (SRS)- census of India web site, Government report, journals, various documentation centres, libraries and website were searched for significant literature.

2.5. Data Analysis

The collected data was coded and tabulated in MS-Excel worksheet and the data was analysed using SPSS 16.0 (Statistical Package for Social Sciences).

(i) Socio-demographic Analysis

The data collected has been analyzed for the following socio-demographic measures and population indices.

(ii) Measures of Population Composition

Measures of age and sex composition are one of the most important characteristics of population structure. Almost all population characteristics vary significantly with age. Age statistics form an important component of population analysis, as most of the analysis is based on age-sex structure of the population. The usefulness of age data is more noticeable when it is cross classified by variables like marital status, literacy, educational attainment; economic activities which vary with age in different patterns (Census of India, 2017).
(I) Percent distribution of population by conventional broad age group
(0-14, 15-59, 60+ years) and sex and construction of population pyramid.

(II) Dependency Ratio

Dependency Ratio = age group of child (0-14 years) + Old age (60+ years)/ Young age group (15-59 Years) X 100.

Child Dependency Ratio = Age group of Child (0-14 Years)/Young age group (15-49 years) X100

Aged Dependency Ratio = Aged age group (60+ Years)/ Young age group (15-49 years) X100

Standard of Living Index was calculated according to revised Kuppuswamy’s socio-economic status scale for the year of 2014 (Oberoi, 2015). In this scale 1-10 is allocated for Education, Occupation, and Family income etc after that Standard of Living Index is decided by the obtained numbers as follows.

Upper Middle Class          16-25
Lower Middle Class          11-15
Upper Lower Class            5-10
Lower Class                         < 5

2.5.1 Statistical Analysis

For the statistical analysis of data SPSS 16.0 were used. To interpret each of the selected variable, simple percentage, mean, standard deviation were computed wherever needed. Thereafter, descriptive statistics, correlation matrix and multiple regression analysis were performed to identify the independent predictor variable for dependent variables. Both quantitative and qualitative data were utilized for meaningful representation of the data.

(i) The dependant variable Hb level (Aneamia). It is dichotomous in nature, where Normal Hb level = 0 and anaemic= 1. The variables Standard of Living Index, Education, Current age, Consumption of IFA Tablet, number of conception, Health
Centre Present in village, Mobile Network availability in village, Approachable road, Active Mitanin, Age at Marriage and Sub caste have been used as predictor variables.

(ii) To study the effect of social-economic, demographic, and health characteristics of the women a multiple regression analysis has been used. In this analysis BMI is used as the dependent variable. It is dichotomous in nature, where Normal BMI=0 and abnormal BMI=1. The variables Standard of Living Index, Education, Current age, Hb level, number of conception, number of members in family, Age at Marriage and Sub caste have been used as predictor variables.

(iii) In the present study every pregnant women and who had at least one child in the preceding four years of survey was asked about the full antenatal care. The full antenatal care was defined as at least one TT injection and received ANC at least three times. 3 times utilization of ANC Checkups =0 and less than 2 or equal times or no utilization of ANC Chekups = 1. It is dichotomous in nature. The variables Education, Health Centre Present in village, Mobile Network, Active Mitanin, Approachable road, Sub Caste and Distance from village to district have been used as predictor variables.

(iv) Place of delivery is used as dependent variable. It is dichotomous in nature. Institutional delivery means delivery in government health centre (SC, PHC and CHC etc.) or delivery in private hospital =0 and home delivery by traditional “Dai” or self delivery = 1. The variables Living Index, Education, Health Centre, Mobile Network, Active Mitanin, Approachable road, Sub Caste, Distance from village to district and Mahtari express have been used as predictor variables.

(v) The data used for this study was taken from 223 households. Married women aged 15-44 years were covered. Information on account of 206 children born to eligible women in four years preceding the survey was collected. Children aged between 11-59 months were covered The rationale behind considering lower limit of age in case of complete immunization is that the measles vaccine officially is recommended to be administered between 9 to 12 months. So at the age of 11 months, children can be completely immunized for BCG, DPT, and Measles. In the present study complete immunization is coded 0 if the child was fully immunized against six vaccine preventable diseases i.e. tuberculosis, polio, diphtheria, whooping cough, tetanus and measles.
(BCG+3 DPT+ 3 Polio + Measles) or 1 if otherwise, has been taken as dependent variable. Living Index, Literacy, Presence of Health Centre, Mobile Network, Active Mitanin, Approachable road, Sub Caste and Distance from village to district were used as independent/predictors variables.

2.6 Limitation of study

- There is no fixed pattern of gaining weight during pregnancy. It differs from person to person therefore, BMI for pregnant women has not been calculated in the present study.
- Estimation of maternal health on the basis of some health indicators viz. anaemic status (Hb level), BMI, Blood pressure, and MMR only could be done.
- In this study for full ANC checkups urine, abdominal and ultrasound examination could not be considered due to unavailability of health care facility in the area covered.